EVIDENTIARY HEARING

BEFORE THE

CALIFORNIA ENERGY RESOURCES CONSERVATION

AND DEVELOPMENT COMMISSION

In the Matter of:	)
	)
Application for Certification for the Imperial Valley Solar Project (formerly known as SES Solar Two Project) Imperial Valley Solar, LLC	) Docket No. 08-AFC-5
	)
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	)
	)

CALIFORNIA ENERGY COMMISSION

SECOND FLOOR CONFERENCE ROOM

1516 NINTH STREET

SACRAMENTO, CALIFORNIA

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Reported by:
Peter Petty

Transcribed by:
Diana Sasseen

1 APPEARANCES

2 COMMITTEE MEMBERS

3 Jeffrey D. Byron, Commissioner and Presiding Member

4 Anthony Eggert, Commissioner

5

6 HEARING OFFICER

7 Raoul Renaud

8

9 ADVISORS

10 Kristy Chew

11 Lorraine White

12

13 STAFF

14 Caryn Holmes, Counsel

15 Christine Hammond, Counsel

16 Christopher Meyer, Project Manager

17 Jennifer Jennings, Public Advisor

18 Terry O'Brien

19

20 APPLICANT

21 Allan Thompson, Esq., Bingham McCutchen, LLP

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

23 Marc C. Van Patten, Sr. Director of Development

24 Sean Gallagher, V.P., Market Strategy & Reg Affairs

25

APPEARANCES (Continued)

INTERVENORS

Loulena A. Miles, Esq., Adams, Broadwell, for CURE

Larry Silver, Esq., for Tom Budlong

Thomas Beltran, California Native Plant Society

Tom Budlong

GOVERNMENT AGENCIES

Felicia Sirchia, U.S. Fish & Wildlife Service

Magdalena Rodriguez, California Department of Fish & Game

Jim Stobaugh, Bureau of Land Management

Daniel Steward, Bureau of Land Management

Amy Fesnock, Bureau of Land Management

Tony Rouhotas, Imperial County Fire Department

Juan Rodelo, Imperial County Fire Department

INDEX

	PAGE
Opening remarks by Commissioner Byron	1
Opening remarks by Hearing Officer Renaud	1
APPLICANT'S PANEL (Sean Gallagher)	
Direct Examination by Ms. Foley Gannon	7
Cross-Examination by Ms. Miles	19
Cross-Examination by Mr. Beltran	21
Redirect by Ms. Foley Gannon	31
BIOLOGICAL	
APPLICANT'S PANEL (Patrick Mock and Michael Wood)	
Direct Examination by Ms. Foley Gannon	33
Cross-Examination by Ms. Hammond	63
Cross-Examination by Ms. Miles	66
Cross-Examination by Mr. Budlong	109
Cross-Examination by Mr. Beltran	112
Redirect Examination by Ms. Foley Gannon	116
Recross-Examination by Ms. Miles	118
STAFF'S PANEL (Rick York, Amy Fesnock, Magdalena Rodriguez, Joy Nishida)	
Direct Examination by Ms. Hammond	137
Cross-Examination by Ms. Foley Gannon	155
Cross-Examination by Ms. Miles	170
(Rick York, Joy Nishida, Felicia Sirchia, Daniel Steward, Magdalena Rodriguez)	
Direct Examination by Ms. Hammond	184
Cross-Examination by Ms. Foley Gannon	215

INDEX (Continued)

	PAGE
(Erin Bright)	
Direct Examination by Ms. Holmes	232
Cross-Examination by Ms. Foley Gannon	235
Cross-Examination by Mr. Silver	237
Cross-Examination by Ms. Foley Gannon	238
Cross-Examination by Ms. Miles	240
(Rick York, Joy Nishida, Daniel Steward)	
Direct Examination by Ms. Holmes	255
Cross-Examination by Mr. Budlong	260
Cross-Examintion by Ms. Miles	262
Cross-Examination (continued) by Ms. Miles	266
Cross-Examination (continued) by Ms. Miles	277
INTERVENOR CURE'S PANEL	
(Vernon Bleich, Scott Cashen)	
Direct Examination of Mr. Cashen by Ms. Miles	281
Resumed Direct of Mr. Cashen by Ms. Miles	294
Direct of Dr. Bleich by Ms. Miles	326
Cross-Examination by Ms. Foley Gannon	346
APPLICANT'S PANEL	
(Mike Wood, Mike Fitzgerald)	
Direct Examination by Ms. Foley Gannon	354
Cross-Examination by Ms. Holmes	374
Cross-Examinabiotn by Ms. Hammond	380
Cross-Examination by Ms. Miles	384
Redirect by Ms. Foley Gannon	392
PUBLIC COMMENT	
Laura Cunningham	290
Kevin Emerich	291
WORKER SAFETY & FIRE PROTECTION	
STAFF'S PANEL	
(Alvin Greenberg, Rick Tyler)	
Direct Examination by Ms. Hammond	394

INDEX (Continued)

PAGE

VISUAL RESOURCES

STAFF'S PANEL
(Alan Lindsley, William Kanemoto)

Direct by Ms. Holmes 415

RELIABILITY, PROJECT DESCRIPTION

APPLICANT'S PANEL
(Waymon Votaw, Jason Pfaff, Marc Van Patten, Tariq Hussain, Mohamad Alhaladi)

Direct Examination by Mr. Thompson 423
Cross-Examination by Ms. Holmes 429

ALTERNATIVES

APPLICANT'S PANEL
(Marc Van Patten, Mike Fitzgerald)

Direct Examination by Ms. Foley Gannon 444
Cross-Examination by Ms. Holmes 461
Cross-Examination by Ms. Miles 465
Redirect Examination by Ms. Foley Gannon 475
Redirect Examination by Mr. Beltran 477

INTERVENOR CURE'S PANEL
(Scott Cashen)

Direct by Ms. Miles 483

Adjournment 488

Reporter's Certificate 489

EXHIBITS

	MOID	REC'D
APPLICANT'S		
142	34	---
143	---	359
144	398	404
145	431	432
STAFF'S		
304	402	405
305	405	405
INTERVENOR CURE'S		
400-428	---	327
477	---	283
498F	---	327
498G	---	327
498H	---	327
498I	---	327
498J	---	327
498K	---	327
498L	---	327
498R	---	327
498S	---	327
498T	---	327
498U	---	327
499K	---	283
499L	---	283
499M	---	283
499O	295	---
499P	295	---
499Q	295	---
499R	295	---

PROCEEDINGS

COMMISSIONER BYRON: This is Commissioner Jeff Byron, and we are in Sacramento on July 27th beginning the second day of evidentiary hearings this week on the Imperial Valley Solar Project.

I'd like to thank you all for your efforts last night, and welcome back this morning.

I'll be brief. I just really want to check to see if we're connected with the folks down in El Centro.

Ms. Jennings, are you there?

MS. JENNINGS: Yes, we're here. Thank you.

COMMISSIONER BYRON: Excellent. Good.

Well, I will turn it over to our able hearing officer.

Mr. Renaud, take it away.

HEARING OFFICER RENAUD: Thank you, Commissioner Byron.

And to my right is Commissioner Eggert as well as his advisor Lorraine White. And to Commissioner Byron's left it his advisor, Kristy Chew.

So we're back. I understand we are planning to start in this morning with biology.

And so without further ado, applicant, take it away.

MS. HOLMES: I would, actually, like further ado.

HEARING OFFICER RENAUD: You would; oh.

MS. HOLMES: I'd like to confirm what the -- because we have other people calling in who are listening right now, I know we can't predict the absolute time that biology would take, but it would be helpful, I think, to get the general sense of the rest of the schedule.

Are we just putting -- when I look at the page that the applicant -- the final -- what the applicant sent out yesterday, or whenever it was, two days ago, biology was taken out of sequence.

Are we going to, after biology, GO through the rest of the items as they're listed here, visual, land use, alternatives, reliability, et cetera? Is that the plan?

MS. FOLEY GANNON: I think we did --

MS. HOLMES: That's right, we did.

MS. FOLEY GANNON: I believe we did land use yesterday, right?

MS. HOLMES: I was here yesterday.

MS. FOLEY GANNON: I think so it's bio, visual -- I'm sorry, we need to do visual after lunch. So if bio takes the morning, which it may, then we're fine with doing visual next. It's just our witness has a speech that he's giving this morning, so he will be available after lunch. But I would say we could probably do visual

next, and then we have -- then we'll follow the schedule from there.

MS. HOLMES: And then there's one other item, which is that Mr. Budlong had asked a number of questions at the last hearing about hydrogen storage. And that crosses technical areas. Part of that is a worker safety issue, and part of that is hazardous materials. So if we want to add hazardous materials to the list, I think that would be a good idea.

In our case, the worker safety and the hazardous materials witnesses are the same people, so --

MS. FOLEY GANNON: In our case too. Yes, so we can do those together.

MS. HOLMES: Okay. So perhaps we should just add that to the last item.

HEARING OFFICER RENAUD: Exactly. That's the way to go.

MS. HOLMES: Thank you.

Oh, could we find out who's on the phone too, since we're -- we do not want to go into a discussion about biological resources until we make sure that the agency representatives are with us.

HEARING OFFICER RENAUD: All right. Speaking to those of you participating by phone or computer, if you are with an agency or a witness, could you please identify

yourselves or raise your hand by pushing the button on your WebEx.

Go ahead.

MS. SIRCHIA: Hi. This is Felicia Sirchia from the Fish and Wildlife Service.

HEARING OFFICER RENAUD: Good, thank you.

MR. STOBAUGH: This is Jim Stobaugh, project manager with the Bureau of Land Management.

HEARING OFFICER RENAUD: Very good. Thank you.

MS. RODRIGUEZ: Magdalena Rodriguez, Fish & Game.

HEARING OFFICER RENAUD: All right.

MR. STEWARD: Daniel Steward, BLM, El Centro.

HEARING OFFICER RENAUD: Thank you.

Anyone else?

MR. ROUHOTAS: Tony Rouhotas, Imperial County Fire Department.

HEARING OFFICER RENAUD: Very good.

MR. RODELO: Juan Rodelo, Imperial County Fire Department.

HEARING OFFICER RENAUD: Okay. Anyone else?

MR. LINDSLEY: Yes, Allan Lindsley, visual resources.

HEARING OFFICER RENAUD: Okay.

MS. FESNOCK: Amy Fesnock, California BLM.

MS. LEE: Susan Lee on alternatives. Available

if you need me.

HEARING OFFICER RENAUD: All right. Thank you. We will.

Anyone else?

All right. Ms. Holmes, is that going to work for you?

MS. HOLMES: That sounds as though all of the agency representatives are present.

HEARING OFFICER RENAUD: All right. Thank you, folks. Stand by, and we'll get started here shortly.

MR. ROUHOTAS: This is Tony Rouhotas of Imperial County Fire.

Are you going to need us before or after lunch?

HEARING OFFICER RENAUD: It would be after.

MR. ROUHOTAS: Okay. 1:00?

MR. THOMPSON: If he wants to leave a number, I can call.

HEARING OFFICER RENAUD: Yeah, you know, if you could give us a phone number, we'll call you when we're ready.

MR. ROUHOTAS: Well, the problem is there's going to be a couple of us.

So I can give you my cell phone.

HEARING OFFICER RENAUD: Yeah, go ahead.

MR. ROUHOTAS: (760) 427-2685.

HEARING OFFICER RENAUD: You want to repeat that back, Mr. Thompson?

MR. THOMPSON: (760) 427-2685?

MR. ROUHOTAS: That's correct.

MR. THOMPSON: My dyslexia didn't kick in this time.

HEARING OFFICER RENAUD: Okay. We'll call you when we're ready. It will be afternoon. It will be afternoon though.

MR. ROUHOTAS: Okay. And if you can give us about 15 to 20 minutes prior, that way we can get everybody all together.

HEARING OFFICER RENAUD: No problem.

MR. ROUHOTAS: Thank you.

HEARING OFFICER RENAUD: All right.

Applicant's ready? We'll go ahead.

MS. FOLEY GANNON: Just a slight clarification on the schedule.

We were discussing with staff counsel before this; our first witness is going to be Sean Gallagher. And our intent with Mr. Gallagher is to, again, go through sort of the bigger picture concerns that the applicant has with several of the conditions of certification.

Most of the significant concerns relate to biology, which is why we think it's appropriate to do it

at this point, but because, again, they are sort of the bigger picture concerns, we wanted to have him just address -- walk through his concerns with all of the conditions. And then we will have technical people speaking in each one of the areas as we have those panels aboard, but rather than breaking up and continuing to bring him on, it makes sense from our perspective to have him do it once, if that's acceptable.

HEARING OFFICER RENAUD: That's fine.

MS. FOLEY GANNON: Okay. And, Mr. Gallagher, you were sworn in yesterday.

I assume we don't need to swear him again today?

HEARING OFFICER RENAUD: Right.

MS. FOLEY GANNON: It lasts a day.

HEARING OFFICER RENAUD: Yes, it will last today too.

DIRECT EXAMINATION

MS. FOLEY GANNON: So, Mr. Gallagher, I understand that there are a number of concerns that the applicant has about the conditions of certification.

Turning first to the concerns that you -- that you have expressed in your testimony regarding the biological conditions, can you give us an overview of what the applicant's concerns are?

MR. GALLAGHER: Yes, and just to be clear, our

biologist will testify about the biological matters. I'm just here to introduce the concerns that we have, essentially to talk about the numbers and the implications of the project, of the way the condition have been changed.

And Bio 10 is the mitigation for biology, essentially, primarily the Flat-Tailed Horned Lizard. It's changed substantially since the SA came out in February. It's more than doubled from $5.7 million to over $12 million. This is a major concern for the project's economics.

The expectations for biological mitigation were established eight months ago when we received a letter from the BLM estimating costs of mitigating for Flat-Tailed Horned Lizard at $5.7 million. That letter was written pursuant to the Rangewide Management Strategy to which all the resource agencies, including Fish & Game and Fish & Wildlife Service are signatories. And that Rangewide Management Strategy establishes mitigation ratios and mitigation activities for Flat-Tailed Horned Lizard. So this case is different than the Mojave Desert cases that you have. In this case, there's a sort of over-arching mitigation strategy document that establishes how mitigation is to be carried out.

MS. FOLEY GANNON: And just to be clear,

Mr. Gallagher, when you're referring to the BLM's letter, are you referring to what is Exhibit 123 -- to Exhibit 132 it's Attachment 123; is that correct?

MR. GALLAGHER: Yes.

MS. FOLEY GANNON: Thank you.

MR. GALLAGHER: I'm referring to Exhibit 123.

We've had many discussions with the REAT agencies since we got the BLM letter in December, and not once did anyone ever tell us that they were thinking about giving us a different number.

And as Dr. Mock will explain, the mitigation that we intend to pursue, which is purchasing or having BLM purchase higher-quality Flat-Tailed Horned Lizard habitat in the existing management area, will more than mitigate for the impacts on the lizard from the project.

We have no objection to the multitude of new fees and assessments that are set out in this supplemental staff assessment with one exception, and that's the big one, that's the long-term management fee which is newly applied to this case.

And again, we can take a slightly different position when we're in front of you next week in Calico, but because the -- because the Rangewide Management Strategy sets out the mitigation for the Flat-Tailed Horned Lizard and because the BLM acquisition costs

include amounts for management, that -- there was no long-term management fee in the SA, it's newly applied here, it's not justified, as Dr. Mock will explain, either by CEQA or by the addition of additional species referenced in the -- in the condition.

I think I'll stop there on Bio 10.

MS. FOLEY GANNON: Turning now to Bio 17, which relates to mitigation, in the SSA it's described as mitigation for waters of the state and for Peninsular Big Horn Sheep. Can you provide us your overview comments on that condition, as revised?

MR. GALLAGHER: Yes. And I hope on Bio 17 this reflects more of a misunderstanding or a miscommunication than a real dispute.

Bio 17 is mitigation for waters of the state, also, I think for waters of the United States and for Peninsular Big Horn Sheep. We have had extensive discussions with the Corps of Engineers on this point. The corps has -- the waters of the state are subsets of waters of the U.S. on the project, as our biologist will explain.

And there's a plan for mitigation that's been set out by the corps for restoration of -- there's a creek and marsh nearby, which will more than mitigate for the use of the dry washes on the project site, and has much higher

value than acquiring similar land.

If we didn't do the restoration, we'd probably acquire Flat-Tailed Horned Lizard land, which would have washes on it, there would be some value there. The restoration the corps is going to make us do, the creek and marsh have more value; and it's cheaper than buying new land, so it's sort of a win-win situation.

And we hope that the staff will agree with us ultimately, I don't know if they will today, and I don't know -- I do know that the corps has talked to the resource agencies about their desires for our mitigation, and I'm not sure whether the commission staff has participated in those discussions.

MS. FOLEY GANNON: And turning now to Bio 9, which is the mitigation proposed to offset impacts is special status plants species --

MR. GALLAGHER: Bio 19.

MS. FOLEY GANNON: Bio 19, I'm sorry.

Can you provide your comments on that, please.

MR. GALLAGHER: Bio 19 was significantly rewritten just on Wednesday. It represents a major new approach to mitigation for botanical species. Our position -- and this is the one I'm going to talk least about because I'm least knowledgeable about this, and Dr. Mock will explain, our position is essentially we'll

do on-site avoidance if it's meaningful and practicable. And we'll do compensatory mitigation where it's not essentially. And that's what we'd like the condition ultimately to reflect.

MS. FOLEY GANNON: Thank you.

Now, turning to Land 1, we talked about land use yesterday and the implications associated with the Map Act and the zoning, but we failed to ask for a change in this condition.

Can you just briefly explain what the applicant is asking for?

MR. GALLAGHER: The applicant is asking for the elimination of Land 1 and an override on this issue. I think we heard yesterday that -- my read of staff's testimony was that staff would have no objection to that, but I don't want to put words in your mouth, although I just did.

COMMISSIONER BYRON: Mr. Gallagher, did you provide a mark up of Land 1 yesterday?

MR. GALLAGHER: Land 1, the requested changes to Land 1 are part of Exhibit 122, which was filed last week.

COMMISSIONER BYRON: Okay. Thank you.

MS. FOLEY GANNON: And that's Exhibit 122, which is an attachment to Exhibit 132, for clarity.

MR. GALLAGHER: I didn't make up this numbering.

MS. FOLEY GANNON: And turning now to a couple of conditions related to soils and water, which, again, we spoke to the technical basis for these yesterday, but we did not specifically address changes in the conditions that have been requested.

With Soils and Water 2, which is relating to the amount of water that is served for residential uses by the Dan Boyer well, what is the applicant requesting?

MR. GALLAGHER: The applicant is requesting that Soils and Water 2 be modified to reflect that the residential use, essentially half an acre foot a year rather than the six acre feet per year, and to allow purchases from the Dan Boyer Water Company up to 39.5 acre feet per year. And that requested change was submitted as part of Exhibit 132 last week.

MS. FOLEY GANNON: I think -- 39.5; is that correct, is that the number we were asking for?

MR. GALLAGHER: 39.5 acre feet per year, yes.

MS. FOLEY GANNON: Correct.

Okay. Thank you.

For Soil and Water 9, which relates to the submittal of a purchase agreement with the Boyer well, what is the applicant's request?

MR. GALLAGHER: The applicant's request again is to make the change from 34 acre feet per year to 39.5 acre

feet per year and to make some other technical changes that were discussed yesterday and to request that rather than a requirement that we show a 40-year purchase agreement for the Dan Boyer Water Company, since we don't intend to use the Dan Boyer water for more than six months to maybe as many as three years, that we instead be permitted to show that we've got an option agreement to purchase water from Dan Boyer Water Company for as long as necessary.

MS. FOLEY GANNON: Okay. And finally with regard to Worker Safety 7, which we will discuss later this afternoon, this relates to the requirements associated with the mitigation with the fire department, what is the applicant requesting?

MR. GALLAGHER: Worker Safety 7 is a brand new condition in the SSA that wasn't present in the SA at all. It requires us either to negotiate with the Imperial County Fire Department to compensate them for impacts of the project on their activities, or to pay them $40 million over the life of the certification. That's over a million dollars up front and over a million dollars a year.

Our request on this point is that the dollar figures be taken out of the condition and that we be told to negotiate with Imperial County Fire Department, which

we're happy to do. It's a major -- putting the dollar figures in the conditions is a major departure from the commission's traditional approach, and it really weights the scale of any negotiations that might follow.

I think this might be the only time we talk about Worker Safety 7, because we don't have a technical witness on this point, and so I'd like to just elaborate on this for a moment. And could you --

MS. HAMMOND: Hearing Officer Renaud, I'd like to interject here and say that the reason why we needed the bio panel to be present for Mr. Gallagher's presentation on bio was because they needed to hear his presentation.

I think the witnesses, staff's witnesses on worker safety and fire protection are not present. They are going to be rejoining after lunch --

MR. GALLAGHER: Fine, we'll wait.

MS. FOLEY GANNON: We can -- yeah, the substance of that.

Okay. There are a number of other conditions which are referenced in your testimony and the exhibits thereto. Again, that's in Exhibit 132. I don't think there's any need for us to walk through all of them; some of them, however, I understand that a little further explanation for the nature of the change could be helpful.

Specifically, there is a condition in Bio 6 which

relates to the speed limit. Can you just briefly explain why that's a concern to the applicant?

MR. GALLAGHER: It's a concern to the applicant because if the speed limit is established too low on a site this large, it creates major logistical and cost problems. And so our biologist will testify that a speed limit at, I think, 10 miles an hour, doesn't do any -- isn't any better for the species or any -- or dust or any other reasons than the 15 mile per hour speed limit that we're requesting.

MS. FOLEY GANNON: And turning to an overview of some of the visual conditions, again, we will get into technically --

MR. GALLAGHER: I'm sorry, I misspoke. We're requesting 10 and 25 for dirt roads and paved roads, and I believe the condition reads 15. So the change would be from 15 on everything to 10 and 25 on the paved roads.

MS. FOLEY GANNON: For clarity, I believe you were saying 10 on the unpaved, untreated roads, and 25 on the paved or treated roads?

MR. GALLAGHER: Correct.

MS. FOLEY GANNON: And turning to the visual conditions, you had some comments on Visual Condition 1, which relates to painting of the SunCatchers and other facilities.

Can you provide a summary of what your concerns are?

MR. GALLAGHER: Very briefly, it's not feasible to paint all of the -- all of the requested surfaces, and it's not possible to paint, for example, the back of the dish a desert brown because that would increase the heat absorption of the dish, it would change the thermal properties of the system, and it could have major changes to the operations of the system.

So we've had some discussions with BLM about colors that we could paint the back of the dish. And what we've requested here is a change to add the words "as feasible" to the condition so that we can come up with a color that maximizes -- or minimizes the impact on visual, the visual impacts, but also doesn't change the structural or thermal or electrical properties of the system.

MS. FOLEY GANNON: And finally with regards to VIS 4 and 6, VIS 4 and 6 have provisions relating to setbacks, and I believe VIS 6 has some new provisions relating to the glint and glare, can you provide an overview of the applicant's concerns about these conditions?

MR. GALLAGHER: Yes. VIS 4 and VIS 6, we're requesting a change from the setback from 360 feet to 300 feet. And I believe we have a visual expert that will

testify about this, but we think our own testimony may have created some misunderstanding on this point. In any event, we're asking it to go back to 300 feet.

MS. HOLMES: I expect there will be extensive testimony on this subject this afternoon.

MR. GALLAGHER: In addition, there's one other point I mentioned yesterday that we failed to mention in our testimony last week. This is a new condition that would require the installation of a two-foot -- I believe it's a two-foot radius is the idea, metal shield that would be mounted on the -- around the base of the power conversion unit on the boom to protect from glare, glint or glare.

And we'll have some more testimony on this later, but my point only is to say that adding a big piece of metal at the end of the boom at this stage of the game is disastrous. It would change the weight on the boom. It could require a major redesign of the product, it could -- it would take -- it could cost weeks or months of delay, it could cost major cost increases. And our expert will testify later that it's both unnecessary and not useful.

MS. FOLEY GANNON: To reiterate, in exhibit -- attachment to Exhibit 132, which is numbered 122, as well as Exhibits 135 to 139 which were proposed revised conditions submitted into the evidence yesterday, does

that capture all the requested changes that the applicant is making at this time?

MR. GALLAGHER: Yes.

MS. FOLEY GANNON: Thank you, Mr. Gallagher.

He's available for cross.

HEARING OFFICER RENAUD: Cross-examination by staff?

MS. HOLMES: No.

HEARING OFFICER RENAUD: All right.

Applicant? I'm sorry, not applicant. CURE?

CROSS-EXAMINATION

MS. MILES: Mr. Gallagher, your rebuttal testimony addresses a number of biological resource topics, including habitat for special status species and appropriate mitigation to offset impacts. Just now in your oral testimony there were some conclusions regarding biological impacts, and I understand why you would want to testify about other appropriate mitigation, but I wonder, do you have a degree in biology that would enable you to make biological conclusions?

MR. GALLAGHER: I do not have a degree in biology, I have a degree in several other things but not one in biology, so that's why Dr. Mock and Mr. Fitzgerald and others will be testifying as to the actual facts in biology. I'm here really only to talk about the concerns

that the conditions cause for us as written.

MS. MILES: So do you stipulate that all of the opinions regarding impacts -- the conclusions regarding impacts to biological resources are not your own and cannot be relied upon as evidence for biological expert opinion?

MR. GALLAGHER: No, I'll say that Dr. Mock and Mr. Fitzgerald and others will testify as to the biological resources.

MS. MILES: Thank you. In your rebuttal testimony in July -- and I have some questions about biological resources, but I understand that they are -- your opinion has been formed by Dr. Mock.

In your rebuttal testimony in July you make the argument that the cost and activities described in Bio 10 are substantially in excess of the compensation amounts in the Flat-Tailed Horned Lizard Rangewide Management Strategy; and, of course, you reiterated that today.

Can you tell me where in the Rangewide Management Strategy where it specifies that compensation amounts -- the compensation amounts that are required?

MR. GALLAGHER: As I understand the strategy, it specifies mitigation in the -- at a ratio of one-to-one for Flat-Tailed Horned Lizard habitat that is not in a management area, and five-to-one or six-to-one for habitat

that's within the management area. It doesn't set out dollar figures.

But what we have is a letter from Daniel Steward of the BLM dated December 7th, 2009, that's been submitted as Exhibit 123 that applies the Flat-Tailed Horned Lizard Rangewide Management Strategy to this case and provides an estimate of mitigation that's based on the strategy, to which the resource agencies are signatories.

MS. MILES: Thank you for clarifying that, because I was wondering if I had misread the strategies. I did not see any dollar amounts.

And I have a question.

Do you know if that strategy will be in effect if the Flat-Tailed Horned Lizard is listed?

MR. GALLAGHER: I personally don't know, and I would defer to my biologists on that one.

MS. MILES: Do you know what the status is of a listing effort for the Flat Tailed Horned Lizard?

MR. GALLAGHER: The lizard is proposed for listing, and that's why the Fish & Wildlife Service have done whatever they've done, whether it's a conference opinion or biological opinion.

Frankly, when the corps put the lizard back on the agenda for proposed for listing, we saw that as a good thing because it allowed for formal consultation with the

Fish & Wildlife Service, which makes the mitigation strategy here more defensible should the Flat Tailed Horned Lizard eventually be listed.

MS. MILES: So the listing is currently in process, the proposal for listing has proceeded, I believe the public comment period has closed on that, and they're moving forward with the analysis.

MR. GALLAGHER: I don't know what the status of that is.

MS. MILES: Okay. Thank you.

You said that you will purchase higher-quality habitat for Flat Tailed Horned Lizard?

MR. GALLAGHER: My understanding is that the BLM's intent is to purchase inholdings within existing Flat Tailed Horned Lizard management areas in the Imperial Valley with the funding that would be provided under the mitigation requirement that was set out in the SA or in the SSA.

MS. MILES: And what are the characteristics of the inholdings that make it higher-quality habitat than the project site?

MR. GALLAGHER: Dr. Mock will have to testify to that.

MS. MILES: In your rebuttal testimony you argue that the applicant should not have to provide additional

funds for compensatory mitigation for Burrowing Owl, Golden Eagle, American Badger, and Desert Fox. And to justify that, you state that, according to Dr. Mock, during two years of surveys you did not detect Burrowing Owl, active burrows, badgers or Golden Eagle; is that correct? Did Dr. Mock tell you that?

MR. GALLAGHER: That's my understanding. Dr. Mock would be a better witness to testify as to exactly what was found during the surveys.

MS. MILES: I understand, but you testified to that as well, so that's why I'm asking you.

MR. GALLAGHER: That's my understanding.

MS. MILES: Did you investigate the validity of that statement from Dr. Mock? Did you review the AFC?

MR. GALLAGHER: No, I did not, not on this point.

MS. MILES: In your rebuttal testimony you make the statement that Golden Eagles are rarely seen in Imperial County. Does the frequency of sighting of Golden Eagle affect the significance of project impacts to Golden Eagle?

MR. GALLAGHER: No, but my understanding is -- well, actually, I don't know. But my understanding is that there's no suitable Golden Eagle nesting areas anywhere near the project site.

MS. MILES: And how do you define "anywhere

near"?

MR. GALLAGHER: I believe Dr. Mock will testify to this --

MS. MILES: Okay.

MR. GALLAGHER: -- and I shouldn't be, but I think it's something like within ten miles.

MS. MILES: I'm sorry, but you opened yourself up to testimony on this since you did make conclusions on these matters.

Do you justify -- wait, I'm sorry.

Is compensatory mitigation sometimes required to offset a project's impacts to a plant or animal species?

MR. GALLAGHER: I think the answer to that one is yes.

MS. MILES: Does the listing of a species on the state or federal Endangered Species Act somehow affect the habitat requirements of a species such that only listed species require habitat compensation to offset a project's impacts?

MR. GALLAGHER: I'm not qualified to answer that question.

MS. MILES: Okay. Is it possible that a species that is not on the Endangered Species Act might also require habitat compensation to offset the affects of habitat loss?

MR. GALLAGHER: Would you ask the question again?

MS. MILES: Sure.

Is it possible that a species that is not listed on the Endangered Species Act might also require habitat compensation to offset for the effects of habitat loss caused by a project?

MR. GALLAGHER: I don't know whether you're asking a legal question or a factual question.

MS. MILES: Well --

HEARING OFFICER RENAUD: Well, it sounds like you might be calling for speculation. I mean, if you -- anything's possible.

MS. MILES: Well, yeah, I mean, we have certainly dealt with hypotheticals in this situation; but no, this really isn't even a hypothetical, it's just if you have species that are not listed, can't -- is it possible that the energy commission might require mitigation in terms of land acquisition for that species?

MR. GALLAGHER: I'd be speculating to answer that question.

MS. MILES: Okay. Thank you.

In your rebuttal testimony, you relate your opinion that it is difficult to justify mitigation costs for Burrowing Owl, Golden Eagle, American Badger, and Desert Kit Fox because BLM is purchasing and managing land

for Flat Tailed Horned Lizard as species that utilizes similar habitat types; is that correct?

MR. GALLAGHER: Yes.

MS. MILES: Can you describe what the habitat types are for Burrowing Owl, Golden Eagle, American Badger, or Desert Kit Fox, any of the above?

MR. GALLAGHER: Well, my understanding is that what BLM will do is purchase higher-quality Flat Tailed Horned Lizard habitat. If the species that you mentioned are found on the current project site, it's reasonable to believe that there will be habitat for those species on the habitat that will be purchased.

That's as far as I am able to go, and Dr. Mock will be able to testify further on that point.

MS. MILES: I mean, I'm not a biologist either, but -- and so I'm taking your statement at face value. And I'm wondering, though, would you be willing to make that a part of the condition, that the land actually be verified to have that quality to meet the needs of those other species in order to qualify for mitigation for your project?

MR. GALLAGHER: I believe at this point our testimony is that the evidence doesn't justify a requirement to mitigate for those additional species.

MS. MILES: Okay. So you're just -- your

testimony is that you don't believe that you should be required to mitigate for those other species. Just to be clear.

MR. GALLAGHER: Yes.

MS. MILES: And if there was evidence, would it require you to mitigate for those species?

MR. GALLAGHER: I don't understand the question.

MS. MILES: If we cull through the record and we find evidence that those species will be impacted, then would you agree that the energy commission should look for evidence of those species before approval that the compensation will mitigate impacts to those species?

MR. GALLAGHER: I can't answer that specific question at this time, but I think what we've tried to do throughout this case is be reasonable and do reasonable things. And so if there was evidence that we should do something reasonable, we'd want to do something reasonable.

MS. MILES: Okay. In your rebuttal testimony you state that on-site avoidance measures for special status plants are brand new and would require major redesign of the project in a manner that is not feasible and would be contrary to the applicant's plans based on discussions with the BLM.

Will you be avoiding the Wiggins' croton?

MR. GALLAGHER: I'm afraid that question will have to be directed to Dr. Mock.

MS. MILES: You state that larger, more viable populations are found in the region and are available as off-site mitigation; is that correct?

MR. GALLAGHER: That's my understanding. And Dr. Mock can testify to that more thoroughly.

Again, my point really is to raise these issues and inform the committee of the large, sort of the big-ticket items that are in these revisions to these conditions, and the details of the biology are to be testified to by our biologist.

MS. MILES: Right, but I did see -- I did see conclusions in your testimony, that's why I'm directing these questions to you. But I will also be asking questions of Dr. Mock.

Just a couple more.

Has the applicant conducted any fall surveys on the project site yet?

MR. GALLAGHER: I don't believe so, but Dr. Mock can answer that question.

MS. MILES: In your rebuttal testimony in July, you argued against having to prepare a paper and submit it to a peer-reviewed journal as part of the mitigation for Bio 9 and Bio 21, and your justification is that you are

not in the business of preparing scientific papers on biology.

Do you consider your biological technical report that was prepared for the project to be a scientific paper?

MR. GALLAGHER: I would say only that having us do a peer-reviewed journal article as part of the mitigation just seemed a little over the top to us. It's not that big a deal, but it just seemed a little over the top.

MS. MILES: Has Dr. Mock published papers on biology?

MR. GALLAGHER: You'd have to ask Dr. Mock.

MS. MILES: Okay. No further questions.

HEARING OFFICER RENAUD: Questions by Budlong?

MR. SILVER: No, there are no questions.

HEARING OFFICER RENAUD: CNPS?

MR. BELTRAN: Just one question.

HEARING OFFICER RENAUD: Go ahead.

CROSS-EXAMINATION

MR. BELTRAN: You talked about the request to paint the structure a color, a muted color for visual effects, and you said that you couldn't do that because it would affect the performance of the design.

What alternatives did you consider?

MR. GALLAGHER: We have proposed a series of potential things that we could do without -- without impacting the performance of the dish system to the BLM. And I presume that's been filed with the commission, but I don't know that for sure sitting here.

And so there's a range of colors that range from, you know, not bright white to not tan, in between, that would work and that wouldn't change the thermal properties of the machine.

MR. BELTRAN: Well, you know in the desert, it's a critical issue, most structures have some type of reflective coating, or many structures have reflective coatings on their roofs. And some of these roofs are metal. White is one of the choices, but there are others that are a tan color, and both of them have the same reflectivity. The ASTM Standard C-523 would provide a .7 reflectivity in a tan color. Did you consider anything like that?

MR. GALLAGHER: I can't speak to the technical standards or to exactly what's been proposed. I think we either have or can have a visual expert here who can talk about that.

MR. BELTRAN: Okay. Thank you.

HEARING OFFICER RENAUD: Are you done, Mr. Beltran?

MR. BELTRAN: I'm done.

HEARING OFFICER RENAUD: Okay. Any redirect?

MS. FOLEY GANNON: Just a couple of points.

REDIRECT EXAMINATION

MS. FOLEY GANNON: Mr. Gallagher, yesterday you testified to a number of changes that the project had made in response to resources that have been identified by your consultants; is that correct?

MR. GALLAGHER: Yes.

MS. FOLEY GANNON: And in evaluating the reasonableness of the mitigation measures that have been proposed, did you consult with your expert consultants?

MR. GALLAGHER: Yes.

MS. FOLEY GANNON: And in determining whether those conditions were from a policy or from a business perspective reasonable, did you rely upon the evidence and findings of your experts?

MR. GALLAGHER: Yes, I did.

MS. FOLEY GANNON: Thank you.

HEARING OFFICER RENAUD: Okay.

Advisor Lorraine White has a question.

MS. WHITE: In your proposed changes for Bio 19, you used the term "as practicable."

MR. GALLAGHER: Correct.

MS. WHITE: And who would make that definition?

What is your definition for "as practicable"?

MR. GALLAGHER: I don't think we defined it in the proposed change. I think that would be a decision that would be made on the site by and among the compliance project -- the CPM and the project personnel, the designated biologist and others.

MS. WHITE: Okay. But there are circumstances which this condition seems to address where the CPM may not be there. So who would make the call during construction as practicable?

MR. GALLAGHER: Well, I believe that the designated biologist and/or botanist will be present at all times, and so I think what we'd have to do is, you know, that you'd have the project people and the biologist, if they couldn't agree, they'd have to get ahold of the CPM. And I think there are provisions sort of like that throughout these compliance mechanisms where the folks on the ground try to -- try to reach an agreement when something comes up, and when they don't, they don't reach agreement, they call the CPM.

MS. WHITE: And you referred to in terms of avoidance, "meaningful avoidance." What do you mean by that?

MR. GALLAGHER: Again, this is something Dr. Mock will have to testify to in more detail, but there -- my

understanding is that if you create an avoidance area around a very small plant population, that may not help to ensure that small plant population's survivability. And if creating that avoidance area isn't meaningful because it doesn't help to preserve those individuals in that avoidance area, and yet it has an impact, a large impact on the project's constructability, then it doesn't seem like it makes a lot of sense to create that avoidance area, and it makes more sense to do the off-site compensatory mitigation.

MS. WHITE: Thank you.

HEARING OFFICER RENAUD: Okay. Any further questioning of Mr. Gallagher?

All right. So, applicant, go ahead with your next witness.

MS. FOLEY GANNON: Thank you.

We would like to call Dr. Pat Mock and Mike Wood.

(Patrick Mock and Michael Wood were sworn.)

THE REPORTER: Would you individually state and spell your names for the record.

DR. MOCK: Dr. Patrick Mock, M-o-c-k.

MR. WOOD: Michael Wood, W-o-o-d.

THE REPORTER: Thank you very much.

DIRECT EXAMINATION

MS. FOLEY GANNON: Good morning, gentlemen.

Thank you for being here.

I'd like to start with you, Dr. Mock.

Are you the same Patrick Mock who provided oral testimony earlier in these proceedings in May as well as written and rebuttal testimony in these proceedings?

DR. MOCK: Yes, I am.

MS. FOLEY GANNON: And are you the author of the rebuttal testimony submitted in July of 2010 in these proceedings?

DR. MOCK: Yes, I am.

MS. FOLEY GANNON: And we would like -- we would ask that his testimony be identified as Exhibit 142.

(Applicant's Exhibit 142 was marked for identification.)

MS. FOLEY GANNON: Do you have any corrections or additions to make to your testimony provided in Exhibit 142?

DR. MOCK: No, I do not.

MS. FOLEY GANNON: Thank you.

Dr. Mock, in --

HEARING OFFICER RENAUD: Excuse me, is that testimony contained within 130? Is that --

MS. FOLEY GANNON: No. 130 was -- no, 132 was Sean Gallagher's, and that had exhibits attached to it. So this is a -- this would be a separate exhibit, this is

142.

HEARING OFFICER RENAUD: All right.

MS. FOLEY GANNON: So, Dr. Mock, in earlier proceedings you provided an overview of the surveys, I think, completed on the site. I understand you were involved in overseeing or participating in many of the wildlife surveys that have been completed on the site; is that correct?

DR. MOCK: Correct.

MS. FOLEY GANNON: Can you give us a summary -- we'll start with the Flat Tailed Horned Lizard, can you give a summary of the efforts that have been made on the site. Again, recognizing you've described this and written in rebuttal testimony, so we can give a very brief overview for the committee.

DR. MOCK: The surveys were conducted according to the protocol established by the BLM and in consultation with the CEC. Primarily the methodology was what you would consider a sample plot survey. We had over 330 sample plots around four hectares in size distributed across the site and along the linear project components that supported potentially suitable habitat for the lizard, and we conducted plot surveys of each plot was surveyed.

And then subsequently in 2008 the resource

agencies and BLM requested that we do a different methodology along the linears. We did transect surveys along the row for those linear components.

And then in this past year there was some changes to the linear components where there's some realignment or extensions of the linears, and so those additional segments were also surveyed in a transect methodology this past spring.

MS. FOLEY GANNON: And can you describe the results of these survey efforts?

DR. MOCK: The number of horn lizards in general detected was very low. A total of four Flat Tailed Horned Lizards were detected. Two on -- two on the site and two along the transmission line. We found additional desert horned lizards on site as well. We found more desert horned lizards on site than we did the Flat Tails. But still, the number of lizards actually detected was very, very low. And so the apparent occupation of the site is deemed lower than what it would be in comparable data on plot surveys in more optimal habitat in the Yuha and West Mesa management areas.

MS. FOLEY GANNON: Was it a surprising result that there would be a higher concentration of desert tortoise than Flat Tailed Horned Lizard?

DR. MOCK: Desert --

MS. FOLEY GANNON: Let's not say that there is a concentration of desert tortoise on this site, just for clarity in the record. There are no desert tortoise on this site.

Desert lizards in comparison to the Flat Tailed Horned Lizard?

DR. MOCK: Well, the Desert Horned Lizard is a more common species, and their ecological niche, as you would call it, is broader. And but they do -- they do occur on the site. And so we can't really use the evidence of scat, as they have a distinctive scat. A horned lizard scat is very distinctive, so we can't use the scat as an occupation by the Flat Tail since we have this sympatric species that produces very similar scat.

But the fact that we found substantially, you know, proportionally, like a four-to-one ratio of Desert Horned Lizard would indicate that the Desert Horned Lizard is relatively more common on site, and so we would expect that those are the -- that's the species we're going to encounter than the Flat Tail on site.

MS. FOLEY GANNON: And based upon your finding of four Flat Tailed Horned Lizards as a result of these surveys, did you make any conclusion about or estimates about the population of the Flat Tailed Horned Lizards on the site?

DR. MOCK: I think it's a relative conclusion in terms of comparing the site's expected occupation to other sites that have been studied more extensively in what's considered optimal habitat, is that the densities are much lower on site, and if you were to hazard to guess how many, our estimate was in the tens to the hundreds, and that's based on the limited detections that we have.

MS. FOLEY GANNON: Did you receive any advice from any of the agencies regarding a reasonable rate of detection to assume for the Flat Tailed Horned Lizards?

DR. MOCK: The BLM staff had recommended that we use a 25-percent detection ratio, detection rate, and so using that detection rate would give you the estimate of 20 to 30 individuals would have been expected to be detected. If you use a much more conservative detection rate of five percent, that gets you into the hundreds for the population estimate.

MS. FOLEY GANNON: Have you reviewed the staff's assessment and the supplemental staff assessment regarding impacts to Flat Tailed Horned Lizards?

DR. MOCK: Yes, I have.

MS. FOLEY GANNON: And did you note that staff's conclusions regarding their estimations of the Flat Tailed Horned Lizards on the site?

DR. MOCK: Yes. They have revised it from the

staff assessment downward to, I think, 1300 to 2000, but the rationale for that number wasn't provided.

MS. FOLEY GANNON: So based on your reading of the staff assessment, do you know how they would have come to that number?

DR. MOCK: No, I do not.

MS. FOLEY GANNON: And the relationship between that number and the survey efforts that were conducted?

DR. MOCK: No, I do not.

MS. FOLEY GANNON: Thank you.

Staff, in the supplemental staff assessment, concludes that there is a significant and unmitigable impact to -- related to the loss of individual members of the Flat Tailed Horned Lizards which are predicted to occur as a result of the project.

Can you comment on that conclusion?

DR. MOCK: Given the evidence that we have in terms of the relative occupation of the site compared to the habitat that's being focused for conservation, the whole basis for the regional strategy was that the core habitat area is the area that supports the largest densities and the highest densities and the most extensive undisturbed habitat are being proposed and planned for conservation. And the site that we're working on, we're working with is outside those management areas. They're

not considered a priority for conservation because they are -- have limited value to the overall regional strategy.

MS. FOLEY GANNON: So to reiterate or to make sure I'm clear, your conclusion is, is this a significant impact, or do you think it's not a significant impact due to the loss of individual Flat Tailed Horned Lizards?

DR. MOCK: No, no, it isn't given our estimate of a few hundred as a conservative estimate in the larger scale of the regional strategy, a few hundred individuals is not a regionally significant unmitigable impact.

MS. FOLEY GANNON: So looking at the significance of the impact, you were looking at the -- like the density of the lizards as well as the quality of the habitat; is that correct?

DR. MOCK: The density of the populations that are known, the relative contiguousness of the habitat that's being planned for conservation, and the sustainability of the habitat through time given the current and past land uses of the site.

MS. FOLEY GANNON: And in reading the staff assessment, and I believe the applicant has not asked for any changes of this, it appears that there's an assumption the site will no longer support Flat Tailed Horned Lizards following development of the project.

Do you agree with that assessment?

DR. MOCK: That was our worse-case assessment. I mean, when we assess this, the site and the proposed development, our -- our assessment was that we really don't know how well --

(Telephone interruption.)

DR. MOCK: -- was that the site would be lost to -- in terms of relative biological value, the residual biological value of the site after project development would be minimal. And therefore, we presumed the complete loss of the population would be a possibility.

MS. FOLEY GANNON: So we will discuss mitigation in a moment.

Do you think, in your professional judgment, do you anticipate that some lizards may continue to use this site following project construction?

DR. MOCK: Undoubtedly there's going to be some lizards remaining on site after the project is built out. I think the question is whether they would be sustained through time. It all -- we really don't know. Given how the site's going to be developed, there is a possibility that they may remain, but as a -- as a worst-case scenario, we presumed a complete loss.

MS. FOLEY GANNON: And in looking at the potential impacts to the Flat Tailed Horned Lizards in the

supplemental staff assessment, there is a discussion of the potential impacts associated with dust on this species.

Can you comment on that analysis?

DR. MOCK: Well, I mean, the main concern I think was the speed of the vehicles going on the paved or stabilized roads, or they wanted a -- a set speed limit of 15 miles an hour regardless of what type the road the vehicle was traveling on. But our proposal is a 10 mile an hour speed limit for dirt roads that are unstabilized would be a reasonable expectation. But for the roads that are stabilized, paved and/or stabilized, the purpose of the stabilization of the road is to minimize the dust. And so the benefit of reducing the speed limit on the paved roads due to dust is not there, is not consistent with the air quality conditions suggested.

But also the speed -- the benefit to avoiding mortality of lizards is not really necessarily going to be related to how fast the vehicle is going, whether it's 15 or 25 miles an hour. The likelihood of if a lizard is in the way of a route of a vehicle, it's going to get run over regardless of how fast the vehicle is going, because of their behavior for avoiding predation is to basically hunker down and hide in the sand. So they're going to get run over, because they don't move out of the way, they'll

just stay, stay put. So the speed of the vehicle isn't really relevant.

MS. FOLEY GANNON: So you're referring to the provision in Bio 6, I believe?

DR. MOCK: Yes.

MS. FOLEY GANNON: So is it your professional judgment that implementing the measures suggested in Bio 6, which is changing the speed limit again from 15 miles an hour to 10 miles an hour on the unpaved, untreated roads and raising the speed limit from 15 to 25 miles an hour on the paved and treated roads would address the concerns that were expressed in the supplemental staff assessment?

DR. MOCK: I believe so.

MS. FOLEY GANNON: There's one other issue which was related to the impacts of Flat Tailed Horned Lizards and also discussed in relation to some of the other species discussed, which was relating to the noise impacts.

Can you comment on the staff's assessment that this is a significant impact?

DR. MOCK: I think you have to look at it in terms of what's the existing condition on site, and how -- what's the change in the noise levels that's -- the species are going to experience. However, you have to

remember that we've already written off the site as being biologically lost. And so the noise conditions on site for whatever remaining species are present is somewhat moot. It's really not relevant.

The noise levels are at around 72 in the existing condition and they're only going to be increased by about two dB, which is hardly even noticeable from a detection point of view.

MS. FOLEY GANNON: But the staff assessment states that there will be a 84 db noise at the SunCatchers.

DR. MOCK: We believe that's an error. I mean, our estimate is 74 db.

MS. FOLEY GANNON: And what was that estimate based upon?

DR. MOCK: Our noise acoustician made the estimate, I believe, from the actual SunCatcher operation out at the Maricopa site.

MS. FOLEY GANNON: So is it your testimony that the staff assessment should be looking at the potential impact of having a 74 db rather than an 84?

DR. MOCK: Yes. And that's a substantial difference. As it is a logarithmic scale.

MS. FOLEY GANNON: And again, your conclusion about raising -- having a 74 db particularly taking into

consideration the background noise, what would be the impact you think on any wildlife that does remain on the site?

DR. MOCK: Well, if they're there now, they're experiencing an environment of 72. A 74 would not really be all that different.

MS. FOLEY GANNON: So in summary, you believe this is not a significant impact?

DR. MOCK: Correct.

MS. FOLEY GANNON: Thank you.

If we can turn now to discussing the mitigation proposals for the Flat Tailed Horned Lizard.

You state in your testimony and Mr. Gallagher stated in his testimony earlier today that the mitigation proposal is based upon the Rangewide Management Strategy.

Can you just briefly summarize what the Rangewide Management Strategy is?

DR. MOCK: Basically this was a -- basically it's a mitigation strategy for identifying the core habitat areas that the resource agencies at BLM and the other stakeholders involved with the Horned Lizard habitat brought together -- came together and decided on how to best conserve the best and most important areas of the range to mitigate and conserve the species in a sustainable way, and manage it, manage that habitat

appropriately. And so they developed the mitigation strategy that included habitat acquisition using specific ratios for the specific areas of concern and to also promulgate the conservation in the appropriate locations for the species.

MS. FOLEY GANNON: So it includes ratios.

Does it also include guidance about maybe what type of lands would be acquired?

DR. MOCK: Well, they specifically call out the lands that need to be acquired. They basically say here's the areas that need to be acquired for the long-term benefit of the species. And those are the actual lands that are being sought after under this proposal.

MS. FOLEY GANNON: Have you read the proposed -- the revised staff proposed Bio 10?

DR. MOCK: Yes, I have.

MS. FOLEY GANNON: That contains a number of provisions relating to how the land should be selected and ratios for mitigation.

Do you think -- it is your opinion that the Rangewide Management Strategy addresses many of those concerns or most of those concerns, or what would you think the relationship between them would be?

DR. MOCK: The Rangewide Management Strategy was the guidance and the basis for developing the mitigation

promise for this project, and it's still extant and appropriate. And so that should be the key document that we should be referring to.

MS. FOLEY GANNON: When was the Rangewide Management Strategy developed?

DR. MOCK: It was originally developed in 1997, and then it was updated in 2003. And to my knowledge, there hasn't been any updates since 2003.

MS. FOLEY GANNON: And you said it provides ratios to guide compensation.

Are those ratios based upon what the particular habitat -- what are the ratios based upon?

DR. MOCK: Well, it's based on the areas that -- where the areas of conservation is to be focused so the ratios are of -- if you wanted to disturb habitat within the management areas that the ratio is substantially higher, six-to-one would be the maximum. But outside the management areas, they assign a one-to-one ratio because of the lower priority for conservation necessary for that.

MS. FOLEY GANNON: So the Rangewide Management Strategy envisions higher -- higher mitigation requirements for areas within management areas and lower outside of those areas; is that correct?

DR. MOCK: Correct.

MS. FOLEY GANNON: And again, the project site

does not fall within the management area; is that correct?

DR. MOCK: The project site does not. The transmission line, which is an existing BLM row, was included in the management area, and therefore it has a higher mitigation ratio requirement.

MS. FOLEY GANNON: And who is -- who develops the Rangewide Management Strategy? You referenced a number of agencies, but can you say who's a signatory, who's a developer of it?

DR. MOCK: The signatories and the developers were the BLM, Fish & Game, Fish & Wildlife Service, the U.S. Navy. Those are the ones that come to mind.

MS. FOLEY GANNON: What would you anticipate the impact of the listing of the Flat Tailed Horned Lizard be on the management strategy?

DR. MOCK: I would think it would not change, because they put a lot of effort into deciding what areas really were important for the species, and so I think they would carry forward with the plan as written.

MS. FOLEY GANNON: If a species is listed, is the -- are the -- the U.S. Fish & Wildlife Service the agency who is in charge of implementing the programs under the Endangered Species Act then instructed to look at anything else, like recovery?

DR. MOCK: I'm sorry?

MS. FOLEY GANNON: If a species is listed, does U.S. Fish & Wildlife Service need to consider specifically the needs for recovery for a listed species?

DR. MOCK: Yes. Typically a recovery plan might be developed to provide guidance and pathway toward a condition where the species would be eligible for delisting.

MS. FOLEY GANNON: Have you reviewed recovery plans developed by the U.S. Fish & Wildlife Service for other species?

DR. MOCK: Yes, I have.

MS. FOLEY GANNON: Is the, in your opinion, the Rangewide Management Strategy consistent with the sort of overall approach taken in generally recovery planning?

DR. MOCK: Yes, yes. Basically the areas of highest conservation concern and management concern are identified as being the focus of the recovery plan.

MS. FOLEY GANNON: Have you reviewed the applicant's proposed revisions, may have even been involved in writing them, to Bio 10, which was submitted into evidence yesterday as Exhibit 135?

DR. MOCK: Yes, I have.

MS. FOLEY GANNON: And can you comment on your professional judgment about the adequacy of these measures to offset the impacts to this species on this site?

DR. MOCK: In terms of the level of acreage being proposed for acquisition, it's consistent with the rangewide management plan and therefore should be considered adequate.

MS. FOLEY GANNON: Would you anticipate that the land that would be acquired consistent with rangewide management plan would be lands which would -- what would the value of those lands to the Flat Tailed Horned Lizard be in your professional judgment?

DR. MOCK: Well, they're the habitat areas that have been prioritized for conservation specifically for this species. And they've been evaluated as being the areas of highest benefit for the species. And therefore, acquisition of those lands are considered appropriate and adequate for mitigation.

MS. FOLEY GANNON: Are there activities that currently occur on the project site which may affect the species that are found there and the value of the habitat?

DR. MOCK: The site has had a long history of various land use, land uses. Historically there had been some mining activity, but the most current activity that's most -- probably most affecting the lizard population on site is the off-road vehicle activity that is fairly chronic. It's more intense probably on the weekends, but it occurs throughout the week, based on our experience

while we've been out this during the surveys.

And the focus of the off-road vehicle activity is in the washes where the potential for lizard is higher than the other areas on the site.

MS. FOLEY GANNON: Would you anticipate that land acquired is consistent with the Rangewide Management Strategy by the BLM to mitigate impacts to Flat Tailed Horned Lizard would be subject to this type of activity?

DR. MOCK: It's precluded. There is --

MS. FOLEY GANNON: It's precluded by --

DR. MOCK: By BLM.

MS. FOLEY GANNON: By the BLM.

DR. MOCK: And so they would be protected by that exclusion of human influence.

MS. FOLEY GANNON: So in your view would additional management of those lands be necessary to offset the impact of the project's habitat?

DR. MOCK: Well, the land that would be acquired are basically inholdings of a larger landscape that's dominated by BLM management. And so the incremental addition of these lands wouldn't necessarily increase the management demands of the BLM in a substantial way to justify an extensive funding of a long-term management program.

MS. FOLEY GANNON: Thank you.

Can you turn now to the big horn sheep.

Can you just give us a brief summary of, based on your professional judgment, of the project's impacts on big horn sheep?

DR. MOCK: As I said in prior testimony, detection of the big horn sheep on this project was a surprise to almost everyone I've talked to. It wasn't expected, it wasn't expected by the wildlife service or by the Fish & Game. We've had no indication of occupation or use of the project site or anywhere near the project site by big horn sheep. And so it was an unexpected site, and we believe it's a rare event, and it doesn't rise -- necessarily rise to the level of a substantial biologically-significant siting in terms of the context of the species.

MS. FOLEY GANNON: We heard yesterday in public comment from a member of the public that they had seen a herd of sheep near the site.

Can you comment on that reported sighting?

DR. MOCK: Well, the written report that I received indicated that the sighting was actually west of Ocotillo, which is like almost -- more than five miles away, and closer to the essential habitat areas of the big horn sheep; so it was not surprising that the sheep might be detected somewhere west of Ocotillo.

MS. FOLEY GANNON: So when you were assessing potential impact on big horn sheep, would it change your analysis if you knew that there were known big horn sheep within five miles of the site?

DR. MOCK: No. Essential habitat occurs six miles from the site, so, you know, the expectation of use is proportional to how far away the site is from their more traditional use areas; and so being five to six miles away from the essential habitat, we thought was pretty far away, and the expectation that use of that -- of the area was low due to that distance, and the fact that there's a substantial amount of human use, land uses surrounding the site that would have expected a more frequent sighting, or sightings reported if they actually occur.

MS. FOLEY GANNON: So that reporting yesterday doesn't change your views on it; is that correct?

DR. MOCK: No, it does not. Actually, it's not unexpected that you'd have sightings between Ocotillo and the mountains.

MS. FOLEY GANNON: Thank you.

Have you reviewed the supplemental staff assessment regarding the analysis of impacts to the big horn sheep?

DR. MOCK: Yes, I have.

MS. FOLEY GANNON: And can you just give us your

overall impression of that assessment?

DR. MOCK: They would like to attribute 100 percent of the washes as being suitable for big horn sheep forage, and our position is that maybe a proportion of that could be assigned as being suitable, given the information we have from the CRAM analysis indicated that the actual amount of forage available is substantially less than 100 percent.

MS. FOLEY GANNON: How do you identify the difference between washes that could be provide potential foraging habitat and those which don't?

DR. MOCK: Well, they're all potentially -- could be used, it's just the level of forage available within a given wash is highly variable, but it's substantially lower than what we had -- what was assumed by the staff, I believe. So --

MS. FOLEY GANNON: To put it in plain English, when you're looking at a wash and you're trying to decide when you think it's going to be -- the potential foraging habitat that would provide meaningful forage, what would you be looking at?

DR. MOCK: The relative cover of the forage species that the sheep would eat, and the relative cover in many of the washes is very, very low.

MS. FOLEY GANNON: And again, you made this

assessment based upon the data --

DR. MOCK: That the CRAM analysis provided.

MS. FOLEY GANNON: The California Rapid Assessment Method that was done on the washes?

DR. MOCK: Yes.

MS. FOLEY GANNON: And based upon that assessment, did you make a determination about the percentage of the washes on site that you feel could provide potential foraging habitat?

DR. MOCK: Well, just in the percent cover of forage in the washes was estimated at 28 percent, and so using that percentage as a mitigating factor for assigning a mitigation requirement would seem appropriate.

MS. FOLEY GANNON: And turning to the mitigation that is proposed by the applicant for the impacts to the big horn sheep, are you aware of what the applicant is currently proposing?

DR. MOCK: Yes. The -- as part of the 404 permit analysis, alternatives analysis, they've proposed to enhance Carrizo Creek and marsh by excluding -- removing the Tamarisk -- invasive Tamarisk trees. This is an area within big horn sheep essential habitat that historically had been reported prior, I think the early 70s, had been reported as being extensively used by big horn sheep, but after a major storm event the Tamarisk took hold and took

over the creek and the marsh and degraded the habitat to the point where the sheep no longer use the site, use the drainage. And so --

MS. FOLEY GANNON: So the Tamarisk makes -- renders the habitat not utilized by the sheep?

DR. MOCK: That's -- that's the observation, is that after the Tamarisk invaded, that the sheep discontinued using the area. And presumably it's because the density of the Tamarisk makes them uneasy in terms of predator avoidance, and presumably also reduces the amount of forage available to it as well.

MS. FOLEY GANNON: So is your opinion that removing Tamarisk in this big horn sheep habitat or previously-utilized big horn sheep habitat would mitigate impacts for the project?

DR. MOCK: Yes.

MS. FOLEY GANNON: Dr. Mock, last time you testified before this committee, you had posited that you thought the project would not have an adverse effect on big horn sheep. Has that view changed?

DR. MOCK: No, it hasn't. The expectation that there's actually going to be an actual incidental take of big horn sheep is very, very low.

MS. FOLEY GANNON: It's my understanding that subsequent to the May hearings, the decision by the U.S.

Fish & Wildlife Service was to engage in a formal consultation, which means they concur there would be an adverse effect; is that correct?

DR. MOCK: They -- the potential for an adverse effect, but I think that's based more on their concerns over loss of forage habitat rather than the actual incidence of an incidental take.

MS. FOLEY GANNON: So again, in your view, as a conclusion with the big horn sheep, do you feel that this mitigation would offset any impacts that would occur?

DR. MOCK: Yes, I do.

MS. FOLEY GANNON: In staff's assessment, I believe they concluded that there wouldn't be a significant impact to movement, the big horn sheep through the site.

Do you concur with that analysis and discussion?

DR. MOCK: Yes, I do.

MS. FOLEY GANNON: With regard to -- there were a number of other species that were discussed in the supplemental staff assessment and that there was some proposed nesting of mitigation with the Flat Tailed Horned Lizards, specifically referring to the Desert Kit Fox, the American Badger, the Golden Eagle, and the Burrowing Owl.

Overall, can you provide your judgment about the potential for significant effects to happen to these

species?

DR. MOCK: Well, the first -- owl, the eagle and the badger have not been detected on site. So there's really -- the basis for a mitigation measure should be based on the actual potential for a take of those species.

The Desert Kit Fox is on site, but we're -- the concern is it's not even available -- suitable for consideration under CEQA as a sensitive species. It is a very common species and doesn't rise to the level of requiring mitigation for effects to that species.

So excluding the Desert Kit Fox from the condition would be appropriate based on it's too common and not considered sufficiently sensitive to rise to the level of significant impact.

MS. FOLEY GANNON: So going back to the Burrowing Owl, the eagle, and the American Badger, surveys were done for these, or efforts were made to detect them on the site?

DR. MOCK: Well, there's no testing habitat for Golden Eagle, so any sightings that might occur in the vicinity of the site would be birds that are foraging, presumably.

In terms of relative usefulness of the site by foraging eagles, it's a lower-quality habitat compared to the adjacent ag lands to the east. So the expectation is

if a eagle was wanting to choose a place to forage, they would probably bias their use areas toward the ag fields where there is significant, higher densities of suitable prey.

MS. FOLEY GANNON: Recognizing that these species, again, we're talking about the Burrowing Owl, the eagle, and the American Badger, have not been seen on site, is there some potential that there could be one there during project construction or operations?

DR. MOCK: Well, there's always a potential. I mean, the owl is -- was detected off site, closer to the ag fields, which is where their densities are highest in the area. The owl is very, very common in Imperial County. It basically -- imperial County supports half the statewide population. So it's -- it wouldn't be unusual to have owls nearby.

But the expectation of occupation is moderate at best, and we may -- during the pre-construction surveys, we may detect one or two on site. And we'd have to deal with it according to the protocol.

MS. FOLEY GANNON: And you just referenced the pre-construction surveys. The staff assessment includes proposed conditions relating to avoidance, the pre-construction avoidance of these species.

Do you feel that these measures are appropriate?

DR. MOCK: Well, the pre-construction survey would identify whether one, they're present, and then the protocol for avoiding incidental take of the owls. And if the owls' burrows are in a location that are in conflict with the development plan, then they would have to be passively relocated.

MS. FOLEY GANNON: And there are similar measures as well for the American Badger, I believe?

DR. MOCK: Yes. Although the passive relocation is very passive, as you can imagine.

MS. FOLEY GANNON: I wouldn't want to do it.

Again, do you feel that those measures would be sufficient to minimize any adverse impacts that could happen to these species as a result of project construction?

DR. MOCK: Yes.

MS. FOLEY GANNON: So it is your view that no additional mitigation is needed for these species?

DR. MOCK: No.

MS. FOLEY GANNON: With regard to the Desert Kit Fox, there's a discussion in the supplemental staff assessment, and I believe it was in the staff assessment as well, regarding the fact that these species are protected under certain provisions of the Fish & Game code.

Why doesn't that make them special status?

DR. MOCK: Well, the provisions they cite are part of the larger context of issuing a trapping license to an individual to trap fur-bearing animals. And as part of that trapping code, they've included -- Fish & Game has decided that certain fur-bearing animals they would not issue licenses for, and Desert Kit Fox is one of those.

MS. FOLEY GANNON: So the trapping provisions are like the hunting provisions in other places in the Fish & Game code?

DR. MOCK: It's similar. It's basically commercial trappers, trappers who make a living trapping fur-bearing animals and selling the pelts for money.

MS. FOLEY GANNON: And again, even if it is not a special status species, I believe there are, again, pre-construction measures and minimization measures included; is that correct?

DR. MOCK: For the kit fox.

MS. FOLEY GANNON: For the kit fox?

DR. MOCK: In the process of looking for occupied owl burrows and badger burrows, we'd also be looking for occupied kit fox burrows and follow a similar protocol to try to prevent undue mortality of kit fox.

MS. FOLEY GANNON: And do you feel those are appropriate and reasonable?

DR. MOCK: They're reasonable. I mean, despite that -- the justification for it isn't there, but it's not onerous.

MS. FOLEY GANNON: Very good.

There was one other condition, Bio 8, which the applicant has requested; and again, this was in attachment 132 to Exhibit 122, Mr. Gallagher's testimony. And this related to the trash removal requirements in the supplemental staff assessment.

Can you comment on that condition?

DR. MOCK: Yeah. The condition specifically says trash needs to be removed on a daily basis, which seemed a rather onerous expectation. I mean, given that part of the requirement is to have all the trash bins be covered to make any trash inside the bin unavailable to scavenging animals, such as ravens, and then obviously emptying the bins at a rate that precludes them from being overfilled and precluding the covered functioning of the cover, it would be appropriate, but a daily rate may not be necessary.

MS. FOLEY GANNON: Thank you, Dr. Mock.

That concludes our wildlife biology. We can turn to plants now, or we can do wildlife with other witnesses, whichever makes most sense.

HEARING OFFICER RENAUD: I think I agree that

doing the wildlife separately and then doing the plants makes sense.

Does anybody have any differing view on that?

MS. MILES: I prepared my questions with both sort of intermixed, but I can try to, as I'm going through it, withhold questions that are related to plants.

HEARING OFFICER RENAUD: I think while wildlife is fresh in our minds, you know, to hear the cross-talk on that.

MS. FOLEY GANNON: Seems like they're different issues, yeah.

HEARING OFFICER RENAUD: So --

MS. FOLEY GANNON: He's available for cross.

HEARING OFFICER RENAUD: All right. So I'll make Dr. Mock available for cross-examination by staff.

MS. HAMMOND: Thank you.

CROSS-EXAMINATION

MS. HAMMOND: Dr. Mock, you have identified in your rebuttal testimony that the noise levels at the site would be 74 decibels.

DR. MOCK: Correct.

MS. HAMMOND: And I just wanted to clarify that your identification of 74 decibels is the noise level at the SunCatcher?

MS. WHITE: Ms. Hammond, could you please speak

into the microphone? It's hard to hear your soft voice.

MS. HAMMOND: Is this better?

MS. WHITE: Just pull it closer and make sure it's on.

COMMISSIONER BYRON: Really the issue is we want the people down south to be able to hear you, and they can't hear you.

MS. HAMMOND: Right. Okay.

Should I repeat the question?

COMMISSIONER BYRON: And it actually helps if you speak straight into the --

MS. HAMMOND: I don't know how much closer I can make it.

COMMISSIONER EGGERT: That works. Just like a rock star.

MS. HAMMOND: Should I repeat the question?

MS. WHITE: Yes, please.

MS. HAMMOND: Okay. Dr. Mock, your identification of the noise level of 74 decibels is, I think you just clarified, 50 feet away from one SunCatcher?

DR. MOCK: From the -- within the SunCatcher array field as measured by our noise specialist.

MS. HAMMOND: At which field?

DR. MOCK: I'm pretty sure I'm correct in stating

this is -- we conducted noise measurements at the Maricopa facility in Arizona, which is basically a pilot demonstration plant that would be similar to what's being proposed, and that's the noise level they measured.

MS. HAMMOND: Thank you.

You are sponsoring some exhibits that reflect changes to staff's conditions of certification, Bio 10, and Bio 17; is that correct?

DR. MOCK: Correct.

MS. HAMMOND: And are any of these changes based on what has been presented as the draft LEDPA?

DR. MOCK: I -- I don't believe so. I think the LEDPA is still an ongoing issue. And so if this relates to the actual acreages as it relates to the LEDPA, I would need some confirmation from others, but --

MS. FOLEY GANNON: And we will have testimony on the LEDPA later this afternoon, we can also address that.

MS. HAMMOND: Who will be sponsoring that testimony?

MS. FOLEY GANNON: Mike Fitzgerald from Ecosphere.

MS. HAMMOND: Okay. I have no further questions.

HEARING OFFICER RENAUD: Thank you.

CURE?

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CROSS-EXAMINATION

MS. MILES: Hello.

DR. MOCK: Hello.

MS. MILES: One question. I think something you just mentioned about additional surveys for Flat-Tailed Horned Lizard. Were these docketed?

DR. MOCK: I can't recall whether they have or not.

MS. MILES: Do you know when they occurred?

DR. MOCK: I believe we did the surveys in May. They're in the supplemental filing, evidently, the report.

MS. MILES: So May of 2010 for confirmation?

DR. MOCK: Yes.

MS. MILES: Okay. So they were docketed in the supplemental report. Okay.

Did you say that BLM precludes off-highway vehicle activity in management areas?

DR. MOCK: That's my understanding. They control it and regulate it, and they have specific areas designated for off-highway use, and the management areas are precluded from that use.

MS. MILES: And so I assume then that you do not know the amount of off-highway activity in the management areas; or have you looked into that?

DR. MOCK: Not specifically, no.

MS. MILES: You said there's lower quality forage habitat for Golden Eagle on site as opposed to ag lands to the east?

DR. MOCK: Correct.

MS. MILES: What kind of ag lands are to the east?

DR. MOCK: The typical agricultural fields to the east are irrigated lands. Some of them support various types of row crops; and alfalfa fields are pretty common out there. And so they support very extensive amounts of rodents and jack rabbits and other types of typical prey that Golden Eagles would go after.

MS. MILES: Do you know if Black-tailed Jack Rabbits occur in ag fields?

DR. MOCK: Yes, they do.

MS. MILES: They do. And are they -- do they also occur on the project site?

DR. MOCK: I believe we had one or two sightings, I believe.

MS. MILES: And are they preferred habitat for Golden Eagle -- I mean preferred forage for Golden Eagle?

DR. MOCK: They're one of the common forage items, yes.

MS. MILES: Okay. I would like to follow up with a few questions that I had asked Sean Gallagher where he

was deferring to you.

In Sean Gallagher's rebuttal testimony, he makes the statement that Golden Eagles are rarely seen in Imperial County.

Now, does the frequency of the Golden Eagles being seen in Imperial County affect the significance of project impacts to Golden Eagles?

DR. MOCK: Yes, I think that's important. You know, the relative use of a given site by the species of concern is important. You want to focus on areas that are actively used and frequently used, because those are the areas that obviously are of proportional importance to the individuals involved.

Given how far away the likely occupied nesting habitats are, just the effort for accessing the site is going to be proportional to distance, but the menu in the landscape, the desert is a less productive area than the agricultural areas, and so the eagles would probably disproportionately utilize the ag fields near the site.

MS. MILES: I have a hypothetical, and it's only -- I'm only asking for your factual response, no legal conclusion.

If there was one -- if there was one pair of Golden Eagles in Imperial County, and that pair relied upon the project site within its foraging habitat, would

the project be causing a significant impact on the local existence of Golden Eagles?

DR. MOCK: I don't believe so, given the landscape in the context of the site. Golden Eagle is not an uncommon species, it is actually very common, and it's widely distributed throughout North America and Mexico and Canada. So the focus -- because it's a predator, predatory species, the densities are lower, and so the total number of pairs in a given region is limited.

But it's not -- it doesn't rise to the same level of sensitivity as a listed species. Its main concern is it's part of -- it's included in the bald -- in the Eagle Protection Act, the Bald Eagle Protection Act originally, because when the Bald Eagle was listed, it was -- people can confuse juvenile Bald Eagles with Golden Eagles, and so they wanted to preclude the take of Bald Eagles, it was necessary to preclude the take of Golden Eagles as well.

So the level of sensitivity for the Golden Eagle is much more limited, but the landscape that we're dealing with is we have this site that's 6,000, 7,000 acres in size, it's surrounded by transportation infrastructure, it's adjacent to a major industrial facility, and it has active land uses that influences the quality of the habitat that might generate some forage prey.

And adjacent to the site are very extensive lands

of conserved lands, the Yuha Desert managed areas, the West Mesa managed areas, as well as the agricultural fields to the east. Those are all suitable habitats for foraging.

And so as a percent of the landscape that might be accessible by a single pair of Golden Eagles, it's a small percentage, and it's probably not that dramatic of an impact.

MS. MILES: So in your opinion, other than the potential to confuse Golden Eagles with Bald Eagles, you believe that there is no basis for special protection for Golden Eagles and, therefore, the laws shouldn't be enforced with regard to this project site?

DR. MOCK: No, that's not what I'm saying.

MS. MILES: I'm just trying to understand what you're saying.

DR. MOCK: What I'm saying, the level of sensitivity is not proportionate to its -- the risk to the population. The risk to the population is at the nest site. There's abundant forage habitat available in the landscape, and we would not be extirpating the pair of Golden Eagles by implementing this project.

MS. MILES: Thank you.

In the applicant's rebuttal testimony Mr. Gallagher stated that according to you, during two

years of surveys, you did not detect any Burrowing Owl, active owl burrows, badgers or Golden Eagles on site.

DR. MOCK: Correct.

MS. MILES: And so you told Mr. Gallagher that.

DR. MOCK: That's what our report reported, yes.

MS. MILES: In your opening testimony, you indicated that you were sponsoring applicant's Exhibit 1, the biology chapter of the AFC and the biotechnical report. And did you author those documents, or did you supervise those who authored them?

DR. MOCK: I supervised them.

MS. MILES: Okay. And do the biology chapter of the AFC and the biotech report provide an accurate representation of the biological resources on the project site along the transmission line route, the proposed water line route, and the surrounding lands?

DR. MOCK: Certainly we've done additional survey effort on the property since the AFC was issued, and so the additional data that has been collected since then supplements and adds to that database.

MS. MILES: Yes, okay. Thank you.

In authorizing the biotechnical report or and supervising the authors, did you write or approve the statement that several apparently active owl burrows were observed on site and two individual owls were observed

along the off-site transmission line route?

DR. MOCK: I believe those locations are no longer part of the project. Those locations were near the agricultural fields that are now excluded -- the areas are excluded from the project.

You must remember that when we did the AFC, we had a much larger study area, and now that's been truncated to a smaller -- to a small area. And the owl sightings occurred in the area that has now been excluded from the project.

MS. MILES: Okay. And is that also true for the several potential American Badger burrows that you noted in the biotech report on page D-5?

DR. MOCK: That was the report of the field biologists, they deemed them potential badger burrows, yes.

MS. MILES: And did you conduct any focus surveys for badgers after those -- after those were noted?

DR. MOCK: No, we did not.

MS. MILES: And so I assume you did not use remote cameras or hair snag stations if you didn't do a focus surveys, okay, which are the recommended techniques for confirming badger presence.

There's been some controversy about the estimated number of Flat Tailed Horned Lizards. So I just have a

few questions about that.

The applicant conducted focus surveys for Flat Tailed Horned Lizards; is that correct?

DR. MOCK: Yes.

MS. MILES: And in your testimony did you call them protocol surveys?

DR. MOCK: We developed -- we implemented a protocol that was provided to us by the BLM.

MS. MILES: So it was a modification.

DR. MOCK: It was a modification.

The main modification is the size of the plot, of the plot survey. Typically it was one-hectare plot survey, is what the protocol I believe says, and the BLM requested that we increase it to four hectares, so we searched four-hectare plots.

MS. MILES: And how did you select the plots to survey?

DR. MOCK: It was a systematic. We basically overlaid a grid of I think 26-acre grid cells across the entire site, and then placed the plot in the middle of each cell, so it was basically a systematic coverage.

MS. MILES: And was it random or evenly distributed?

DR. MOCK: Evenly distributed.

MS. MILES: And how many of the plots were in

desert washes?

DR. MOCK: Desert washes don't make up that much acreage of the total. So it would be proportional to the acreage that we surveyed. We did about a 38th, or 40-percent coverage. So I would say only a handful, because the washes are fairly narrow.

MS. MILES: A handful. Okay.

So your estimate is probably five?

DR. MOCK: Washes make up 800 acres of habitat. And so whatever that proportion is, and then 40 percent of that.

MS. MILES: Can you briefly describe the prior Flat Tailed Horned Lizard survey experience of your crew?

DR. MOCK: Several of them had conducted surveys before, but all of them had been trained by the BLM prior to implementing the surveys.

MS. MILES: How many surveyors were there in total, an estimate?

DR. MOCK: I don't recall. I don't recall.

MS. MILES: Ball-park estimate?

DR. MOCK: We'd have to look it up in the report.

MS. MILES: So only several out of some number that you don't recall had prior experience.

Now, can you talk just briefly about the BLM training and how long that went on for?

DR. MOCK: That's a one- or two-day event.

MS. MILES: Okay. And that's for all of the surveys that occurred on the project site or the early surveys, the pre rare plant surveys?

DR. MOCK: I'm not sure of the question. What do you mean?

MS. MILES: I'm just asking was there a distinction in terms of the level of training provided to the surveyors in terms of the surveys that occurred before the most recent rare plant surveys effort.

DR. MOCK: You're talking about rare plants or Flat Tailed Horned Lizards?

MS. MILES: I'm assuming that the rare plant surveyors were also trained to survey for Flat Tailed Horned Lizard, or no?

DR. MOCK: I'm not --

MS. MILES: Were the rare plant surveyors trained to survey for Flat Tailed Horned Lizards in the most recent survey effort?

DR. MOCK: No, that wasn't their focus.

MS. MILES: Okay. And I do have one question.

Can you explain to me how hard it is to detect Flat Tailed Horned Lizards?

DR. MOCK: It's highly variable. That's the concern that the agencies have for this site. You have

the substrate for detecting them isn't optimal.

MS. MILES: In what way?

DR. MOCK: In terms of detecting their tracks.

In some -- certain -- under certain sandy conditions, you can actually follow their tracks to find the animal. And those conditions aren't prevalent on site. You have a significant amount of non-sandy areas that still support some ant resources, and so they may be occurring in those areas but probably at a lower density, and the substrate in those areas are difficult to detect lizards as well. And so it's a challenge for this site to find the lizards.

And then you have the confounding factor of having a sympatric species that is present too. And so you can't utilize the presence of scat to help inform you on the relative distribution of the species.

MS. MILES: And how big is the scat?

DR. MOCK: Half an inch maybe at best.

MS. MILES: How quickly were the surveyors moving through the plots?

DR. MOCK: They had a specific time. They have four hectares to cover, and there was a specific time period that they had to cover it. Most could cover the four hectares twice in the time frame that they were provided.

MS. MILES: And what was the time frame?

DR. MOCK: One hour, I believe, or half hour. I forget which.

MS. MILES: Can you give me a sense of how big four hectares is?

DR. MOCK: Ten acres, maybe.

MS. MILES: Ten acres. Okay.

And between lots, I know you have, you know, plots distributed, evenly distributed that they were searching.

When they were moving between plots, did they sometimes drive, or were they directed to like walk and look carefully for Flat Tailed Horned Lizards as they were moving between plots?

DR. MOCK: They're always looking for things when they're walking through the habitat, so undoubtedly they were trying to record everything they see, you know. And so certainly if they came upon a lizard, they would have recorded it, between the plots.

MS. MILES: Right. But if they -- I'm just thinking if they weren't specifically directed to do so, then they may have felt there was a time element involved so they'd be walking really quickly and not, you know, assuming that it was their duty to be looking.

DR. MOCK: That's not how biologists behave.

MS. MILES: Okay. They don't move quickly for time constraints?

DR. MOCK: Not -- that's not the -- that's not the time constraint we provided for them. The number of plots they needed to cover in a day was conservative, so they weren't rushed.

MS. MILES: And then what was the time of day and weather conditions during the surveys? And I -- in general.

DR. MOCK: They're specific -- part of the protocol is you could only do the survey during specific temperature conditions, and if those conditions were exceeded, then the surveys could not be considered valid.

MS. MILES: Okay. And so throughout the surveying effort, four Flat Tailed Horned Lizards were detected; is that correct?

DR. MOCK: Two on site and two along the transmission line; and then there was an anecdotal sighting on site as well.

MS. MILES: Okay. Was your crew also sampling for rare plants during the Flat Tailed Horned Lizard surveys?

DR. MOCK: No. Not simultaneously.

MS. MILES: Not in any of the Flat Tailed --

DR. MOCK: No. I mean, the surveys were done

until temperatures were exceeded, and then they would switch over to rare plant surveys.

But the more current rare plant surveys are what we're relying on in terms of our impact assessments, since those were done during much more favorable conditions at a level of effort that I think everyone agrees was substantially higher.

MS. MILES: And so you did not search the remainder of the site for Flat Tailed Horned Lizard, the additional 62 percent?

DR. MOCK: Certainly they were looking for Flat Tails when they were doing other searches for other resources, but none were detected. You know, certainly they would note the presence of scat, but as I said, scat doesn't necessarily tell us anything about the species. So the -- the notation was that scat was fairly common throughout the site, and so there's horned lizards throughout the site, but whether they're flat tailed or not, we don't know.

MS. MILES: Within their geographic range, are Flat Tailed Horned Lizard evenly distributed across the landscape, or would you consider their distribution to be patchy?

DR. MOCK: Most populations are patchy, so I would assume that that would be the same case for this

species, which is how the rangewide management plan was developed, is they tried to focus on the habitats that they perceived as having the highest densities of lizards and, therefore, for every acre of habitat that's conserved, you get the highest number of lizards also conserved.

MS. MILES: With your sampling scheme, is it possible that you missed patches of high density Flat-Tailed Horned Lizard on the project site?

DR. MOCK: Well, given with the systematic survey, you know, there's always the randomness function, but we covered the site evenly without bias, and so it's probably an unbiased sample of what we searched. We weren't focusing on any one specific habitat type per se, but it was an even distribution without bias.

MS. MILES: According to the AFC, no other focus surveys were conducted for the project site. Is that true?

DR. MOCK: Other than --

MS. MILES: Flat Tailed Horned Lizard.

DR. MOCK: That was all that was requested of us.

MS. MILES: Okay. So no focused bird surveys were conducted?

DR. MOCK: No.

MS. MILES: Would you agree with the California

Department of Fish & Game species account that says that general foraging strategies is to soar 30 to 90 meters or up to 297 feet above ground in search of prey?

DR. MOCK: That seems like a reasonable expectation, yes.

MS. MILES: And so would you say that perhaps surveyors who were scanning the ground for Flat Tailed Horned Lizard scat might not be able to also detect eagles soaring a hundred to 300 feet in the air?

DR. MOCK: No. But eagles are pretty big, they're hard to miss, and all raptors are of interest to the surveyors, because in general we consider raptors an apex species, and therefore, they're of concern.

But the expectation of missing a Golden Eagle passing by the site is totally proportional to the number of hours where we spent on site, and we had substantial presence on site. So if an eagle -- eagles made regular visits to the site, we probably would have detected them.

MS. MILES: Regarding the mitigation proposal for habitat enhancement at Carrizo and marsh that the applicant has submitted, on California State Parks land, who at the Fish & Wildlife Service has concluded that this proposal would sufficiently offset the project's impacts to big horn sheep foraging habitat?

DR. MOCK: I believe Guy Wagner is the person

who's taking the lead on that issue in terms of big horn sheep assessment and writing the BO, so probably Guy.

MS. MILES: Okay. And has the applicant provided Fish & Wildlife Service a specific proposal for the proposed enhancement for this Carrizo Creek and marsh?

DR. MOCK: I'm not directly involved in that, developing that plan, so I'd have to defer to Mr. Fitzgerald to answer that question.

MS. MILES: Okay. So that's a question for Mr. Fitzgerald.

Well, then so you may not know the answer to this question either, but I'll ask just in case.

How much of Carrizo Creek and marsh do you propose to enhance?

DR. MOCK: I think our -- if I remember correctly, it's something on the order of 247 acres.

MS. MILES: Okay. And are these lands conserved already because they're state park lands?

DR. MOCK: Yes.

MS. MILES: Now, I do note in your testimony that you said the applicant's proposing to conduct habitat -- oh, wait, sorry -- the U.S. Fish & Wildlife Service concurs that conservation or enhancement of 247 acres; so we were wondering what the conservation referred to.

DR. MOCK: Well, I think -- I was -- when I was

thinking about that, I was thinking in addition to Carrizo we had other habitat mitigation measures being implemented that would also benefit big horn sheep. So lands that might be acquired that might be used by big horn sheep would also benefit the big horn sheep.

MS. MILES: How did you conclude that the project will impact 247 acres of marginal foraging habitat for big horn sheep?

DR. MOCK: It's a straight calculation of 28 percent of 881 acres.

MS. MILES: Can you discuss were there any other methods that you used to evaluate the amount and quality of big horn sheep foraging habitat for the project site?

DR. MOCK: That was pretty much it. Utilizing the CRAM results and applying it to the amount of acreage deemed potential foraging habitat.

MS. MILES: Would you recommend any site verification before you would, you know, actually say that that's going to be adequate mitigation?

DR. MOCK: I'm sorry, I don't understand the question.

MS. MILES: I mean, would you recommend to the applicant that they should do on-site verification that that's actually going to be an appropriate mitigation number for impacts to big horn sheep?

DR. MOCK: I'm not --

MS. MILES: That 28 percent is actually -- you don't think you need to do any on-site verification, you're willing to just assume that --

DR. MOCK: On site --

MS. MILES: -- assume that -- I'm sorry, you're willing to take the CRAM modeling percentage and say that that is adequate evidence to show what is going to be mitigation?

DR. MOCK: Well, the data came from the site. And the effort to get that percent, it was pretty extensive, something on the order of 80 plots were made to estimate that. So it was a pretty substantial effort.

MS. MILES: So you believe there is no additional effort that would be necessary in order to estimate the mitigation required for the site?

DR. MOCK: I don't think so.

MS. MILES: No additional site verification with specific -- you know, for Peninsular Big Horn Sheep habitat?

DR. MOCK: I don't think so.

HEARING OFFICER RENAUD: Ms. Miles, most of your questions are, what, about the methodologies used by Dr. Mock. And I take it -- I mean, I'm having trouble with what the relevance of that is to this proceeding

unless CURE intends to offer into evidence at some point, A, that different methodologies were used by someone else, and B, that the results differed. Do you intend to offer evidence about that?

I'm sure your witness will tell us that other methodologies would have been better, but that really doesn't have much meaning to us unless we also hear that someone used those methodologies and achieved different results.

MS. MILES: Well, I thought that if we could show that the protocol surveys, for example, are dramatically different than the methodologies used, or the methodologies used are not likely to result in detection of species or an adequate estimate of population on the project site, then that would be providing evidence that there is not actually substantial evidence to support the applicant's conclusions.

HEARING OFFICER RENAUD: Well, I still --

MS. MILES: I'm willing to take your -- just as a suggestion to not go into great detail more on methodology.

HEARING OFFICER RENAUD: Yes, I think you understand my perspective on that.

MS. MILES: Yes.

HEARING OFFICER RENAUD: Thank you.

MS. MILES: Something that's come up a number of times is questions about a translocation clearance plan for Flat Tailed Horned Lizard. Will the applicant be preparing such a plan?

DR. MOCK: It's no longer considered a translocation plan; it's considered an avoidance minimization plan. Basically construction-monitoring protocol of trying to minimize mortality, direct mortality of lizards during implementation of the project.

MS. MILES: So if you see a lizard on the project site, what would your response be?

DR. MOCK: We would capture and move it out of harm's way, but it would be relocated to a nearby undisturbed habitat nearby.

MS. MILES: Off the project site?

DR. MOCK: No, on site.

MS. MILES: So would it potentially be an area that would be subject to disturbance shortly thereafter?

DR. MOCK: Well, the goal would be to minimize that occurrence.

MS. MILES: How would you propose to do that?

DR. MOCK: The idea is we don't want to -- since we're doing a before and after impact study, we don't want to skew that result by reducing the population on site unduly because that would make our before data pretty much

irrelevant.

And so the relocation of the -- the movement of the animal out of harm's way would be into an undisturbed patch of habitat nearby, but the nearby is still on site.

MS. MILES: And would you -- do you have an idea of where areas of habitat are going to remain undisturbed, or are you going to preferentially select for those areas?

DR. MOCK: The goal would be to place them into a patch of habitat that would not be disturbed and still support the food resources that they rely on. And so a patch of habitat that has an ant mound nearby would be where we would place the animal.

And the preference would be, it would be in an area that is far enough way from ongoing construction activity that it's not likely to go back into the construction area.

MS. MILES: Could maintaining gene flow be important to the long-term viability of the Flat Tailed Horned Lizard population?

DR. MOCK: That's a basic tenet of conservation biology, yes.

MS. MILES: And would elimination of connectivity between reserves also eliminate gene flow between those reserves?

DR. MOCK: Yes, but it could be mitigated for.

MS. MILES: Would loss of connectivity and gene flow be a substantial adverse effect on Flat Tailed Horned Lizard?

DR. MOCK: Say -- please repeat the question.

MS. MILES: Sure.

Would loss of connectivity and gene flow be a substantial adverse effect on Flat Tailed Horned Lizard?

DR. MOCK: Connectivity and gene flow aren't necessarily the same. I mean, you can -- as I said, you can mitigate for gene flow, but you may not be able to mitigate for connectivity.

MS. MILES: So you would say that loss of connectivity would be a substantial adverse effect for the Flat Tailed Horned Lizard?

DR. MOCK: If it was actually occurring, yes.

MS. MILES: And it would be unmitigable?

DR. MOCK: Only to the effect that you have no alternative routes for them to move, true.

MS. MILES: Do you agree with the statement on page 29 of applicant's Exhibit 11, which is the supplement cumulative impact analysis, that not only would the proposed project directly remove habitat, but it would further fragment habitat outside of the management areas?

HEARING OFFICER RENAUD: Sorry. What page?

MS. MILES: Page 29 of applicant's Exhibit 11,

which is the supplemental cumulative impact analysis.

DR. MOCK: Given the site and our concern that it's already a fragmented habitat, that contributing to further habitat fragmentation is limited to whatever is within that fragment that we're working in.

And so you have the railroad and the highways surrounding the site. And so the fragmentation is confined to those -- to the area within those linear infrastructure project areas as well as the factory next door. So it's a somewhat semi-isolated site already, and so the fragmentation is internal to those linear structures.

The amount of animal movement into and out of those areas is more likely occurring to the north than to the south, and so it's a matter of whether this is already -- you already have some movement going on or not, and what its relative functionality is, which is diminished by the existing structures that are surrounding the project.

MS. MILES: So I think that's a yes?

DR. MOCK: No, I don't think it's --

MS. MILES: It's not a yes?

DR. MOCK: It was not intended to be a yes, no. It was a caveated no.

MS. MILES: Okay. Do you agree with the

statement on page 32 of the same document that the proposed project lies within a corridor between the Yuha Desert and West Mesa management areas and that the Flat Tailed Horned Lizard management strategy highlighted this as an important movement corridor to maintain genetic movement between the Flat Tailed Horned Lizard populations?

DR. MOCK: I don't believe the site functions substantially as a corridor movement area. The most likely that movement function is west of the site, associated with Coyote Wash.

MS. MILES: So there's also a statement on page 30 of the same document, the proposed project would fragment an additional 6153 acres of potential Flat Tailed Horned Lizard habitat between I-8 and Evan Hughes Highway. This would further restrict movement within the corridor and make it less likely for the exchange of genetic material between the two MAs.

DR. MOCK: We haven't established that there's movement through the site. We have the potential for movement is, as I said before, is mostly to the north, and so there's potential for animals to exchange between the site and habitat to the north. Certainly there's some potential for occupation in the areas to the east between the site --

MS. MILES: Wait. Just -- I need to stop you.

You mentioned that you had established that. What was the data that you used to establish that?

DR. MOCK: We evaluated the trestles, the under-road crossings of the washes, and deemed most of the trestle bridges that cross on the north side are accessible and, therefore, animals can move underneath Evan Hughes Highway and the railroad. And so the expectation is that those structures are more filters than barriers.

MS. MILES: So there's no additional data that you have on wildlife movement, just assumptions on the site -- current site format framework?

DR. MOCK: Well, you have animals on both sides of those structures, and so presumably there's a potential for them to move back and forth underneath at those specific focal points where they can get under the highways and the railroads.

MS. MILES: Do Flat Tailed Horned Lizards cross I-8, in your best scientific opinion?

DR. MOCK: I'm sure they occasionally do, but how successful that crossing is is going to be problematic and the successful crossing is going to be a rare event, I believe.

MS. MILES: Are rare events important to the

maintenance of long-term viability of a population?

DR. MOCK: Not to the degree that we want to rely on, no. I think the focus on movement for the flat tailed should be focused on areas that -- where we expect the Flat Tails can actually successfully traverse more often than not rather than in a rare event.

MS. MILES: Okay. I know you rely on the Flat Tailed Horned Lizard management areas as the preserves that will maintain the long-term viability of the population. Have you evaluated whether there are barriers and problems within those corridors, whether they -- not corridors, I'm sorry -- within those management areas. Have you evaluated whether there's disturbance matrices within those management areas?

DR. MOCK: Not specifically, no.

MS. MILES: How much of the project site will be conducive to Flat Tailed Horned Lizard movement during construction?

DR. MOCK: Something on the order of 200 acres of washes are being excluded from the project, so the only impediments to movement would be when the roads are installed, primarily we're using the soil tack. So those would be the main focal points for movement during construction.

MS. MILES: And for operation, the same answer?

DR. MOCK: Especially for operations, yes.

MS. MILES: Are Flat Tailed Horned Lizards subject to an adverse edge effect?

DR. MOCK: There's been at least one study that I know of where they looked at relative abundance of the Flat Tailed Horned Lizards relative to certain roads, and they found an edge effect associated with roads.

MS. MILES: In your main rebuttal testimony you indicated that you were sponsoring Exhibit 41, which you stated was developed using Mr. Cashen's 450 meter edge buffer around existing designated roads.

Are you suggesting that Mr. Cashen came up with the 450 meter number?

DR. MOCK: He provided it in his testimony, so we were just trying to make a similar point that edge effects are on going on the site already due to the active use of the washes by the off-road vehicles.

MS. MILES: Okay. Because in Applicant's Exhibit 11, the 450 number was stated that in addition to habitat removal and fragmentation, Young & Young observed that there's a clear negative impact on Flat Tailed Horned Lizard up to at least 450 meters from the edge of the development.

So with respect to that figure submitted as Applicant's Exhibit 41, your rebuttal testimony is that

the figure shows that 91 percent of the site is already edge affected now; is that correct? Do I have that correctly?

MS. FOLEY GANNON: Before we answer this question, Hearing Officer Renaud, we're discussing a lot of exhibits and testimony that we provided in May as our opening testimony. And we've been allowing this questioning to go on, but we provided that testimony in May, and we were assuming that we were going to get cross on the testimony and the exhibits that we provided at that time.

You know, given our time constraints, I'm -- we're feeling a little frustrated, particularly because Dr. Mock submitted that testimony, he looked at it, he prepared it at that time. He does not have that right here at his fingertips, and so I'm not sure how meaningful this is.

MS. MILES: Well, I'm sorry, but I didn't hear from him that he doesn't have it at his fingertips or that he can't remember it; and so perhaps if he had stated that, then that might be a serious concern.

But I do believe that this morning we went over a lot of issues that we also went over in the May hearings where you asked him the same questions, and so --

MS. FOLEY GANNON: I'm just saying we were

expecting that there would be cross on our testimony at that time, and to spend, you know, hours doing it now I think is problematic.

MS. MILES: Well, doing it --

MS. FOLEY GANNON: We're just raising the issue.

HEARING OFFICER RENAUD: You know, this -- the document, Exhibit 11 was submitted well in advance of the May hearing, and we did make -- Dr. Mock was available at the May hearing. And we expected the parties to be prepared to present their materials and to cross-examine on the materials that were then available. And I think we had a pretty clear understanding of that on the record at the May hearing.

Now, on the other hand, I'm struggling with the fact that there may be material in Exhibit 11 which differs with what Dr. Mock just said today, and to the extent that that's the case --

MS. FOLEY GANNON: Absolutely --

HEARING OFFICER RENAUD: -- I think it's legitimate to bring that up and explore it.

So all I can ask is that parties be, and Ms. Miles particularly, be mindful of the time estimates you gave us of the amount of time we have, and do try to avoid going over material that you already went over or should have gone over in May.

MS. MILES: Okay.

HEARING OFFICER RENAUD: Thank you.

MS. FOLEY GANNON: Thank you.

MS. MILES: Okay. So I'm just going to ask a few more questions relating to the edge effect.

What is the effect that edges have on Flat Tailed Horned Lizards?

DR. MOCK: Well, I mean, when you study edge effects, it's primarily presence/absence of the species or their relative abundance. And potentially, if you can actually watch their behavior, they that I have modified behaviors in edge habitat relative to non-edge habitat.

The site is edge affected, you know, it's surrounded by infrastructure. You have a factory right next door, you have the ongoing chronic off-road vehicle activity that you can deem edge because they're limited to mostly the designated routes, but unfortunately they aggregate those routes and non-authorized routes are used as well. So it's a substantial effect on the property.

MS. MILES: Mr. Cashen's testimony referenced the Young and Young and Barrows studies which concluded that the impact -- the edge impact is mainly due to increased predator density near human activity.

Have you reviewed that, and do you agree with that conclusion?

DR. MOCK: That would be difficult to document as being a correct conclusion. You'd have to demonstrate that the predators were of higher density in the edge habitat. And many of the predators for the Flat Tails have much larger home ranges than a 450 meter edge would allow for. So I think that would be difficult to prove substantially.

MS. MILES: Do the studies conclude the edge effects were associated with increased predation, do you know?

DR. MOCK: Typically edge effects are just showing presence/absence or a reduced abundance or usage of the habitat in the edge relative to their non-edge habitat comparison. But undoubtedly, if there's structures that support, allow predators to perch, you know, if it's a bird predator, that would provide an advantage compared to more open habitat lacking perches, certainly.

MS. MILES: Do you agree with the information presented on page 29 of Applicant's Exhibit 11 that indicates along the edge of disturbance there appears to be an increase in round tail ground squirrel density and this -- the ground squirrel is the primary predator of Flat Tailed Horned Lizard and likely is a factor in the decreased density in Flat Tailed Horned Lizard along the

edge disturbed areas?

MS. FOLEY GANNON: We did not offer any testimony on this issue today.

HEARING OFFICER RENAUD: On what issue?

MS. FOLEY GANNON: Ground squirrel abundance near edge effect. We offered actually no testimony on edge effect today at all.

HEARING OFFICER RENAUD: But there was testimony about FTHL, and I think this is about FTHL.

MS. FOLEY GANNON: Okay.

DR. MOCK: I'm not familiar with studies that demonstrate that the ground squirrels necessarily are more abundant in edge habitats, but certainly ground squirrels are considered a predator of Flat Tails, and if their abundance were to increase on the site post project, then they would be a source of predation of the Flat Tails.

MS. MILES: And do you agree with page 29 of Applicant's Exhibit 11 that said Loggerhead Shrike is a primary predator of the Flat Tailed Horned Lizard?

DR. MOCK: It is a predatory bird, it would take a Flat Tail just like almost any other small lizard that it could handle. It's a fairly small bird, so --

MS. MILES: So if you increase predators -- so if increased predators are believed to be responsible for edge effect, which you don't agree with, I know I have to

insert that -- actually, I'm just not going to ask this question since you did not agree with that.

Do you agree with the statement that says the fence around the project site would provide ideal hunting perches for Loggerhead Shrikes, a predator of the Flat Tailed Horned Lizard?

DR. MOCK: They'll perch on almost anything, so the shrubs that would remain extant would be perch sites for them as well.

MS. MILES: Okay. Are their connectivity concerns for other species besides Flat Tailed Horned Lizard?

DR. MOCK: None come to mind.

MS. MILES: In preparing the AFC or overseeing the preparation, do you recall writing in the Imperial Valley potential focal species for wildlife movement assessment could include Coyote Kit Fox and American Badger?

DR. MOCK: In terms of wildlife movement?

MS. MILES: Yes.

DR. MOCK: Well, they're known from the general project vicinity, so they could access the site currently.

MS. MILES: Did you use any of these focal species in your assessment of project impacts to wildlife movement?

DR. MOCK: No.

MS. MILES: What species did you use for your assessment of project impacts to wildlife movement?

DR. MOCK: Well, the site is semi-isolated, so we didn't consider it an important area for wildlife movement, per se; since there's large areas to the west that provide that function, we didn't consider the site important from our wildlife movement perspective on a regional scale.

MS. MILES: In your July rebuttal testimony, you state that an insignificant number of American Badgers would be adversely affected by the project.

How many badgers is an insignificant number?

DR. MOCK: One or two, I would think, if that.

Since we haven't detected them on site, I think our expectation is if they're present, there would only be a few.

MS. MILES: And is the badger protected from take?

DR. MOCK: It is not. Actually, if you look at the same trapping code that the staff has referred to for the kit fox, it's allowed to be taken as a fur-bearing animal. There's a season for trapping badger.

MS. MILES: Do Flat Tailed Horned Lizards typically occupy loose sand?

DR. MOCK: Sandy areas where they could utilize to hide when they're trying to hide from predators, they shimmy into the sand to cover themselves up, so they prefer sandy areas for that purpose. And that's where their food resources tend to congregate, is in the sandy areas as well.

MS. MILES: Can a badger dig a burrow in loose sand?

DR. MOCK: Probably. It really depends on the -- how friable the soil is.

MS. MILES: So when you testified regarding Flat Tailed Horned Lizard mitigation lands that would provide significant benefit to badgers because they utilize similar habitat site, similar habitats, were you not considering the fact that Flat Tailed Horned Lizard like loose sand but badgers require friable soils to construction burrows?

DR. MOCK: Any different site's going to have a mosaic of habitat -- of soil -- soils. And certainly portions of the large amount of acreage that is likely to be purchased for this project is going to support soils that are probably useful to the badger from a burrowing perspective. They aren't necessarily going to be the same areas as the Flat Tail, but it's going to be on site.

MS. MILES: Your July rebuttal testimony states

that there's no suitable nesting habitat for Golden Eagles on the project site or in the project vicinity.

Can you define what you consider the project vicinity in terms of approximate miles?

DR. MOCK: Six to eight miles to the west. And there's no suitable habitat to the south, east, or north.

MS. MILES: And how far do Golden Eagles -- are Golden Eagles known to travel from their nest sites to forage?

DR. MOCK: Well, our recent experience is the assessment area that the wildlife service likes to see is ten miles. And so far we haven't had any identification of active nest sites within ten miles.

MS. MILES: Is it true that Golden Eagles nest on cliffs of all heights and in large trees?

DR. MOCK: Locally, it's mostly cliffs. You don't have too many -- I can't think of any specific instance where we've had an eagle nesting in a tree per se, but cliff sites are their preferred use, nesting site. And especially in the desert it would be north-facing cliffs.

MS. MILES: So would you say they would not nest in large trees?

DR. MOCK: They can, you know, elsewhere; but southern California, cliff nesting is the typical

situation for nesting.

MS. MILES: Do they also nest in windmills and electricity towers, transmission towers?

DR. MOCK: Yeah. I'm sure there's some examples where you can that.

MS. MILES: Are there any cliffs, large trees, windmills, or transmission towers in the project vicinity?

DR. MOCK: Well, we have the major transmission line going through the site, but there were -- no nests were identified in the segment that we evaluated.

MS. MILES: Can you discuss what surveys you did to identify or justify your conclusion that there's no Golden Eagle nesting habitat in the project vicinity?

DR. MOCK: SDG&E has contracted those surveys to be done, and the reports we have from SDG&E is that none have been detected within our -- the vicinity that we were assessing.

MS. MILES: So wait, let me get that clear.

So you were told that they contracted them to be done?

HEARING OFFICER RENAUD: Ms. Miles, does CURE intend to put on evidence at some point that there are eagles on the site or that there is eagle habitat on the site or within the vicinity?

MS. MILES: Yes.

HEARING OFFICER RENAUD: Well, please keep this brief. I mean, if you intend to do that, it would be far better to do it through affirmative testimony than through these implications or inferences you're asking us to draw.

MS. MILES: Okay.

Can you just briefly summarize your response to the U.S. Fish & Wildlife Service's survey protocol for Golden Eagles and whether you have conducted that survey protocol or contacted agencies for information that they may have on Golden Eagle nest sites in the vicinity of the project?

DR. MOCK: As I said, SDG&E has been required to survey for -- within four miles of their transmission line project. And those surveys were deemed of interest to the project, but no additional survey effort was requested for this project.

MS. MILES: Do you know how many surveys have been conducted?

DR. MOCK: I believe they -- the protocol requires two visits to the potential sites. The first visit is to identify the nest site, and the second visit is to confirm whether it's actively being used or not.

MS. MILES: So what is the status of those surveys being conducted?

DR. MOCK: The last report was that the first

survey had been conducted and the second survey was scheduled, but I have not heard back as to the results of the second survey.

MS. MILES: And you concluded that the project site provides potential foraging habitat for Golden Eagle; is that correct?

DR. MOCK: The entire project vicinity provides potential foraging habitat.

MS. MILES: And how much of the site provides potential foraging habitat for Golden Eagle?

DR. MOCK: All of it that supports vegetation.

MS. MILES: Okay. I'd like to ask a few questions about big horn sheep.

Until the five big horn sheep were observed and photographed on the project site, you've indicated that there was no evidence of big horn sheep that had been detected; is that correct?

DR. MOCK: That's correct.

MS. MILES: And had the project biologists previously been directed specifically to conduct surveys for evidence of big horn sheep?

DR. MOCK: No, they were not.

MS. MILES: And why were they not?

DR. MOCK: It was not considered a potential habitat for them at the time.

MS. MILES: Are you familiar with the cryptic nature of big horn sheep and how difficult they are to detect even by highly-skilled observers?

DR. MOCK: In the context of this site, they're not that cryptic. They were detected by a reliable observer, and so I don't believe that you would consider them cryptic per se. I mean --

MS. MILES: Okay. You have argued that the lack of radiotelemetry data is strong evidence that big horn sheep do not move through the project site or that the project site is not a movement corridor for big horn sheep. Please explain how a lack of telemetry data can be used to support that conclusion.

DR. MOCK: This population is a heavily-monitored population. The Fish & Game and other agencies spend extreme amounts of energy and effort documenting the distribution of this species as part of their management program. And so our expectation is if there is a significant movement, it would have been indicated by the animals that they have put radio tags on and have monitored through time.

But in addition to that, there's significant amount of human presence in the project vicinity to where the agencies, especially the BLM, considers the likelihood of frequent use of the general vicinity of the project

would have been detected well before 2009 if it was a significant issue.

MS. MILES: How long has radiotelemetry data been monitored of the sheep in this project area?

DR. MOCK: Oh, probably 10 or 20 years at least, I would think.

MS. MILES: And do you know, are all sheep monitored?

DR. MOCK: A select few. I mean, they try to sample, I'm sure, a few animals from each herd.

MS. MILES: And how do they monitor, how does it work, the radiotelemetry monitoring?

DR. MOCK: You'd have to ask the people who actually do that.

MS. MILES: Is it like a GPS system?

DR. MOCK: It's a radio, it would pick up the signal from using an antenna.

MS. MILES: So if you're -- in order to detect sheep movement, you can't just at any time look and see where they're moving, you have to go out and take measurements?

DR. MOCK: Well, certainly nowadays you could do that, but historically the telemetry units were radios rather than GPS satellite calls.

MS. MILES: Does the lack of contemporary

telemetry data eliminate the possibility that some big horn recently have made transitory movements through the project site even during the period that project biologists were conducting on-site investigation?

DR. MOCK: A lack of observation is -- when people are present and are knowledgeable and would have reported them if they were present, I think is telling. We spent a lot of time on the site for years and had no indication that big horn sheep were utilizing the site. So I think that's indicative of the relative use of the site.

MS. MILES: And has there been any other indication, other than the time when the sheep were photographed on the site, that sheep are using the site since you've been evaluating the project site?

DR. MOCK: Not that I know of.

MS. MILES: No further questions.

HEARING OFFICER RENAUD: Okay. Budlong?

MR. SILVER: No.

HEARING OFFICER RENAUD: All right.

MR. BUDLONG: Yeah. I have --

MR. SILVER: Oh, sorry.

HEARING OFFICER RENAUD: Mr. Budlong, do you have an estimate for us of your time?

MR. BUDLONG: A few minutes. That's all.

HEARING OFFICER RENAUD: All right. Go ahead.

CROSS-EXAMINATION

MR. BUDLONG: My curiosity is with respect to the rehab of Carrizo Creek that you've proposed as compensation for the 247 acres.

You're talking about 247 acres of Carrizo Creek; and I think of a creek as a linear feature and acres are area. How do you translate the length of the creek that you would take care of into acres?

DR. MOCK: It would be the acreage of Tamarisk that would be removed.

MR. BUDLONG: And the Tamarisk is along the creek?

DR. MOCK: Yes.

MR. BUDLONG: And can you translate into number of miles of the creek? Because I think you're -- see, my problem is you're limiting yourself to 247 acres, and I don't know if that's a mile of the creek or all 25 miles.

DR. MOCK: I would have to defer to Mr. Fitzgerald on those details.

MR. BUDLONG: Is there any way we can get an answer to that? That's a good question.

MR. GALLAGHER: Mr. Fitzgerald will be testifying later today.

MR. BUDLONG: Okay. Maybe we'll try him.

Now, you're limiting yourself also to five years of restoration?

DR. MOCK: That's the typical time frame for habitat restoration projects.

MR. BUDLONG: And this is Tamarisk mostly; is that correct?

DR. MOCK: Correct.

MR. BUDLONG: And Tamarisk has a good habit of resprouting and recolonizing. And my question is is five years sufficient mitigation to mitigate for loss of habitat on the project site of 40 years?

DR. MOCK: Well, certainly the -- ideally you would want to conduct the removal process and follow it up with monitoring to make sure your removal is successful and there's no reinvasion by the Tamarisk. And Tamarisk is a fast-growing tree, and so a five-year program to detect that reinfestation is probably appropriate.

MR. BUDLONG: Do you expect the Tamarisk would recolonize during the remaining 35 years?

DR. MOCK: Ideally, no.

MR. BUDLONG: Actually, practically, not ideally?

DR. MOCK: Depends on the source of the material. Evidently there was an original source that invaded the site, and it took over rather rapidly during the 70s from what I understand. And so certainly it's in the park --

it's in the state park, and so certainly that could be part of the monitoring program, that I'm sure the state park has some monitoring programs for invasive trees like Tamarisk as well.

MS. FOLEY GANNON: And, Mr. Budlong, we will have a witness this afternoon or this morning, depending on when we get to the remainder of the biology, Mike Fitzgerald, who will be speaking to the particular mitigation proposal as it was based on the mitigation for waters of the U.S.

MR. BUDLONG: Okay. I think maybe it would be more appropriate to ask him.

And I have one more question, and that is that you've mentioned a total cost of $894,000 and some change. And I'm wondering if you present that as an intended limit to the amount you've spent on it.

MS. FOLEY GANNON: Again, Dr. Mock can respond to it, he's reviewed the condition; but just for your information, those numbers were developed in connection with Mike Fitzgerald from Ecosphere related to impacts to mitigation to waters of the U.S., so it may be more appropriate for him to answer that, though Dr. Mock can give his view.

DR. MOCK: Well, certainly the estimate is reasonable.

MR. BUDLONG: I think that's the only questions I have. Thank you.

HEARING OFFICER RENAUD: Thank you.

CNPS?

CROSS-EXAMINATION

MR. BELTRAN: Early in your testimony you had talked about the behavior of Flat Tailed Horned Lizards and how they have a tendency to hunker down. This was in the description -- this was in the discussion of changing the maximum vehicle speed on stabilized roads.

You said that it wouldn't make a difference in the Flat Tailed Horned Lizard mortality on stabilized roads because of this behavior.

Did you consider -- did you consider the other half of the equation, and that's the drivers of the vehicles?

DR. MOCK: Given the cryptic nature of the Flat Tails, them seeing a Flat Tail from their vehicle would be problematic, and they won't even realize that they've run over a lizard until after the fact, if that.

The concern was that going slower would allow the lizard to move out of the way prior to the passing by of the vehicle, and we just don't believe that's likely to happen.

MR. BELTRAN: Well, I wasn't suggesting that the

lizard move out of the way, I was suggesting that the drivers detect the lizards and avoid them. But you answered my question.

DR. MOCK: They're too cryptic to rely on the vehicle drivers to identify the lizards.

MR. BELTRAN: So you considered it and discounted it?

DR. MOCK: Yes, correct.

MR. BELTRAN: Okay. Thank you.

You said that you had not analyzed the movement of Flat-Tailed Horned Lizard through the site, and yet you said that this was one of the types of behaviors or activity that could not be mitigated.

Are you suggesting that not having studied the movements that the analysis is incomplete?

DR. MOCK: I'm not sure I understand the question.

We have an existing population on site, and it's surrounded by these rather significant barriers to movement, or at least filters to movement. The northern side of the project, there's more opportunities for animals to come onto and off the site and on the southern side. And so the relative movement onto and off the site is biased toward the north.

MR. BELTRAN: Well, it wasn't clear how they

would move onto or off the site since the northern part of the project is bounded by the railroad tracks and the Evan Hughes Highway, and the southern part is bounded by the -- by Interstate 8.

DR. MOCK: Correct.

MR. BELTRAN: Both of them have culverts underneath.

DR. MOCK: No. The northern side, the Evan Hughes Highway and the railroad have trestle bridges which are substantial structures that have natural sandy bottoms which lizards can pass through; while the vast majority of the culverts on I-8 are more, you know, pipes and box culverts. And due to the erosive nature of the water flow coming -- going through, all the water's flowing from the south to the north for the most part, you have this erosive condition where you have a perched culvert, which the lizard can't access the culvert in all but one exception.

MR. BELTRAN: But in the applicant's documents, when discussing hydrology, it talked about these culverts in Interstate 8 as being a site where sand is deposited because of the restrictions, the restricted flow created by the culverts. Are you suggesting that these culverts don't have sandy bottoms?

DR. MOCK: They can't -- the lizards cannot

access the culvert entrance because the bottom of the culvert is here and the -- and they'd have to basically go up a shear wall to get to the culvert in most instances.

There's only one -- there was only one box culvert where there was -- we didn't have this perched condition that the lizards could actually access the culverts.

MR. BELTRAN: But there's at least one culvert where they could access.

DR. MOCK: Correct.

MR. BELTRAN: Okay. There's been discussion earlier in the hearings, I don't know if you were here for it, but they talked about the Wind Zero project, which is going to be more or less adjacent to this project site.

And if I understood correctly, windmills would be nesting sites for predatory birds?

DR. MOCK: Not if it's the more modern type of wind structures, which are monopoles.

MR. BELTRAN: But you don't --

DR. MOCK: I don't have any specific examples of birds nesting on monopole structures.

MR. BELTRAN: So you didn't investigate the structures of potential project sites.

DR. MOCK: Of the wind?

MR. BELTRAN: Yes.

DR. MOCK: No.

MR. BELTRAN: So you don't know whether this adjacent project site would increase birds because of increased nesting sites?

DR. MOCK: If they would have used lattice structures to hold their wind turbines, then that would be a potential.

MR. BELTRAN: But you don't know.

DR. MOCK: I don't know.

MR. BELTRAN: Okay. Thank you.

HEARING OFFICER RENAUD: All right.

Any redirect?

MS. FOLEY GANNON: Just three questions.

REDIRECT EXAMINATION

MS. FOLEY GANNON: First off, Dr. Mock, I understand that you were recently told by Teresa Miller from your organization received some information regarding the eagle surveys conducted by SDG&E. Do you recall a conversation about those results?

DR. MOCK: Yes.

MS. FOLEY GANNON: Can you tell us what you were told regarding the SDG&E eagle survey results?

DR. MOCK: That they had not detected any eagle nest sites within our area of interest.

MS. FOLEY GANNON: And do you understand that

there were two surveys conducted?

DR. MOCK: I believe their two surveys were planned to be conducted, but whether they're complete, I do not know.

MS. FOLEY GANNON: Thank you.

And then with regards to the Tamarisk control that's proposed as mitigation, again, we will be getting into this later this afternoon, but there was a question about whether long-term management may be needed.

Have you read the proposed revised condition, Bio 17?

DR. MOCK: Yes, I have.

MS. FOLEY GANNON: Does that -- is the applicant proposing to provide some funding for long-term management of these areas?

DR. MOCK: Yes, they are.

MS. FOLEY GANNON: Thank you.

With regards to the one culvert that you say could potentially be passable by lizards, do you know what wash that culvert is connected to?

DR. MOCK: Wash C, I believe.

MS. FOLEY GANNON: Do you know is Wash C avoided with the proposed LEDPA or the 790 megawatts alternative?

DR. MOCK: Yes, it is.

MS. FOLEY GANNON: Thank you.

HEARING OFFICER RENAUD: All right.

Is there any recross?

MS. MILES: I have one question.

HEARING OFFICER RENAUD: All right. Go ahead.

RECROSS-EXAMINATION

MS. MILES: It's related to the perched culverts.

I had a conversation with Daniel Steward at BLM where he had said that the -- which culverts are perched might change based on whether sediment is washed off of the site during storm events. And I wanted to know if you might agree with that statement.

DR. MOCK: I suspect it would totally depend on the frequency of major storm events. When you have a major storm event, you will have a perched condition.

MS. MILES: Or may possibly an unperched condition.

DR. MOCK: No. Because the freeway -- the interstate freeway, I-8, acts as a barrier to sand transport north to south, and so you have basically sediment-free water coming through the system, and sediment-free water will cause erosion rather than deposition.

MS. MILES: Okay. No further questions.

HEARING OFFICER RENAUD: Okay. Thank you.

Let's see. I think we decided to do animals.

So is that your animal witness, or do you have another animal witness?

MS. FOLEY GANNON: That's my only animal.

HEARING OFFICER RENAUD: Okay. So, staff, do you have an animal witness?

MS. HAMMOND: We have several.

HEARING OFFICER RENAUD: Okay. We want to break -- we want to take a lunch break from roughly noon to 1:00. Would it make sense to do that, start that now, or do you have something short you could put on for ten minutes?

MS. HAMMOND: I have a couple of housekeeping matters to raise.

HEARING OFFICER RENAUD: Let's try that.

MS. HAMMOND: And I'd like to do so now, if that's all right.

HEARING OFFICER RENAUD: Fine.

MS. HAMMOND: We have here in the audience staff's witnesses sponsoring biological resources testimony. We also have on the phone several representatives from the Department of Fish & Game, the U.S. Fish & Wildlife Service, and the Bureau of Land Management. And they will speak, some of those persons will speak to staff's analysis and the staff assessment; others will address the compensatory mitigation table that

was submitted as part of staff's rebuttal and errata.

I would like to make clear that only staff's witnesses, Rick York here and Joy Nishida will be sworn in. According to these other agencies' internal guidelines and for internal reasons they will not be sworn. They're happy to answer questions from the committee. They will be responding mostly to coordination.

HEARING OFFICER RENAUD: We're familiar with that. That's fine.

MS. HAMMOND: That's pretty standard.

HEARING OFFICER RENAUD: No problem.

MS. FOLEY GANNON: Will we be able to ask any questions? I understood they won't be under sworn --

MS. HAMMOND: They will not be sworn.

MS. FOLEY GANNON: But we will be able to ask questions of the panel?

MS. HAMMOND: I think that's fine.

HEARING OFFICER RENAUD: Yes, sure.

MS. FOLEY GANNON: Thank you.

MS. HAMMOND: I would like to make crystal clear that yet again that staff has not reviewed the draft LEDPA and its analysis is not based in any way on the draft LEDPA. So the testimony that it offers now is based on the evidence that was submitted to date before that

testimony was prepared. If the committee would like staff to review the draft LEDPA, and, again, it's in draft form, my conversation with the Army Corps of Engineers' representative who is reviewing the draft LEDPA is that the final LEDPA can change from its current form when it's finally approved. But if the committee would like staff to review the draft LEDPA, it's -- it can do so. It will require time.

HEARING OFFICER RENAUD: Well, I don't know if it's a "like" issue; I mean, it seems to me staff has to review the draft LEDPA, right?

MS. HAMMOND: Okay.

MS. FOLEY GANNON: We believe that that's an issue that should be briefed. We believe that in view -- look in the alternative section, and we will discuss this during the alternatives, there is a recognition that the LEDPA was likely to be something between these alternatives; and again, we would be prepared to brief in issue, assuming that the analysis is sufficient in this document and that we could ask the committee and the commission to approve the LEDPA that's been identified based on the analysis that's in this document. And we hope to flesh that out in each one of these expert areas about the potential differences.

HEARING OFFICER RENAUD: All right. Well, what

I'm trying to avoid is having time spent on testimony that will later be made irrelevant, useless due to the LEDPA.

MS. HAMMOND: We agree.

HEARING OFFICER RENAUD: And so let's not do that. Let's avoid having a series of questions and answers which are premised on later review of the LEDPA. I mean, I don't think that would be productive.

MS. HOLMES: I think that's a very good idea, however, I would also point out that I'm not sure that this is an issue that can be briefed, because ultimately it becomes a question of fact.

When we see the final LEDPA, then we will know what it is and we will at that point be able to ascertain whether there are differences that result in impacts that we haven't identified or different types of mitigation measures. It's not a legal issue, it will be a factual issue, and it's not one that we can really address until we see the final LEDPA.

HEARING OFFICER RENAUD: I think we've heard yesterday that the Drainage Avoidance 1, I believe, the 709 --

MS. FOLEY GANNON: The 709 is what we have presented to the corps as the LEDPA and the corps has included in their own document as a preliminary LEDPA.

HEARING OFFICER RENAUD: So, you know, it might

be safe to assume that that appears to be more likely than any other become the LEDPA.

What kind of time investment are we talking about for staff?

MS. HOLMES: Are you asking staff to look at the draft LEDPA or the final LEDPA?

HEARING OFFICER RENAUD: Well, I think that we're talking about is that we have a pretty good indication of what aspect of the draft is likely to become the final, which is the 709 alternative.

MS. HAMMOND: I think it's fair to say that the final could differ from what is proposed in the draft, and I'm only repeating what I have heard from the U.S. Army Corps of Engineers.

HEARING OFFICER RENAUD: Well, you know, at some point we're going to have to close the record and issue a PMPD. And it might be that at some point we'll just have to do that and use the evidence that's before us. And if there's -- you know, if -- a staff LEDPA analysis would be nice, but isn't essential, you know, so be it.

Yes, Mr. Meyer.

MR. MEYER: Would the committee like staff to review the preliminary -- the draft LEDPA, make comments on that as to how to get it to resolve the issues in any environmental impacts we've identified in our

recommendation and try to get them in line?

HEARING OFFICER RENAUD: What's the timing on that, what kind of timing are you looking at?

MR. MEYER: That's something that I will have to work with management in the signing off as to find out how it works with other priorities; but, you know, it would be something we would definitely do as quickly as possible.

MS. FOLEY GANNON: Can we respond to that?

HEARING OFFICER RENAUD: Sure.

MS. FOLEY GANNON: Two points. One is first off, yesterday in Mr. Gallagher's testimony we asked -- we have asked for the committee and the commission to consider the 709 as what we're asking for authorization to proceed. We believe that you have the absolute legal authority to look at that, to approve it, and as you pointed out, Hearing Officer Renaud, if there is something different that we have to come back to later, we can do that. We also believe it's normal course of practice that somebody goes first. And oftentimes the corps goes last.

So oftentimes -- but, you know, the impacts can't get greater, because we have concurred that a 709 is practical. So it cannot possibly get greater than 709.

So you have looked at the worst-case scenario and in the staff's analysis, they've analyzed 750. You have the benefit of being able to know what their view is about

750. You also have the benefit of knowing what their view is about Drainage Avoidance 1.

709 falls in between this. What we're hoping to be able to tease out, what we thought we were able to do yesterday with the water, what we hope to be able to do with the other substantive sections today is to talk about are there differences in what we are proposing in the 709, does it make a difference, is there something that you need to consider.

We would have loved to have been able to have staff look at this. We thought staff was looking at it, and we're very disappointed, but we're here. We think we can move forward, and we hope not to have to waste time with this.

HEARING OFFICER RENAUD: All right.

You know, let me ask this of Ms. Holmes or Ms. Hammond.

Is this something that you would propose we would then take up at the August 16th session when we're doing cultural? If staff did this review.

MS. HOLMES: I would be surprised if there's -- Terry, I'll let the client speak.

HEARING OFFICER RENAUD: Mr. O'Brien.

MR. O'BRIEN: Yes, couple of comments.

First of all, from staff's point of view, we

don't want to have issues concerning the LEDPA delay the review of this project, number one.

Number two, we'll do what it takes to facilitate our review in such a manner as to move the schedule forward as quickly as we can.

And number three, we will respond to any directive from the committee regarding what you want staff to do.

I would say that in terms of the question regarding the August 6th hearing, it would probably be beneficial for the U.S. Army corps to participate, at least by phone, like some of the other federal agencies are doing today, on the biological issues so the committee could ask some questions.

Clearly, to the extent that there are differences between the LEDPA and the project that staff has analyzed, we want to resolve those differences and be able to move forward.

So, as I said, you know, if the committee has some directive for staff in terms of something you want us to do, we will endeavor to do that as quickly as possible. Obviously this project, along with several of the other ARRA projects we're currently working, on has the highest priority.

HEARING OFFICER RENAUD: My sense is that we

don't need staff to do that work. It would be nice, you know, we always like all the information and perspective we can get, but I don't think it would be needed for us to issue a defensible decision. That's my initial take on it without having, you know, done any legal research about that. But my sense is that it's probably something that could be considered an optional nicety but not a legal necessity. But if any of you care to differ or enlighten me, I'm more than open to that.

You asked a question, which was do we want you to do that. It doesn't sound to me like we really need the additional layer of review; there's going to be plenty of review.

Anybody? No?

MS. HAMMOND: No comments.

HEARING OFFICER RENAUD: You got your answer.

MS. HAMMOND: Thank you.

HEARING OFFICER RENAUD: Good.

MS. HAMMOND: There's one more thing I'd like to address, if I may.

HEARING OFFICER RENAUD: Please.

MS. HAMMOND: And that is that we have received exhibits that reflect the applicant's changes to biological conditions, Bios 10, 17, and 19.

HEARING OFFICER RENAUD: Right.

MS. HAMMOND: And I wanted to let the parties and the committee know that these conditions -- well, the conditions that staff has presented in its testimony are the result of an extraordinary effort by staff members from at least four agencies, those are state agencies and federal agencies as well as the Renewable Energy Action Team members. So changes to these conditions would require consultation with staff from those other agencies.

So, again, any changes to these conditions would have to be vetted with our sister agencies, and that will take time.

There is also, I think, a desire expressed by the client for consistency in the conditions among the --

HEARING OFFICER RENAUD: The various cases.

MS. HAMMOND: -- ARRA eligible cases.

HEARING OFFICER RENAUD: Right, yeah. No, I understand that, we are looking for the consistency, and we're certainly in the hearing office and among the committee working to make sure that there is the necessary consistency.

However, when I see proposed conditions coming out from staff and the applicant takes the time to go through those thoroughly and provide markups, to me that's an invitation for discussion. And I would really encourage that you establish some sort of a forum, whether

it be a workshop or whatever, to try and have some give and take on those and get those other agencies there. It's going to happen a lot quicker if you can do it face to face than if it's an exchange of documents back and forth.

MS. HAMMOND: We agree, a workshop would be an appropriate forum.

MS. FOLEY GANNON: And we would welcome the opportunity as well.

HEARING OFFICER RENAUD: All right. Well, I think then that it's a good time -- if you're done with housekeeping, Ms. Hammond, is that it?

MS. HAMMOND: I am, thank you.

HEARING OFFICER RENAUD: Okay. Thank you.

Let's take a lunch break. Why don't we come back at 1:15.

(Lunch recess.)

MS. HAMMOND: Staff has overlooked a need to submit the statement of qualifications of witnesses for or representatives from Fish & Game and the Service, and if parties are willing to stipulate to the qualifications of these persons, then we can forego the need to go through an oral process.

COMMISSIONER BYRON: Ms. Hammond, I'm going to beg your indulgence for two reasons. One, I just want to

check on our friends in El Centro to see if they're with us.

HEARING OFFICER RENAUD: Anyone there in El Centro?

MR. STEWARD: Yeah, I'm here. Daniel Steward.

COMMISSIONER BYRON: Thank you. Just checking communications.

And, Ms. Hammond, pull that microphone much closer.

Thank you.

MR. STOBAUGH: And this is Jim Stobaugh with BLM in Reno.

HEARING OFFICER RENAUD: Thank you.

And, Ms. Jennings, are you there?

Jennifer Jennings?

MS. HAMMOND: Some of the other representatives would be Magdalena Rodriguez, Felicia Sirchia, Daniel Steward, Amy Fesnock.

Are they on the phone?

MS. SIRCHIA: I'm here. This is Felicia.

MS. RODRIGUEZ: Magdalena Rodriguez is here.

MS. FESNOCK: Amy Fesnock is here.

HEARING OFFICER RENAUD: All right.

Is there someone else?

Oh, Jim Stobaugh's here.

MS. HAMMOND: Daniel Steward?

HEARING OFFICER RENAUD: I think he said -- Daniel Steward, are you there?

MR. STEWARD: I'm here.

HEARING OFFICER RENAUD: Good.

MS. HAMMOND: Great. So if parties are willing to stipulate to the qualifications of these persons, we can forego an oral run-through of their qualifications.

MS. FOLEY GANNON: And the applicant so stipulates.

MS. MILES: We will stipulate.

HEARING OFFICER RENAUD: Other parties? Yes?

All right. Very good. That takes care of that.

MS. HAMMOND: Thank you.

The next housekeeping item would be to just make clear that staff has likewise not submitted testimony on applicant's proposal to phase in the payment of mitigation.

HEARING OFFICER RENAUD: Phase in what kind of mitigation?

MS. HAMMOND: The payment of mitigation monies.

HEARING OFFICER RENAUD: Okay.

MS. HAMMOND: I just wanted to make that clear.

I'd also like to request -- and I have some --

HEARING OFFICER RENAUD: I'm not sure what I'm

supposed to make of that, but, I mean, we're taking testimony and evidence in this proceeding, and whatever you submitted, is what's going to be in the record. If there's something you're not submitting, it's not going to be in the record. I'm not sure what more to make of your statement than that.

Is there something else you want me to draw from what you just said?

MS. HAMMOND: No.

HEARING OFFICER RENAUD: Okay. Thank you.

MS. HAMMOND: I guess along those lines, applicant, staff, and the other parties have talked about a workshop to discuss the proposed conditions of certification, phasing of payment of the mitigation monies, and probably other matters. I'm guessing worker safety and fire protection, among others.

HEARING OFFICER RENAUD: We want --

MS. FOLEY GANNON: But those are all in the conditions of certification.

MS. HAMMOND: Right.

MS. FOLEY GANNON: Right.

HEARING OFFICER RENAUD: We want you to do that. The committee highly approves of this. Would you like to set a date and time, and we can announce it now? Have you figured that out, or do you need -- at some point in the

proceedings if you do come to agreement on a date and time, we'll announce it and get the notice period running.

MS. HAMMOND: Well, I guess the regulations require ten days. If we can notice it tomorrow, it would be ten days from --

HEARING OFFICER RENAUD: We can announce it today, and that's notice.

MS. FOLEY GANNON: If it's a committee-sponsored workshop, we could notice that today, right?

HEARING OFFICER RENAUD: Yes, that's right.

MS. HAMMOND: Would the committee issue that notice?

HEARING OFFICER RENAUD: We would -- I would issue it right here with my voice.

MS. FOLEY GANNON: I think we do it in the hearing right now.

MS. HAMMOND: Okay.

MS. HOLMES: If you're going to not file it, you can also make it less than ten days, but I don't know whether or not -- in other words, you have the right to issue any order, you don't have to file it, you don't have to comply with the ten-day requirement if you so choose as the committee to do that.

HEARING OFFICER RENAUD: Because we --

MS. HOLMES: I think that probably we should at

some break talk about and maybe -- I don't know that it needs to be sooner or later, we should talk about what kind of days work, if we could --

HEARING OFFICER RENAUD: If you want to do it sooner than ten days, the committee will certainly support that. As you correctly pointed out, the committee has the authority to do whatever is necessary in furtherance of the proceedings. So when you know, let us know, and we'll announce it.

Great. Thank you. I'm glad you're going to do that.

MS. HAMMOND: And last, I have canvassed all the parties that are present here in the room, and if we could take direct testimony and cross -- not cross-examination, questioning of the persons on the panel to discuss the compensatory mitigation table, we'd be very appreciative.

HEARING OFFICER RENAUD: Do that next?

MS. HAMMOND: Yes.

HEARING OFFICER RENAUD: Fine. If everybody wants to do that, that's fine.

MS. JENNINGS: May I interrupt?

This is Jennifer Jennings. Can you hear me now?

HEARING OFFICER RENAUD: Yes, we can. We heard you before.

MS. JENNINGS: Great.

HEARING OFFICER RENAUD: Thank you.

MS. JENNINGS: Have you announced the public comment period? I disconnected to reconnect.

HEARING OFFICER RENAUD: Thank you for reminding me.

Yes. Ms. Jennings and I spoke briefly over the lunch break. We are going to open the mic for public comment at 5:30 just in case anybody wants to submit some public comment on what's gone on today. And presumably after that, if we're not finished with taking evidence, we'll go back into the evidentiary hearing. So at 5:30 we will break for whatever public comment there may be.

Thank you.

We're ready whenever. I don't know who's going first.

MS. FOLEY GANNON: It's a panel. I believe that the staff will be calling a panel.

MS. HAMMOND: Thank you.

HEARING OFFICER RENAUD: Go ahead.

MS. HAMMOND: So staff would like to call a panel of representatives from the REAT agencies, and those persons are Rick York of the energy commission staff, Amy Fesnock of the Bureau of Land Management, Jim Stobaugh may participate, and if another representative of Fish & Game and the Service would like to chime in, they're welcome

to. Rick York and Amy Fesnock will be the leads talking about the table.

HEARING OFFICER RENAUD: Okay.

MS. HAMMOND: And the table in question is Attachment A to Exhibit Number 303. This is the rebuttal and errata of staff. And it's entitled "Biological Resources Mitigation/Compensation Cost Estimate."

So I'd like to ask the members of the panel to please state and spell their names, starting with Mr. York.

HEARING OFFICER RENAUD: Could you repeat the table number? I thought you said 303.

MS. HAMMOND: This is Attachment A to Exhibit Number 303.

HEARING OFFICER RENAUD: Attachment A. Thank you. Okay.

MR. YORK: Rick York, Y-o-r-k.

MS. HAMMOND: Ms. Fesnock?

MS. FESNOCK: Amy Fesnock, F-, as in Frank, -e-s-, as in Sam, -n- as in Nancy, -o-c-k.

MS. HAMMOND: Oh, and if I could go back to Mr. York, your title, please.

MR. YORK: I am the supervisor of the biological resources unit here at the energy commission.

MS. HAMMOND: And Ms. Fesnock.

MS. FESNOCK: I am the wildlife and threatened and endangered species specialist for California State Office BLM.

MS. HAMMOND: And is there a representative of Fish & Game or the Fish & Wildlife Service on the phone to talk about the table?

Okay. Not hearing anything --

MS. RODRIGUEZ: I'm Magdalena Rodriguez for Fish & Game, but I didn't construct the table.

MS. HAMMOND: Okay. So the representative speaking about the table will be Mr. York and Ms. Fesnock.

MR. YORK: Correct.

DIRECT EXAMINATION

MS. HAMMOND: Members of the panel, can you --

HEARING OFFICER RENAUD: Good idea. We better swear Mr. York. He's been sworn so many times, it's probably still valid.

THE REPORTER: This is the court reporter. We're going to swear in all witnesses simultaneously.

(Rick York was sworn.)

MS. HAMMOND: And it's only Mr. York being sworn in.

HEARING OFFICER RENAUD: Not Ms. Nishida?

MS. HAMMOND: Ms. Nishida --

HEARING OFFICER RENAUD: Right, as well.

THE REPORTER: Raise your right hand, stand, ma'am.

(Joy Nishida sworn.)

THE REPORTER: Could you please state and spell your name for the record?

MS. NISHIDA: Joy Nishida. Nishida spelled N-, as in Nancy, -i-s-h-i-d-a.

THE REPORTER: Thank you.

MS. HAMMOND: Members of the panel, do you have in front of you the document I have just identified which is the Biological Resources Mitigation/Compensation Cost Estimate for the Imperial Valley Project in front of you?

MR. YORK: Yes.

MS. HAMMOND: And did you assist in the preparation of this table?

MR. YORK: I did not.

MS. HAMMOND: Ms. Fesnock, did you assist in the development of this table?

MS. FESNOCK: I did not assist in the specific project table, I assisted in the development of the table that this was based off of.

MS. HAMMOND: Could you describe to the committee and the participants in the room the genesis of the table?

MS. FESNOCK: Yes. As the REAT agencies began working through the process of how habitat acquisition was

actually going to happen through the process of joining all the agencies together in a nested fashion, we came to realize that we were mostly biologists who needed to check in with Realtors to make sure that we weren't missing costs associated with land acquisition. So we sat down with Realtors from BLM, Fish & Game, and the Park Service and another DOI agency who does quite a bit of land acquisition to make sure that we hadn't missed any categories that would be costs associated with acquisition and to work with those agencies, BLM, Fish & Game, and Department of Interior Park Service, to make sure that your estimates of the costs of those parts were reasonable and we could justify them.

MS. HAMMOND: And, Ms. Fesnock, when you talk about nesting, I just wanted to clarify that the REAT agencies desired to capture any mitigation that could be applied to the requirements under a number of laws so that the applicant wouldn't have to sequentially and separately --

(Interruption in proceeding.)

COMMISSIONER BYRON: Mr. Eggert, looks like you got it.

MS. HAMMOND: I'm sorry, Ms. Fesnock.

My question was asking for clarification on nesting and whether or not this would capture, I guess,

certain efficiencies and potential -- well, let me just leave it as efficiencies rather than requiring the applicant to sequentially or separately satisfy mitigation requirements under several laws.

MS. FESNOCK: That is correct. If we go back to how we would assess mitigation or compensation prior to the development of the REAT team, management team, BLM under its authorities would have identified its mitigation, Fish & Game and CEC under the state authorities would have identified theirs, and those would be separate.

And what the REAT agencies agreed was where there was common ground, that the agencies within the authorities of their own laws would attempt to accept what other agencies were asking for as their own instead of asking for two or three times what we would have -- what the project could be responsible for.

MS. HAMMOND: Now, Ms. Fesnock, are you aware that the applicant has stated that they would not be required to pay for long-term management and maintenance for Flat Tailed Horned Lizard mitigation directly to BLM?

MS. FESNOCK: That is correct. I have had conversations with Sean Gallagher asking about the long-term management fee that is identified in this table and specifically why that fee was not identified in the

December letter that Daniel Steward sent to him regarding BLM mitigation.

And the answer to that is historically BLM, through its land use plan prophesies, have identified to the public that what we ask for is the cost of the land and the cost of acquiring those lands, but that we have not asked for long-term management funds presumably because we're the federal government and we theoretically have the funds required to manage the lands that we would then be purchasing as inholdings within other lands identified as BLM-administered lands.

However, in doing this nested approach, it is my understanding that state agencies through CEQA and/or CESA have the authority to request or require lands be purchased as compensation. And when the state makes that authority, that requirement to purchase lands, that with that there is a long-term management and maintenance fee that's identified to ensure that those lands are properly managed for the reasons that they were purchased in perpetuity.

MS. HAMMOND: So it's your understanding that the line item in this table, Attachment A, for long-term maintenance and management is coming from the requirement under state law.

MS. FESNOCK: That is correct.

MS. HAMMOND: Mr. York, do you concur?

MR. YORK: I concur.

MS. HAMMOND: Thank you.

Now, Ms. Fesnock, has BLM ever undertaken the acquisition of mitigation lands of the size and scale that we're looking at now both for this project and for the numbers of other solar thermal projects that are pending before the commission and before counties and before BLM?

MS. FESNOCK: I would have to say no. But in general, the project that we look at approving and then doing compensation for are typically in the hundreds of acres, maybe low thousands; but if we look at all of the renewable energy projects combined that BLM has before it, California BLM has before it for potential approving, we're in tens of thousands of acres, and we have not, to the best of my knowledge, had any compensation on that kind of scale.

MS. HAMMOND: Now, Ms. Fesnock, can you explain for the members in this room and in this proceeding that the numbers in the table are estimates and they are subject to change?

MS. FESNOCK: They are. And I can -- I can go line by line to help explain where those numbers come from.

MS. HAMMOND: That would be very helpful.

MS. FESNOCK: Okay. The first line is land acquisition. And in the generic table that we created dated July 23rd, 2010, and I don't know if that document is docketed with the commission or not, but in that table we had estimated $1,000 an acre as a generic cost for land. We did footnote that indicating that if there was other information available, that that amount could change project by project.

It is my understanding that in the CEC table and BLM table that for the Imperial Valley project, instead of using the thousand dollars per acre, a $500 per acre cost was used, and that is based on data over the last three years where BLM has done -- let's see. We did 14 acquisitions in this year, 19 acquisitions in 2009, and 4 acquisitions in 2008 specifically tied to Flat Tailed Horned Lizard management areas. And those costs have ranged any between 300 to $875 an acre, the final average being about 477. There has been a slight increasing trend in the average cost per acre, which is why we recommended $500 an acre for this project.

MS. HAMMOND: Okay. Thank you.

MS. FESNOCK: The next line is the Level 1 Environmental Site Assessment. This is a report that has to be done in order for BLM to accept lands. It's a report that verifies that on the parcels that are being

purchased and then ultimately donated to BLM that there are no hazardous materials on site, there's no unexploded ordnances, there aren't wastewater or drinking water facilities on the site.

It's essentially making sure that there is nothing on the parcel that would prevent it from being used for what its purpose would be or would conflict with what its purpose, in this case, the conservation and management of the lizard, would conflict with that purpose.

You then have the appraisal, which is making sure that, you know, the value that is being paid is a reasonable value.

The on-site initial cleanup, in our generic table we had identified a cost of $250 per acre. That was a recommendation made from Fish & Game based on their experience with the amount of trash that would need to be cleaned up and the amount of fencing that they would anticipate would need to be done with the purchase of lands.

And for this specific project, instead of $250 an acre, an initial site cleanup fee was identified at $27 an acre. I believe that that primary difference, you know, the difference between $27 an acre versus the generic table of 250, is that we are not anticipating the need for

fencing associated with these lands that would be purchased within our Flat Tailed Horned Lizard management areas.

You then have closing costs. We identified two sets of closing costs. One would be with the initial purchase of the land, and then the second closing would with the actual donation to BLM.

Biological survey report. That's to identify and to make sure that the reason that the land is being purchased, in this case, Flat Tailed Horned Lizard, is that lizards are present or that the appropriate constituent elements of the habitat are there to support the lizard.

We then have a third-party administration fee. That is actually paying the non-profit and profit groups that will be utilized in actually finding and then securing those lands to be purchased.

The agency cost line is the cost that it actually -- that BLM actually incurs in accepting a donation. There's quite a bit of review of documents and reviews by our solicitors needed in order to actually accept lands into the federal ownership. And that's what that cost is associated with.

And then down at the bottom there's a set of fees associated with the National Fish & Wildlife Foundation.

These are -- this is a relatively new program.

Historically, BLM would have collected fees associated with acquisition, taken it into our own accounting system, and then we would have done the work internally either with our own staff or with contractors hired by BLM.

Due to the large numbers of projects that BLM is currently considering for approval, renewable energy projects, and the large numbers of acres of land that will be required for compensation, BLM has determined that we would not have the capacity in house or through contracting to handle that load, and that NFWF is a quasi governmental organization whose specific mission and goal is to assist with fish and wildlife habitat acquisition and management, and that it would make sense to have that organization manage that workload, ensure that what is required for each project is actually being met, as well as keeping track of the millions of dollars that are going to be required for each of the projects that BLM is looking at approving.

MS. HAMMOND: And, Ms. Fesnock, to clarify for the record, NFWF means?

MS. FESNOCK: It's National Fish & Wildlife Foundation.

MS. HAMMOND: Okay. And that is an organization

created by Congress?

MS. FESNOCK: It was created by Congress, although it technically doesn't count as a federal agency; they're a separate foundation, they count as a non-profit, but they still report directly to Congress. So twice a year they report to Congress showing Congress all of their accounts, what the status of those accounts are, what projects have been completed under those monies.

MS. HAMMOND: And I think what you were talking about, before I jumped in here, is really important to underscore, because I think based on the applicant's filings, there is talk of the land -- or monies being paid directly to BLM. And what I'm hearing now is not the case. So I would just ask for clarification.

MS. FESNOCK: That is correct.

If we go back to the letter from Daniel Steward to the applicant back in December, that letter probably did indicate that BLM would be handling or managing that money and that work. That's because the agreement with NFWF wasn't solidified until March of this year. And now that we have the agreement with NFWF in place, any monies that the applicants choose to give to BLM would not actually be given to BLM, they would be deposited with NFWF.

I also want to make sure that it's clear to the

commission that applicants are not required to pay this fee to -- into NFWF. They always have the option of doing -- of finding and acquiring the land on their own and donating it to BLM on their own.

If they wanted to streamline that and not be involved -- because finding, you know, in this case, more than 60600 acres of land, that's not necessarily easy, it's quite a bit of work -- if they want to not have to do that work, then they have the option of putting a deposit with NFWF. But there would be no money going into BLM directly.

MS. HAMMOND: And might there be further changes to this table that was created specifically for the Imperial Valley Project in the future?

MS. FESNOCK: There are the changes. The cost per acre as identified right now as $500 an acre, we believe that that is a good, you know, reasonable estimate. But at the end of the day, the applicant is responsible for the purchase of 6619.9 acres, and if $500 an acre is not sufficient to actually acquire that many acres, the applicant would need to pay additional fees into NFWF in order to complete the actual compensation that is required.

Similarly, if you're -- right now the long-term management fee fund is identified at $692 an acre. That

was based off of a generic par analysis completed by Fish & Game and is a reasonable estimate for what could be required for the long-term management of those acres once they are purchased. However, par analysis must actually be done based on the lands that are actually acquired. So if you were to purchase a parcel that is in really good condition, that doesn't have a lot of garbage, doesn't have a lot of weeds, doesn't have a lot of off-road vehicle use, then the cost of maintaining that property over the long term would actually be less than a parcel that has a lot of exotic weeds, has a lot of off-road vehicle incursions, you know, might require fencing in order to actually maintain the value of that parcel for its purpose, in this case, the Flat Tailed Horned Lizard.

So even though we believe that this $692 per acre is a good, you know, valid, strong estimate, at the end of the day it might be different; it could be less or it could be more.

In the generic table that REAT agencies created, we had identified the costs for the long-term management fee as being 1450 per acre. And that was kind of a worst-case scenario estimate. We didn't think that there would be a case where we would ever ask for more than 1450.

MS. HAMMOND: Thank you.

I have just a couple more questions.

Were you on the phone earlier today when Dr. Mock testified that the mitigation for the Flat Tailed Horned Lizard should be model on the Rangewide Management Strategy?

MS. FESNOCK: I was on the phone.

MS. HAMMOND: And can you explain why BLM has forwarded this table, this REAT biological resources mitigation and compensation cost estimate table in lieu of the applicant's -- in lieu of putting forward mitigation based on the BLM's Rangewide Management Strategy?

MS. FESNOCK: So first a clarification.

It's not a BLM Rangewide Management Strategy; it's a multiple agency conservation strategy.

MS. HAMMOND: You're right. Pardon me.

MS. FESNOCK: But that BLM is a signatory of.

And in that document, it's mostly talking about the kinds of things we want to do for Flat Tailed Horned Lizards. It's identifying the core areas that are most important to protect, it's establishing the ratios of if a project goes in a core area or a subset area, what kinds of ratios, you know, are required to offset that impact. It actually doesn't provide any guidance on how much that would cost or what long-term management would be for those lands or what those costs would be.

Again, if we go back to the concept that historically the agencies have not nested our mitigation requirements, BLM would have asked for one-to-one for most of the -- compensation for most of this project and six-to-one for the area that goes through the management area, portion of the project that goes through the management area. And we kind of would have paused at that.

The state would have come in under CEQA, my understanding is the state would have come in under CEQA, said that this is a species that is identified as being sensitive and is, you know, being considered for listing and, therefore, needs further protection. The state would have asked for one-to-one compensation. And any time the state asks for one-to-one compensation, because they're not -- because of how the funding for Fish & Game is, they would need additional money for those land management actions that would go with those new lands that would be acquired for the state. You have the requirement of the long-term management fund or endowment or fee. They're all kind of -- the language is morphing over time.

So when we're looking at the table that was prepared, you know, by Joy Nishida of CEC and Donna Clinton of BLM, this table represents a nesting of BLM requirements and Fish & Game CEC or state requirements,

which is why BLM wouldn't have asked for the long-term management fee. We are a land management agency, and we work under the assumption that we have sufficient funds to manage the lands that we own. But the state would have asked for that fee.

I'm not sure I answered your question.

MS. HAMMOND: You did. Thank you.

MS. FESNOCK: Okay.

MS. HAMMOND: Just a couple more questions.

I had asked earlier that because a number of agencies are involved in developing this table and identifying the fees that each agency would request, were the applicant to satisfy mitigation requirements for each agency separately, that this is an evolving document, there might be changes, it represents the best estimates of the agencies. Are you aware of any more recent changes to this table?

And I might just prompt Ms. Fesnock by mentioning a pre-proposal modified RFP or RFP processing fee.

MS. FESNOCK: Oh, yes, thank you.

It -- it -- sorry, my brain just stopped.

MS. HAMMOND: Please take your time.

MS. FESNOCK: In the creation of the cost table that we then -- that we then handed out to all of our field staff, we had actually missed a requirement or a

cost that had been identified in the REAT-NFWF memorandum of agreement. And what that is is a $30,000 fee cost associated with doing a request for proposals or a modified request for proposal processing.

What that actually ties into is that we initially -- that the REAT agencies and our coordination with existing land trusts out there had initially identified or perceived that there was going to be a lot of competition, that between different land trusts trying to get options on lands and be the land trust that actually helps, you know, solve this lack of -- you know, solve the compensation or mitigation requirement, and we had figured that in order to handle all the different interests of these different land trusts that we would need to go through a request for proposal process where different land trusts would submit documents or submit proposals of different lands that they had options on. And we could then make sure that the best was being chosen.

We then kind of went through this phase where we -- you know, because it's a constantly evolving process. It then appeared that the land trust had kind of divided different sections of the desert up and that maybe there wasn't going to be much competition and -- or a lot of competing interests in all of the areas and that

instead there would be one or two land trusts working in different regions, in which case the need for an RFP would go away and we wouldn't have to collect that fee.

Very recently, I would say in the last two weeks or so, in continued coordination with the land trusts, we have come back to the realization that there is actually going to be quite a bit of interest from land trusts to do this work for NFWF on behalf of the agencies and the applicants and that the need to do an RFP or a modified RFP is likely going to be required. And thus, we have modified the table one more time to include this line for this $30,000 processing fee that is currently not identified in the cost table for Imperial Valley but will need to be included.

MS. HAMMOND: Okay. Thank you.

One final question.

And that is will the table as modified as you've just described, the table found at Attachment A to Exhibit 303 be included in the BLM's Final Environmental Impact Statement?

MS. FESNOCK: Yes.

MS. HAMMOND: Okay. Thank you.

I have no further questions.

I'd appreciate, Ms. Fesnock, your staying on the line to answer any questions from the committee or from

parties.

HEARING OFFICER RENAUD: Yes. Let's see if the applicant has any questions.

MS. FOLEY GANNON: We do.

CROSS-EXAMINATION

MS. FOLEY GANNON: Ms. Fesnock, this is Ella Foley Gannon, counsel to the applicant. I have a few questions for you.

First off, we appreciate your explanation regarding how these numbers were derived because, frankly, we were having trouble understanding where they came from. We're not objecting to any of these numbers today, but we would just -- of the acquisition numbers today, but we may be providing comments on it once we've had a chance to see it.

And we would ask, is it possible -- I understand that you've had a number of bases for these calculations. Is it possible that the data that was used to derive these figures could be made available so we could get a better understanding of how you came up with that?

MS. FESNOCK: I am going to have to confer with decision makers above me on what data we can or cannot share, but I will take that request back to BLM.

MS. FOLEY GANNON: Okay. We appreciate that. Thank you.

Another sort of technical question is, I understand the source of the NFWF fees, but I'm having trouble understanding how that would relate, or does it relate to the agency cost of accepting donated lands.

I guess the question is when you calculate the agency cost to accept donated lands, was that assuming that you were going to be undertaking any actions associated, administrative actions associated with the donation, of accepting the donation, which would then be carried out by NFWF?

MS. FESNOCK: The cost identified in -- I believe it's line -- the agency cost, does identify work that BLM still has to do irrespective of NFWF. So if Tessera chooses to acquire lands on their own and then donate them to BLM, we would still need the costs identified in line 8 to manage -- to recover the cost of accepting that donation. We still have to review all the reports, we still have to look at the title, you know, the deeds, we still have to have the solicitors review it. There's still estimated, on our side, two to four weeks of work for each parcel, which is where that cost comes in. And that's why it's separate from the NFWF fees.

Does that answer your question?

MS. FOLEY GANNON: I guess where my confusion comes in is when we look at the chart that was attached to

the December 7th letter which IVS received from Daniel Steward, there was -- and this, as I understand it, and you can correct me if I'm wrong, these costs assumptions were based on a scenario in which BLM was getting the money, was going to acquire the land; isn't that correct?

MS. FESNOCK: That the letter from Daniel Steward assumes that BLM would be the primary acquirer of the land, the purchaser of the land.

MS. FOLEY GANNON: And so in that chart, and there aren't lines on that one, but there is the same sort of descriptive line that talks about BLM direct cost of acquiring the land, and that's at 15 percent.

MS. FESNOCK: Correct.

MS. FOLEY GANNON: And that seems to be at the same place an equivalent with this line in this new chart, which is agency's cost to accept land donation, which is at 15 percent.

MS. FESNOCK: Correct.

MS. FOLEY GANNON: So I guess I'm just confused why there wouldn't be some reduction in the administrative cost when you now are not having to carry out all the functions associated with acquiring the land, which is, you know, in NFWF's calculation, you know, is at least three percent of the cost.

Do you understand the question?

Is it just an additive addition that wasn't included previously?

MS. FESNOCK: No. So what you're missing is that in that letter from Daniel Steward there should be another line that talks about a 17 percent overhead for managing, for the indirect costs. And that 17 percent, instead of now being applied to all of the costs, is only applied to the money that would actually be given to BLM to manage the acceptance of the donation, and instead you have the NFWF fees that replace that 17 percent.

I'm not sure that that makes sense to you.

MS. FOLEY GANNON: I'm not sure that it makes sense to me either, but --

MS. FESNOCK: I think it's one of those things where if we, maybe when this workshop happens, we could work through that together in the same room. And then it would make sense.

MS. FOLEY GANNON: Okay. That makes sense. And I appreciate it. And again, as I said, we really appreciate you giving us this explanation, and to the extent we could see some of the data, that would be very, very helpful in being able to have an informed discussion about these numbers.

Another point of clarification, just to make sure I understood what you were saying in your earlier

testimony -- or not testimony, discussion, you had said, and I think I got it down right that BLM wouldn't ask for the long-term management fee because BLM is a land manager is essentially what you were saying. So if this was -- if this -- we're talking about mitigations to satisfy BLM's concerns about this particular project or concerns about impacts to Flat Tailed Horned Lizard, you would not be looking for long-term management; is that accurate?

MS. HAMMOND: I'd like to jump in just to point out that Ms. Fesnock also pointed out that BLM cannot accept monies directly from applicants.

MS. FOLEY GANNON: Okay. But I'm saying I'm trying to get to the bottom of what the number has to be, whether it goes to NFWF or it goes to BLM or whoever it goes to, so what you would be looking for.

MS. FESNOCK: I think I can explain. I think I can explain this, and hopefully in a way that makes sense to you, because it makes sense inside my head.

And that is BLM is a multiple-use mandated land management agency. The standard that BLM accepts for and maintains on its mitigation lands is sometimes acceptable to California Department of Fish & Game and sometimes it is not. And we can only do the actions that we have federal funding, funding from Congress to do. And those monies don't change very much from year to year.

So I can -- I personally can't tell you right now how many law enforcement agents, you know, the El Centro office has, but that number doesn't change. And, you know, we could tell you how many times people patrol that area or what level of effort it is that BLM can currently provide based on the federal dollars that Congress provides us.

That being said, Fish & Game and state agencies, when they determine that compensation lands are required to mitigate a project, have different standards for what those lands need to achieve, what amount of disturbance is deemed acceptable and still able to achieve the conservation goal that that acquisition is supposed to be providing.

So if you look at what BLM would accept, we accept things that may not necessarily be accepted by Fish & Game. And because our agencies are nesting our acquisition, and instead of Tessera being responsible for mitigating one-to-one for BLM and one-to-one for the state, being a cumulative of two-to-one, we have agreed to have our one-to-one for each of us meet each other's needs.

But in that blending, if what BLM can provide without a long-term management fee would not meet the state's requirement, and it's my understanding that it

would not, the state then has this long-term management fund that they ask for. It's calculated in such a way that it is a non-wasting fund, only the interest off that fund is spent every year, which provides the consistent revenue to ensure that the kinds of actions that Fish & Game would need to see on those properties can actually be funded.

When it comes to actually who would be doing that work, Fish & Game could hire a bunch of, you know, youth conservation crews to go out and maintain those lands. They could hire somebody and work with us to build fences that we otherwise wouldn't buy. They could donate money to us to increase the amount of law enforcement patrolling that we are doing in that area to make sure that off-road vehicles are in compliance and staying only on open routes instead of doing donuts throughout the desert.

So that's where this difference is as far as different agencies have different legal and policy standards for what they accept for mitigation.

MS. FOLEY GANNON: I understand; and thank you for the explanation.

My question, I guess, was a little narrower, and I'll try to be clear.

MS. FESNOCK: Okay.

MS. FOLEY GANNON: What I'm trying to understand

is if you were not speaking now for CDFG or any state agency, you were just -- I'm just asking, on BLM's perspective, we're only thinking about BLM mitigation, would you require long-term management for funding for this project?

MS. FESNOCK: From a BLM perspective only --

MS. FOLEY GANNON: Simply only BLM, right.

MS. FESNOCK: -- no, we would not.

From a BLM perspective, no, we would not.

MS. FOLEY GANNON: Thank you very much.

And if I could ask you, Mr. York, a couple questions.

If it was determined -- this is going to be a hypothetical. If it was determined that the mitigation lands that were held by BLM, by BLM holding them that that mitigated the impacts to Flat Tailed Horned Lizards associated with the project to a less than significant level, would the CEC require more?

MS. HAMMOND: I'm sorry, I don't understand the question.

MS. FOLEY GANNON: Under CEQA, would they require more?

The question is if the mitigation that was proposed -- and we'll talk a little bit more about how you determine levels of significance and the rest of that --

but assuming that under -- you make CEQA analysis in your supplemental staff assessments and your staff assessments, correct, so this is part of the way you think about these, I believe, right?

So if you were looking at the mitigation which was -- was setting aside Flat Tailed Horned Lizard habitat within management areas and having that land held by BLM -- first, I guess we could ask the question first, how would you assess whether that was sufficient to mitigate an impact to Flat Tailed Horned Lizards to less than significant, whether it does or doesn't, how would you look at that issue?

MR. YORK: I got totally lost on your question.

MS. HAMMOND: Yeah. Is your question how would you determine which actions would mitigate impacts?

MS. FOLEY GANNON: My question is there has been a statement made that somehow CEQA requires in all cases that long-term management funding to be provided. And I'm just trying to probe what the basis for that is in terms of the biological analysis of significant impacts. That's where I'm trying to get.

So I guess I'm asking, so when you're looking at an impact to a species and you're evaluating the significance of that impact, do you in all cases require that long-term management be funded or required?

MS. HOLMES: Excuse me. I'm going to object because I think that -- and ask for clarification, because I hear you both talking about identification of impacts and sufficiency of mitigation. So perhaps if you could break it down into the two separate categories, that would help.

MS. FOLEY GANNON: I started -- I started with this, the overall question, and now I'm trying to go to the impacts because we're trying to get to understanding. I was trying to just say in the broader -- because I thought we were going to be doing more of the technical discussion as separate, we're doing a panel here about the mitigation numbers, so I'm just trying to understand whether the -- your assessment is that long-term management funding is required by CEQA for impacts to listed -- to federally-listed species.

MR. YORK: Yes.

MS. FOLEY GANNON: In all cases.

MR. YORK: We -- on past siting cases and current siting cases, when we're involved in trying to determine what the habitat compensation would be, in other words, come up with an estimate of what the compensation security would be, one of the three items that we would include would be an estimate of what the long-term maintenance and management -- or the endowment would cost.

MS. FOLEY GANNON: Does the analysis change if the species is listed state and federally, or is it different?

MR. YORK: No change. What could change is, as it did here on this case, we could adjust the number of what we thought the -- to establish the endowment, could be changed to based on the characteristics of the area where the impacts are going to occur and where the mitigation was going to occur.

MS. FOLEY GANNON: Is there different mitigation standard under the California Endangered Species Act than there is under the California Environmental Quality Act as you understand it?

MS. HOLMES: Again --

MR. YORK: I'm not an attorney.

MS. FOLEY GANNON: So when you're looking at determining the level of impact that is going to occur, what are the factors that you're going to look at?

MR. YORK: Going to look at the size of the project, the location of the project, the species that are involved, the listing status. In this case, BLM-sensitive species, species proposed for federal listing, those all would be, you know, major factors that would be considered.

MS. FOLEY GANNON: And would you as a general

approach, would impacts to -- the quality of the habitat that's going to be impacted, would that influence the significance of the impact that you identify?

MR. YORK: It could. It could change from project to project depending on the species that are involved.

MS. FOLEY GANNON: And would things like abundance of the species affect your determination about the severity of the impact?

MR. YORK: It could. It could.

MS. FOLEY GANNON: And when you are making your assessment under CEQA about the adequacy of mitigation, what factors would you be looking at?

MR. YORK: We would be looking at whether or not the mitigation that we're proposing is to a large extent consistent with how other projects have handled similar impacts. And be working with the other agencies to determine if we are applying the appropriate approach for mitigating the impacts of the project.

MS. FOLEY GANNON: Ultimately, when you're looking at the necessary level of mitigation, again, are you looking at it proportionate to the impact?

MS. HAMMOND: Could you repeat the question?

MS. FOLEY GANNON: When you are looking at establishing the level of mitigation that is required, are

you making an effort to make sure it's proportional to the impact?

MR. YORK: We could. This may vary from the project and the project location and the species that are involved. In other words, the mitigation ratio could change depending on location and species.

MS. FOLEY GANNON: What is the standard of significance that you use for impacts to federally-listed species?

MR. YORK: Potential for take of the listed species. If the project's going to take its habitat, and there could be take of individual animals, then that's a significant impact.

MS. FOLEY GANNON: That's the standard that you apply in cases.

And I understand that you had said earlier in the past you generally required long-term management funding.

MR. YORK: We almost always required that. I've been here a few years, and I -- whenever there was any habitat compensation, we always calculated in the long-term maintenance and management, or endowment, into the total.

MS. FOLEY GANNON: And what would that money usually be used for? What type of activities?

MR. YORK: That money could be used for weed

removal, repair of fencing, funding of people to patrol; you know, things that you would need to do for the long-term preservation of the habitat compensation parcel or parcels.

MS. FOLEY GANNON: And in most cases would that land have also been being acquired, would it be then held by a federal land management agency like the BLM, or would there be other --

MS. HOLMES: I'm sorry. Are you asking historically?

MS. FOLEY GANNON: Well, he was speaking historically, he's required this funding; so, yes, I was asking historically, absolutely.

MS. HOLMES: Okay.

MR. YORK: I personally have not been involved with a case here where the land -- the compensation lands were turned over to the federal government. They were turned over to a third party who managed the land, used the endowment, funded the work.

MS. FOLEY GANNON: So would it influence your decision regarding the need to ensure adequate mitigation that the land was going to be held by a federal agency who's mandated to manage the land that they hold? Would that influence the way you think about it?

MR. YORK: No. We're still going to require the

endowment, the long-term maintenance and management. And that's why we've used this table in our analysis. We think it's -- that cost needs to be covered; it's an important part of the total cost. Because under some of these prongs, actually the mitigation lands could end up going to the state or a third party.

MS. FOLEY GANNON: And I would assume that the calculations regarding the mitigation that's necessary is dependent upon impacts like that, like who's holding the land, what's needed to manage the land; is that correct?

MR. YORK: That's correct.

MS. FOLEY GANNON: You had referenced -- I know from previous experiences, like, fencing is a very expensive item, long-term management; is that correct?

MR. YORK: Initial cost can be expensive, maintenance, replacement.

MS. FOLEY GANNON: So whether a fence was necessary or not could be something that would greatly influence what's necessary; is that --

MR. YORK: A portion of the time, yes.

MS. FOLEY GANNON: -- is that accurate?

MR. YORK: And that's why for this case the number went down, because we were in discussions with the agencies, it was suggested to us that the fencing was not an important consideration. Some projects it would be

expensive. It didn't seem necessary.

MS. FOLEY GANNON: Just so that I make sure I understand, your -- you interpret -- and again, I know you're not speaking as a lawyer, but you're speaking as someone who does the analysis about significant impacts on behalf of the CEC staff. Your assessment is that long-term management funding is required under CEQA for impacts to federally-listed species, is required; is that your assessment?

MR. YORK: Yes. On these cases we are going to require that.

MS. FOLEY GANNON: Again, but the source of the requirements is required, you believe, by CEQA?

MR. YORK: We've historically done it and we're going to require it on these projects, or we're going to suggest that it be included for the commission's consideration for the commission decision.

MS. FOLEY GANNON: No further questions.

Thank you.

HEARING OFFICER RENAUD: Who else has questions?

CURE, want to go ahead?

CROSS-EXAMINATION

MS. MILES: Just for clarity --

HEARING OFFICER RENAUD: Just limited to this chart, now, you know, about the mitigation lands.

MS. MILES: Okay. That's what I was going to ask. And is there going to be an opportunity to ask questions, because I have a few questions for BLM? Is there an opportunity to ask questions for BLM related to biological impacts?

HEARING OFFICER RENAUD: Well, that's a good question. We started out here just wanting to talk about the mitigation lands proposal --

MS. MILES: Right, and my understanding --

HEARING OFFICER RENAUD: Hold on, hold on.

And one thing that -- the hole I have in my mind about all of this, and maybe Ms. Miles is having the same one, is that it's all premised upon the determination of impacts. And I'm -- clearly at this point there is conflict in the evidence about the existence and extent of impacts. And I'm just -- I want to check particularly with staff, are we going to have more testimony concerning the impacts?

MS. HAMMOND: Yes, we are.

HEARING OFFICER RENAUD: All right. And is that coming sometime soon?

MS. HAMMOND: We're prepared to bring that up next if parties have no further questions on the table.

HEARING OFFICER RENAUD: All right.

So, Ms. Miles, knowing that, what makes sense for

what you want to do?

MS. FOLEY GANNON: But is BLM testifying on the nature of impacts? I mean, that would be CEC staff, correct?

MS. HAMMOND: CEC staff is testifying, and there are other representatives from BLM on the phone who will speak about -- I hope they're on the phone, they were on the phone this morning -- who will speak about the impacts.

MS. FOLEY GANNON: Okay.

HEARING OFFICER RENAUD: All right.

So, Ms. Miles, maybe you should wait until they speak, and then you can question the BLM people. How's that sound?

MS. MILES: That is perfectly fine with me. I do have one question about the chart, though.

HEARING OFFICER RENAUD: Go for it.

MS. MILES: Okay. It's just related to the fee, it was briefly discussed for clean up, initial clean up of the project site, if there is any like garbage that needs to be removed, and I know you said that there was a discussion about that fee being much larger, and then it got scaled back.

I'm sorry, I had the chart in front of me a moment ago, now I don't.

But I think it was $27 per acre. And I think that -- think that looks low, even if it was just like paying for -- $27 an acre, even if it was just paying for people to pick up garbage on a one-acre site.

So could you explain just the basis for that?

MS. FESNOCK: I can.

This is Amy from BLM.

I think you might have a misperception of, you know, what picking up garbage means. It's not walking around picking up, you know, the donut wrappers that are, you know, blowing around in the wind. It's the idea that a lot of people in the desert choose to dump large -- cars or refrigerators or large sets of garbage on sites, and that those need to be removed. And the $27 is actually based off of the clean up that BLM has done on the acquisitions that we've done over the last several years.

And we believe that if we're looking at just initial cleanup being the removal of waste, that $27 is a sufficient cost.

If the site needs weed management, needs fencing constructed, needs, you know, those kinds of things, that's where the $27 is not sufficient, and that's where the REAT agencies estimated the cost at $250 an acre instead.

MS. MILES: Okay. Thank you.

HEARING OFFICER RENAUD: Do you have anything else, Ms. Miles?

MS. MILES: I don't.

HEARING OFFICER RENAUD: All right.

Commissioner Eggert, I understand you have a question.

COMMISSIONER EGGERT: Thank you.

Actually, this is just a question on methodology with respect to the table.

I note that some of these costs are in a per acre basis and some are in a per parcel basis, and I notice the parcel size is 40 acres per parcel.

And I'm wondering, I don't know if this is a question directed to who -- whoever's best to answer -- but what was the basis for the choice of 40 acres?

And then I note that that sort of percolates all the way through for escrow, biological surveys, and other line items. It is expected that each of those are acted on independently?

MS. FESNOCK: What BLM -- this is Amy from the state office again. What BLM did is we looked at the acquisitions that we've done over the last several years and looked at the remaining private parcels that are out there and available for purchase, whether they have willing sellers or not has not necessarily been determined

at this point in time. And what we know is that there is not a 6600-acre parcel that we could do a single purchase of and resolve the mitigation for this project. We know that we're going to have to do multiple transactions.

And if we look at the sizes of parcels at that we have purchased over the last, you know, three years in Flat Tailed Horned Lizard habitat, we have parcels as small as 10 acres, and as large as, you know, I think 300 acres is the largest parcel.

And we looked at the average size that we been kind of working with, and that was kind of around 80 acres covered most of it; but then we looked at what was available, and a lot of the stuff that we have been picking up have been these larger tracts, and a lot of the stuff that's left are these smaller -- these smaller pieces.

And when it comes to closing costs, closing cost is partially related to the size of the parcel that you're doing, but there are some basic costs that are the same whether it's one acre or whether it's a thousand acres. And based off of the assessment of our lead lands specialist in the state office, she recommended that we go with dividing the numbers of acres by 40 to get a guess of how many parcels we would actually have to purchase in order to fulfill this compensation requirement.

COMMISSIONER EGGERT: Okay. Thank you for that explanation.

And then I guess maybe just to follow a little bit, so that includes things like biological surveys on a per parcel basis.

As I understood, one of the goals of doing some of the in lieu activities were to try to determine or find contiguous habitats to help facilitate habitat migration et cetera. Is it expected that the strategy that would be pursued through the use of these funds would be to look for things like contiguous corridors, and is there any -- I don't know what the right term is, but economies of scale associated with pursuit with more contiguous mitigation?

MS. FESNOCK: We are definitely hoping -- we definitely -- the goal is still definitely to have contiguous habitat to fill in the holes of the habitat that we currently have and to ensure that there is a -- not a patchwork landscape that we attempt to manage for species, but a contiguous landscape, because that certainly does make management for the species cheaper in the long run.

When it comes to doing, you know, Level 1 ESAs or appraisals or those kinds of things, you are still very much looking and forced into the realty world, which is by

parcel, and those just have to be, you know, conducted that way.

When it comes to the biological surveys, we think that that cost is actually kind of on the low side, and we are anticipating that if we were to get a cluster of, you know, ten-acre parcels in the same area, that a single survey would be able to kind of cover those. But, you know, $5,000 wouldn't be sufficient if there was a parcel that was a 600-acre parcel. That's where the cost -- where you end up with the reverse, where the larger the parcel is, the actual -- the cost increases there.

So there is some economy of scale, but according to our realty specialist, not much.

I hope I've answered your question.

COMMISSIONER EGGERT: Okay. That's very helpful.

MS. FESNOCK: Okay.

HEARING OFFICER RENAUD: Any questions? All right.

Stand by for a moment, please.

All right. Does anyone else wish to ask questions concerning the chart?

COMMISSIONER BYRON: There is one related question that I'm not sure has come up.

HEARING OFFICER RENAUD: All right.

Commissioner.

COMMISSIONER BYRON: Ms. Chew identified an issue. The language that was in Senator Padilla's bill with regard to this in lieu mitigation issue.

And we'll pull up the exact language, unless you have it there already, Ms. Chew. Do you?

But I believe that it calls for an additional five percent to be set aside.

And I'm just asking the question. Is the staff aware of the language in the bill?

MS. FESNOCK: I can actually address that.

COMMISSIONER BYRON: Thank you.

MS. FESNOCK: Because it is one -- as the REAT agencies have attempted to, you know, work to streamline and meet all of our individual authorities at the same time, this is one of those areas where the state authority or state requirement is different than the federal authority and federal requirement.

And what SB 34 states is that when the state, through CEC or Fish & Game, determines what the mitigation cost is, that the applicant has a guarantee that that cost will be more than -- will not increase more than five percent. And from a state perspective, you guys can do that. However, federally, we cannot. We legally cannot put a cap on a dollar amount. Our mitigation requirement is determined based on either actions or acres that are

acquired, not on dollars that are donated or, you know, donated -- I'm sure Tessera doesn't like that word -- required for payment. That what our mitigation standard is is the number of acres, and that's what has to be met irrespective of what the cost is that we say or that we guess it's going to be. So it's one of those things where CEC or Fish & Game would not ask for additional money should we not be able to buy the 6619.9 acres, but BLM would.

MS. HAMMOND: And, Commissioner Byron, I'd like to just add that I think that five percent cap is part of the interim mitigation strategy that SB 34 sets out, and that is distinctly different from what we are putting forth in this compensatory mitigation condition of certification. So I would just like to point out that difference.

COMMISSIONER BYRON: So it doesn't apply is what you're saying. That's what I think the answer is.

MS. HAMMOND: That limitation doesn't apply to this condition of certification.

The interim mitigation strategy is in draft form at this point.

COMMISSIONER BYRON: All right. Thank you.

HEARING OFFICER RENAUD: Ms. Fesnock, this is Raoul Renaud, the hearing officer. I have a question and

it's -- I don't know, it's sort of procedural, I guess.

The proceeding that we're holding, this hearing in is a California Energy Commission application for certification proceeding, and the committee and ultimately the commission will come out with a decision about, and the decision is based on the evidence that was presented in these evidentiary hearings.

And hypothetically -- and this is only hypothetical, don't anybody take anything from this about how and what we might decide or whatever -- but just suppose the commission found that the evidence supported a finding that there were no impacts to FTHL at the site. Under our normal usual proceedings we would therefore not include a provision requiring mitigations for impacts because there are no impacts.

Can you kind of tell us if you know --

MS. FESNOCK: What would happen?

HEARING OFFICER RENAUD: -- how that would play out, assuming BLM thought there were impacts?

MS. FESNOCK: It is my understanding that our land use plan, the California Desert Conservation Act and its associated amendments of WEMO, NEMO and NECO, have identified what BLM has told the public we will require compensation for, and, you know, what we anticipate that to be and how we plan on doing those kinds of mitigations,

and that our land use -- in order to be consistent with our land use plans, BLM will require mitigation for the Flat Tailed Horned Lizard irrespective of what the commission does, because otherwise we couldn't issue a right-of-way grant that is inconsistent with our land use plan.

HEARING OFFICER RENAUD: And do I correctly assume that you're telling us that the BLM has already decided there are impacts to FTHL, or you're telling us if they did, then?

MS. FESNOCK: Let's see. No decision has ever been made until errata signed. So I'm telling you that if we were to decide that Flat Tailed Horned Lizards were impacted, that that's what we would have to do.

HEARING OFFICER RENAUD: All right. So okay. That kind of helps me understand the interplay of the two agencies for these kinds of findings. Thank you.

Does anybody else have questions regarding this limited subject of the mitigation lands?

Mr. Silver, yes.

MR. SILVER: I'd just like to ask Mr. Budlong, I don't have questions, but he may.

MR. BUDLONG: No questions.

HEARING OFFICER RENAUD: Thank you. Very good.

MS. HAMMOND: And one final thing. Ms. Fesnock,

you mentioned the NEMO and the WEMO. For the court reporter, could you clarify those?

MS. FESNOCK: Yes, sorry.

WEMO is the West Mojave Plan, NECO is the North Eastern Colorado Plan, and then NEMO is the North Eastern Mojave Plan, but they're all amendments to the California Desert Conservation Plan.

MS. HAMMOND: Right. Thank you.

COMMISSIONER BYRON: Thank you for asking, Ms. Hammond. I get tired of asking that question.

MS. FESNOCK: Sorry.

HEARING OFFICER RENAUD: All right. Thank you.

So do you have another -- or do you have a witness now to call?

MS. HAMMOND: No. I'd like to ask the hearing officer if I may excuse Ms. Fesnock at this point.

HEARING OFFICER RENAUD: Oh, of course.

Although, Ms. Fesnock, you're certainly welcome to listen in. I know it's very entertaining.

MS. FESNOCK: I think I will be stepping off, but I appreciate that.

HEARING OFFICER RENAUD: All right. Thank you. Thank you. You were very helpful.

MS. FESNOCK: Bye-bye.

HEARING OFFICER RENAUD: Okay. I believe it

would be staff's turn to call another witness.

MS. HAMMOND: Staff is going to call its witnesses and another panel of representatives that would include representatives from the Department of Fish & Game and the U.S. Fish & Wildlife Service and Bureau of Land Management to address impacts and mitigation.

HEARING OFFICER RENAUD: Very good.

MS. HAMMOND: We have Mr. York and Ms. Nishida from staff who have already been sworn in.

Just a clarification, applicant has already put on its direct on the issue of wildlife.

MS. FOLEY GANNON: Just wildlife. So we have a plant and we have wetlands -- or waters of the U.S.

No wetlands, yes. No desert tortoise, no wetlands.

MS. HAMMOND: On the phone we have Magdalena Rodriguez and Felicia Sirchia and Guy Wagner -- excuse me, not Guy Wagner, Daniel Steward.

Would you please confirm your presence on the phone?

MS. RODRIGUEZ: Magdalena Rodriguez here.

MS. SIRCHIA: Felicia Sirchia is here.

MR. STEWARD: This is Daniel Steward.

MS. HAMMOND: And are there any other representatives from the agencies?

Okay. Thank you.

So again, these representatives from the sister agencies will be speaking, answering questions, but not testifying under oath.

HEARING OFFICER RENAUD: Very well.

Felicia, could you spell our last name for us, though, please.

MS. SIRCHIA: I can. It's S- like Sam, -i-r-c-h-i-a.

HEARING OFFICER RENAUD: Sirchia. Thank you.

THE REPORTER: Can we get Mr. Steward as well?

HEARING OFFICER RENAUD: Daniel Steward, how do you spell your last name? -e-w or u?

MR. STEWARD: It's -e-w-a-r-d.

HEARING OFFICER RENAUD: With a D.

MR. STEWARD: Yes.

HEARING OFFICER RENAUD: Okay. Got it.

Go ahead.

DIRECT EXAMINATION

MS. HAMMOND: Ms. Nishida, and Mr. York, did you prepare the testimony entitled "Biological Resources" in the document marked Exhibit Number 302, the supplemental staff assessment for the Imperial Valley Solar Project?

MS. NISHIDA: Yes.

MR. YORK: Yes.

MS. HAMMOND: And was a statement of your qualifications attached to this testimony?

MS. NISHIDA: Yes.

MR. YORK: Yes.

MS. HAMMOND: Did you prepare the rebuttal and errata entitled "Biological Resources" in the document marked as Exhibit 303, staff's rebuttal testimony and errata?

MS. NISHIDA: Yes.

MR. YORK: Yes.

MS. HAMMOND: And was a statement of your qualifications attached to this testimony?

MS. NISHIDA: No.

MR. YORK: No.

MS. HAMMOND: Have your qualifications changed since they were submitted with the supplemental staff assessment?

MS. NISHIDA: No.

MR. YORK: No.

MS. HAMMOND: Do you have any corrections to make to your prepared rebuttal and errata testimony.

MS. NISHIDA: Yes.

One of the things that I had changed from the staff assessment EIS to the supplemental staff assessment was the total number of acreages for impacts to state

waters. Initially it was over 300 acres, and then -- and then in the supplemental staff assessment I had identified it as 48. And that was an error. That was 48 acres of impacts to state waters, this is permanent impacts, was due -- was actually from the staff's -- staff's analyzing the Drainage Avoidance Number 1 alternative in our supplemental staff assessment, it was for that. And the actual acreage for impacts to state waters under the proposed project is actually 115 acres.

MS. HAMMOND: Now, when you say "the proposed project," do you mean the Drainage Avoidance Alternative Number 1 or the project as proposed in the supplement to the application?

MS. NISHIDA: The project as proposed in the supplement to the application.

MS. HAMMOND: Okay. Thank you.

Do you have any other corrections?

MS. NISHIDA: Yes.

In conditions of certification, Bio 10 and Bio 17, as those conditions were initially fleshed out for the desert tortoise mitigation, I -- I mistakenly left in "desert tortoise" in Bio 10 and Bio 17. And that should be changed to "Flat Tailed Horned Lizard."

MS. HAMMOND: And in the supplemental staff assessment there are two sentences that appear to

contradict each other, and they concern impacts to species caused by the Seeley Wastewater Treatment Facility upgrade. Could you explain or reconcile that contradiction?

MS. NISHIDA: Yes. We have two contradictory statements in here, one of them that says -- that's on C.2-2, it says, first paragraph, last sentence, it says, "Until surveys for the Seeley Wastewater Treatment Facility upgrade are completed, staff is unable to determine impacts to biological resources or to recommend appropriate mitigation."

And the other statement, statement number two which contradicts it, it says, "Staff anticipates that the impacts created by the expansion of the Seeley Wastewater Treatment Facility will be significant but will be mitigated by imposition of the mitigation measures identified in the mitigated neg dec."

MS. HAMMOND: And that sentence is at page C.2 --

MS. NISHIDA: C.2-3. I'm sorry about that. That was at the end of the first paragraph.

And what's happened here is that for the Seeley Wastewater Treatment Facility upgrade, it -- a mitigated negative declaration wasn't acceptable, and it had to be pushed up to the level of Environmental Impact Report.

So there -- so -- and so there really isn't any

mitigation measures identified in the mitigated neg dec here.

So we -- so this is actually not -- there isn't mitigation measures available.

So anyway, and what we have here, the first sentence, which I stated, which was on C.2-2, that one is incorrect. What's more -- here's -- actually, what's correct is that -- is that based on the information provided to date, staff does not expect there to be impacts to the following special status species, Yuma Clapper Rail, California Black Rail, Least Bell's Vireo, Southwestern Willow Flycatcher, or the marsh and vegetation associated with the new river.

We don't anticipate these impacts -- we don't anticipate impacts to be significant, but, however, should a -- at this point, because many of these surveys are -- well, most of them are done, there's still a hydrologic study that still needs to be completed, should be completed next month, but should these -- should the findings of these surveys say otherwise, then we will need to -- we will need to reassess this.

MS. HAMMOND: And with those corrections, do the opinions contained in both the prepared opening testimony and prepared rebuttal testimony and errata that you're sponsoring represent your best professional judgment?

MS. NISHIDA: Yes.

MR. YORK: Yes.

MS. HAMMOND: Ms. Nishida, can you summarize your analysis and conclusions regarding whether or not the Imperial Valley Project would result in significant adverse impacts?

MS. NISHIDA: All right. There are a number of special status species that would be affected by the Imperial Valley Solar Project site. This includes Flat Tailed Horned Lizards, Peninsular Big Horn Sheep, and special status plants such as Brown Turbans and Harwood's Milkvetch.

A Flat Tailed Horned Lizard is a BLM-sensitive species, a state species of special concern, and is proposed for federal listing. The U.S. Fish & Wildlife Service estimates that there are between 1300 and 2000 lizards on site that would be impacted from construction of the Imperial Valley Solar plant.

More animals will be impacted during project operation. Possible movement corridors for the Flat Tailed Horned Lizard through the project site to Flat Tailed Horned Lizard management areas locates the between the Yuha Desert management area to the south and the West Mesa management area three miles to the north.

BLM is conferencing with U.S. Fish & Wildlife

Service to develop a conference opinion on measures needed to address potential take.

Another species is the Peninsular Big Horn Sheep, which is a BLM-sensitive species, it is federally listed endangered, and is state listed threatened, and is a state fully-protected species. A ewe group was observed on site in March 2009, which was a rare event. The big horn sheep are most often found west of the site in the nearby mountains.

It is known that the big horn sheep do cross Interstate 8 in the mountainous areas and under the elevated portion of the highway at Coyote Wash west of the project site.

The U.S. Fish & Wildlife Service with the support of California Department of Fish & Game is requiring Section 7 consultation with BLM for the potential loss of ephemeral wash foraging habitat for the big horn sheep. The project is not expected to impact Coyote Wash.

Brown Turbans is an annual herb found along the southern boundary of the proposed Imperial Valley site.

HEARING OFFICER RENAUD: That sounds like a plant.

MS. NISHIDA: Yes, it is. Sorry.

HEARING OFFICER RENAUD: I think we're trying to stick to wildlife right now.

MS. NISHIDA: Oh, okay.

HEARING OFFICER RENAUD: Aren't we?

MS. FOLEY GANNON: If they want to do their botany now, we can put ours on afterwards. I don't mind either way.

HEARING OFFICER RENAUD: Is that going to mix everybody up if we start throwing some plants in there?

MS. HAMMOND: Staff would support that.

HEARING OFFICER RENAUD: Support doing the plants?

MS. HAMMOND: Correct.

HEARING OFFICER RENAUD: Okay. Then we do too. Go for it.

MS. NISHIDA: All right. Brown Turbans is an annual herb found along the southern boundary of the proposed Imperial Valley Solar Project site just north of Interstate 8 during late spring surveys conducted this year. Though this plant is not listed, it is a California Diversity Database Rank 1 species, which means that there are less than six element occurrences or less than a thousand individuals documented in the state. It is also a California Native Plant Society List 2 species.

Harwood's Milkvetch is another annual herb found in the south western corner of the proposed Imperial Valley Solar Project site during the late spring surveys

conducted this year. Harwood's Milkvetch is not listed, but is a CNDDB, or California Natural Diversity Database Rank 2 species, which means there are only 6 to 20 element occurrences or 1,000 to 3,000 individuals documented in the state. It is also a California Native Plant Society List 2 species.

Wiggins' croton, yet another plant, is a perennial shrub found along proposed water pipeline corridor during the late spring surveys conducted this year. Wiggins' croton is a state listed rare and is a BLM-sensitive species. It is a California Natural Diversity Database Rank 1 species and a CNPS List 2 species. Staff expects that this state-protected species can be avoided during the project construction.

And due to the monsoonal rains that normally occur during the late summer and fall, additional surveys are being required by BLM, CDFG, and staff. Lack of botanical surveys done in the past for late summer and fall season has the potential for documenting additional or new occurrences of special status plants in the area. Staff, consistent with BLM, recommends that summer and fall 2010 surveys be completed, and if new sensitive plants are found, abide by the guidance in staff's proposed conditions of certification Bio 19.

Staff's revised proposed condition of

certification Bio 19 recommends on-site avoidance and the development and implementation of a special status plant avoidance and minimization plan, however, compensatory mitigation by off-site habitat acquisition, restoration, enhancement, and conducting or contributing to a special status plant species distribution study are options if avoidance is not feasible.

With regards to a connected action, the Seeley Wastewater Treatment Facility upgrade, a hydrologic study and protocol sensitive species bird surveys have been or are being conducted for four listed bird species: The Yuma Clapper Rail, the California Black Rail, Southwestern Willow Flycatcher, and Least Bell's Vireo.

Yuma Clapper Rail is a federal and state listed endangered species and is a state fully-protected species.

California Black Rail is a state listed threatened and is a state fully-protected species.

Southwestern Willow Flycatcher and Least Bell's Vireo are both federal and state listed endangered.

Protocol surveys were conducted last May for Yuma Clapper Rail and California Black Rail, and on July 17th for -- commenced for -- or actually finished for Southwestern Willow Flycatcher. The results of the surveys were negative for the Yuma Clapper Rail and California Black Rail. The Southwestern Willow Flycatcher

was positive as a migratory stop over, but negative for breeding.

Survey results for Least Bell's Vireo concluded thus far are also negative, and surveys for the Vireo should be concluded at the end of this month.

U.S. Fish & Wildlife Service is not anticipating impacts to federally-listed species to be significant as it is unlikely that these species nest there, but should impacts be significant, then BLM would need to undergo a Section 7 consultation with U.S. Fish & Wildlife Service regarding the proposed water treatment facility upgrade.

Since impacts have not been determined because the surveys are not completed, mitigation requirements by U.S. Fish & Wildlife Service are unknown, but would most likely consist of restoration enhancement of like habitat.

A hydrologic study on the effluent channel, which is where the Seeley Wastewater Treatment currently dumps their effluent, is being conducted to quantify flows coming from the secondary treated effluent and other sources of water to the effluent channel. This study should provide an assessment of the likelihood of the continued existence of wetland and riparian habitat should the secondary treated effluent from the Seeley Wastewater Treatment Facility no longer be available to the effluent channel. Data collection for this study should be

concluded towards the end of August of this year.

Should the assessment from the hydrologic study indicate that the wetland and riparian habitats in the drain are impacted due to lack of effluent, then CDFG indicated that mitigation would most likely consist of acquisition of habitat or restoration and enhancement along the new river.

All right. Acreage impacts under the proposed project for permitted impacts to jurisdictional state waters are 115 acres, and 165 acres for waters of the U.S. on the proposed solar plant site. For the staff preferred Drainage Avoidance Number 1 Alternative, impacts would be reduced to 48 acres of permanent impacts to waters of the U.S. and jurisdictional state waters.

Staff's proposed condition of certification, Bio 17, is designed to mitigate impacts resulting from Drainage Avoidance Number 1 Alternative, which substantially reduces impacts to waters of the U.S. and jurisdictional state waters.

Habitat compensation suggested in staff's condition of certification Bio 10 was developed by the Renewable Energy Action Team agencies consisting of BLM, CDFG, U.S. Fish & Wildlife Service, and the energy commission. Habitat compensation will mitigate for the loss of Flat Tailed Horned Lizard, Burrowing Owl, American

Badger, and Desert Kit Fox habitat and the loss of Golden Eagle foraging habitat.

The compensation ratios of one-to-one for the loss of Flat Tailed Horned Lizard habitat on the solar plant site, which is 6063 acres, and the six-to-one ratio in the Yuha Desert Flat Tailed Horned Lizard management area, which is 93 acres, are consistent with the Flat Tailed Horned Lizard Rangewide Management Strategy. At the six-to-one ratio, the total number of acres that need to be compensated for is 557 acres.

Options for habitat compensation for the applicant includes the establishment of a security to fund the habitat compensation and purchase the compensatory habitat themselves, or establish a National Fish & Wildlife Foundation subaccount in which the REAT agencies, the Renewable Energy Action Team agencies use the funds to purchase compensatory habitat for the applicant. This approach is consistent with what BLM has indicated they will include in the Imperial Valley Solar Final Environmental Impact Statement, which is expected to be published tomorrow.

This habitat compensation approach is also being applied to all solar projects on BLM land, and staff's condition of certification attempts to stay in step with BLM's habitat compensation approach in their environmental

assessment.

As mentioned, the REAT agencies jointly developed the biological resource compensation mitigation cost estimate table utilized for conditions of certification Bio 10, Bio 17, Bio 19 as a means of providing the applicant with the additional option of paying in lieu mitigation fees rather than purchasing the habitat compensation themselves.

The REAT agencies have spent hundreds of man hours to develop an option for applicants that both satisfy the requirements of the law and is practical, feasible, fair, and allows applicants to meet ARRA deadlines.

The REAT agencies require consistency in the compensatory mitigation conditions across all ARRA-eligible solar projects, and any changes to these conditions would require further vetting with the REAT agencies and changes to the conditions in other AFCs.

Staff recently became aware of the applicant proposing project construction and compensatory mitigation payments phasing on July 16th, 2010. If payments are to be allowed and based on construction phasing, then staff, the applicant, and the REAT agencies must work out details and add a new condition of certification and possibly update other biology conditions of certification.

A U.S. Army Corps of Engineers 404 permit will be required and will most likely result in a corps requirement to permit and construct the least environmentally damaging practicable alternative, the LEDPA. Staff currently recommends Drainage Avoidance Number 1 Alternative, as staff did not analyze the various iterations of the draft LEDPA, which currently is a draft out for public comment.

The U.S. Army Corps has indicated to us that the final LEDPA will be decided by September at the earliest, and that the final LEDPA may very well undergo significant changes.

On-site noise impacts on wildlife created by the SunCatchers during plant operation will be significant and unmitigable. The project is going to be very noisy during operation, and staff cannot craft mitigation that would reduce noise impacts to less than significant levels.

In addition to the on-site noise impacts, the Imperial Valley Solar Project would cause significant adverse unmitigable impacts to the Flat Tailed Horned Lizard through take of individuals, which is estimated to be between 1300 to 2000 individuals during construction -- project construction and additional take during plant operations.

The loss of connectivity from permanent impacts

to movement corridors on the project site between the two Flat Tailed Horned Lizard management areas located north and south of the project site is also significant and unmitigable for the proposed project. However, construction of Drainage Number 1 Alternative would substantially reduce the impacts to Flat Tailed Horned Lizard connectivity.

MS. HAMMOND: Thank you.

Now, Mr. York, would you please describe the coordination between the agencies in reviewing the application and the various changes to the application, as well as the development of staff's assessment, identification of impacts, and recommendations for mitigation?

MR. YORK: Well, our standard practice is to always stay linked up with the wildlife agencies and make sure that we are including all the necessary reports that need to be in the assessment. We would need to make sure that we're using the most current information about these particular sensitive species and habitat issues. And ultimately we try to stay on these renewable projects in particular, stay linked up with the other agencies, because we want to have certain key things in agreement in the commission decision and in the BLM record of decision.

For this particular case, we've paid very close

attention to the issues, the big ticket item being the habitat compensation and things related to that, and we wanted to make sure that our agency coordination was very good on that issue.

We did coordinate very carefully with them on all the various facets of this project, and we believe what we have in our assessment here is an accurate reflection of what we've received as far as guidance from our agency partners.

MS. HAMMOND: And so to clarify, you did obtain input from Fish & Game, BLM, and the Service on identifying impacts and recommending mitigation?

MR. YORK: Yes.

MS. HAMMOND: And is there input reflected in your staff assessment?

MR. YORK: Yes, it is.

MS. HAMMOND: Now, do any of the sister agenda panelists have anything to add to that coordination?

Ms. Rodriguez or Ms. Sirchia or Mr. Steward?

MS. RODRIGUEZ: This is Magdalena.

I guess just to reiterate that we have been working closely with Joy, and as much as possible including BLM, Fish & Wildlife Service on this project for a while to try to be consistent on our mitigation. The only one I haven't been working with is Army Corps -- I

mean, I've gotten some information, but --

MS. HAMMOND: And have you reviewed the biological resources section of the supplemental staff assessment?

MS. RODRIGUEZ: I'm sorry, are you talking to me?

MS. HAMMOND: Yes, Ms. Rodriguez.

MS. RODRIGUEZ: Yes.

MS. HAMMOND: And do you agree with the conclusions contained in that section?

MS. RODRIGUEZ: Yeah.

MS. HAMMOND: Now, Ms. Nishida, Dr. Mock has testified that he estimates approximately 20 to 30 individuals will be killed on site during construction and during operation, whereas staff estimates that the number of individual deaths would be approximately 1300 to 2000 during construction with additional loss of individuals during operation.

Can you explain the difference?

MS. NISHIDA: I think --

THE REPORTER: Microphone please.

MS. NISHIDA: Oh.

HEARING OFFICER RENAUD: Let's clarify this is FTHL. I'm not sure that was in the question.

MS. HAMMOND: Thank you.

It is Flat Tailed Horned Lizard.

MS. NISHIDA: These estimates were derived from the U.S. Fish & Wildlife Service, and they were based on research conducted by Grant and Doherty in 2007 on detection probability and abundance, and then three Flat Tailed Horned Lizard management areas.

MS. HAMMOND: Ms. Sirchia, do you have anything to add to that statement that this estimate was based on input from the service?

MS. SIRCHIA: I can only concur that it was.

I'm sorry to be a pain in the neck federal regulator, but my guidance from our regional office is that I can really only answer questions posed by the committee, which I think are the commission members and the hearing officer.

MS. HAMMOND: Okay. Thank you for that clarification.

MS. SIRCHIA: But I concur with Joy, I mean, we just had that.

HEARING OFFICER RENAUD: I'm ready to ask Ms. Sirchia a question or two, but I can wait if you want to finish your examination. It's on exactly this paragraph.

MS. HAMMOND: That's fine.

HEARING OFFICER RENAUD: Okay.

"Sirchia," am I saying that correctly?

MS. SIRCHIA: It's Sirchia.

HEARING OFFICER RENAUD: It's "Sirchia."

This is Raoul Renaud, the hearing officer. And I'm flanked by the two committee members, so I think this is the appropriate questioning team over here.

In the supplemental staff assessment I see the estimate of about 1300 to 2000 FTHL in the project area, but also throughout the staff assessment I find reference to a survey that was done -- let's see, where was it -- I guess in 2007 or 2008 which resulted in a finding of four FTHL.

Are you familiar with that?

MS. SIRCHIA: Is that the survey done by URS?

HEARING OFFICER RENAUD: No, it was done --

MS. SIRCHIA: The surveys that were described in the biological technical report?

HEARING OFFICER RENAUD: Is that the one? All right. Yes.

And as far as I can see there weren't any other surveys, and that's the one everybody's pointing to.

How do you get from the four observed FTHLs to an estimate of 1300 to 2000 on the site?

MS. SIRCHIA: Well, we can't really use the survey described in the biological technical report because they didn't really come up with a density estimate

for the site.

And, Daniel Steward, please chime in if you have anything to add.

So basically they did -- the BLM requires them to do a customized occupational -- or occupation -- I'm sorry, that's not the right word, occupancy protocol survey on the site. And occupancy can really -- that protocol can only say whether or not the site was occupied or not and percentage of the site was occupied.

So we couldn't really use those numbers to come up with abundance for the site; so we had to use, you know, what was -- what we considered the best available data, which were data from the Grant and Doherty study that was conducted in the Yuha management area. And that study actually incorporated detection probability and came up with a density estimate and abundances.

HEARING OFFICER RENAUD: If I'm not mistaken, I think Dr. Mock testified today that his estimate of the site population was what, 500?

Anybody? Is that what he said?

We can ask Dr. Mock that.

I know you weren't here when he testified, but he's here.

And what was your estimate for the population of FTHL on the site?

DR. MOCK: Well, you have to understand the protocol surveys that were assigned to us to do were plot surveys. And you take the acreage of land that's surveyed, you multiply, and you determine the percent coverage. We had about a 38-percent coverage of survey effort. And then you apply a detection rate, okay? And the detection rate that was assigned at the time was 25 percent.

Subsequently in discussion with the agencies, they said, well, maybe that's too high, so we hazard to guess may be a 5 percent rate would be appropriate. But still taking the number of lizards detected on site and using those, you know, 38 percent coverage and a detection rate of 5 percent or 25 percent, whichever you want to choose, doesn't get you to a thousand animals.

HEARING OFFICER RENAUD: Okay. Thank you.

DR. MOCK: It gets you to something on the order of 150, 200 animals.

HEARING OFFICER RENAUD: Okay. So, Ms. Sirchia, do you know what detection rate Grant and Doherty used?

MS. SIRCHIA: Well, it varied based on the plots that they were on. And --

HEARING OFFICER RENAUD: They never did actually visit this site, I take it.

MS. SIRCHIA: There's no detection probability

estimated for this site using formalized survey protocols. I don't -- the 25 percent they got was just a number they got from the BLM.

Usually a detection probability is formulated based on your survey protocol, and I can't say why Dr. Mock didn't estimate his own detection probability from his survey protocol.

HEARING OFFICER RENAUD: Okay. So do you know of anyone other than the applicant's consultant who has in the last ten years surveyed the site for FTHL?

MS. SIRCHIA: No, I do not.

HEARING OFFICER RENAUD: Okay. Thanks. Appreciate it.

MR. STEWARD: This is Daniel Steward here in El Centro. And I can possibly shed a little light on the detection probabilities and how we arrive at those.

HEARING OFFICER RENAUD: Thank you. We'd like to hear that.

MR. STEWARD: And these detection probabilities is something that comes out of the habitat modeling that we do in the software program that we use in analyzing populations. We used program mark with Tyler Grant and Doherty's study. And these detection probabilities are a function of the results from our mark-recapture studies that we did in the Yuha management area. And so it's a

very different type of protocol doing mark-recapture where we captured lizards, marked them, and then release them to get that type of data. Much different than what we do when we're doing an occupancy-type survey like what URS had done on the site.

On the project that Pat had worked on, it was going out to determine whether or not Flat Tails are present. The study was not designed to determine density, it was just to determine whether or not Flat Tails were there.

HEARING OFFICER RENAUD: Okay. That's helpful.

In the three FTHL management areas that are referred to, is there off-highway vehicle use?

Either of you?

MR. STEWARD: Yes.

HEARING OFFICER RENAUD: All right. Is it on lawful trails or not on lawful trails or both?

MR. STEWARD: It's on designated routes of travel only.

HEARING OFFICER RENAUD: All right. Thank you.

Okay. Ms. Hammond, if you want to keep going.

Thank you.

MS. HAMMOND: Thank you.

I'm going to change the subject to speed limits, and revisit this conflict between the biological

conditions of certification and air quality.

Now, Ms. Nishida, you have recommended a condition that would have the applicant drive its vehicles 10 miles per hour on unpaved roads and 15 miles per hour on paved roads. And air quality recommends 10 miles per hour on unpaved roads and 25 miles per hour on paved roads. Can you state your position and why, as pertains to paved roads?

MS. NISHIDA: Well, part of the issue is we're anticipating the potential of these Flat Tailed Horned Lizard to exist on site after construction. And in order to avoid take of these species, Fish & Wildlife Service and I, we both felt that having a lower speed limit would, for one thing, increase the probability of detecting these lizards so they wouldn't get crushed by vehicles.

And plus, because of their cryptic coloration, most of it is you're catching movement, movement essentially in your peripheral vision, if that would help, if you're going slower, then you can also catch that as well.

And plus, when you're working at night, it's going to be a lot more difficult to see these animals, and so a slower speed limit would be advisable.

And also the other thing is it's going to be very busy during construction. If it's just slower, you won't

kill -- we feel you won't kill as many Flat Tailed Horned Lizards.

MS. HAMMOND: Were you present earlier when Dr. Mock testified to avoiding -- the avoidance and minimization plan for Flat Tailed Horned Lizard?

MS. NISHIDA: Yes.

MS. HAMMOND: And he mentioned that avoidance of Flat Tailed Horned Lizard is possible?

MS. NISHIDA: I was present. I don't recall.

MS. HAMMOND: Okay.

Moving on to staff's condition of certification that would have the applicant prepare a peer-reviewed paper on data collected on Flat Tailed Horned Lizards during the operation.

Now, the applicant opposes this requirement.

Can you explain what is the purpose of this requirement?

MS. NISHIDA: This requirement is essentially just to get information out to the general public. We were -- because so many people, such as consultants, consultants rely on this information. It would be great to have this information out there so this can actually help in possibly some sort of management, management of these species in these types of situations.

MS. HAMMOND: And did you receive support from

any of our sister agencies on this condition?

MS. NISHIDA: Yes. The other agencies were very much in favor of it.

And I believe Daniel Steward had what we felt was a good idea with regards to where to publish too.

MS. HAMMOND: So do you have a suggestion for the applicant?

MS. NISHIDA: Can -- Daniel, can you speak to that, please?

MR. STEWARD: Well, yeah, as far as like a specific place to publish, yeah, I don't know a lot of specific places. There are a number of scientific journals that would probably be glad to publish this type of research. And it would be very helpful for future management on other projects that could impact similar species.

MR. YORK: Daniel, I think you had a suggestion that maybe something could be -- one of the better places and maybe easier places to publish the information would be somehow related to the inter-agency coordinating group associated with the Flat Tailed Horned Lizard.

MR. STEWARD: Oh, okay. Yeah, I remember now. Talking about the -- our ICC annual report? Yeah. And this isn't a journal or like a peer-reviewed journal article per se, but the Flat Tailed Horned Lizard

Interagency Coordination Committee is an interagency group of land managers that manage Flat Tailed Horned Lizard, and consists of Fish & Wildlife Service, BLM, Fish & Game, Arizona Game & Fish, Marine Corps, Bureau of Rec, and others. And we produce an annual report every year where we summarize the various research projects and things that our agencies have completed.

MS. HAMMOND: Thank you, Mr. Steward.

Now, Ms. Nishida, the applicant has testified and requested that we remove mention of certain species from the condition of certification Bio 10.

Can you explain why those species were listed in that condition when that condition addressed primarily FTHL?

MS. NISHIDA: We had many, many comments about -- about other's special status species that may be impacted, impacted by the development of this project site. And so, for example, it would be loss of foraging habitat for Golden Eagle. So we thought it would be easy enough to say that, you know, habitat acquired for Flat Tailed Horned Lizard could easily be considered foraging habitat for Golden Eagle or loss of habitat for kit fox or badger or Burrowing Owl. You know, this is all habitat that could be utilized by all these species. And since we're not adding additional mitigation here, it's all

essentially stacked, there should -- you know, it doesn't seem to be -- doesn't seem to be a problem.

MS. HAMMOND: I think what you're saying is mitigation for Flat Tailed Horned Lizard impacts is indifferent to the addition of these species to the condition?

MS. NISHIDA: Right, yes, uh-huh.

MS. HAMMOND: Now, the intervenor CURE has pointed out that staff's analysis is not based on Golden Eagle nest surveys.

Can you respond to that statement?

MS. NISHIDA: Yes. What they're supposed -- they're -- I guess part of the recent guidance from U.S. Fish & Wildlife Service is that Golden Eagle surveys need to be done within a ten-mile radius of the project site. And as far as I know, the applicant has not done these surveys. Apparently Fish & Wildlife Service instructed the applicant to link up with San Diego Gas & Electric and get information from them regarding any Golden Eagle nest surveys.

MS. HAMMOND: And I just wanted to clarify. You said that the Fish & Wildlife Service said surveys were not necessary?

MS. NISHIDA: You know, for just -- you know, let me -- can I have Felicia answer that?

MS. HAMMOND: If she's willing.

MS. NISHIDA: Yes, uh-huh.

MS. SIRCHIA: I believe my guidance was that because I knew SDG&E was conducting surveys for their Sunrise Powerlink, that those surveys would be able to inform this project as well. And so I asked them to get in contact with SDG&E to get their survey results so we could determine whether or not nests occurred within a ten-mile radius of the project site. I'm not sure, I haven't seen any survey results, so from SDG&E, so I'm not sure what they are at this time.

MS. HAMMOND: Thank you.

I'm going to go back to Flat Tailed Horned Lizard protocols.

Ms. Nishida, did you authorize or okay the protocols used by Dr. Mock as he states in his rebuttal?

MS. NISHIDA: No, I was not involved with that, I was not working at the energy commission at that time.

MS. HAMMOND: Do you know if anyone from the energy commission approved those protocols?

MS. NISHIDA: I am not aware of anybody who was involved with that.

MR. YORK: I believe that protocols are proposed by BLM.

MS. HAMMOND: Oh. Now, Mr. York, the applicant

asked you about your analysis and whether or not it changes if federal or state law applies. Do you recall that?

MR. YORK: Yes.

MS. HAMMOND: Does your responsibility to analyze the project and its impacts include an analysis under CEQA, California Environmental Quality Act, and CESA, the California Endangered Species Act, as well as looking at LORS conformity?

MR. YORK: Yes.

MS. HAMMOND: And by "LORS," I mean laws ordinances, regulations, and standards.

So your analysis does include an examination of conformity with federal law under the LORS requirement, not under CEQA or state law.

MR. YORK: That's correct.

MS. HAMMOND: Okay. Now, the applicant has also questioned you, Mr. York, on long-term maintenance fees as we're proposing in the compensatory mitigation condition. And I'd like to explore why the energy commission and Fish & Game have not required acquisition alone to mitigate impacts.

So what does the long-term management and maintenance fee accomplish?

MR. YORK: The long-term maintenance and

management fee, or we sometimes call it an endowment, is for the long-term management and care of the habitats that are -- or the parcels that are purchased to compensate for the impacts.

MS. HAMMOND: Now, has the energy commission and to your knowledge the Department of Fish & Game historically required long-term management and maintenance fees irrespective of who actually manages the land or who owns the land?

MR. YORK: For the projects that I've been involved with that involved habitat compensation, we've always required the long-term maintenance and management, or the endowment, be considered as part of the total costs for mitigating the loss of habitat.

MS. HAMMOND: I have no further questions.

The energy commission witnesses are available for cross-examination.

HEARING OFFICER RENAUD: All right.

Would you like to proceed, applicant?

MS. FOLEY GANNON: Thank you.

CROSS-EXAMINATION

MS. FOLEY GANNON: Couple questions.

I guess we had discussions about the Flat Tailed Horned Lizard estimates, but again, just so that I understand, the number that was used as part of your

analysis and described in the supplemental staff assessment was derived wholly from the Fish & Wildlife Service?

MS. NISHIDA: Yes.

MS. FOLEY GANNON: So you didn't do a specific analysis.

MS. NISHIDA: No.

MS. FOLEY GANNON: You didn't take into account the surveys that were conducted on the site --

MS. NISHIDA: No.

MS. FOLEY GANNON: -- is that correct?

Okay. Turning to the big horn sheep, Peninsular Big Horn Sheep, staff assessment had described the 881 acres of ephemeral drainages on site as being potential foraging habitat. Is that still your position, that that is the correct calculation of potential foraging habitat?

MS. NISHIDA: That is.

MS. FOLEY GANNON: If the Service issued a biological opinion which found that there was less foraging habitat on the site, smaller percentage, not all of the washes, would that change your view?

MS. NISHIDA: You know what, I would need to discuss this with our other sister agency, California Fish & Game.

MS. FOLEY GANNON: And have you had discussions

about looking at the specific vegetation on the site, actually assessing the potential uses of these particular drainages based on the characteristics? Have you had that discussion?

MS. NISHIDA: Just briefly.

MS. FOLEY GANNON: So when you determined that this was potential foraging habitat, what was the basis again? Did you look at the particular characteristics of the drainages themselves, or was there something else that formed your analysis?

MS. NISHIDA: This was in -- this was input from U.S. Fish & Wildlife Service and California Department of Fish & Game. Their big horn sheep specialists weighed in on this.

MS. FOLEY GANNON: And to be clear, that guidance said all ephemeral drainages should be considered foraging habitat, irregardless of the vegetation present or just said --

MS. NISHIDA: Whatever the acreage --

MS. FOLEY GANNON: -- just whatever the ephemeral drainages is.

MS. NISHIDA: Right.

MS. FOLEY GANNON: So there was discussion about looking at these particular drainages and the habitat.

MS. NISHIDA: No, not at this time.

MS. FOLEY GANNON: Okay. That's helpful.

I had a question. I was slightly confused, I didn't hear what you said, or I don't know if I heard it correctly, so I wanted to get a clarification on something you testified to.

Talking about impacts to waters of the state associated with the Drainage Alternative Avoidance 1, you said that there was 38.1 acres of impacts to waters of the U.S. associated with that alternative?

MS. NISHIDA: No. I believe there was 48 acres.

MS. FOLEY GANNON: The staff assessment says 38 acres of impacts to waters of the U.S.

MS. NISHIDA: Waters of the U.S.?

MS. FOLEY GANNON: Yeah. And so what was the level of impacts to waters of the state? Because I thought you said that the impacts to waters of the state and waters of the U.S. were the same.

MS. NISHIDA: The same, yes.

MS. FOLEY GANNON: Okay. So the -- so in -- you're right, it does say different things in the staff assessment. It says waters of the state as 48 and waters of the U.S. as 38. So there's just -- there's a typo someplace; is that correct? Because they're supposed to be the same.

MS. NISHIDA: They should be the same.

MS. FOLEY GANNON: Okay. That's very helpful. Thank you.

MS. NISHIDA: Just one thing. I just want -- is there any -- there have been different iterations of this Drainage Avoidance Number 1 alternative. And I -- I'm not certain what the actual impact acreages are. On some testimony that Mike Fitzgerald submitted, he said 38.1; on older, older information I have it says 48 acre impacts.

MS. FOLEY GANNON: Okay. That's fine. Just so -- I just wanted to make sure I understood what the actual impact was, because in the staff assessment you also used the 38 acre number for waters of the U.S. associated with Drainage Avoidance Alternative 1.

MS. NISHIDA: Right.

MS. FOLEY GANNON: So I get it. I just wanted to make sure I got the equivalents there regarding that impact.

And also to discussing Drainage Avoidance Alternative 1, you designated that as a preferred alternative. What impact specifically related to biology does Drainage Alternative 1 address or lessen?

MS. NISHIDA: It lessens the impact to the movement corridors between the Flat Tailed Horned Lizard management areas.

MS. FOLEY GANNON: And it does that by?

MS. NISHIDA: By not avoiding development in the washes.

MS. FOLEY GANNON: In Wash C specifically is what you described in your staff assessment.

MS. NISHIDA: Right.

MS. FOLEY GANNON: That's one that's connected to that culvert we discussed earlier today that actually goes through it?

MS. NISHIDA: Yes. There's also another culvert, Culvert G, that allows one-way movement from the Yuha management area into the project site. So there is movement in that direction, but not back into -- not from -- from the project site south into the management area.

MS. FOLEY GANNON: I'm sorry, can you repeat that?

MS. NISHIDA: There is another set of culverts for --

MS. FOLEY GANNON: Under highway 8?

MS. NISHIDA: Under highway 8 for Drainage G, and it allows for movement of Flat Tailed Horned Lizards from the Yuha management area north into the project area, but doesn't allow it in the opposite direction.

MS. FOLEY GANNON: Okay. So your assessment is they can come from the south --

MS. NISHIDA: Right, and come into the project area.

MS. FOLEY GANNON: So what was significant about lessening that impact associated with Drainage Alternative 1 was really the avoidance of Drainage C --

MS. NISHIDA: Drainage C, and also Drainage G too.

MS. FOLEY GANNON: Particularly related near that culvert because it's a one-way passage --

MS. NISHIDA: Right.

MS. FOLEY GANNON: -- so it would be significant there.

Okay. That's very helpful.

And I assume also it was lessening impacts to waters of the U.S. and waters of the state.

MS. NISHIDA: Yes.

MS. FOLEY GANNON: Okay. Was there anything else that was making a significant difference between the proposed project and Drainage Alternative 1 in terms of biology?

MS. NISHIDA: That was mainly it.

MS. FOLEY GANNON: Okay. That's helpful. Thank you.

We talked a bit about the noise impacts. I think you were here earlier this morning when Dr. Mock was

talking about and referencing a sample that had been made which was giving the measurements based on Maricopa, the applicant's test facility. And that measurement shows 74 dBa on site. Would that make a difference in your assessment of the potential impact if it was 74?

MS. HAMMOND: Excuse me.

MS. HOLMES: Objection to that. I believe that misstates the testimony. I believe that the measurement from Maricopa is at the project boundary. We can check it to see.

MS. FOLEY GANNON: We did. It's Exhibit -- Exhibit 47 on page 262.

MS. HOLMES: And I will say that my characterization of this is based on discussion with the noise experts, so --

MS. FOLEY GANNON: Okay. Let's just look at it and get it resolved.

One moment. We're also opening it up. It's Exhibit 47 on page 262.

MS. HOLMES: I think if we're going to have lots of questions about Exhibit 49, we should ask to have our noise --

MS. FOLEY GANNON: Okay, that's fine.

MS. HOLMES: Do we want -- should we ask if they can be made available? We hadn't -- since nobody had

identified that as a topic for conversation, we hadn't planned to call them, but I think they may be here.

MS. FOLEY GANNON: We can do that, and we can get our noise person as well.

MS. HOLMES: Well, I think that if there's going to be testimony about noise, I think we ought to have -- I'm not going to ask Ms. Nishida to rely on your noise expert, in other words.

MS. FOLEY GANNON: No, absolutely not, of course. No, I meant we could as well in addition to yours. But we'd be happy to have yours obviously testify.

MS. HOLMES: I think the questions are about what this --

MS. FOLEY GANNON: So maybe we can finish the question though of if the noise level was measured to be 74 dB rather than 84 dB, would that influence your assessment about the significant impacts?

MS. HOLMES: Are you talking about Maricopa, the smaller --

MS. FOLEY GANNON: I'm talking about -- yes, if the measurement at Maricopa was 74 db, would that influence your determination about the significant impacts?

MS. NISHIDA: Well, seeing that Maricopa is such a small facility compared to what is going to be set up at

the Imperial Valley Solar facility, I really can't tell -- from what my husband, who's an engineer, tells me about noise, it's additive. You have a lot, you have about 30,000 SunCatchers, you're going to have a lot of noise out there.

MS. FOLEY GANNON: So what was the 84 dB, what was the source of that?

MS. NISHIDA: From your AFC.

MS. FOLEY GANNON: That -- we have our noise person testify on that.

We interpret that as saying something very different from the way it was interpreted in your staff assessment.

MS. NISHIDA: Yeah, you said under 85; so I said 84.

MS. FOLEY GANNON: Yes, under 85, right, not that it was 84, but that was the only source of the, was the AFC, the original AFC saying that the noise would be under 85.

Okay. Thank you.

While the -- is the Service still on the line? And I can't ask them questions that they're going to answer, but if I could ask them a question, what I would like to ask them is that I understand that they have been drafting a biological opinion, and whether they have

considered the necessary mitigation for the Peninsular Big Horn Sheep.

HEARING OFFICER RENAUD: Any representatives of the Service?

MS. SIRCHIA: I'm still here. This is Felicia.

HEARING OFFICER RENAUD: Hi. This is Raoul Renaud, hearing advisor up here with the commissioners. And I'm asking you the question that was just framed by counsel.

Did you hear it?

MS. SIRCHIA: I wasn't really paying attention, I'm sorry.

MS. FOLEY GANNON: We were asking about the mitigation which the service is considering for impacts to the Peninsular Big Horn Sheep.

MS. SIRCHIA: I'm sorry, I can't actually talk about the biological opinion since it's not signed. So I kind of just have to stick to clarification issues.

MS. FOLEY GANNON: Okay.

Turning now to the 15 mile an hour speed limit. One clarification, when I look at the draft conditions in the staff assessment -- not draft -- the conditions that are in the supplemental staff assessment, it looks like you were representing a 15 mile an hour speed limit throughout the site, not a distinction between paved and

unpaved.

MS. NISHIDA: That's true. That's correct. But I don't mind having the 10 miles per hour on the unpaved portion, that's fine.

MS. FOLEY GANNON: So that's what the applicant -- the applicant had suggested, the 10 miles an hour on the unpaved roads.

So that I understand it, do you believe -- do you believe that a vehicle driving 15 miles an hour is likely to be able to see a Flat Tailed Horned Lizard?

MS. NISHIDA: I think it increases the likelihood if you're going slower.

MS. FOLEY GANNON: I understand from all our discussions about the surveys, these are very hard to detect species; is that correct?

MS. NISHIDA: That's correct.

MS. FOLEY GANNON: And so you think that it would be a significant difference about the impact of the species.

MS. NISHIDA: Well, that's why we would like to slow it down, because they are hard to see and hard to detect; so if you're going slower, it's a greater chance of detecting them.

MS. FOLEY GANNON: I guess my confusion is the discussion about the ability to detect Flat Tailed Horned

Lizards with the biologists walking in front of construction machines. There was many indications they thought that would not be effective, you would never detect them. Is that consistent with it -- with your conclusion?

MS. HOLMES: I'm sorry, whose testimony are you referring to about -- if we could just get clarification about what testimony you're referring to with respect to the effectiveness of monitors so that she's got the contrast in front of her.

MS. FOLEY GANNON: Okay. Let me phrase it another way.

Do you feel that monitors walking in front of a -- the construction equipment can be effective in detecting Flat Tailed Horned Lizards?

MS. NISHIDA: From what I understand, there's a five percent detection rate.

MS. FOLEY GANNON: There's a five percent detection rate.

MS. NISHIDA: Right. But, you know, you're considering if you're going to be on these paved -- or these treated roads, and we're talking about an animal that likes to bury itself, it can't bury itself on these roads, so, therefore, it's going to be easier to detect.

MS. FOLEY GANNON: But you've assumed in your

assessment that most of the animals are not going to be utilizing this site; is that correct?

MS. NISHIDA: That's probably correct, but we don't know.

MS. FOLEY GANNON: Was the mitigation number based on an assessment that the whole site would be lost to Flat Tailed Horned Lizards?

MS. NISHIDA: Correct. Loss of habitat.

MS. FOLEY GANNON: Right, saying the loss of the habitat would be entirety. Okay.

And, again, we won't spend much time on the discussion about the need to have peer-reviewed articles, but I just wanted to understand, based on your testimony, you said you think it would be a good idea to have this type of information published.

MS. NISHIDA: Yes.

MS. FOLEY GANNON: Do you think that it's -- having this information authored by the applicant is necessary to reduce any impact to a less than significant level?

MS. NISHIDA: It doesn't necessarily need to be authored by the applicant.

MS. FOLEY GANNON: With regard to the impacts to the other non-listed species that are now included in the mitigation measure Bio 10, the badger, the American

Badger, the eagle, Burrowing Owl, Desert Fox, is there evidence that you have considered that would support the conclusion that there is going to be a potentially significant impact to these species?

MS. NISHIDA: You know, I know with the American Badger and kit fox -- American Badger, I know that directly across the interstate from the site there is a -- there's a documented occurrence there. Also, I believe there was a kit fox sign on the site. And also, with regards to Burrowing Owl -- let's see. We said from the -- from the AFC it says nine burrows with Burrowing Owl sign were identified within the survey areas. Three active Burrowing Owl burrows were located on the project site; one along the transmission line corridor and one near off-site reclaimed water line, and four in adjacent off-site locations. So it sounds like they're around there.

MS. FOLEY GANNON: So the totality of that evidence that they may be around in the area would lead you to conclude that there's a potential significant impact to those four species?

MS. NISHIDA: Well, it would possibly -- yeah, we're -- you know, possible take of these species.

MS. FOLEY GANNON: And a take of any one of these species would in and of itself necessarily constitute a

potentially significant impact?

MS. NISHIDA: Well, you know, part of the idea is that you're not -- we're not adding -- we're not adding extra acreages here.

MS. FOLEY GANNON: No, I understand; I'm just trying to make sure we understand the analysis. The applicant has no problem with providing things that are good for species.

But I'm just trying to make sure that the analysis, that I understand the analysis and the need and the requirements and how they all fit together. That's what I was just trying to get an understanding of.

MS. NISHIDA: Well, you know, what we are -- this is a way of -- we're losing -- we're losing -- we're losing potential foraging habitat here.

MS. FOLEY GANNON: I understand.

And finally just -- my last question is for you, Mr. York. This goes back again to the requirements for long-term management funding.

So again, your assessment is that under CEQA you need to have some sort of long-term management funding for lands that will be managed for listed species; is that correct?

MR. YORK: That's correct.

MS. FOLEY GANNON: And that's required by CEQA;

is that correct?

MR. YORK: We required it under our CEQA analysis, yes.

MS. FOLEY GANNON: Okay. Would the identity of the manager and their management needs influence the amount of long-term management funding that's required?

MR. YORK: That has not been the case for projects that I've been involved with.

MS. FOLEY GANNON: But, again, you haven't been involved in one that had land going to a federal agency; is that correct?

MR. YORK: That's correct.

MS. FOLEY GANNON: Okay. I have no further questions. Thank you.

HEARING OFFICER RENAUD: All right. Was there -- did staff want to get into the noise thing at all? Or either of you?

MS. HOLMES: Well, I guess that's the question. We have a noise witness who's available now and not later, so if the parties would like to ask questions about --

HEARING OFFICER RENAUD: I guess, you know, the noise analysis is typically not concerned with noise right there, it's concerned with receptors outside the site. So here we're looking at, you know, what's the noise at the site, and I think that's something we should ask about.

MS. HOLMES: Okay. That's all right.

Then we would call Erin Bright to the stand.

(Erin Bright was sworn.)

THE REPORTER: Would you please state and spell your name for the record.

MS. BRIGHT: My name is Erin Bright, spelled E-r-i-n, last name B-r-i-g-h-t.

DIRECT EXAMINATION

MS. HOLMES: Ms. Bright, did you prepare the noise section of Exhibit 302, which is the supplemental staff assessment?

MS. BRIGHT: Yes, I did.

MS. HOLMES: And did you also consult with biological resources staff concerning noise estimates on the project site?

MS. BRIGHT: Yes, I did.

MS. HOLMES: And you heard a discussion earlier this afternoon about some data that was filed, and I believe it was Exhibit 47, it might be 49, regarding noise measurements on the Maricopa site? Excuse me, it was 47.

MS. BRIGHT: Yes, I did.

MS. HOLMES: Are you reviewed that testimony?

MS. BRIGHT: Of the Maricopa data?

MS. HOLMES: Yes.

MS. BRIGHT: Yes, I have.

MS. HOLMES: Could you please explain your terms of that data and whether or not it affects the estimates that you provided to Ms. Nishida about potential on-site noise at the proposed project site?

MS. BRIGHT: Sure.

The way I interpreted the Maricopa data that was presented in the memo from Mark Storm was that the general purpose of it was to validate the noise model that was used to predict the noise levels for Imperial Valley Project. So the noise numbers that were presented for Maricopa wouldn't necessarily be applicable to Imperial Valley because those would be specific to the Maricopa project. However, I think that they could be a rough estimate of what would be expected for on-site values.

HEARING OFFICER RENAUD: Ms. Bright, could you be careful to speak right into your microphone?

MS. BRIGHT: I'm sorry.

HEARING OFFICER RENAUD: Thank you.

MS. BRIGHT: It could be used as a rough estimate for on-site values.

However, given that Maricopa is a fraction of the size of what Imperial Valley would be, I would expect that the on-site noise level would scale up to some degree from what the on-site level is presented to be.

So the 74 decibels presented as the value in the

middle of the SunCatcher field in that data would probably be a little bit higher for the larger scale project given that you'd have basically multiple groups of those 60 SunCatchers kind of around that center one.

But in talks with Mr. Storm who prepared the data, he agreed that 74 would be an acceptable estimate for the fence line values for noise. So I -- I would not be able to give an estimate for what the exact on-site level would be, but I would expect it to be higher than 74, but maybe not extremely so, like probably less than the 84 that's being presented, but higher than the 74 that the applicant's stating.

MS. HOLMES: Thank you.

MR. STORM: Can you hear me?

This is Mark Storm from URS San Diego.

HEARING OFFICER RENAUD: Hello, Mr. Storm. We are talking about noise right now, but if you'll just stand by, if anybody has any questions, we'll get to you.

MS. HOLMES: One last question, which I forgot to ask initially, was a statement of your qualifications included in the supplemental staff assessment?

MS. BRIGHT: I believe so.

MS. HOLMES: Thank you.

HEARING OFFICER RENAUD: Okay. Did you wish to ask any questions?

MS. HAMMOND: Excuse me. May have a moment to go over my notes?

HEARING OFFICER RENAUD: All right.

MS. HAMMOND: Thank you. I have no questions.

HEARING OFFICER RENAUD: All right. Applicant?

MS. FOLEY GANNON: Just one question.

CROSS-EXAMINATION

MS. FOLEY GANNON: You say it would be higher than the 74, somewhat higher. And, again, but you think 84 is probably a high estimate?

MS. BRIGHT: I would think that 84 probably would be a high estimate, but given that there was no precise value in the application, the 84 kind of taken -- kind of taken as a conservative estimate that was presented for on-site levels.

MS. FOLEY GANNON: Because I'm not a sound expert, but the difference of 10 dB is a significant increase?

MS. BRIGHT: 10 dB would be considered a significant increase, yes.

MS. FOLEY GANNON: Okay. And would you expect, and without being able to give a number, do you think it would be a significant increase, you know, having these groupings? And the 60 units are spread out -- I'm sure you've looked at the project. So the 60 units are spread

out, they're not all, you know, clustered together.

MS. BRIGHT: I -- looking at the site arrangements, I probably would not expect to see a 10 dB increase. That would be a pretty high estimation. But I can't say what it would be, I can't make an estimate.

MS. FOLEY GANNON: Okay. Well, thank you for coming down and clarifying this.

HEARING OFFICER RENAUD: All right. Anything else on that?

I have a question if no one else does.

In the biological resources section of the supplemental staff assessment page C.2-8, it says, "Operational noise levels are high, 84 dBa at the SunCatcher, and are constant during daylight hours."

And I just want to know what the source of that rather definite sounding statement.

MS. NISHIDA: It came from the AFC.

HEARING OFFICER RENAUD: The AFC said 84?

MS. FOLEY GANNON: No, the AFC said less than 85.

MS. NISHIDA: Less than 85, so I chose 84 as a conservative estimate.

HEARING OFFICER RENAUD: Well, Ms. Nishida, based on what you've just heard from Ms. Bright, would you care to revise that number, the 84?

MS. NISHIDA: Well, I wouldn't know what to

revise it to. It would say below 84 then.

HEARING OFFICER RENAUD: I guess no one's ever stood in a field of 30,000 SunCatchers and measured the sound.

MS. FOLEY GANNON: Right.

HEARING OFFICER RENAUD: All right. Thank you.

MR. SILVER: May I ask just one question for clarification?

HEARING OFFICER RENAUD: Yes, please.

CROSS-EXAMINATION

MR. SILVER: If the witness knows, for every say five decibels of increment in sound, do you know, that's not just an arithmatic function, do you know what that means in proportional or percentage terms?

MS. BRIGHT: Percentage of what?

MR. SILVER: Well, if we have -- what's the difference between 75 and -- 75 decibels and 80 decibel level; do you know? I mean, is it just purely arithmetic where it would be just another 1/75th?

MS. BRIGHT: It's arithmetic value, but decibel levels are taken as a logarithmic scale, on a logarithmic scale. So it's a significantly -- well, on a sound-pressure level basis, it's a significant difference. I believe we say it's a doubling sound for every -- 10 decibels is a doubling in audible sound levels. So like

to get from 5 to 10 would sound about -- 10 would sound twice as loud as 5 would.

MR. SILVER: All right. So there would be a significant difference even at the 5 decibel level in terms of increment.

MS. BRIGHT: For human receptors, we say things -- up to 5 is an insignificant increase, with 3 being the threshold for noticing like there is a difference in noise. 5 to 10 would be a significant increase for human receptors -- no, 5 to 10 would be potentially significant; over 10 is significant. Sorry.

MR. SILVER: And do you know of studies that have been done with regard to animal receptors and sound?

MS. HOLMES: That would be a biologist.

MR. SILVER: Okay.

HEARING OFFICER RENAUD: Okay. Are we -- so, Ms. Nishida, are you coming up to answer that?

MS. NISHIDA: No.

HEARING OFFICER RENAUD: Applicant, did you have --

MS. FOLEY GANNON: One more question.

CROSS-EXAMINATION

MS. FOLEY GANNON: Looking at the Maricopa numbers, it looks like, you know, center of the site is 74, and when you get to the fence lines, one fence line it

gets down to 68, one fence line it gets down to 67. So this seems to indicate, again, with distance you're going to see a lessening and a dispersal of the noise; is that correct?

MS. BRIGHT: That's correct.

MS. FOLEY GANNON: So when you're talking about the 30,000 SunCatchers, would you anticipate that like the noise from one side of the 6,000 acre field and the noise from the other side of the 6,000 acre field are going to be working together additively?

MS. BRIGHT: I wouldn't think -- it's hard to say additively, because the way that noise is usually modeled, you point sources that kind of add together. So given how far away they are from one side to the other would be additive maybe in the center, but it would be hard to say to what degree they would be.

MS. FOLEY GANNON: Because I was just thinking if you were trying to determine this, you would be looking also at the number, the distance, their location, correct, all of those things --

MS. BRIGHT: Those things would all go into the noise modeling that would determine what the noise would be, which Mr. Storm had put together, so he'd be probably more qualified to say what the noise modeling would be for those points.

MS. FOLEY GANNON: Okay. Thank you.

MS. MILES: I have a question.

CROSS-EXAMINATION

MS. MILES: I'm wondering how far from the project site would the noise attenuate to 60 dBa in approximate feet or --

MS. BRIGHT: I can't say off the top of my head. Based in my noise testimony, I know that at the various residential receptors, the closest one, which I believe is 40300 feet from the project boundary, it attenuates down to about 45 decibels. So somewhere in between the project boundary and that like 40300 feet it would be attenuating down to -- yeah, so somewhere in there.

MS. MILES: Would you say like halfway in between, a third of the way in between? Can you give a rough estimate?

MS. BRIGHT: I can't do that off -- it's a logarithmic calculation, I'd have to actually get a calculator out.

MS. MILES: That's my only question.

HEARING OFFICER RENAUD: Okay. Any other staff, biological testimony on wildlife or plants?

MS. HOLMES: You mean direct?

HEARING OFFICER RENAUD: Direct.

MS. HAMMOND: No.

HEARING OFFICER RENAUD: All right.

MS. FOLEY GANNON: I finished my questions for them as well.

HEARING OFFICER RENAUD: All right. Let's see.

You know, I have a question for Dr. Mock. Is he still here? Going back to the determination of the population of FTHL on site.

MS. HOLMES: Excuse me, Mr. Renaud, is Ms. Bright dismissed?

HEARING OFFICER RENAUD: As far as I'm concerned, yes.

MS. HOLMES: Thank you.

HEARING OFFICER RENAUD: Thank you.

Okay. Dr. Mock, we heard some information earlier that Grant and Doherty were -- their study was relied upon for estimating the population at the site. Are you familiar with the paper that was referred to, 2007 paper?

DR. MOCK: Yes. That's the results of their population estimates in the management areas.

HEARING OFFICER RENAUD: And they used, what, West Yuha, East Yuha, and there's a third one, I think.

DR. MOCK: And West Mesa. East Mesa and the Yuha Desert.

HEARING OFFICER RENAUD: And Yuha. Thank you.

Which of those three is closest to the proposed site?

DR. MOCK: The Yuha Desert is south of the site, on the south side of Interstate 8. And the West Mesa is two or three miles to the north.

HEARING OFFICER RENAUD: And they actually counted lizards it looks like.

DR. MOCK: They did a mark-recapture study.

HEARING OFFICER RENAUD: They marked them with Sharpie. They did. That's what it says.

DR. MOCK: To a certain extent.

And their level of effort per plot was much higher.

HEARING OFFICER RENAUD: They spent more time with more people per plot?

DR. MOCK: Yes.

HEARING OFFICER RENAUD: Okay. Do you have any comment about the validity of using their surveys as a way of estimating the populations at other sites?

DR. MOCK: Well, this is where I have concerns, is that the plots that they measured aren't random or even systematic. They're specifically sited to be considered habitat that they know is occupied and they would hope is optimal, optimal habitat.

HEARING OFFICER RENAUD: I see.

DR. MOCK: So these are what I have been termed optimal habitat plot surveys. And to take data from optimal habitat and apply it to a site that we feel is degraded and has certain edge effects and all those type of things that would presumably influence the density of the population is misplaced. And especially given that we implemented a very well-thought up methodology developed by the BLM and applied with the agency's input and did it in such a way that you presumably should be able to extrapolate some kind of order of magnitude estimate of what the population level is, is a problem, at least in my mind.

We're saying that depending on whatever density or detection rate you want to assume, even if you did, you know, five percent detection rate, it doesn't get you to a thousand animals. It gets you to 150 to 200 animals. And so it's really difficult to say that the population size is in the thousands when the data would suggest at best it's in the hundreds.

HEARING OFFICER RENAUD: Okay. So their goal was to determine the population in the state, in known areas of the state as opposed to determining a methodology for estimating in my backyard.

DR. MOCK: The population estimate within the management areas.

HEARING OFFICER RENAUD: Okay.

DR. MOCK: Which is the core habitat areas they're trying to conserve.

HEARING OFFICER RENAUD: Okay. That helps. Thank you very much.

MS. HOLMES: Can I ask a follow-up question on that?

HEARING OFFICER RENAUD: Please, of course.

MS. HOLMES: You talk about there being an optimal habitat site. When you did your surveys on site, did you survey optimal habitat, did you focus on optimal habitat? I thought I heard you testify earlier that you didn't.

DR. MOCK: No. The whole point is for it to be unbiased across the whole landscape, and so we spread the plots evenly across the site.

MS. HOLMES: So you didn't focus specifically on optimal habitat.

DR. MOCK: That wouldn't be -- that wasn't the purpose of the survey.

MS. HOLMES: Was the purpose just -- was the purpose to determine presence and not to determine density?

DR. MOCK: Presence to the effect that each plot had a certain expectation of detection, and then you can

apply it across the whole site because you know what the percent coverage of acreage was surveyed.

MS. HOLMES: No, but in terms of the purpose, was the purpose to establish whether or not there was presence?

DR. MOCK: I don't think it was to establish presence per se, because they already knew they were there. And so this is a detection methodology to try to get a distributional relationship, how much of the site was potentially occupied.

MS. HOLMES: And I'd like to ask one more question, and counsel can object to it because I should have asked it earlier.

MS. FOLEY GANNON: Let me hear it.

MS. HOLMES: We heard -- we have different estimates in front of us about the number of Flat Tailed Horned Lizard that may be on site. And you've testified that in your professional judgment that the -- "killing" sounds like such a charged word. I don't know what the biological term is for -- take, taking.

Do you have a professional opinion about, and you don't need to give me a specific number, but some sort of a ball-park figure about how many Flat Tailed Horned Lizard it would be okay to take and at what point do you cross over a line?

DR. MOCK: That sounds like a --

MS. HOLMES: Well, I'm curious. We have these various estimates. If, in fact, you were convinced that there was going to be a take of 2000 Flat Tailed Horned Lizard, would you consider that to be a significant adverse impact?

DR. MOCK: I need to be convinced there's 2000 present first.

MS. HOLMES: I understand that.

DR. MOCK: But given the data that we have -- and I can only rely on the positive data, not negative data or data that people are imagining in their minds, the survey data, it was a systematic survey across the entire site, and so based on the results of that survey, we're inferring that perhaps several hundred animals are present.

From a habitat point of view, it's less than a percent of the total inventory in California. And so you can take it from a habitat level perspective or for the number of animals.

Well, the number of animals present on site, at least we interpret as being lower than optimal habitat and, therefore, the number of animals you would expect to be taken is lower as well.

MS. HOLMES: Is there any number of animals --

the take of any number of animals that you would consider to be a significant adverse impact?

DR. MOCK: Given that we have the region-wide strategy in place, is that this area was deemed available for other land uses other than conservation and, therefore, that's an acceptable take.

MS. HOLMES: So any number would be an acceptable take, given this location.

Thanks.

HEARING OFFICER RENAUD: All right. Good.

MS. SIRCHIA: Excuse me. This is Felicia from Fish & Wildlife Service. Can I just clarify something?

HEARING OFFICER RENAUD: Yes, of course.

MS. SIRCHIA: The survey that Grant and Doherty did was based on mark-recapture plots, and it was a stratified random sampling protocol. So they didn't select plots based on the best habitat within the Yuha management area.

HEARING OFFICER RENAUD: Thank you.

Dr. Mock, anything?

DR. MOCK: That's not how it was related to me by the BLM staff.

HEARING OFFICER RENAUD: Dr. Mock, have you seen or read the article?

DR. MOCK: I believe I have.

HEARING OFFICER RENAUD: All right.

MS. MILES: And I have one question related to the article for Dr. Mock.

Did the study estimate habitat quality, or was it only detectability? The Grant study.

DR. MOCK: They used mark and recapture study to develop the model for estimating density, and therefore a population estimate subsequently.

MS. MILES: So it wasn't about habitat quality.

DR. MOCK: I don't believe so.

MS. MILES: And also one other question relating to what you just said.

I believe you said you cannot -- you cannot rely on negative data. Can you repeat what you stated?

DR. MOCK: The negative data being the lack of -- let's see what I was trying to think when I was saying that. Is that we have certain survey effort, and you have to rely on the positive detection to inform your decision. And, of course, there's always potential for missing things, but negative data is what it is, you know, and there's certain -- that's why you apply these detection rate clarifiers to say, well, you only have a certain probability of detection, and so that inflates your estimate. But the concern was we didn't find enough animals to inflate it to a thousand animals or more.

COMMISSIONER EGGERT: I think -- sorry, go ahead.

MS. MILES: And my follow-up question relating to that is struck by the parallels to the big horn sheep impacts and the fact that there is -- I believe that your testimony was heavily dependent upon the negative data of the radiotelemetry and road kill.

DR. MOCK: It's related to -- there's sufficient opportunities to detect them because there's lots of people in the vicinity that would have reported them if they were detected. And the concern was that due to the lack of those such reports, that it's likely that that negative information is real because there's lots of opportunities for people to detect because there's a lot of recreationalists, a lot of BLM activity out there monitoring the recreationalists, that they would have over the years, you know, frequently detected the big horn sheep in the general vicinity of the project. And that was -- the concern is it was a very unexpected detection and no one even saw it on the radar.

MS. MILES: And when you say it would have been noted, the detections by recreationalists and such, would that have -- I mean, do you believe that if the sheep had been detected, that would have been reported to Fish & Wildlife and would have ended up in the types of databases that you would evaluate for looking to see what species to

study?

DR. MOCK: It's been related to me by the BLM staff when they do -- when the recreationalists do detect them, they're reported to the BLM. The BLM gets reports, but they're reports from the areas where the sheep are normally expected to be. And so the expectation is that the sheep are pretty interesting animals and they like -- and the recreationalists like to tell people about it when they do see it.

MS. MILES: And when your contract- -- when the applicant's contractor detected sheep on the project site, was that reported to the BLM or Fish & Wildlife Service within a month?

DR. MOCK: It was reported. I don't know the date that it was reported.

MS. MILES: Do you know if it was reported before you submitted a response to our data request with that information?

DR. MOCK: I have no recollection of the dates.

MS. MILES: I ask just because I remember Fish & Wildlife, I believe, I recall Fish & Wildlife saying that they had no knowledge of it prior to us telling them.

DR. MOCK: I have no -- since it wasn't a URS employee, I have no specific knowledge of the timing of the report.

MS. MILES: Was that employee working under your direction?

DR. MOCK: No, it was a separate contractor, not related to our contractor.

MS. MILES: Okay. Thank you.

HEARING OFFICER RENAUD: Okay.

Commissioner Eggert has a question.

COMMISSIONER EGGERT: Thank you, Raoul.

I think the term that or the phrase that apply to the previous conversation was that absence of evidence is not evidence of absence; but evidence is what we have to go on. And I guess I'm still trying to understand the significance of the variation in the different estimates as it relates to our process and CEQA. But, actually, I do have a question with respect to the survey.

Do you expect -- if you were to go back out and spend twice as long, three times a long, four times as long, however long, do you think that you would have a better estimate of the population, and by how much do you think it would change in terms of -- do you have a sense for that based on your professional opinion?

DR. MOCK: If we applied the same methodology as was applied for the Grant-Doherty study, then we may get a different estimate. But that's not what the data -- how the data was collected or requested to be collected. And

their plot sizes were much larger, they were hectares in size, and I think they had four or six biologists looking for them within that plot. So it was a fair amount of effort. And so the detectability was higher because there was more eyes on the same -- on a per-square-foot basis. So you'd expect the detection rate would be higher as well.

The main difference between the Yuha Desert habitat and this habitat is the sand is finer, so they can actually track the animals better and detect them and identify which species is actually present. It's much more difficult on the project site because the sand grains are coarser, and they don't leave tracks when they go through the habitat.

COMMISSIONER EGGERT: Okay. And I think my next question is the converse of the one that Ms. Holmes asked, which I think is for staff, Mr. York, or Ms. Nishida. And that is if, as it relates to mitigation conditions, is there any population below which you would consider the impacts to be less than significant?

MS. NISHIDA: Because of the difficulty in detecting Flat Tailed Horned Lizards, it's hard to get even a good accounting of the number of individuals. So -- you know, so we really don't have a good idea of how many are actually out there. So, you know, you take --

you take 25 individuals, you know -- I don't know -- I wouldn't know how significant it is unless it's compared to what we know is out there.

COMMISSIONER EGGERT: So maybe a different way of asking the question is if you had a high degree of confidence of the population that existed on the site, how does that affect your perspective on mitigation? And I realize this is a hypothetical, so -- if we knew, if there was precisely 27?

Again, this I think for my own education on the CEQA process as much as anything.

MS. NISHIDA: Could you repeat that again?

COMMISSIONER EGGERT: If you knew that there was precisely 27 Flat Tailed Horned Lizards on this site, how would that affect the mitigation -- how would you perceive with respect to mitigation under CEQA?

MS. NISHIDA: That's a tough question.

MS. HAMMOND: Commissioner Eggert, are you -- does your question assume that it is this site with this habitat?

COMMISSIONER EGGERT: Yes. I guess, because it seems like there's at issue here is a discrepancy between the estimates that have been made, and presumably at some point that translates into some aspect of mitigation. So I'm trying to determine what is the link between the

population estimate and the mitigation requirements that might be required for a particular site.

MS. HOLMES: Would it help you to know that the mitigation requirement, the off-site habitat compensation is associated with habitat loss, and that the effect of the loss of the individuals in the staff testimony was for staff to reach a conclusion that it was a significant, adverse, unmitigable impact. In other words, staff didn't impose additional mitigation as a result of that.

Does that help you understand this any better?

Doesn't sound like it.

COMMISSIONER EGGERT: It might -- because I know there's -- you can deal with things like mitigation factors, you know, one-to-one, greater than one-to-one, I don't know if there's less than one-to-one, but I'm just trying to determine what are the factors that contribute to what eventually becomes the mitigation requirement.

MS. HOLMES: That would be -- I think that's a legitimate question as to how staff comes up with its ratios and how the population densities --

COMMISSIONER EGGERT: Correct.

MS. HOLMES: -- affect that. Okay. I think that's much clearer.

COMMISSIONER EGGERT: I think that's maybe the line I'm searching for.

MS. NISHIDA: Okay. Can you repeat that?

COMMISSIONER EGGERT: So, yeah, again using the hypothetical example, which is that if we knew that there were to be 27 of these FTHLs on this -- again -- or maybe Ms. Holmes can help me with asking the question.

MS. HOLMES: I'll ask it as a direct examination question then, I guess.

DIRECT EXAMINATION

MS. HOLMES: Mr. York or Ms. Nishida, can you explain how habitat quality affects the ratios associated with habitat acquisition requirements?

MS. NISHIDA: This is -- it's -- the quality that they're talking about, usually what's in the management areas tend to be of higher quality, so, therefore, any impacts within the management areas are -- have a higher mitigation ratio.

MS. HOLMES: And did staff impose additional mitigation requirements on top of the habitat compensation requirement to reflect the number of individuals that were lost?

MS. NISHIDA: No.

MS. HOLMES: Does that answer your question?

COMMISSIONER EGGERT: Repeat that second question again.

MS. HOLMES: Did the fact that the staff

estimated that there were a number of individuals on site that would be lost affect the habitat compensation ratio that has been identified in the staff testimony?

MS. NISHIDA: No.

COMMISSIONER EGGERT: Okay.

MS. NISHIDA: The ratios that we were using come from the Flat Tailed Horned Lizard Rangewide Management Strategy.

MS. HOLMES: And there were no additional mitigation requirements imposed as a result of the loss of the individuals.

MS. NISHIDA: Correct.

MS. FOLEY GANNON: The way I heard your question, Commissioner Eggert, was different. And as you originally phrased it, you said it was a converse of what Ms. Holmes asked Dr. Mock, which I thought was -- I was very interested in hearing the answer, which was driving, I think, at the point of is there a line where it would be less than significant.

COMMISSIONER EGGERT: That was the intent of the original question, correct.

MS. FOLEY GANNON: And I didn't think we got an answer to that question.

COMMISSIONER EGGERT: I guess, maybe -- so, yeah, that is the question that I'm wondering if maybe I'm -- at

some point is there evidence that the habitat that would actually have presence of a particular species but perhaps be of poor quality for that species. And again, I don't know if I'm using the right terminology, but I see Raoul nodding his head over here.

MS. NISHIDA: Right. And certainly I guess, according to the Rangewide Management Strategy, you know, it's -- it's mitigated at a one-to-one ratio.

HEARING OFFICER RENAUD: But if there were only 27 lizards on this site, wouldn't that be an indication that it's pretty bad habitat? If there was great habitat, there would be a lot more. So does that affect the thinking about mitigation ratios? If it's not good habitat, do you impose a lower ratio than if it were really good habitat?

MS. NISHIDA: No, no, I don't know, because we are following -- this is solely about the loss of Flat Tailed habitat, not loss of individuals.

HEARING OFFICER RENAUD: Right. But does it matter whether or not you're losing really great habitat versus losing really crummy habitat? Pardon my coarse descriptions, but, you know, if you have a lot of -- well, go ahead.

MS. NISHIDA: Could you -- could you repeat --

HEARING OFFICER RENAUD: Yeah. Well, again, I

mean, if you have -- if an acre of really -- of habitat that really isn't very good for lizards is going to be paved over, are you going to make the person who's doing the paving replace it with an acre somewhere else?

MS. NISHIDA: If Flat Tailed Horned Lizards did occur there, yes.

HEARING OFFICER RENAUD: Suppose that same acre that's going to be paved over had an abundance of lizards, so it was -- you could tell it was especially prime habitat, would you require more than one acre?

MS. NISHIDA: Unfortunately, if it isn't in the management area, then you can't require the higher mitigation ratio.

HEARING OFFICER RENAUD: Okay.

MS. NISHIDA: It's -- any impacts within the management areas have a higher mitigation ratio.

HEARING OFFICER RENAUD: Okay. And the site is within the management area.

MS. NISHIDA: No, the site is next to a management area, it's not a management area.

HEARING OFFICER RENAUD: So then you could apply a variable ratio.

MS. NISHIDA: Well, but since we're following the Flat Tailed Horned Lizard Rangewide Management Strategy, that is solely what we're following here, and I -- I -- I

can't -- I couldn't put a variable on that.

HEARING OFFICER RENAUD: Do you have to follow it? I mean, I'm really confused here. If you're not in a management area, do you have to follow the strategy?

MS. NISHIDA: Yes, this is something that various agencies, Fish & Wildlife Service, BLM, Fish & Game, they all have agreed to this Rangewide Management Strategy, and you know, this project site is on BLM lands.

HEARING OFFICER RENAUD: Okay.

MS. HAMMOND: So as this question is coming from the committee, I would just open up the opportunity for Magdalena Felicia or Daniel to chime in.

HEARING OFFICER RENAUD: Of course.

MS. HAMMOND: If they'd like.

HEARING OFFICER RENAUD: They would be encouraged.

MR. STEWARD: This is Daniel Steward at BLM. And the Rangewide Management Strategy has also been amended to the California Desert Conservation Area Plan, so we recognize the strategy as part of our land use planning in how we manage that area. Therefore, we adopt everything in the strategy for management of our land.

HEARING OFFICER RENAUD: Thank you.

Anyone else?

All right. We've been looking for the last hour

and a half for a time to take a short break.

MR. BUDLONG: Excuse me. This is Tom Budlong, you said anyone else, and I didn't quite respond. Did you mean me?

HEARING OFFICER RENAUD: Do you have some questions?

MR. BUDLONG: I have one question for Daniel Steward, if that's all right.

HEARING OFFICER RENAUD: Okay. Go ahead, try it.

CROSS-EXAMINATION

MR. BUDLONG: You mentioned earlier on that you didn't see any OHV activity off of designated routes in the study areas. And my experience with OHVs is if there's nobody looking and the territory is ripe, good habitat for OHVs, they go off the designated routes, a number of them do. And my impression is that that kind of habitat is good for OHVs, it's good for Flat Tailed Horned Lizards.

Can you tell me why you concluded that they do not go off the designated routes?

MR. STEWARD: Well, the management within our management areas is they are not allowed to go off route. And we do have an active habitat restoration program where we do go out and restore illegal incursions into our management areas. We also have law enforcement patrols

that go out and actually write citations and things like that when they find people off route.

But, yes, there is a degree of noncompliance, and we do the best we can with public outreach, fining, enforcement, and restoration.

MR. BUDLONG: Independent of all those efforts, can you characterize how much off route travel area is?

MR. STEWARD: Well, it varies by location. Where we have -- where we have an open area boundary right next to a Flat Tail management area, we have higher degrees of incursions than where we have more remote areas. Sometimes also depends on the types of trails that there are, how far the line of sight is, or how open the ground is, or rocky. So it varies quite a bit how much off-route activity that we have.

MR. BUDLONG: How much law enforcement present is out there? Would you say there's somebody out there every day when there's a lot of activity?

MR. STEWARD: Yeah. And that varies by our law enforcement operations that they have. Sometimes they'll have a number of officers out there, like several in a day; sometimes, if there are special events happening or like on a busy holiday weekends, we bring in extra staff from other areas to help out there. And so it really varies by -- by what's going on and the relative risk to

people and safety and stuff like that.

MR. BUDLONG: Okay. I think that answers my question. I just -- when you said that before, you said that -- I think you indicated there wasn't any off-road activity, and I just wanted to establish that there is some out there.

That's the only question I have. Thank you.

HEARING OFFICER RENAUD: Okay. Thank you.

MS. MILES: I have one follow-up question specifically relating to the range wide management. One, I promise.

HEARING OFFICER RENAUD: Okay.

MS. MILES: It's directed for Joy Nishida, but if other agencies wanted to weigh in, they could.

CROSS-EXAMINATION

MS. MILES: I was wondering if you know -- if you have any evidence that the Flat Tailed Horned Lizard Rangewide Management Strategy has been effective in ensuring the long-term viability of Flat Tailed Horned Lizard.

MS. NISHIDA: I couldn't answer that.

MS. MILES: So you are just enforcing it because it is something that's required, not because you can say that it's an effective mitigation strategy.

MS. NISHIDA: Correct.

HEARING OFFICER RENAUD: Okay. Thank you.

Break?

Yes, Mr. Meyer?

MR. MEYER: Based on your earlier direction, I've talked to the parties and determined that August 10th is a good day for the committee-sponsored workshop.

HEARING OFFICER RENAUD: All right.

MR. MEYER: And I am working to secure the Bonderson Building for a start at 10:00 a.m. going possibly until 5:00, 6:00 in the evening.

HEARING OFFICER RENAUD: All right. Thank you.

Yes, Ms. Holmes?

No? Okay.

The committee will ask the parties to attend that workshop, participate, 10:00 a.m., August 10th in the Bonderson Building, unless another location is noticed, but for now assume it will be the Bonderson Building, which is across the street from us here on 9th Street.

MS. MILES: Hearing Officer Renaud, will the record remain open until after that workshop?

HEARING OFFICER RENAUD: Yes. Yeah. There is --

MS. FOLEY GANNON: We'd like to discuss that at the end of today. We were hoping, based on -- whether the record should be open on the issues that we had all the hearings on. We were hoping to be able to get into our

briefing and to be able to move forward, and if we reach some agreement, we can put it in by stipulation of the parties after the record is closed.

HEARING OFFICER RENAUD: Yeah, I assumed that the record remaining open was only about biological resources. That's the subject of the workshop, right?

MS. MILES: That's correct. Well, anything that's dealt with in the workshop.

MS. HAMMOND: Anything dealt with in the workshop, and I think those are in the proposed changes to the conditions of certification.

MS. FOLEY GANNON: And, again, if we could discuss that at the end of these hearings, we would like to be able to move forward.

MS. MILES: Yeah, I believe it might -- it might also involve soil and water resources to the extent that it involves alternatives and --

HEARING OFFICER RENAUD: Whether or not I pronounce the record open or closed or whatever from up here doesn't really mean anything if someone comes up later and says, hey, we have this new stuff, and it's relevant, and here's why we couldn't give it to you before. And it's a good reason. We're going to let it in. So I wouldn't worry too much about whether I say the magic words and bang the gavel.

MS. FOLEY GANNON: But it can affect whether we can do briefing or not or whether we're going to do briefing or not, correct?

HEARING OFFICER RENAUD: That's a hypothetical, you'll have to -- I really want us to take a break.

MS. HOLMES: Before we break, have all of the parties cross-examined staff's witnesses? I just wanted to see if we could release them, but it sounds as though we cannot.

HEARING OFFICER RENAUD: No, but we're going to take a break anyway. So be back here by ten minutes to 5:00.

(Recess.)

HEARING OFFICER RENAUD: We're back on the record.

It looked to me like what our next step would be CURE cross-examination. Right? All right.

MS. MILES: And just one bit of housekeeping.

Again, the parking garage, when it closes, can we have another five-minute break at that point before it closes. That's at 7:00 p.m.

COMMISSIONER BYRON: I understand. I've had my car locked in that garage.

MS. MILES: Thank you.

I don't have an enormous number of questions, so

everyone can feel relieved by that.

HEARING OFFICER RENAUD: I'll believe that when I see it.

CROSS-EXAMINATION

MS. MILES: First of all, Ms. Nishida, you testified to the mitigation being stacked relating to a number of species, which is different than nesting, but in terms of all of these species can be protected by preserving Flat Tailed Horned Lizard -- land that's adequate for Flat Tailed Horned Lizard.

But are you requiring that the land purchased have habitat for those other species, that there be some confirmation that that land have habitat for the other species?

MS. NISHIDA: According to the -- to the condition, it's mostly geared towards Flat Tailed Horned Lizard habitat.

MS. MILES: So you'd be satisfied if you found out that the land actually did not contain habitat that would meet the needs of the other species?

MS. NISHIDA: We're assuming that it probably will contain that habitat.

MS. MILES: And what do you base your assumption on?

MS. NISHIDA: Just on the -- the habitat that the

project site is located on, you know, we figure that there's going to be a whole lot of things that utilize that habitat, and we figure that there's going to be, you know, any lands got in compensation will probably also support other species as well.

MS. MILES: And have you evaluated the lands that are potentially -- that you believe are going to be acquired?

MS. NISHIDA: No.

MS. MILES: Does the CEC siting guidelines require protocol surveys if such surveys exist?

MS. NISHIDA: Are you talking about Burrowing Owl in particular?

MS. MILES: That is the one.

MS. NISHIDA: You know, normally we do. That one, I, unfortunately, let slip through the cracks, and I was hoping other agencies could help me -- you know, could help me keep track of these things, but I'm sorry, that didn't happen.

MR. YORK: What we normally recommend is that the applicants consult the agencies before they start the surveys and abide by the protocols, recommendations that the agencies provide them when they're setting up their field studies.

MS. MILES: And I did hear today in this room

that there's an effort being made on the part of the energy commission staff to maintain consistency among the different ARRA projects. Did you hear that as well? Is that your understanding?

MS. NISHIDA: With regards to mitigation -- oh with that compensation table? Yes.

MS. MILES: Okay. So that your effort is limited only to the mitigation compensation?

MS. NISHIDA: That, and also we're trying to also be online with the rare plant mitigation as well.

MS. MILES: Because I do note that the Calico project similarly has the same applicant, and they also did not do the Burrowing Owl surveys, and were required to go back and do Burrowing Owl surveys.

So you intuited that I was going to ask about Burrowing Owl protocol surveys.

And with regard to Golden Eagle surveys, why did the staff not require Golden Eagle surveys?

MS. NISHIDA: We're following direction of the Fish & Wildlife services.

MS. MILES: Fish & Wildlife, that's right.

And did you ever receive the results from the surveys?

MS. NISHIDA: No, I did not.

MS. MILES: Will the result -- could the results

from the surveys affect your conclusions regarding impacts to Golden Eagle?

MS. NISHIDA: You know, that -- that would probably be under the purview of the Fish & Wildlife Service. And they're going to -- they're going to probably need to -- need to require what -- a take permit, probably.

MS. MILES: So in your view, under your responsibilities under CEQA, you do not feel that it would affect your conclusions regarding impacts to Golden Eagle?

MS. HOLMES: I'm sorry, what would affect? I'm sorry.

MS. MILES: The decision -- okay, so the results from the surveys, could those affect your determinations relating to your analysis that you're required to do under CEQA?

MS. NISHIDA: I suppose they would.

MS. MILES: Is it your understanding that badgers and kit fox are protected from take?

MS. NISHIDA: From what I understand, yes. And I believe it has to do with some provision about fur-bearing mammals of some sort.

MS. RODRIGUEZ: This is Magdalena from Fish & Game.

Do you want me to just comment on that or --

MS. MILES: Yes, please.

MS. RODRIGUEZ: Actually, the Desert Kit Fox is protected under Title 14 as far as take. And that's actual take of the animal. So that's why we propose passive relocation, the same as in all the other projects, all the projects on I-10.

In addition, the badger doesn't necessarily have that same protection, however, we -- we are requesting passive relocation for the badger. But this site didn't have -- as far as I know, didn't have a badger on it; but if it does, when they do their surveys on site, then they would have to passively relocate in addition.

MS. MILES: Okay. Thank you.

Will badger and kit fox be able to exit the site once the perimeter fence is installed?

MS. NISHIDA: I -- from what I understand, I know one of the -- one of the ideas that is possible -- I don't think I can -- I know that this is part of the BO for the big horn sheep, and I believe they were planning on putting in gates every so often to let big horn sheep out, that was one of the things that they were possibly thinking about requiring for the BO. But, you know, that's in draft form, this is just something I heard from Guy Wagner. And so if these gates are there to allow big horn sheep out, then certainly it can allow the smaller

mammals out as well.

MS. MILES: How do the gates work?

MS. NISHIDA: You know what, they're placed -- I can't remember what they are, but they are placed certain -- these gates are placed a certain number of feet apart along the fence line.

MS. MILES: And animals can get through the gates? They're designed to --

MS. NISHIDA: No, I think they're designed to be opened up for them to get out, is what I believe. But you know what, this is -- you know, I'm turning on territory that I'm not -- I'm not that certain about here. This is something that we should -- we'll probably learn in the BO.

MS. MILES: And how does the energy commission plan to -- the staff, how has the staff designed the conditions to avoid take particularly to kit fox and potentially for badger?

MS. NISHIDA: Well, the only thing, we did avoidance and minimization measures, just essentially, as one of my colleagues says, sort of shoo them, shoo them off the site.

MS. MILES: What is the mitigation to avoid impacts to birds protected by the Migratory Treaty Act in the vicinity of the project site?

MS. NISHIDA: In the vicinity or within?

MS. MILES: In the vicinity.

MS. NISHIDA: So you're talking outside of the project area?

MS. MILES: Right, that could be affected by noise or disturbance.

MS. NISHIDA: There are, from what -- what I recall, I don't believe there isn't anything there, I think possibly -- maybe a buffer about a -- well, some buffer around it, but that's about the extent of it.

Only, yes, as far as mitigation on site, there's nest avoidance.

MS. MILES: Can you describe the specific success criteria and triggers for mediation associated with the weed management plan?

MS. NISHIDA: No, I -- I couldn't go into much detail about that. You know, it would require me to look through it a little more closely. As I -- you know, this is something that is required by Bureau of Land Management, and we are just sort of the avenue in which to have this done.

MS. MILES: And would your -- would your response be given regarding the raven management plan and whether -- if you could describe success criteria and triggers for mediation?

MS. NISHIDA: No.

MS. MILES: And I understand that Flat Tailed Horned Lizard will be moved out of harm's way; is that correct?

MS. NISHIDA: That's what I understand.

MS. MILES: And is staff requiring a translocation plan or any other information on how or where they will be moved?

MS. NISHIDA: You know what, this will probably be determined through the -- through the conferencing opinion from U.S. Fish & Wildlife Service. I know that there was going to be more details about that in the conferencing opinion.

MS. MILES: So would you say that your analysis is not completed on that issue?

MS. NISHIDA: You know what, I -- there's -- it is -- what I'm doing is requiring them to follow the conferencing opinion. And -- because I -- I cannot, you know -- because they -- essentially I consider what's happening is that through this conferencing opinion there are a number of Flat Tailed Horned Lizard experts weighing in on this opinion, on what should be done. A lot of the -- a lot of the minimization avoidance measures have been taken from the Rangewide Management Strategy, so this is -- this is being -- being used for this conferencing

opinion.

MS. MILES: Thank you. No further questions.

HEARING OFFICER RENAUD: All right.

Budlong, questions?

MR. SILVER: No questions.

HEARING OFFICER RENAUD: All right. CNPS?

MR. BELTRAN: No questions.

HEARING OFFICER RENAUD: All right.

Any redirect?

MS. HAMMOND: No.

HEARING OFFICER RENAUD: Applicant, no questions?

Staff?

I'll take that as a no.

MS. HAMMOND: No.

HEARING OFFICER RENAUD: Okay. All right.

Are there any further staff witnesses on any aspect of biological resources?

MS. HAMMOND: No, there are not.

HEARING OFFICER RENAUD: Does applicant have any further witnesses on any --

And does CURE?

I'm just trying to assess where we are here.

MS. MILES: I do have some questions that I wanted to ask the BLM, that I mentioned earlier.

HEARING OFFICER RENAUD: All right. Let me just

sort of take an inventory here.

What do you have to present on biological resources? Anything?

MS. MILES: We have two witnesses present to present.

HEARING OFFICER RENAUD: All right. Earlier in the day we started out segregating wildlife from other types of biology. Are we still doing that?

MS. FOLEY GANNON: I was going to suggest -- I have two witnesses as well for biology remaining. One is related to botany plants, and the other is related to aquatic resources, waters of the U.S. particularly, and the LEDPA. I'm happy to put them on both together. I think that the botany we can get through relatively quickly, at least for my opening testimony. And I know we have to do public comment at 5:30. I think I can get him done in five or ten minutes, at least with the opening.

HEARING OFFICER RENAUD: Hold on. Hold on.

CURE, you haven't yet put on witnesses. Do you have any witnesses on wildlife, your witnesses?

MS. MILES: Yes.

HEARING OFFICER RENAUD: Okay. And you haven't had a chance to do that at all. So I think in the correct order of things, that would be next. And you're welcome to start with that testimony, if you'd like, unless it's

only going to be 20 minutes long, we will have to interrupt for public comment at 5:30.

MS. MILES: That's fine. So should I have witnesses assemble down there?

HEARING OFFICER RENAUD: I think that's best, so everybody can see and hear them.

MS. MILES: Hearing Officer, would you mind checking just to make sure that BLM is willing to stay on the phone, because I realize that it's been a rather long day, and I'm not sure that --

HEARING OFFICER RENAUD: Do you have a particular person in mind?

MS. MILES: Well, Daniel Steward in particular.

HEARING OFFICER RENAUD: All right.

Mr. Steward, are you still there?

Daniel Steward?

MR. STEWARD: Can you hear me?

HEARING OFFICER RENAUD: Oh, good, you're still there?

MR. STEWARD: I had the mute button pressed.

HEARING OFFICER RENAUD: All right. Good. Well, if you -- can you hang on for another little while?

MR. STEWARD: Yeah. I'll be on here for a little while longer, but I would like to remind everybody that the BLM wasn't able to present here under oath as a

witness or anything. What information we're giving is more informational purposes only.

HEARING OFFICER RENAUD: All right. Maybe it would be best if you asked your questions of Mr. Steward right now.

MS. MILES: Yeah.

HEARING OFFICER RENAUD: All right. The attorney for CURE has some questions for you, Mr. Steward.

CROSS-EXAMINATION

MS. MILES: Okay. My first question is did the applicant ask you for information on Golden Eagle nest sites or potential nesting habitat in the project's vicinity?

MR. STEWARD: Honestly, I can't remember.

MS. MILES: Okay. That's fine.

Are you familiar -- I believe you're familiar with the environmental assessment that was prepared for the Ocotillo meteorological tower, met tower.

MR. STEWARD: Uh-huh.

MS. MILES: Can you tell me where that tower is in relation to the project site?

MR. STEWARD: The Ocotillo Express project, I think it's somewhere around four or five miles to the west of the project site.

MS. MILES: And would you say that's as the crow

flies?

MR. STEWARD: Yeah. I'd have to look at a map to measure it out, but it's a few miles. It's on the other side of the town of Ocotillo.

MS. MILES: Okay. We reviewed the EA, and we noted that it said relating to Golden Eagle, that a number of raptors are known to occur in the general area, and it attributed that statement to you. And it said that Golden Eagles are known to nest on cliffs in the vicinity.

Can you indicate what cliffs that that EA was referring to?

MR. STEWARD: I believe that's referring to some areas in the Coyote Mountains, which are to the northwest of the project site. And there have been some researchers who have indicated they've seen nesting and stuff in the Coyote Mountains. I really don't know where those nests were, they were on the north end of the mountains or the south end or what. Those mountains, I guess, are -- the toe of the mountain is about seven miles from the project area, I guess.

And then I've heard more or less anecdotally from other people working on the Ocotillo Express project that they have seen eagles further to the west.

MS. MILES: Thank you.

Do you know if the environmental documents

prepared for the project identified impacts to Swainson's Hawk or neotropical migrants?

MR. STEWARD: Are you talking about for the --

MS. MILES: For the Imperial Valley Project.

MR. STEWARD: -- for the Imperial Valley Solar Project?

MS. MILES: Yes.

MR. STEWARD: I'm not sure off the top of my head.

MS. MILES: Okay. Do you recall an e-mail that you sent to Dr. Mock that indicated that the Fish & Wildlife Service was concerned about impacts to migratory birds?

MR. STEWARD: I think so, but I would need to know what context it was. We did have some discussions about migratory birds early on.

MS. MILES: Okay. We looked at the e-mail, and it requested that Dr. Mock provide information on the protocols that URS used for the project's biological monitoring studies. So that's why I was asking that question.

MS. FOLEY GANNON: Hearing Officer Renaud, is the question -- I know we had the panels earlier in order to be able to talk about the mitigation numbers that the staff had requested in advance, and I'm just wondering,

just in concern for time, because this is not actually evidence that's before -- that's going to be before this committee or the commission, how -- can we set a time limit on how long this discussion can go on?

HEARING OFFICER RENAUD: Yes.

MS. FOLEY GANNON: Thanks.

HEARING OFFICER RENAUD: Ms. Miles, do bear in mind that this is not testimony under oath, this is really more in the nature of comment.

MS. MILES: Right, and we actually --

HEARING OFFICER RENAUD: So going into details about e-mails and so on may be going a bit far afield.

MS. MILES: We did bring the environmental assessment for that met tower project, and we did want to submit that in evidence. And I understand what you just stated about e-mails, and I will try to confine my comments. And I understand we're under time constraints.

I think that's all I'm going to ask.

Thank you for responding to my questions.

HEARING OFFICER RENAUD: All right. Thank you.

Ms. Foley Gannon, would you like to proceed then with the witnesses you mentioned?

MS. FOLEY GANNON: Well, I think we said that CURE was going to do its witnesses.

HEARING OFFICER RENAUD: That's right. I'm

sorry. I forgot where we are. Right. Okay.

I guess we might as well go ahead with the first bit of your testimony on biological resources.

MS. MILES: Okay.

(Vernon Bleich and Scott Cashen were sworn.)

THE REPORTER: Would you please state and spell your name for the record.

DR. BLEICH: Vernon Bleich, B-l-e-i-c-h.

MR. CASHEN: Scott Cashen, C-a-s-h-e-n.

THE REPORTER: Thank you very much.

DIRECT EXAMINATION

MS. MILES: Mr. Cashen, whose testimony are you sponsoring today?

MR. CASHEN: My own testimony with exhibits and my initial and supplemental rebuttal testimony with exhibits.

MS. MILES: Do you have any changes to your sworn testimony?

MR. CASHEN: No.

MS. MILES: Are the opinions in your testimony your own?

MR. CASHEN: Yes.

MS. MILES: Would you like to -- also sponsor the exhibits we were just discussing in terms of the met tower EA?

MR. CASHEN: Yes. I'd like to enter into evidence Exhibits 477 and 499K through 499M.

MS. MILES: And the met tower EA is not included in those numbers, so I'm just wondering, we brought copies actually, so we can distribute them after.

MR. CASHEN: Okay. And I also have a few documents that I -- or figures that I'm going to be showing, and I brought a few copies of those if anyone would like to see those.

HEARING OFFICER RENAUD: Give us those exhibit numbers once again, please.

MS. MILES: 477 and 499K through 499M. And there will be a new exhibit; and I can't remember what the exhibit number is, but when I offer it, I can give you a new exhibit number.

So, Hearing Officer, Mr. Cashen has already summarized his education at the previous hearing, should we go through that again?

HEARING OFFICER RENAUD: Not unless anybody wants it, I doubt anybody does.

No? No.

Okay. No.

Let me ask first, do you all have the copy of the CURE exhibit list, you can see what those four exhibits are. Does anybody object to those being admitted? If

not, I can just read what they are.

MS. FOLEY GANNON: Not the existing -- the existing exhibits? I have no objection. The newly proposed one, we may want to discuss.

MS. HAMMOND: Staff has no objections.

HEARING OFFICER RENAUD: Thank you.

(Intervenor CURE's Exhibits 477 and 499K through 499 M were received into evidence.)

MS. MILES: In addition to reviewing all of the applicant's documents and the staff assessment, was there anything else you did in conducting your analysis of this project?

MR. CASHEN: In addition to the things that you just mentioned, I participated in the scoping meeting and the project workshops. I also reviewed aerial imagery and topographic maps and maps submitted by the applicant. I reviewed records contained within the California Natural Diversity Database, and the California Consortium of Herbaria.

I've reviewed dozens of peer-reviewed scientific publications as well as species accounts and management plans relevant to the project's biological resources. I reviewed all of the relevant survey protocols.

I spoke with numerous well-recognized experts in the field of wildlife, botany, and conservation biology.

And I had a seven-person field crew spend two days investigating the site.

MS. MILES: Thank you.

Can you briefly state why you -- what your concerns are with the survey data that the applicant provided?

MR. CASHEN: Yes. Well, I'll try and be as brief as possible.

MS. MILES: Thank you.

MR. CASHEN: In general, there were you only two focus surveys -- two focus survey efforts, and those were surveys for the Flat Tailed Horned Lizard that we've heard a lot about today, as well as rare plants. And there were no other focus survey efforts conducted for sensitive biological resources that might occur on the project site.

Of the two that I mentioned the applicant conducted focused surveys for, there were many problems that in my opinion would undermine the credibility of the data that were provided. The survey crew had virtually no experience surveying for botanical species in the Sonoran Desert. And it appears that the only prior training that they had or experience that they had with conducting Flat Tailed Horned Lizard surveys was from a one-day training exercise that the BLM conducted with them. And that's very problematic in both areas because it takes quite a

bit of experience and knowledge to be able to identify some or many of the plants that have the potential to occur on the project area. And it is not something that an inexperienced person would be able to accomplish in a reliable manner.

And more or less the same thing is true for Flat Tailed Horned Lizard. There's been quite a bit of discussion today about population estimates. And through my conversations with many people who have participated in the actual rangewide monitoring that is going on with Flat Tailed Horned Lizards across several of the different management areas, these -- this organism is very difficult to detect, and it is not something that a person can undergo a single day of training and expect to be able to go out and do an adequate job of searching for the organism. It takes quite a bit of experience, having conducted a survey, to learn -- my understanding is to learn the nuances behind how to detect this animal.

In the interest of being brief, I'll leave it at that.

MS. MILES: Thank you.

So why is the Flat Tailed Horned Lizard is a species that's proposed for listing?

MR. CASHEN: The primary reason is due to historic habitat loss. This -- the Flat Tailed Horned

Lizard has a very restricted range, as a matter of fact, I believe it has the most restricted range of all the horned lizard species in the United States. And it's suffered considerable habitat loss in the past.

And in addition to that historic habitat loss, there are many current threats to the lizard population that remains.

MS. MILES: And how does this project -- would the project affect the long-term viability of the Flat Tailed Horned Lizard? Or what is -- the size of this project, is that a significant impact regarding loss of habitat?

MR. CASHEN: Yes. There's -- there's going to be several impacts to the species as a result of this project. And the first would be just the direct impacts. And as currently proposed, the project would result in the loss of over 6,000 acres of occupied habitat for this species that is currently proposed for listing, primarily as a result of habitat loss. So for a species that's being proposed for listing because of habitat loss, loss of 6,000 or 6500 acres is very considerable.

There's going to be mortality to a considerable number of lizards, and there's going to be indirect impacts to the lizard on the project site for the lizards that are not killed, and those impacts have not been

mitigated. There's going to be an increase in predators as a result of the project, there's impacts from noise, there's impacts from road mortality.

And of these, the increase in predators near the edges of human developments is known to be particularly detrimental to Flat Tailed Horned Lizard populations. And the documents provided by the applicant indicate that they believe that these primary predators of Flat Tailed Horned Lizards, such as the round-tailed ground squirrel and Waterhead Shrag and American Kestrel are going to benefit from the project and are likely to increase. And there has been no mitigation proposed for that.

And so what this means is we're looking at not only losing 6,000 or 6500 acres of habitat directly, but there's going to be this, what's termed an edge effect, an indirect effect to all the lizards that remain around the outside of the project site, including within the Yuha Desert management area to the south as a result of this project. And those have not been fully mitigated.

I don't want to get stuck too much in the population number estimate, but I would like to say what we've heard staff and Fish & Wildlife Service iterate today, and that is what the applicant conducted was distribution surveys, not surveys for estimating population size. And so we can speculate all we want

about whether five's an accurate number or a hundred or 500 or a thousand, but they didn't do surveys to estimate population size.

And so in the absence of that, I agree with what Ms. Sirchia said, from Fish & Wildlife Service, that the most appropriate -- that the best data out there is from this study that was conducted by Grant and Wright -- or there was Grant and there was another name mentioned. The one I was looking at was from Grant and Wright, it was published by the BLM in 2003. And their estimate was an average of a half a lizard per acre in the Yuha Desert management area, which is just to the south and is very similar to what occurs on the project site. So if you use that number, we're looking at over 3,000 lizards, on average.

Now, you know, that's, in my opinion, a better estimate than using numbers from a survey that were never intended to estimate population size.

MS. MILES: What about impacts to Flat Tailed Horned Lizard as a result of the project's linear features?

MR. CASHEN: There would be impacts to Flat Tailed Horned Lizards as a result of the linear features as well. There's the transmission line that goes right through the reserve to the south, the Yuha Desert

management area. And it would result in indirect -- well, actually direct and indirect impacts to that management area.

And then there's the -- there would also be impacts associated with the water pipeline from Seeley to the project site. And those impacts have not been addressed and not been mitigated, or there is no mitigation proposed for those impacts from the water pipeline, even though the Flat Tailed Horned Lizard Rangewide Management Strategy specifically says that a project's indirect impacts, such as projects like pipelines, need to be assessed and may require compensation if they cannot be fully mitigated by other means.

MS. MILES: Thank you.

HEARING OFFICER RENAUD: I think -- I hate to interrupt your examination, but I think we better take a break and see if there's public comment, and so just hold that thought.

We did indicate public comment would be available at 5:30.

Let me ask first is there anyone here in the room who wishes to make public comment.

MR. BUDLONG: Yeah, this is Tom Budlong.

HEARING OFFICER RENAUD: Hold on, Mr. Budlong.

Sir, the gentleman in the green, were you standing to make a public comment?

MS. HOLMES: This is a member of staff.

HEARING OFFICER RENAUD: All right. Never mind.

Okay. Mr. Budlong, you're a party. I don't think public comment -- you're not the kind of public comment we're looking for. We're looking for non-parties.

MR. BUDLONG: All right.

HEARING OFFICER RENAUD: Is there anyone on the phone who wants to make a public comment to the committee members at this time?

MS. CUNNINGHAM: Yes. Hello? Can you hear me?

HEARING OFFICER RENAUD: Yes.

MS. CUNNINGHAM: Laura Cunningham.

HEARING OFFICER RENAUD: Go ahead, please.

MS. CUNNINGHAM: Yeah, I'd like to make a comment.

I worked as a wildlife biologist, and I've surveyed for Flat Tailed Horned Lizard in West Mesa management area in the 1990s. And I've been on the project site. And I'd just like to respond to a couple of points from Dr. Mock.

First, he did not do any sort of population density estimate. All he did was presence/absence. So what you really need to do is a mark-recapture study on

the project site to get a population density estimate.

Also, I drove on highway 8, and in my professional opinion, Flat Tailed Horned Lizards could pretty easily cross that highway, just over the highway. And it would be a filter, some would be killed, but you only need a couple to keep the genetic connectivity of that area open. So that is not a barrier.

Also, in my opinion, surveying for Flat Tailed Horned Lizard, washes are actually not their preferred habitat. I've never actually seen a Flat Tailed Horned Lizard in washes. I've actually seen them more on gently-sloping alluvial flat terrain, which is most of the project. So excluding SunCatchers from washes and keeping them in the rest of the habitat is not actually going to benefit the Flat Tailed Horned Lizard.

That's all. Thank you.

HEARING OFFICER RENAUD: All right. Thank you for your comment, Ms. Cunningham.

Is there anyone else on the phone who cares to comment at this point?

MR. EMERICH: Yes, there is.

My name is Kevin Emerich. I'm with the Basin and Range Watch. And I have a short comment, it won't be that long. And it's about big horn sheep.

And for 11 years I actually worked as a park

ranger for the National Park Service. And this was in Death Valley National Park. And this had different subspecies of big horn sheep, it's the desert, and the Nelson Big Horn Sheep, but still, it has very similar adaptation and habitat requirements of the Peninsular Big Horn Sheep.

And one of my duties was to assist the park's Resource Management Division in monitoring the Desert Big Horn Sheep population in an area called the Black Mountains in the southeastern portion of the park. And we did this by using remote wildlife cameras, walking surveys in temperatures up to like a 118 degrees, and surveys by airplane.

It really was not uncommon on good wildflower years in the spring time in Death Valley to see big horn sheep grazing on annual spring vegetation on the lower bajadas or the alluvial fans in an area called Artist's Drive in the park. And the topography of that is quite similar to that of the proposed Imperial project site.

On the Imperial, the abundance of the Big Galleta Grass suggests a potentially good foraging habitat for big horn sheep. I visited the Imperial site, and I believe it does provide -- excuse me. I visited that site. I do believe that it does provide a very good habitat for this species. The fact that there have been actually a few

sightings of the sheep on the site makes it seem obvious that sheep use the site.

I think it's kind of short-sighted of the applicant to write this habitat off as unimportant to the species. And bottom line is the federal land endangered species, if it's seen on the site repeatedly, I mean, let's face it, the species is using the site.

I really question whether enough time was committed to consider the site as useful and survey for signs for sheep.

I also believe it's difficult to conclude that the site is not important to the species based on the short time that the applicant has spent surveying.

I'd like to request the proposed site be considered for conservation as a connectivity corridor for Peninsular Big Horn Sheep rather than be developed for industrial energy.

Thanks a lot.

HEARING OFFICER RENAUD: All right. Thank you Mr. Emerich.

Is there anything else who wants to make a public comment?

All right. Anyone on the phone? Just checking one more time.

All right. Thank you.

Well, we'll conclude public comment then, and we'll continue with direct examination by Ms. Miles.

DIRECT EXAMINATION (Resumed)

MR. CASHEN: I actually brought some pictures for everyone to look at so that they could stay awake, and I just have this flash drive, and maybe we could get a volunteer. These are all -- almost all of these are from exhibits that have already been submitted.

MR. MEYER: Hearing Officer Renaud, while he's setting it up, just wanted to let you know that I was able to confirm, we're going to be in hearing room 102 on August 10th. So we are confirmed for that room in the Bonderson Building.

HEARING OFFICER RENAUD: Perfect. Thank you.

So that confirms the August 10th workshop, 10:00 a.m., Bonderson Building, room 102.

MS. MILES: Also, I wanted to clarify what the exhibit numbers were for the exhibits that got passed out.

HEARING OFFICER RENAUD: All right.

MS. MILES: So I have titled the exhibit "Interim Golden Eagle Inventory and Monitoring Protocols" 499-0.

The California Wildlife Habitat Relationship System Document for Golden Eagle, 499P.

The map that shows the Golden Eagle distribution for San Diego County, I believe is what it is, but Scott

Cashen will talk about it and identify it, as 499Q.

And the EA excerpt, 499R, for the Green Hunter Wind Energy LLC Ocotillo Meteorological Tower.

HEARING OFFICER RENAUD: Got that. Thank you.

(Intervenor CURE's Exhibits 499-0 through 499R were marked for identification.)

MS. SIRCHIA: Hi. This is Felicia from the Fish & Wildlife Service. I just wanted to let the commission know that I would be leaving the call at 6:00. I don't know how long the hearing is supposed to last --

HEARING OFFICER RENAUD: It may last a long time, but I actually think -- I don't think we're going to need you anymore. You were very useful, and you're welcome to listen in as long as you like.

MS. SIRCHIA: Thank you.

HEARING OFFICER RENAUD: And thanks for letting us know that.

MR. CASHEN: We don't have a pointer, do we?

HEARING OFFICER RENAUD: Actually, there is one in the drawer.

COMMISSIONER BYRON: Mr. Cashen, you can use the microphone at the podium and the mouse.

MR. CASHEN: That would be great.

COMMISSIONER BYRON: And I think that -- that would help.

Do we still have anyone online that's on WebEx?

HEARING OFFICER RENAUD: We do.

COMMISSIONER BYRON: And that way they can see where you're pointing as well with the mouse on WebEx.

MR. CASHEN: Would it help to dim the lights a little? Put on some soft music?

Okay. Sorry. Ready now.

I can just go ahead and start talking about this.

I think the most significant impact of this project would be that it would completely eliminate connectivity between the two Flat Tailed Horned Lizard reserves that are located in the area, the Yuha basin management area, which is right here, and West Mesa management area, which is up here. I'm sorry, this is from the supplemental staff assessment cumulative impacts, Figure 3.

And if you can see on this map here, there's a complete -- well, the project is here, this green, and then there's a complete line of proposed projects in between. And I actually have another slide I think that represents -- here's the situation that we're looking at right now with the Yuha Desert management area here and the West Mesa management area here.

And this is the project site roughly, right here. So it's directly between those two reserves. And it's so

large that it would almost completely envelope all the area in between those two reserves.

And this is what the situation would look like afterwards under the cumulative impact scenario. You have the project site here, and then other projects, if approved, would completely block any potential for movement between those two reserves.

And that's -- that's really significant because, you know, basic principles of conservation biology is that we need to maintain connectivity between reserves. And it's important to maintain gene flow, especially when we are predicting that there is going to be global climate change and we cannot necessarily predict how animals will respond to that. There needs to be a way for animals to adapt and to be able to -- be able to recolonize areas from which they are extirpated. And by completely eliminating connectivity between these two reserves -- and I should mention that there are only five of them, and two of them are already completely isolated. And so this would isolate two more. That's very significant. And I think it jeopardizes the long-term viability of this organism.

The mitigation that has been proposed for this project primarily resolves around habitat acquisition. And although there have not been any habitat acquisition

lands identified, the general strategy is to obtain private parcels within the management areas.

And one of the questions that we had for staff that didn't get asked, and so if I'm wrong, please correct me, but I'm assuming that these colorless blocks within the management areas are private parcels. And if anyone knows better, they're welcome to correct me. But that's what it appears like to me, and I believe that's an accurate guess, given what I know about the land ownership in these management areas.

And so I do conceive purchasing a private parcel here or here is going to do nothing to mitigate the loss of connectivity between these two reserves. It may improve connectivity within a reserve, but it will not mitigate connectivity between reserves.

Dr. Mock testified earlier about the value of habitat within management areas and that this site had lower value habitat and that the land in the management areas had higher quality habitat. So in a sense, to me at least, he was suggesting that this was actually better, to buy these private lands within these reserves instead of maintaining or conserving land on the project site. And that's -- the reason that Dr. Mock gave for that was that there was OHV activity on the project site and in the management areas that OHV activity was limited, and so it

would be a benefit overall to the lizard to be conserved within this management area. And that's simply not what the research indicates about this organism.

There was a study by Tyler Grant who was also one of the co-authors on that research paper we were talking about a little earlier, and he was the -- I believe he was the coordinator for the U.S. Fish & Wildlife Service for Flat Tailed Horned Lizard issues. And he conducted a study in the Yuha Desert management area, this one here, and recorded with empirical data, that there was an average -- that vehicle tracks covered an average of 8.5 percent of the Yuha basin management area, and that was as high as 20 percent in some areas. 20 percent vehicle tracks in this area. So it's not really fair to present an image of this as being some perfect place for Flat Tailed Horned Lizards to live happily ever after, because that's not necessarily an accurate representation.

There's also been some suggestion that Interstate 8 is a barrier to movement. And we've heard testimony earlier today about culverts. And certainly culverts do enable connectivity. But for those of who have not been in the area --

MS. FOLEY GANNON: Excuse me, Hearing Officer Renaud, is there a question that is being answered by Mr. Cashen? I'm sorry, I forgot; what was the question?

HEARING OFFICER RENAUD: That's a good --

MS. MILES: I -- we designed this this way so that he could discuss his concerns regarding Flat Tailed Horned Lizard.

MS. FOLEY GANNON: I see.

HEARING OFFICER RENAUD: I understand what you're saying, Ms. Foley Gannon, but I actually think this is effective and --

MS. FOLEY GANNON: Okay.

HEARING OFFICER RENAUD: -- and he's not -- he's not rambling on too long yet.

MS. FOLEY GANNON: So when we switch to a different topic, there will be a question. That's what I'm saying, because we're kind of going through these things. So when we get to a different --

MS. MILES: There are additional questions, yes.

MS. FOLEY GANNON: -- when we get to a different topic, there will be a question. Okay.

HEARING OFFICER RENAUD: Just throw a question in there once in a while.

MS. FOLEY GANNON: Thank you.

MR. CASHEN: Yeah, and we've tried to be respectful of -- you know, I don't want to be here all night either. But some of the questions that we had planned on asking and I think were important to ask, we

chose not to ask and instead have me briefly address some of my concerns related to those questions. And so I will do my best not to jump all over the place, but I may end up doing that.

Back to -- I'll just finish up what I'm saying, and then we'll let somebody ask a question.

This is just a representative picture from Google Earth street view of what Interstate 8 looks like just south of the project site. And as you can see, this is not some insurmountable, you know, ten-lane highway gauntlet that lizards have to somehow get across. It's very -- it's very passable; and from the Flat Tailed Horned Lizard experts that I have spoken with, as well as my only professional opinion, there is likely movement of lizards across the freeway.

MS. MILES: And I have a question about Coyote Wash. I believe there was testimony given that Coyote Wash is going to be a movement corridor that's slightly to the west of the project site for Flat Tailed Horned Lizard, and I wanted to ask if you had any concerns about relying on Coyote Wash as the movement corridor for Flat Tailed Horned Lizard.

MR. CASHEN: According to the cumulative impacts discussion in the supplemental staff assessment, there is a project called Wind Zero that is planned for that area,

and that project would include development of a racetrack or a driving course that partially encompasses Coyote Wash. I don't have any more detail than that. But I do not, based on that information that was presented by staff, it does not sound like we can rely on Coyote Wash as a reliable movement corridor in the future.

MS. MILES: And speaking of relying on things, in your opinion should we rely upon the Flat Tailed Horned Lizard management areas as the primary method for preserving the species?

MR. CASHEN: No.

MS. MILES: Can you explain that?

MR. CASHEN: We -- there's not enough information at this point to reliably conclude that this reserve system that has been established would enable the long-term protection of Flat Tailed Horned Lizards. And in the absence of more reliable data, we should turn to the basic principles of conservation biology, which are things like maintaining connectivity. And the Flat Tailed Horned Lizard Rangewide Management Strategy actually specifically says that these reserves were established with the hope that they would be large enough to maintain a viable population within each reserve, but they did not have the data to be able to support that conclusion.

MS. MILES: Thank you.

Can you address the efforts that have been devoted to Flat Tailed Horned Lizard conservation and state your conclusions over the long-term viability of Flat Tailed Horned Lizard?

MR. CASHEN: There has been considerable effort into gaining scientific information on this species, yet we still -- there's still many data gaps.

And there has been considerable effort among the various resource management agencies to collaborate in the conservation of this species such that it hopefully -- that they can hopefully reverse the population, or at least stem the population decline.

And that Rangewide Management Strategy that we talked about earlier and was developed for this species and that was signed by the relevant resource management agencies, that document specifically says that one of the goals of the plan is to maintain connectivity between the Yuha Desert management area and the West Mesa management area, and this project would be in direct confliction with that goal or objective.

MS. MILES: Thank you. Okay.

Moving on to Golden Eagle, can you please summarize your concerns related to the Golden Eagle?

I know we had talked about discussing special status plants, but I was thinking, I guess we should wait

because plants are going to be addressed later.

MS. FOLEY GANNON: Again, if you want to go through plants, we can put our witness on afterwards. I think in the interest of time, I'm completely fine with that.

HEARING OFFICER RENAUD: So are we.

MS. MILES: All right. We can do that then.

MR. CASHEN: Start -- what -- we're not --

MS. MILES: So we are going to go back to plants. Sorry.

MR. CASHEN: We're going back to plants?

MS. MILES: We are going back to plants.

MR. CASHEN: Okay. I just -- one additional thing that I want to show you here.

This is from Tyler Grant's research study, and this is the amount of vehicle tracks that he detected in his various research plots. And the -- you know, the proposed project is in this general area, and there's one plot that looks like it was about halfway or maybe a third of the way through the project area, and that had 1.9 number of tracks or -- let's see --

MS. MILES: Percentage of vehicle tracks?

MR. CASHEN: Yeah. And you can see that there's, you know, other areas down south in the Yuha basin or Yuha Desert management area where the, you know,

acquisition lands may occur that have considerably more vehicle tracks than up in here.

So it just shows that there's a considerable amount of OHV tracks in the management area where planned acquisition may occur.

MS. MILES: Thank you.

Jumping back to special status plants, can you summarize your concerns relating to special status plants?

MR. CASHEN: Yes. There's a bimodal rainfall pattern in the Colorado desert, and what that means is that there are some plants that only become identifiable after summer or early fall rains, monsoonal rains. And the applicant has not conducted any surveys during that time frame to document which plants or which special status plants may occur on the project site. And that's problematic in my opinion, because I do not think that we can accurately evaluate a project's impacts and devise effective mitigation when we are lacking a complete chunk of information on what occurs on the project site.

As a result, it's not scientifically credible to conclude that the project impacts can be mitigated to a level that's less than significant when we don't even know what's going to be impacted in the first place.

However, based simply on the surveys that have been conducted so far, we know that there are several

special status plants that do occur, including a rare species which is listed under the California Endangered Species Act, and staff's conclusion related to that particular plant, Wiggins' croton, was that it would not be impacted to a -- at a significant level because the applicant would be avoiding it. But yet then the applicant has now submitted supplemental testimony saying it does not plan to avoid any special status plants and that it is not feasible, and they do not plan to redesign their project around it.

To me, that indicates that the information that was used to base staff's conclusion need to be reevaluated, based solely on the impacts that we know are going to occur to special status plants, that the mitigation that has been proposed would not adequately offset the impacts.

One of the -- one of the proposed conditions is that the applicant can acquire habitat that is not occupied by the plant that is being impacted by the project. And from a scientific standpoint, that almost certainly would lead to the further decline of that species. There's just very little to justify that unspecified land that doesn't have the plant that you plan to eliminate would actually offset the impact. And so there's a lot of problems with the feasibility of that in

being effective mitigation.

And then to top it off, the most recent rebuttal testimony from staff indicates that it is willing to allow a distribution study instead of actually acquiring any land as compensation for impacts to special status plants.

And there's -- there's -- that is even more flawed in my opinion, especially because it's just so loosely defined where there's really no expectations or success criteria. And instead of going into all the concerns I have about that proposal, I'll maybe try to sum it up as saying, what are we going to do? We're going to prepare a plan that says this is the cool plant we used to have but that we decided a piece of paper talking about it was better? I mean, that's really what could happen as a result of that condition.

And so, you know, this is -- it's the classic case of putting the cart before the horse. I think that before we eliminate a plant population, you know, at least on the project site at whatever regional level, we need to do an evaluation of what mitigation opportunities there are to protect this plant for the public before we destroy it. And so I think we should do the distribution study first so that the applicant can identify and present a proposal of the lands that it will acquire to offset what it plants to impact.

MS. MILES: Thank you. And is that your understanding of how the energy commission guidelines typically require applicants to proceed with project applications, that they typically would do all the surveys up front, not after the project has been approved?

MR. CASHEN: Yes.

According to my interpretation of the energy commission's guidelines, the applicant is required to conduct surveys according to established survey protocols and established resource agency recommended guidelines if such protocols exist. And that did not occur for many of the -- at least some of the resources in this case.

And I question the validity of whether the other ones actually follow the protocol for the ones that applicant has tried to make the case that they did.

There's also, from what I've been able to ascertain, there is -- the applicant did not make any effort to get resource agency buy-off on the surveys that they did before they did them. And I think that we heard some testimony about that earlier from Ms. Nishida and Daniel Steward.

MS. MILES: Thank you.

Okay. Moving on to Golden Eagle, can you summarize your concerns relating to Golden Eagle?

MR. CASHEN: The Golden Eagle population in the

west and in the western United States is the primary breeding ground for Golden Eagles in this country. And it supports most of the eagle population.

The Golden Eagle population, according to the data that we have, is in a -- what has been termed a precipitous decline. It is not -- I was going to say I actually don't know the intent of why it was put on the Bald and Golden Eagle Protection Act, and so I won't speculate on that, but I will say that in my opinion it is not put on the Bald and Golden Eagle Protection Act because it can look -- the juvenile Golden Eagles can look like juvenile Bald Eagles, or whatever was said, the guidelines that have been issued by the U.S. Fish & Wildlife Service indicate that they are genuinely concerned about the future of Golden Eagles.

There have been no measures to ensure that the project would not impact Golden Eagles, have a significant impact on Golden Eagles. It has been identified by both staff and the applicant that the site provides foraging habitat for Golden Eagles. And that loss of that habitat could be significant. And I -- let me see if I can find -- I do have a picture here. And so I concur with staff's assessment that loss of that foraging habitat is a potentially significant impact, but I -- but I do not agree that we can simply rely on some Flat Tailed Horned

Lizard mitigation or acquisition land to offset impacts to Golden Eagles.

What the research has shown is that Golden Eagles are territorial and that they have specific core foraging areas. And so you cannot just eliminate 6,000 acres of foraging habitat for a pair of Golden Eagles and assume that they'll just go somewhere else. Eagles don't behave that way.

And even if you were providing compensation or habitat conservation in one area, it doesn't necessarily mean that it would prevent further decline. And the best way for me to summarize that is all eagles are not created equal. They contribute differently to the population maintenance and structure.

Some eagles are very productive, they produce lots of chicks that grow up healthy and strong and go off to college and fly away and contribute to the population. And other eagles are not very successful. And so until we know more about the eagles that occur in the project area that might be affected by loss of foraging habitat, we cannot just assume that purchasing land down here or up here is going to offset project impacts.

You know, one of -- there was no effort to establish what level of impact this project would have on Golden Eagles. There were no focus surveys, and as

Dr. Mock testified earlier today, the survey crew spent most of the time looking at the ground for lizards and plants. And I can -- my experience is that you cannot look at the ground and up in the air for a foraging eagle at the same time. It's -- that is not a reliable way of estimating a project's impact to a species that's undergoing a precipitous decline.

There has been testimony that there is no suitable Golden Eagle nesting habitat in the project area; and that is not true. This is an overlay of breeding bird data obtained by the San Diego -- or overseen by the San Diego Natural History Museum. So it only covers San Diego County. I wish we had similar information for Imperial County, but we don't. And so it ends at the San Diego Imperial County line. These stars represent --

MS. MILES: How far away is that from the project site, approximately?

MR. CASHEN: So from the edge of the project site to this star right here is ten miles. And ten miles is the distance recommended by the U.S. Fish & Wildlife Service in which you should -- a project proponent should evaluate its impacts to Golden Eagles. And there is a whole series of survey guidelines associated with that, that the Fish & Wildlife Service has recommended.

So, you know, what this map shows is that there

are records of Golden Eagles nesting, you know, certainly within ten miles of the project site. And unfortunately, we don't have any more information for Imperial County, but these mountains, these areas here are, you know, they're virtually the same feature. These are all rocky areas. As a matter of fact, the applicant's soils and water section mapped this as rock outcrop. That is the soil type. So this here and this and this, these are all certainly possible Golden Eagle nesting areas. And they -- you know, actually about four miles from the project.

There was -- there was some testimony earlier that the site represents poor Golden Eagle foraging habitat and that agricultural lands to the east are much better for Golden Eagles.

First of all, I just want to point out that that's more than ten miles to the agricultural lands. So if we're operating under the assumption that eagles will forge up to ten miles from their nest site, well, that's not within ten miles.

And then I'd also like to read something that the San Diego Natural History Museum published in association with this grid here.

MS. MILES: And this is in the exhibit?

Oh, no, it's not. Okay.

MR. CASHEN: No.

MS. MILES: Unfortunately.

MR. CASHEN: And it just says that Golden Eagle populations have dropped from an estimated 108 pairs at the beginning of the 20th century to about 53 pairs at the century's end, mainly as a result of urban development of foraging habitat, which is the exact case that we have here.

And then it says, the most important factor in this decline has been urban sprawl covering former foraging habitat. Factors include agricultural -- and the decline include agricultural. And one of the problems with agricultural is that often rodenticides are used and eagles are subject to secondary poisoning. There's an article, a study that I provided as an exhibit to my opening testimony, I believe it was Marzluff. There's actually several studies that have documented that eagles, actually avoid agricultural areas for various reasons.

And so what we're looking at is, you know, eagles that are nesting up in here in these rocky areas, they're not going to be, you know, primarily not going to be foraging for their prey items amongst the rocks, they're going to be coming down here into these flat areas foraging. And this project would eliminate a good chunk of that foraging habitat.

It's my professional opinion, based on the guidelines issued by the U.S. Fish & Wildlife Service, that this project would potentially violate the Bald and Golden Eagle Protection Act.

MS. MILES: Thank you.

Regarding noise, I believe you have some testimony regarding your concerns with noise impacts to biological resources on and around the project site.

MR. CASHEN: Yes, I do.

You know, the focus of the energy commission siting process has always been on the impacts of noise to humans, which is very understandable. I hate it when the gardeners wake me up from my nap next door. So that's certainly understandable. But the impact that noise has on wildlife species should not be underestimated. And there's been a considerable amount of research done on the effects of noise. And it's known that noise has a negative impact on a lot of species.

There was information that was collected as a part of this process in evaluating project impacts on noise. And unfortunately that data was never applied to birds and other wildlife that might be affected by the project. And particularly I'm talking about the species that would remain off the project site but for which, you know, construction noise and operations noise could impact

those species and cause them to abandon -- well, there's lots of reasons that noise has an effect on wildlife, but one in particular that I'll focus on is the effect of noise on birds.

And the research that has been conducted on the effects of noise on birds is that birds can be affected from, you know, considerable distance. And that at a certain threshold, the presence and density of breeding birds declines. And that threshold has been reported to be in the neighborhood of 38 decibels up to 60 decibels or so -- I forget the exact number, maybe it was 58 or 60, it was in my testimony. And anything above that, and you start to lose birds.

And so what we're looking at here is, you know, a pretty big area around the project site where you're going to have, you know, probably loss of a lot of wildlife species. And that impact has not been addressed.

There was testimony from Dr. Mock, and we've actually spent considerable amount of time talking about whether it was 72 or 74 or 73, and I -- I want to show you the noise data that was presented in the supplemental staff assessment, and that -- and the supplemental staff assessment indicated that it came from the AFC and the applicant's documents.

So Dr. Mock testified that there's noise and that

the project's not going to contribute to noise and the existing noise is 72 decibels. And here's the information. So, yes, 72 decibels was recorded as one of the sensitive receptors. It's this one right here, right next to Evan Hughes Highway, it was recorded at night. The daytime measurement was 66. If you look at all the other noise receptors, you can see that the data is actually quite a bit lower. So, you know, the next highest nighttime measurement was actually 52. And there was some testimony from staff today about how this is a logarithmic relationship; and so I can't specifically say what the difference in magnitude is, but based on what I've heard about how it logarithmic scale equates to what is perceived by an organism, this is a very big difference. And so it's not accurate to say that the project is experiencing ambient noise levels of 72, because that's not what the data shows.

The impacts from project noise can be mitigated. And I know that the commission has considered other -- has considered mitigation for other projects that wouldn't avoid and minimize impacts from construction and operation noise from projects.

MS. MILES: And did you want to talk about prohibiting loud construction noise, anything beyond that, any techniques or --

MR. CASHEN: You know, there is --

MS. MILES: You just believe that there should have been an analysis of that?

MR. CASHEN: There's no mitigation -- there's virtually no mitigation that has been proposed, and there are feasible mitigation techniques that could be implemented. The noise levels here -- the noise levels that are predicted to be generated as a result of project construction and operation are considerably higher than most of these other numbers on here. Unfortunately I don't have that; it's in the supplemental staff assessment. But the numbers that are predicted to be generated from this project would be well above the threshold that is tolerable to most wildlife species.

MS. MILES: Thank you.

Besides noise, do you have any concerns related to project impacts to birds?

MR. CASHEN: I do.

And I'm going to just tell you a quick story to start off with, because I found this -- I was talking to a colleague who works in the area, and he told me an interesting story that I thought was particularly relevant.

And that was that up in the Borrego area, up by Anza Borrego Desert State Park, there were a number of

people who found, some live and some dead, loons and other water birds along S-2, which is a paved road that runs from Borrego to Salton City. And, you know, hundreds, few hundred loons, water birds on the road; completely, you know, strange event. And the theory is, and what I believe is actually a pretty good theory, is that the reflection of the heat off the paved road looked like water to these birds.

And so they were migrating to the Salton Sea, and they were tired or who knows what, hot, and they saw what they thought was water and they landed on the road. And these birds are not adapted to take off from anything other than water, so now they're on the highway and they cannot take off. And fortunately there were some citizens that came in and rescued a lot of these birds.

But the reason that I tell you this story is because the project site is located in a flyway between San Diego and Imperial County, and it's also located in a flyway from the south to the Salton Sea.

And the Salton Sea is a tremendous resource for birds. There are thousands and hundreds of thousands of birds that use the Salton Sea. And there's a lot of, you know, pretty unique birds that use the Salton Sea, and including a lot of special status bird species. And I don't think that the -- anybody in this room wants there

to be a news story sometime down the line about hundreds or thousands of dead birds associated with this solar energy facility just south of the Salton Sea.

And there's a very real possibility that birds may perceive these SunCatcher units as water. You know, there's estimated over a million birds every year that -- or maybe it's more than that, that run into windows and things that reflect, glass and mirror. You know, your house window; we've probably all had it happen. And there's a very real possibility that this could happen here. We don't know. And I'm very glad to see that staff incorporated condition of certification Bio 21, which is a -- which is a bird monitoring plan.

Despite that, I think it needs to be tightened up quite a bit. And I'm sure the commission has dealt with many a wind project and knows the issues associated with bird mortality. And we've learned a lot through that process. And I think we should apply it to this project as well.

I'm also concerned about the applicant's testimony that it does not -- or it would like the commission to remove the requirement for it to have to publish any information that is obtained through Bio 21, and I believe the other one was Bio 10, the Flat Tailed Horned Lizard -- maybe it was Bio 9, the Flat Tailed

Horned Lizard study.

And I told you I wouldn't jump around, and now I'm about to do it.

For the Flat Tailed Horned Lizard, it seems to me that what we've heard today is that Flat Tailed Horned Lizards are hard to find, but if they are found, the applicant plans to move them somewhere on -- somewhere else on to the project site. And when asked, well, why don't you just move that off the project site, you know, somewhere safer where there's more undisturbed habitat, where they're not going to be subject to getting run over and those things? And the response was, because that would bias our study. We can't do that. That -- you know, we're doing this study now, this occupancy study, this pre- and post-development.

But what's the point of an occupancy study if the information is not being disseminated? If it's not being published?

MS. FOLEY GANNON: Can I offer something here that may be able to move us along --

HEARING OFFICER RENAUD: Please.

MS. FOLEY GANNON: -- and put this issue to bed.

We're perfectly happy to do a peer-reviewed article if we can stop talking about it.

HEARING OFFICER RENAUD: All right.

MS. FOLEY GANNON: Thanks.

MR. CASHEN: Okay. Well, and so I guess I would recommend that that occurs with the bird monitoring study as well --

MS. FOLEY GANNON: Absolutely, we will do peer review. Thanks.

MR. CASHEN: And I think that condition should be a little bit more -- actually, quite a bit more rigorous.

HEARING OFFICER RENAUD: Any further questions?

MS. MILES: Yes.

What about birds in overall impacts to the Salton Sea watershed?

MR. CASHEN: As I mentioned, the Salton Sea itself is a tremendous resource to many bird species. And the project impacts to the Salton Sea and the Salton Sea watershed have not been evaluated.

There's been testimony, and based on my own analysis of the literature this project will have an impact on the Salton Sea which is an imperiled -- has been designated an imperiled resource. There's going to be sediment entering the waterways, and that would potentially be detrimental to the existing fishery in the Salton Sea, which supports many of these bird species as well as recreational fishing.

There's potential impacts to several bird --

several threatened or endangered bird species associated with water diversion from the Seeley Wastewater Treatment Facility. And that -- those impacts have not been fully analyzed yet. We are still waiting for studies to be conducted.

But there is the potential that diverting water from the new river, which eventually goes to the Salton Sea, will change the functions and values associated with the new river which empties into the Salton Sea into an estuary which is very rich in biological resources.

MS. MILES: One last question.

Do you have any concerns regarding the applicant's proposal to do Tamarisk removal as a mitigation to impacts to big horn sheep?

MR. CASHEN: I do.

And there were some questions that I had hoped would be answered, but that they weren't. And I'm actually going to let Dr. Bleich address this a little more. But I did a little research. You know, this is a very recent proposal from the applicant. I spent some time looking, you know, there was no -- there was no real information associated with this proposal at all. But I did find some literature that indicates that the Southwestern Willow Flycatcher and the Least Bell's Vireo occur in Carrizo marsh. And these are both endangered

species. Yeah, I think they're both endangered, but one may be threatened. Anyway, they're both known to occur there.

There are several other potentially listed bird species that may occur there. And we know that Willow Flycatchers nest in Tamarisk. They -- they in some places rely on Tamarisk for nesting.

So I have two concerns with this. One, are we deciding that we are going to favor one endangered species over another if we adopt this proposal? And the second may be a more real concern, is that there's going to have to be a whole environmental review process associated with this Tamarisk removal that could take -- you all probably know better than I do -- years to undergo. Studies need to be done, and it needs to go through the permitting process and public evaluation; and it may never be approved as a result of that.

MS. MILES: Thank you. Should I go ahead and give direct examination to Dr. Bleich as a panel format, or should we go ahead and open it up for questions at this point?

HEARING OFFICER RENAUD: I think -- are you done with --

MS. MILES: I am.

HEARING OFFICER RENAUD: -- Mr. Cashen?

I think that what we're going to do now is take a meal break, an hour.

MS. MILES: Wow.

HEARING OFFICER RENAUD: And come back, and I think at that point we'll talk about which way to go. I think a lot's going to depend on whether Vern Bleich's testimony is going to be on the same subject matter; and if it is, we'll probably want to do that as a panel.

MS. MILES: Yeah, it's wildlife.

HEARING OFFICER RENAUD: All right. So 6:30 now, come back at 7:30.

Bear in mind if you're parked in the garage across the way, it closes at 7:00, so this is your opportunity to get out of there.

And off the record, we will see you then.

(Dinner recess.)

HEARING OFFICER RENAUD: And if you could please stick to a question-and-answer format, that's much more helpful to the committee than a narrative.

MS. MILES: I asked a question of Dr. Mock earlier regarding the detections of Burrowing Owl on the project site.

And, Mr. Cashen, would you like to comment on your response to or your understanding of where those detections are relevant to the current proposed project?

MR. CASHEN: Yes.

So what the AFC reported was that there were several apparently active owl burrows with Burrowing Owl sign detected on the site as well as burrows that appeared active off the site and actual owls that were detected off the site.

And this is a figure from the biology technical report. And the dark green squares -- I know this is probably a little hard to see, but here's one here, one here, and a couple here, these are the owl -- marked as owl burrows that were detected. And then the light green is actual owls. And so you can see the actual owl was detected here and here and here.

There was testimony today that the project had been redesigned and that those owls were no longer going to be impacted by the project. And actually, Dr. Mock's testimony was that something to the effect of that it was very unlikely that owls would be affected by this project.

And I'll just point out that here's the -- here's one of the burrows that was detected. And you know, based on my just sort of visual, it appears that that would be about right here, and then the other two which were over on the border here. Those, I believe, are right about in here. So they're pretty close or right, you know, amongst the SunCatchers.

And this second figure here is from the applicant's most recent testimony. This is from the LEDPA analysis. And so this is actually a reduced megawatt option, this is the 73 megawatt option.

MS. MILES: 709?

MR. CASHEN: Oh, 709.

MS. MILES: Thank you.

Shall I proceed to questioning Mr. Bleich? I'm sorry, Dr. Bleich?

HEARING OFFICER RENAUD: I think so.

Does anybody have a preference on that? We might as well do the direct on both witnesses and then they can both be up for cross.

MS. FOLEY GANNON: Makes sense to me.

HEARING OFFICER RENAUD: All right. Let's go.

MS. MILES: CURE's expert witness for project impacts to Peninsular Big Horn Sheep is Dr. Vern Bleich.

DIRECT EXAMINATION

MS. MILES: Please state your name for the record.

Oh, you've already been sworn. I'm sorry.

Whose testimony are you sponsoring today?

DR. BLEICH: My opening testimony with exhibits and my two sets of --

HEARING OFFICER RENAUD: Would you use the

microphone, sir.

DR. BLEICH: Oh, I'm sorry.

MS. MILES: Could you repeat that?

DR. BLEICH: It would be my opening testimony with exhibits as well as my two sets of rebuttal testimony and associated exhibits.

MS. MILES: And so I'd like to move to enter into the record Exhibits 400 through 428, 498Q through 498U, and 499F through 499L.

HEARING OFFICER RENAUD: Okay.

MS. HOLMES: Can you give me the first one again?

MS. MILES: Sure. 400 through 428.

(Intervenor CURE's Exhibits 400 through 428, 498Q through 498U, and 499F through 499L were received into evidence.)

MS. MILES: Do you have any changes to your sworn testimony?

DR. BLEICH: No, I do not.

MS. MILES: Are the opinions in your testimony your own?

DR. BLEICH: Yes, they are.

MS. MILES: Please summarize your qualifications.

We did not do this at Imperial Valley proceeding in El Centro; so your education, professional experience.

MS. FOLEY GANNON: We're willing to stipulate to

his expertise.

HEARING OFFICER RENAUD: Staff, are you willing to stipulate?

MS. HOLMES: Yes.

HEARING OFFICER RENAUD: All right.

MS. MILES: Okay. We'll proceed.

Please describe for us what it was that California Unions for Reliable Energy asked you to do.

DR. BLEICH: CURE asked me to independently evaluate the impacts of development of the project on Peninsular Big Horn Sheep, an endangered distinct population segment as recognized through the Endangered Species Act, that inhabits the peninsular ranges of southwestern California. And CURE requested that I review the applicant's submittals, the commission's environmental documents prepared for the Imperial Valley Solar Project, and the scientific literature on Peninsular Big Horn Sheep.

In addition, I have conducted my own investigations analyses on the project's potential direct, indirect, and cumulative environmental impacts.

MS. MILES: And very briefly, can you talk about the methodology for your work, what did you review to your investigation?

DR. BLEICH: Well, I reviewed the staff

assessment, the application for certification and associated supplements and supporting information and other relevant documents that have been docketed in this proceeding.

And after reviewing those materials, I conducted my own inquiry, if you will, by contacting experts at the Fish & Wildlife Service, the California Department of Fish & Game, other well-known big horn sheep experts living or working or that have lived or worked in the project region. I also reviewed dozens of published peer-reviewed article, many maps, unpublished documents, and file reports.

MS. MILES: Thank you.

Can you provide a summary of the findings of your investigation?

DR. BLEICH: My critique of the staff assessment's analysis of impacts to Peninsular Big Horn Sheep centers largely on its failure to address three specific impacts.

One, impacts to sheep movement corridors among areas occupied by big horn sheep or habitat that may be suitable but otherwise is unoccupied.

Secondly, impacts to Peninsular Big Horn Sheep through the loss of valuable forage in low-lying areas associated with the project site.

And thirdly, the significance of the permanent loss of more than 6,000 acres of habitat used at least occasionally by Peninsular Big Horn Sheep.

A fourth area of concern is the lack of adequate analysis of cumulative impacts and their overall potential to influence the recovery or persistence of Peninsular Big Horn Sheep.

The presence of female big horn sheep on the project site during March of 2009 is consistent with the utilization of low-elevation habitat for the purposes of acquiring high-quality forage during late gestation or the enhancement of body condition, the latter of which can have a profound effect on reproduction by females the following year. Thus, the project area likely holds important resources for the recovery of Peninsular Big Horn Sheep.

The project site contains low-lying areas and desert washes which are among the most productive habitats in the Sonoran Desert and that support higher cover of vegetation and far greater plant biomass than generally than surrounding upland areas.

Although such areas are likely not used on a year-round basis, they are at times critically important to big horn sheep in terms of nutrient acquisition.

The project will be completely surrounded by a

perimeter fence and it will effectively eliminate the potential for big horn sheep movement through the project site. This will translate to nearly seven miles of fence immediately adjacent to Interstate Highway 8 along just one side of the project. And the supplemental staff assessment fails to acknowledge that the fence will eliminate present and future movements of Peninsular Big Horn Sheep through the project site and between areas of known habitat.

The project's elimination of this movement corridor may impact the recovery of Peninsular Big Horn Sheep in the Coyote Mountains, Tierra Blanco Mountains, and Carrizo Mountains recovery portion of the peninsular ranges.

MS. MILES: Once the applicant detected sheep on the project site, should the applicant have used specific survey methods to evaluate whether there is any evidence of sheep use of the project area for forage or movement?

DR. BLEICH: Once they became aware of use of the area by sheep, I think that they should have implemented a protocol to do everything they could to determine the amount of time that sheep may have been on the site, perhaps the direction from which the sheep came. There are ways of looking at indirect sign, including tracks or scat, to quantify the amount of time that those sheep may

have spent on the site, and their relative use of habitat, various habitat sites on the project site. So yes, in simple terms, yes.

MS. MILES: Thank you.

Are you aware that Dr. Mock has testified that the California Rapid Assessment Model demonstrates that only 28 percent of the washes on the project site support enough vegetation to constitute big horn sheep foraging habitat? Is that actually the conclusion of the CRAM model from your review of the materials that have been filed, that 28 percent of the washes have big horn sheep habitat?

DR. BLEICH: No, I'm not aware of any published information that suggests a minimum amount of vegetation is necessary to be considered suitable habitat for big horn sheep. Clearly habitat like the Sahara sand dunes would not be a great place for forage, but I'm not aware of any work that has been done that demonstrates a minimum amount of biomass is necessary to be considered as suitable habitat or foraging habitat for big horn sheep.

MS. MILES: And in your experience, what do you think is the value of washes in the Sonoran Desert or southwest -- southeastern Arizona -- or southeastern California? Do you think that 28 percent cover is a good amount of vegetation in that region or not very much

vegetation in that region for --

DR. BLEICH: In my experience, 28 percent is a tremendous amount of cover in a Sonoran Desert wash. I would expect, and based on work I've personally been involved with, that 10 to 15 percent cover in a wash is a very high amount of biomass.

MS. MILES: Do you believe that the project -- there's any evidence that the project has suitable habitat for big horn sheep?

DR. BLEICH: Clearly it does, or sheep would not have been there.

MS. MILES: So in your experience, sheep don't go to places where there isn't suitable habitat?

DR. BLEICH: It depends on how you describe suitable habitat. Most people consider big horn sheep habitat in a stereotypical sense, that is to stay that it's steep and rocky and rugged and hot and dry. But big horn sheep are dependent upon these intermountain areas for movement between these areas of stereotypical big horn sheep habitat.

So could you lead me back to the original question, and I can try to answer that? I'm trying to help you out here.

MS. MILES: Well, I was just -- I wanted to know if in your opinion sheep will go to areas if there's not

suitable habitat for them.

DR. BLEICH: Again, it's suitable habitat from the standpoint that it probably -- or it provides for certain life history needs or certain needs in the annual cycle. It may not be used extensively, but it could be critically important from year to year. And it may not be used every year, but if sheep are using these areas, they are important in their life history.

MS. MILES: In your opinion, do you think that the CRAM modeling should be used to establish the baseline conditions of the project site for big horn sheep habitat?

DR. BLEICH: No, I do not.

MS. MILES: And did you review the -- did the CRAM authors state that this could be used for that purpose, or did the CRAM authors make any statement to that effect?

DR. BLEICH: Well, the authors themselves stated that the physical and biotic structure attributes were the two most problematic attributes to apply to a condition assessment of drainages in the study area, meaning the western Sonoran Desert. They went on to say that the metrics associated with those attributes will need to be reevaluated in more detail for application to arid ephemeral drainages.

Moreover, instead of attempting to rely upon the

experimental CRAM modeling outcome, in my opinion, the applicant's should have conducted surveys for big horn sheep -- or should have put more of an effort into ascertaining information about big horn sheep on the site as soon as they realized that endangered taxon had been spotted moving through the project site.

There are a number of things that the applicant could have done but apparently did not do to provide valuable and meaningful information as soon as big horn sheep were reported on the site.

MS. MILES: And what kind of things could they have done?

DR. BLEICH: You mean like --

MS. MILES: Like backtrack the animals. I mean we --

DR. BLEICH: What would I have done?

MS. MILES: Yeah, we talked about that. Backtracking the animals, I believe --

DR. BLEICH: Right.

MS. MILES: -- you've mentioned.

DR. BLEICH: Well, I would have --

HEARING OFFICER RENAUD: This sounds to me like it's repeating. Didn't you --

MS. MILES: So you understand --

HEARING OFFICER RENAUD: -- about ten minutes

ago?

MS. MILES: Okay. I'm not sure if there was any additional things that you would have done, but that's -- let's move on to the next question.

After these things had been completed, what meaningful information could have been obtained by having completed, you know, additional efforts to evaluate whether there was sheep sign on the project site?

DR. BLEICH: Had the applicant or at least the investigators done any backtracking, that would have yielded information as to the overall direction of travel of the animals, potentially the point at which they entered the project site, and by inference, probably the origin of the animals. Data could also have been used to determine the relative use of the various habitat types on the project site.

I would have immediately instructed field staff to collect as much fecal material as they encountered, which could have yielded -- would have yielded DNA, and could have -- could have enabled a determination of the origin of the animals that were observed on the site.

MS. FOLEY GANNON: Excuse me, Hearing Officer Renaud. We -- in May when we had all of our opening testimony, we provided that, and we thought that would have been the time that we would have had these sort of,

you know, preliminary and different thoughts about what should have been done, would have been the time to present that, and we could have crossed at that time.

We haven't presented any evidence today about what other studies could have been done or talked about that. I mean, we were allowing, I think, quite a bit of leeway in talking about the nature of the surveys and things, but I think now we're really getting into areas that are totally outside the scope.

HEARING OFFICER RENAUD: Well, for some time since we resumed I've been concerned about where this is all leading. We're hearing a lot of could have been, should have done, but nothing that would actually help the committee decide about mitigation --

MS. MILES: Yeah, we were just getting to the question on mitigation right now.

HEARING OFFICER RENAUD: Okay. So I'm also quite concerned over the fact that you gave us a one-hour estimate for your biology testimony, and I know we're way beyond that. So, please, please bear in mind those concerns and try and move this along.

MS. MILES: Well, yes, I understand it's 8:00 p.m., and it's unfortunate. And we will definitely try to keep moving along. And, in fact, I'd say we're at least three-fifths of the way down.

Are you aware, Dr. Bleich, of the applicant's proposal to mitigate the loss of foraging habitat and the loss of opportunities for movement by big horn sheep across the project site by removing Tamarisk from sites invaded by that exotic species?

DR. BLEICH: Yes, I am. I learned of this just the other day. They've proposed as a form of mitigation to remove exotic Tamarisk from the vicinity of the Carrizo marsh and Carrizo Creek west of the project site. And they've made the argument that enhancement of riparian vegetation is expected to benefit big horn sheep by restoring historical foraging areas that may have been altered by Tamarisk invasion.

MS. MILES: Do big horn sheep regularly forage in riparian areas, whether they've been invaded by Tamarisk or not?

DR. BLEICH: It's my experience that big horn sheep generally forage in areas in which they are comfortable with their ability to detect and evade predators. Big horn sheep make trade-offs between the density of vegetation which influences their ability to detect predators, and the perceived forage benefits at such sites, and males and females make those decisions differently because of differing life history strategies. In all cases though, if vegetation is too dense, big horn

sheep generally avoid it.

MS. MILES: So would you expect there to be benefits to the species as a result of a removal of Tamarisk along Carrizo Creek and the associated marsh?

DR. BLEICH: In terms of foraging value of the area, not necessarily. Big horn sheep are not marsh-dwelling creatures, nor do they regularly inhabit riparian areas unless those riparian areas are the ephemeral desert washes, similar to those occurring on the project site, and that produce high-quality forage, sought in particular by female big horn sheep during late gestation.

Benefits incurred by big horn sheep through the removal of Tamarisk would, in my opinion, likely be limited to increased visibility and would not necessarily result in an increase in forage availability.

Virtually all investigators agree that the more open an area, the more apt it is to be used by big horn sheep, and these opinions are voiced repeatedly in the recovery plan prepared by the Fish & Wildlife Service.

MS. MILES: You testified that intermountain movements by big horn sheep are valuable and necessary for their conservation.

Can you explain briefly why that is?

DR. BLEICH: Those intermountain movements are

necessary for a couple of factors. One being gene flow, among subpopulations that comprise metapopulations, as well as for providing opportunities for colonization of vacant habitat to occur.

MS. MILES: Are these movements expected to occur on a regular, predictable basis?

DR. BLEICH: No, I would argue that they are not. Such events are likely very infrequently -- I'm sorry, occur very infrequently and probably do not occur with any regularity. And, in part, that is a function of the very conservative behavior of big horn sheep. They are not animals that routinely pioneer into new areas. They are closely tied to stereotypical big horn sheep habitat; nonetheless, such movements are necessary for the maintenance of metapopulation function and ultimately for the persistence of populations.

MS. MILES: What would be the result of effectively blocking an area through which big horn sheep have moved in the past, through which they currently move, and through which they would be expected to move in the future?

DR. BLEICH: I think that there are severe ramifications associated with such blockage. Historical levels of gene flow would no longer occur, for one. And opportunities for colonization of areas from which big

horn sheep may be extirpated in the future would be substantially impacted or reduced with the overall effect on the probability of persistence of the affected metapopulation, lowering the probability of persistence of the affected metapopulation.

MS. MILES: How would you describe movements of big horn sheep across those intermountain areas that are not perceived to be stereotypical big horn sheep habitat? And by "stereotypical habitat," I mean generally mountainous, steep, and rugged slopes and open vegetation.

DR. BLEICH: I would describe those movements as either transient movements or transitory movements. And that is to say that such movements are made when animals are moving from one place to another in transit from point A to point B.

MS. MILES: And how did the applicant characterize the presence of big horn sheep on the project site?

DR. BLEICH: The applicant described the movements as transitory. And staff used the term "transient" to describe those movements in the original staff assessment.

MS. MILES: Is that an appropriate adverb to use?

DR. BLEICH: I believe it is. It describes the observations of big horn sheep on the project site, which

likely, in my opinion, were in transit from point one of the CTCRA recovery area to another.

In fact, they were described as following a wash in a northwest to southeast direction.

Transient or transitory movements by individuals or groups of individuals are very important to metapopulation function for species that have a naturally fragmented distribution, and such species are dependent on this connectivity for persistence across the landscape.

MS. MILES: Is it possible that Peninsular Big Horn Sheep could be present on the site and not be noticed or observed by the project biologists?

HEARING OFFICER RENAUD: I'd like to ask that you stop asking for speculation, you know, is it possible? Anything is possible.

MS. MILES: In your experience, have you had experiences where big horn sheep were in areas similar, or, you know, have you had experiences where you -- where you were not able to detect sheep and they were nearby?

HEARING OFFICER RENAUD: How would he know that?

DR. BLEICH: How what?

MS. MILES: I'm not posing a hypothetical, I'm asking if he's had those experiences, where there were sheep nearby and he didn't detect --

HEARING OFFICER RENAUD: He didn't see sheep and

they were there?

MS. MILES: Well, and then he detected them later and found out that he had been standing near them, for example.

HEARING OFFICER RENAUD: Ms. Miles, listen, you're way over your time limit. You're asking questions that really aren't going to help the committee decide this case.

MS. MILES: Well --

HEARING OFFICER RENAUD: And we need to get down to addressing impacts, whether or not this witness has opinions about impacts that are based on facts rather than speculation --

MS. MILES: Okay.

HEARING OFFICER RENAUD: -- and possible mitigation.

MS. MILES: I will move on.

In your opinion is it adequate to rely on the absence of radiotelemetry data in the site or in the region of the site to determine that the project will not impact big horn sheep movement?

DR. BLEICH: No.

MS. MILES: And can you explain that?

DR. BLEICH: Until very recently, specifically this last fall, there were exceedingly small numbers of

big horn sheep, if any, telemetried in that area.

MS. WHITE: For the benefit of those that are on the WebEx or phone who may still be listening, could you please speak into the microphone so we can hear you?

DR. BLEICH: I'm sorry. Yes. I apologize.

MS. WHITE: Thank you.

DR. BLEICH: There were very few telemetried animals in the vicinity of the project site until very recently. Prior to the installation of GPS collars this last fall, the majority of animals that were collared were collared with VHF radios that are dependent on actually being located from the aircraft or on the ground by an investigator; they do not automatically record data. So at best, aerial observations from my experience over 30 years with the Department of Fish & Game, occurred on at best a weekly basis and probably less frequently than that.

A very small proportion of the animals that are actually known to be present in these populations is collared. And these movements occur at very, very low rates. So the probability of detecting such a movement using very few animals for a short period of time or within infrequent telemetry efforts to locate them via telemetry translates to a very, very low probability of detecting such movements.

MS. MILES: Dr. Bleich, the applicant has now acknowledged the value of the project site as a source of forage. Does that eliminate the value of the site as a potential movement corridor? In other words, could it be argued that the sheep foraging on the site were not moving from one part of the CTCRA to another?

DR. BLEICH: No, it cannot. Even if sheep were in transit, which they well may have been or likely were from one point to another, they would have to forage throughout the day. They're ruminants, they have a requirement to keep the gut full. Foraging bouts are punctuated with periods of inactivity where the animals will bed down and chew their cud or ruminate. And they're up several times per day doing that. They would be required to forage, be expected to forage during any movements that they were making.

MS. MILES: And in your opinion, should the applicant be required to mitigate for the loss of the movement corridor?

DR. BLEICH: One of my greatest concerns in my career has been the potential impact of development in the mountain areas upon which big horn sheep are dependent for the processes that we've discussed here. And, yes, I do believe that mitigation is justified in this case. I think that mitigation could consist of the acquisition of

habitat that is -- it needs to be habitat that is going to preclude development of areas that have been identified as being of concern with respect to blockage of movement corridors or connectivity, not just any habitat, but habitat that has been specifically identified as such. And I think that the park service and the Department of Fish & Game have formulated a wish list, if you will, of such areas.

MS. MILES: Thank you. No further questions.

These witnesses are available for cross-examination.

HEARING OFFICER RENAUD: All right.

Applicant?

MS. FOLEY GANNON: Yes, just a couple questions.

CROSS-EXAMINATION

MS. FOLEY GANNON: First, Mr. Cashen, you put a figure up, you were talking about the development of the solar project as representing a complete blockage of all Flat Tailed Horned Lizard movement through the area.

What was the basis of that conclusion?

MR. CASHEN: The project in consideration of other reasonably foreseeable projects that have been identified by the applicant and staff would create complete blockage.

MS. FOLEY GANNON: I'm sorry, I wasn't talking

about the cumulative impacts, I'm talking about the project itself.

Are you aware of what the project components consist of?

MR. CASHEN: I am.

MS. FOLEY GANNON: Are you aware that there's going to be large areas of open space amongst the project components?

MR. CASHEN: Do you mean between the SunCatchers or --

MS. FOLEY GANNON: Between all the project components. The SunCatchers is the main feature, yes.

MR. CASHEN: Maybe we should back up a little bit.

I -- when you said am I aware of all the project components, I guess I was thinking of the project site itself, which has been called the plant site, as well as the transmission line --

MS. FOLEY GANNON: I'm trying to understand the basis for your conclusion that this project would represent a complete blockage of movement for Flat Tailed Horned Lizard, which would, I believe, be dependent upon the level of development on the site; is that correct?

Do you consider highway 8 as complete blockage of movement?

MR. CASHEN: No.

MS. FOLEY GANNON: So would you consider maintenance roads on the project as being complete blockage of movement?

MR. CASHEN: Can you define what you mean by "blockage"?

MS. FOLEY GANNON: A maintenance road -- well, you answered the question with regard to highway 8, which you said, no, it is not.

So would a maintenance road in a solar field represent complete blockage of movement?

MR. CASHEN: The road itself would not present a blockage.

MS. FOLEY GANNON: Okay. Excellent. Thank you.

And one clarification. You put a picture of up of highway 8. I assume that was just half of highway 8; is that correct? Highway 8 is a four-lane highway; is that not right?

MR. CASHEN: Yes, you could --

MS. FOLEY GANNON: Thank you.

MS. MILES: You could see four lanes in that --

MS. FOLEY GANNON: I couldn't.

MS. MILES: But if you want, we can bring it back up.

MS. FOLEY GANNON: You could. Because I

couldn't. I looked at that, and I first thought, when was that taken --

HEARING OFFICER RENAUD: Let's all stipulate that it's got two lanes in each direction separated by a median.

MS. MILES: Thank you.

HEARING OFFICER RENAUD: Please.

MS. FOLEY GANNON: Sorry. Sorry.

Have you had an opportunity to review the applicant's revisions, proposed revisions to Bio 19 regarding mitigation for impacts to special status plants?

MR. CASHEN: When were they submitted?

MS. FOLEY GANNON: They were submitted yesterday.

MR. CASHEN: No, I have not.

MS. FOLEY GANNON: Would it change your opinion about mitigation if you were -- if you were made aware that the proposed language suggests that the mitigation lands should be shown to have -- to support the same special status plant species that are found within the project area?

MR. CASHEN: It could. I'd like to see the language.

MS. FOLEY GANNON: But that's an important part of mitigation, that the land be shown to support the same species that are impacted; is that correct?

MR. CASHEN: Yes.

MS. FOLEY GANNON: Thank you. Thank you, very much, Mr. Cashen.

I just have one question for you, Dr. Bleich.

Where did you get -- what's the basis source of information about where you think these transitory movement corridors, where they occur?

DR. BLEICH: They're not well-defined, narrow pieces of habitat. Corridors is a difficult thing to work with, term to work with, because many people think it's the shortest distance from A to B.

MS. FOLEY GANNON: Right.

DR. BLEICH: What they do is represent opportunities for movement.

MS. FOLEY GANNON: So do you have -- I mean, are there areas where you have, like the telemetry data that you had, are there areas where you do have documented -- you've been able to see they're moving from this area to this area? Do you have documentation on that?

DR. BLEICH: Yes.

MS. FOLEY GANNON: Okay. And just to be clear, but there hasn't been any documentation, there were the sheep that were seen on the project site, but there hasn't been any seen moving through the project site other than that one known.

DR. BLEICH: That is the instance I am aware of --

MS. FOLEY GANNON: Okay.

DR. BLEICH: -- sheep being on the project site --

MS. FOLEY GANNON: Okay.

DR. BLEICH: -- and they were described as moving from northeast -- northwest to southeast.

MS. FOLEY GANNON: Okay. Thank you very much.

No further questions.

HEARING OFFICER RENAUD: All right.

Questions by staff?

MS. HAMMOND: No questions.

HEARING OFFICER RENAUD: All right.

Mr. Budlong, do you have questions of either witness?

He may have left.

Mr. Budlong, are you there?

Mr. Beltran, do you have questions?

Mr. Budlong's name does not have a little telephone next to it.

MS. WHITE: Correct. But that doesn't mean he's not one of the existing call-in users.

HEARING OFFICER RENAUD: All right.

MS. WHITE: And one of the call-in users has

muted themselves, as you can see highlighted.

HEARING OFFICER RENAUD: All right.

If there are no questions by the committee -- are there?

All right. Let's see. I do have two questions of Scott Cashen, please.

You mentioned 53 pairs of eagles. Where -- what territory is that? Where are they located, in other words?

MR. CASHEN: That was data from San Diego County.

HEARING OFFICER RENAUD: So all of San Diego County, you mean?

MR. CASHEN: That was -- yes, that was my interpretation of what they were expressing.

HEARING OFFICER RENAUD: All right. And you mentioned the possibility of avian collisions with the SunCatchers.

Do you have any knowledge that there have been any avian collisions with the SunCatchers that are in operation at Maricopa?

MR. CASHEN: We did have some data requests that related to that issue. And the response was that there had not been any observed collisions; however, as you may know from being involved in wind projects --

HEARING OFFICER RENAUD: We're not involved in a

wind project. Thermal.

MR. CASHEN: -- that one of the issues associated with identifying collision hazards is that scavengers are known to very rapidly come and scavenge on the birds that have been killed. And so it's very possible. And what they have found is that the number observed is very -- is only a fraction of what the estimated mortality is. And so if nobody is even looking for dead birds, then it's possible, very possible that it could be occurring but scavengers are getting them.

HEARING OFFICER RENAUD: Okay. Thank you.

I believe the witnesses may step down then.

Okay. Let's see. Does that mean we're done --

MS. FOLEY GANNON: Two more biology.

HEARING OFFICER RENAUD: Okay. Go ahead.

MS. FOLEY GANNON: Sorry. I will make it as quick as possible.

We can call Mike Wood back to the stand as well as Mike Fitzgerald.

Mr. Wood was already sworn in. Mr. Fitzgerald needs to be sworn in.

(Mr. Fitzgerald was sworn.)

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

MR. FITZGERALD: Mike Fitzgerald, M-i-k-e

F-i-t-z-g-e-r-a-l-d.

THE REPORTER: Thank you.

DIRECT EXAMINATION

MS. FOLEY GANNON: Starting first with you, Mr. Wood, are you the same Michael wood who presented testimony orally before this committee in May as well as written testimony?

MR. WOOD: Yes.

MS. FOLEY GANNON: And with regard to -- we're going to limit Mr. Wood's testimony. As I said, he presented testimony earlier as his opening testimony regarding the plants analysis. He's called for the sole purpose of talking about the proposed revisions to Bio Condition 19.

So regarding that condition, Mr. Wood, have you reviewed the applicant's proposed revisions?

MR. WOOD: Yes, I have.

MS. FOLEY GANNON: And do you have any comments about the proposed changes?

MS. WHITE: Mr. Wood, please make sure you speak into the microphone. Thank you.

MS. FOLEY GANNON: First, maybe we can set up -- can you just briefly summarize the overall approach that was taken in the staff's proposed condition?

MR. WOOD: There were a variety of approaches

starting with avoidance and minimization measures and moving on to acquisition of off-site lands shown to have the target species present.

MS. FOLEY GANNON: And, again, do you have any comments about the proposed conditions?

MR. WOOD: Well, I think we agree with Mr. Cashen and CURE regarding the questionable validity of protecting isolated populations of, especially animal populations of plants. And so we definitely feel that there's dubious value in that level of effort.

MS. FOLEY GANNON: And would the special status plants that are located on site that would be subject to these avoidance measures, can you describe them in terms of number and their robustness?

Robustness; is that a word?

MR. WOOD: Sure.

We've talked about three species of plants that were documented within the study area. A state listed rare species, Wiggins' croton, which is located along the -- off the roadway for the water pipeline. That's a plant that will be very easily avoided because the water line is going in the roadway and not down the vegetated side of the road.

MS. FOLEY GANNON: I don't mean to interrupt you, but that was the listed species that we just heard

testimony on from Mr. Cashen?

MR. WOOD: Yes.

MS. FOLEY GANNON: Thank you.

MR. WOOD: The Harwood's Milkvetch occurs in two main locations in the southwestern portion of the property.

MS. FOLEY GANNON: And what's the status of that species?

MR. WOOD: It is a CNPS list 2, and I think it's -- you're calling it a CNDDB rank 2 or something like that, I believe.

MS. FOLEY GANNON: I'm not calling it that.

MR. WOOD: It's a global list G4 and a state list 3, I believe. I've got it here anyways. It's not a federally-listed plant, it's not a state-listed plant.

We have about 36 individuals of that annual plant on the property.

And then finally we have Brown Turbans, which is a very diminutive annual plant. It is CNPS list 2 also. It's a -- I believe it's a CNDDB rank 1 plant. And we have actually found only ten individuals of the plant on the property.

MS. FOLEY GANNON: So given these populations, in your professional judgment, would avoidance be an effective measure for helping sustain these populations?

MR. WOOD: Well, again, there have been a variety of issues raised regarding the practicality of avoidance and talking about conserving the ecological functions that may allow that plant to continue to exist in a certain spot.

Regarding the Brown Turbans, we found so few of those plants and so widely scattered, I am very much of the strong opinion that avoiding any amount of land right around those individual -- we're talking about one plant or two plants at the most that we found at a given location -- that that wouldn't really serve the resource much.

The Harwood's Milkvetch seems to have a little stronger affinity for a certain area of the project site. Again, it is also an annual, so it's going to pop up in different places. So we still have some questions about the utility of creating a buffer zone around that species as well.

MS. FOLEY GANNON: And what is the applicant proposing to occur if avoidance is not going to be deemed what they call "effective"?

MR. WOOD: Well, as is very common in a development project where impacts may be uncertain, we've assumed a full impact of both of these species on the project site, and as compensatory mitigation come up with

a mitigation ratio. Staff has come up with a mitigation ratio, for acquiring at a two-to-one ratio land elsewhere that we will determine that these species are present.

MS. FOLEY GANNON: As the revised language in the condition proposes, as proposed, does it include measures that would ensure that a sufficient amount of these specific species that were found on the site were actually preserved?

MR. WOOD: Well, I believe so. In the process of doing our surveys and we identified the presence of both of these species on lands to be preserved, I think there's a -- well, we've certainly documented its presence. And so developing a conservation strategy for those lands would serve the purpose.

MS. FOLEY GANNON: Thank you. I have no further questions for you.

Turning now to you, Mr. Fitzgerald, are you the same Mike Fitzgerald who presented testimony earlier in these proceedings, both written and oral?

MR. FITZGERALD: Yes, I am.

MS. FOLEY GANNON: And are you the author of the rebuttal testimony that was submitted on July 21st?

MR. FITZGERALD: Yes.

MS. FOLEY GANNON: And we would offer to move Mr. Fitzgerald's rebuttal testimony into evidence as

Exhibit 143.

HEARING OFFICER RENAUD: Okay.

Is there any objection from the parties?

MS. MILES: I have no objection, just a quick point of clarification.

Are we -- is this -- are we moving into the alternatives now?

MS. FOLEY GANNON: No. We're doing the impacts to waters of the U.S.

MS. MILES: Okay. So alternatives --

MS. FOLEY GANNON: Separate panel, yes.

MS. MILES: Okay. Thank you.

HEARING OFFICER RENAUD: All right. That will be admitted then. Thank you.

(Applicant's Exhibit 143 was received.)

MS. FOLEY GANNON: Do you have any additions, revisions, or corrections to make to your testimony?

MR. FITZGERALD: No, I don't.

MS. FOLEY GANNON: Mr. Fitzgerald, can you describe the efforts that the applicant has made to avoid or minimize impacts to waters of the United States?

MR. FITZGERALD: Well, this would be duplicative of my previous testimony, but I could run through the list again.

MS. FOLEY GANNON: If you could just summarize.

We understand that the applicant has identified an alternative which they believe to be the least environmentally damaging practicable alternative; is that correct?

MR. FITZGERALD: Yes.

MS. FOLEY GANNON: And I believe you heard there was a statement made by myself, so I would like to actually have it by someone who is sworn in to have it in evidence.

Can you describe the status of the corps' review of what the applicant submitted as the least environmentally damaging practicable alternative?

MR. FITZGERALD: Yes. We submitted a draft 404B1 to the Army Corps in early June. The corps made it their own 404B1 and completed it as a draft document in the BLM and corps' FEIS just in the last week or so.

MS. FOLEY GANNON: And, again, I would appreciate it if you could just briefly summarize the differences between what the applicant's and the corps' preliminary LEDPA is versus the 750 project which was proposed.

MR. FITZGERALD: Sure.

Well, first of all, the applicant had proposed a 750 megawatt project that was reduced down to 709 megawatts as the draft LEDPA, as everybody has heard. The reason that there was a reduction in megawatts, because

there were SunCatchers removed from ephemeral streams H, I, K, and C, and partial avoidance -- and complete avoidance of stream G as well, the upper half of stream E. In total, 1100 SunCatchers were removed from jurisdictional waters of the state and the U.S.

SunCatchers were removed from 200-foot wide corridors on the north portions of Ephemeral Washes E and G at the request of Fish & Game and U.S. Fish & Wildlife Service in order to provide some continuation of wildlife corridor movement areas, since the southern portions of those washes had been completely avoided.

The number of east-west roads from the 705 megawatt project were reduced, and all of those -- let's see. All of the road crossings of waters of the U.S. were redesigned to be at-grade crossings instead of having culverts in there. It reduced the impact to waters of the U.S.

The Seeley water pipeline was relocated beneath arterial and maintenance roads in order to co-locate impacts. As such, the water line would result in zero impact to waters of the U.S.

The width of SunCatcher maintenance roads were reduced from 15 feet to 10 feet in width. Spur roads to -- from maintenance roads to individual SunCatchers were completely removed. That resulted in a reduction of

95 acres of impact to waters of the U.S.

Sediment basins that were originally designed in the 750 megawatt project, as you heard Dr. Chang testify yesterday he had evaluated and said that their inclusion in the project would cause impacts to downstream sediment transfers, so they were all removed.

The main services complex was removed, shifted, reducing impacts to waters of the U.S. and the state by 17 and a half acres. That was done following meetings with the corps and the EPA.

And finally, what's been called the lifeline road that goes across Wash G -- it's called the lifeline road because it provides emergency access and exit from the site -- had a culverted crossing, and that was changed to a bridge crossing in order to reduce impacts to water resources.

MS. FOLEY GANNON: And so the overall direct and permanent and temporary impacts to waters of the United States with this alternative are what?

MR. FITZGERALD: 38.2 acres of permanent impacts and 14 acres of temporary impacts.

MS. FOLEY GANNON: Have you reviewed the staff's supplemental staff assessment?

MR. FITZGERALD: Yes, I have.

MS. FOLEY GANNON: And in the staff --

supplemental staff assessment the staff indicates that Drainage Alternative 1 may be the referred alternative to the project.

Can you comment on the comparison between the proposed LEDPA and Drainage Alternative 1? These are the impacts to waters of the U.S.

MR. FITZGERALD: Well, the 709 megawatt project I just described as 38.2 acres of impact. The corps Drainage Alternative 1 has 38 acres of impact. So a quarter of an acre less, a little less than that.

But in my testimony on alternatives later I could go into some detail that describe in more detail the feasibility of corps' Alternative 1.

MS. FOLEY GANNON: First I was just focusing on the idea of the impacts.

We heard from -- in staff testimony earlier that, and it's reflected in the supplemental staff assessment, that Drainage Alternative 1 would reduce impacts to waters of the U.S. compared to the proposed project. Would you say again the level of impacts associated with Drainage Alternative 1 and the LEDPA are functionally equivalent?

MR. FITZGERALD: Essentially the same.

MS. FOLEY GANNON: The staff had also pointed out that it was a preferred alternative because of avoiding particularly drainage or Wash C, which has been identified

as a potential -- the potential movement corridor for Flat Tailed Horned Lizards.

How does that equate to the LEDPA?

MR. FITZGERALD: Well, Wash C is avoided by the LEDPA.

MS. FOLEY GANNON: So you would anticipate the impacts would be similar with Drainage Alternative 1 to this potential movement corridor.

MR. FITZGERALD: Yes.

MS. FOLEY GANNON: And it was also said that there was with Drainage Alternative 1 the fact that there was a potential for one-way movement --

MR. FITZGERALD: On Wash G?

MS. FOLEY GANNON: On Wash G. You have heard that testimony? How would the impact to that area be under the LEDPA?

MR. FITZGERALD: Wash G is completely avoided.

MS. FOLEY GANNON: In the southern part of the site?

MR. FITZGERALD: Yes.

MS. FOLEY GANNON: So those areas are fairly equivalent between these alternatives; is that correct?

MR. FITZGERALD: That's correct.

MS. FOLEY GANNON: And I know we will get into a further discussion about alternatives shortly, but just to

complete sort of the corps' permitting process discussion, did the corps consider Drainage Alternative 1 and evaluate it for practicability?

MR. FITZGERALD: Yes, they did.

MS. FOLEY GANNON: And what was the corps' conclusion about Drainage Alternative 1?

MR. FITZGERALD: That it was not a practicable alternative.

MS. FOLEY GANNON: And for what reasons was it considered not practicable by the Corps of Engineers under their regulations?

MR. FITZGERALD: It was on the basis of two of their criteria: Logistical considerations and cost considerations.

MS. FOLEY GANNON: Now, turning to the analysis that was done under the California Rapid Assessment Method on the site, in your previous testimony you described the basic goal of the CRAM as evaluating the functions of the washes and gave some detail about the types of analysis that was done.

Since May, can you just update the committee about what has happened with the CRAM results?

MR. FITZGERALD: So the CRAM -- to be clear, the CRAM itself, California Rapid Assessment Method, was required by the agency, it wasn't something that the

applicant selected to do.

We supported it, the intent of it, which was an effort by the corps as well as a number of other agencies to calibrate project functional impacts to waters of the U.S. for the purposes of calibrating mitigation.

At the time that we had submitted our draft, the applicant's prepared draft 404B1, the CRAM data was not available. So over the last month, or the month between when we submitted the draft and the corps finalized it, they incorporated the CRAM data.

Now, what the CRAM data did was provide a baseline that helped to provide more detail about the functional value of the washes on the project site, and also the applicability of the rivering module for the purposes of modifying the module to be used in the future for ephemeral streams.

MS. FOLEY GANNON: And has that analysis now been included in the corps' 404B1?

MR. FITZGERALD: Yes, it has. As the CURE witness stated, a couple of the metrics were identified as needing required modification, and a couple were deemed to be adequate for the purpose of -- with only minor modifications needed.

One of those I'd like to point out, since it was brought up in some testimony yesterday, the hydrology

metric was deemed to be an appropriate measure for looking at function of ephemeral streams. There's three metrics that are used in the hydrology metric subsets of it, and two of those three were determined to be unchanged by the project. So the baseline condition of the hydrology metric was looked at, and then the post-project condition was looked at, and those two metrics were determined to be unchanged by the project area.

MS. FOLEY GANNON: Are you referring to last evening we had read to us some portions of the CRAM that were talking about the erosive quality of the washes on the site?

MR. FITZGERALD: Right.

Essentially what was read last night was the description of ephemeral washes that was part of the preamble of the baseline condition assessment that was done by the Southern California Water Research Project, SCWRP, you know, for the corps.

So those were really selective excerpts taken to describe ephemeral systems in general, but the results were not actually in that assessment.

MS. FOLEY GANNON: But the entire CRAM analysis that was completed for this project is part of the 404B1 you said?

MR. FITZGERALD: Yes. But to be clear, the CRAM

analysis is a baseline, it doesn't determine the impacts. The impacts using CRAM were determined by the corps.

MS. FOLEY GANNON: And turning now to the mitigation proposal, can you discuss with us how you went about identifying potential mitigation measures that would be proposed?

MR. FITZGERALD: Well, much like the CRAM, the applicant did not choose to mitigate Carrizo Creek. And the applicant was not the one to claim that Carrizo Creek was the appropriate mitigation for the big horn sheep.

Again, this was an effort -- the Army Corps, with some assistance, you know, from my firm, looked at several sites in the valley, and the corps came to us, set up a meeting with the state parks to go look at Carrizo Creek. I could read an e-mail that I have from the state parks that says what their intent is.

Basically, the corps and the state parks collaborated to identify an enhancement project that they thought would meet the objectives of mitigating impacts to waters of the U.S. as well as have an added benefit of benefiting big horn sheep.

Is it appropriate for me to read from an e-mail?

HEARING OFFICER RENAUD: I think what we'd like best, if that could be printed and offered into evidence and docketed. Sounds like it could be a useful thing.

MR. FITZGERALD: Yeah, it's a pretty informal -- I mean, it's a one sentence what the objective of the state parks is. And then there is --

HEARING OFFICER RENAUD: If it's a short e-mail, you might as well read it. But we'd also like to get it in the record.

MS. FOLEY GANNON: Absolutely. Sure.

MS. MILES: Could you also identify who it is, who's the sender?

MR. FITZGERALD: Yeah. This was sent to me by Mark Jorgenson who's a state parks biologist that's been working on Carrizo Creek for years. He sent me two e-mails.

One said, "We have thousands of GPS and radiotelemetry points in the Carrizo watershed from Tule Canyon down to Highway S-2 as well as from the Carrizo Mountain east to Highway S-2."

Informally he starts talking about a buddy of his, El Cowboy, in the 1930s that used to rustle up big horn sheep from the canyon when he was driving cattle up. That was in the late 1930s into World War II era.

HEARING OFFICER RENAUD: We could probably redact that.

MR. FITZGERALD: He says the marsh was actually in fine shape with a diverse riparian mix prior to two

large hurricanes subsequent to floods.

And so he just provided the baseline.

I put Mark Jorgenson in touch with Guy Wagner and said, you know, you guys need to be talking to each other about this, because Guy wasn't -- didn't seem to be quite as familiar with the historical use of Carrizo Creek and marsh.

And he indicates here that the big horns were actually scared up out of the marsh area.

MS. MILES: I have a clarifying question.

My understanding was that Mark Jorgenson was not consulted as a representative of the state parks but on his own behalf and that he had already retired at that point.

When was the e-mail?

MR. FITZGERALD: June 24.

MS. MILES: Of this years?

MR. FITZGERALD: Jim Dice and Mark Jorgenson.

MS. MILES: Yeah, he had retired -- Jorgenson retired at that point. Just as a matter of clarification.

MR. FITZGERALD: Okay.

Apparently the state parks has been doing Tamarisk control in a number of their washes.

The second e-mail was June 28th, and he just said, "Our goal is to eradicate the Tamarisk with a huge

infusion of funding and effort and to restore the native riparian ecosystem in the entire Carrizo Creek drainage from Interstate 8, 25 miles eastward into the Carrizo impact area where Tamarisk Peters out on BLM lands east to the state park."

MS. FOLEY GANNON: So in terms of the adequacy of this mitigation measure, how is the applicant proposing to demonstrate that this will offset impacts to waters of the U.S.?

MR. FITZGERALD: Well, the corps has directed us to prepare a mitigation plan for that entire 25-mile stretch. It's a Tamarisk -- a cut stump and herbicide treatment method. There's other methods to use. That was the method specifically requested by the state parks and the corps.

MS. FOLEY GANNON: And the proposal to mitigate 247 acres, can you provide a ratio of where that number was drawn from?

MR. FITZGERALD: Sure. I was a little surprised to hear the agencies on the phone earlier today.

I was part of a conference call to discuss an 881-acre mitigation requirement for -- to replace forage lost for big horns. And it was me that brought up on the call the fact that, hey, wait a minute, that 881 acres is based on the jurisdictional acres of waters of the U.S. on

the Imperial Valley Solar site. If you're trying to mitigate forage, based on the CRAM results, only 28 percent.

And this is the point that I don't think CURE understood. Only 28 percent of the washes within that 881 acres are actually vegetated. So if the intent was to mitigate for the loss of forage, which the Fish & Wildlife Service, the BLM, and Game & Fish were on the phone, nobody -- that's where 247 acres that the applicant is proposing to modify. Is it Bio 17?

MS. FOLEY GANNON: Yes.

And you may have heard earlier there was a question about -- was the CRAM intended to identify foraging habitat.

Can you respond to that question?

MR. FITZGERALD: No, the CRAM -- the CRAM had nothing to do with foraging habitat. The CRAM -- the CRAM, what we did with the CRAM, because it was first time it had been used on ephemeral systems, was they collected -- they, the corps or SCWRP collected detailed vegetation transects of the project area, more so than were in the staff assessment or -- there was 84 vegetation transects. So they were able to produce percentage cover species diversity measures for every wash in the project area. So the average cover in that 881 acres was 28

percent, or 247 acres.

MS. FOLEY GANNON: You've reviewed the applicant's revised proposed Bio 17; is that correct?

MR. FITZGERALD: Yes.

MS. FOLEY GANNON: And do you have an opinion upon the adequacy of the mitigation based upon your knowledge of the functions of the site's aquatic resources?

MR. FITZGERALD: Well, I think in -- if I recall correctly, I think in Bio 17 it also references a presumed corps mitigation number of five-to-one.

You know, I think last time I testified before the commission I said two-to-one. It seems like the numbers keep crawling up.

In the end the CRAM analysis, what is for certain, whatever the mitigation ratio is in the end, is the corps intends to use the CRAM to replace functional values.

So they're going to make in their final 404B1, they're going to the summary of the mitigation, and in that summary, it does say five-to-one, and finalize that. So whether functionally they determine that it's four-to-one or five-to-one, I don't know.

MS. FOLEY GANNON: But the applicant is proposing what I understand to be in excess of five-to-one for the

direct permanent impacts; is that correct?

MR. FITZGERALD: To answer your question, yeah, I do think that the Bio 17 does meet the corps' intent to mitigate offset impacts to waters of the U.S. And I'm not a big horn expert, but the agencies have all been party to the discussion, so I can only assume that that's also offsets that impact.

MS. FOLEY GANNON: Thank you, Mr. Fitzgerald.

These witnesses are available for cross-examination.

HEARING OFFICER RENAUD: Okay. Is there cross by staff?

MS. HOLMES: I have a couple of questions.

CROSS-EXAMINATION

MS. HOLMES: I'd just like to ask for clarification on the -- first of all, I'd like to ask for clarification on the last question. Were you including the California Department of Fish & Game when you were referring to other agencies?

MR. FITZGERALD: Yes. Magdalena was on that call as well.

MS. HOLMES: Okay. Thank you.

I'd like to ask you a couple of questions about your Exhibit 143. You refer in that exhibit to some changes that the project has undergone as part of the

development of the LEDPA.

One of the changes -- a number of the changes appear to have to do with modifications to roads; is that correct?

MR. FITZGERALD: Yes.

MS. HOLMES: And one of the changes is removal of spur roads to the individual SunCatchers from the maintenance road; is that correct?

MR. FITZGERALD: That's correct.

MS. HOLMES: Do you know what the purpose of those spur roads was? Was it to provide access to the individual SunCatchers from the maintenance road?

MR. FITZGERALD: Yes. The original proposal had the same type of surface road getting graded to individual SunCatchers for the purposes of long-term washing and maintenance.

MS. HOLMES: So will access to the SunCatchers now occur over roads that don't have that same level of maintenance?

MR. FITZGERALD: Access for the purposes of washing the mirrors in the waters of the U.S. will be over land travel, and that's what was analyzed in the 404B1.

MS. HOLMES: Do you know whether or not the air quality impacts associated with using those kinds of roads was analyzed?

MR. FITZGERALD: No, I don't.

MS. HOLMES: Okay. Thank you.

And then I'd like to turn next to -- I don't know the exhibit number. It's the July 13th applicant's opening testimony.

Counsel, can you help me with that?

MS. FOLEY GANNON: I'm sorry, what was the question?

MS. HOLMES: What's the exhibit number for applicant's July 13th opening testimony?

I'm sorry, I apologize, I don't have that.

MS. FOLEY GANNON: That's okay.

MS. HOLMES: Which I believe is sponsored entirely by Mr. Fitzgerald.

MR. FITZGERALD: Can I ask for a clarification on the last question?

MS. HOLMES: Sure.

MR. FITZGERALD: The air -- were you asking if we analyzed the air, or whether it was analyzed in the 404B1, or whether staff analyzed it?

MS. HOLMES: Well, we know staff hasn't analyzed it because staff hasn't analyzed the LEDPA. It is an example of the type of thing that staff typically analyzes when they're looking at alternatives. And I'm curious as to whether or not you know whether or not differences in

air emissions were analyzed as part of the development of that particular feature of the LEDPA.

MS. FOLEY GANNON: And the question is by removing roads was there higher air impacts? Is that the question?

MS. HOLMES: No.

My question is whether or not he knows whether or not -- lots of whether or nots -- do you know whether or not increased emissions associated with different road services associated with removal of the spur roads was analyzed?

MR. FITZGERALD: I don't know that.

MS. HOLMES: Thank you.

Should we simply just refer to it as applicant's --

MS. FOLEY GANNON: Yes.

MR. FITZGERALD: Being as the spur roads were going to be in an unhardened surfaces anyways, you would think that the impact would be less by not grading the road out across the sandy wash.

MS. HOLMES: Are you prepared to testify as to what the surface was on the spur roads?

MR. FITZGERALD: It's untreated. In the washes we're talking about.

MS. HOLMES: I'm talking -- so are you talking

about removal of the spur roads in the washes?

MR. FITZGERALD: Yes, I was talking about minimization of impacts to waters of the U.S.

MS. HOLMES: And do you know whether or not -- I guess I'm -- and let me ask another question.

If the surface was untreated, what's the difference between the proposed project and the LEDPA with respect to the spur roads?

MR. FITZGERALD: It would be graded, graded to get to the SunCatcher in the first place.

MS. HOLMES: Do you know whether or not there are air emissions associated with grading?

MR. FITZGERALD: Of course there is.

MS. HOLMES: Thank you.

MS. FOLEY GANNON: He's saying the grading was removed. That's what he was just testifying.

Is that correct?

MS. HOLMES: Well, why don't we ask him instead of having counsel testify.

MS. FOLEY GANNON: No, I just wanted to make sure that you heard what he had said, that's all. So he can repeat it.

MS. HOLMES: So as I understand it, though the difference is that there is not going to be grading and now there will be vehicles driving down ungraded roads, or

ungraded access.

MR. FITZGERALD: The maintenance road gets cleared.

MS. HOLMES: Correct.

MR. FITZGERALD: To access the SunCatcher, they just drive over land across the sandy wash.

MS. HOLMES: Whereas before there was going to be -- there were going to be spur roads.

MR. FITZGERALD: That's right.

MS. HOLMES: And I'm just asking whether or not anyone has looked at the difference in air emissions associated with driving over land versus driving on the spur roads. And I thought I heard you testify that you're not aware of any.

MR. FITZGERALD: Yeah. Yeah.

MS. HOLMES: Thank you.

And since we're having trouble identifying the exhibit by number, can we simply refer to it by date, counsel?

MR. THOMPSON: Yes.

MS. HOLMES: So in your July 13th, 2010, testimony which also discusses the draft LEDPA, you make a statement on page 14 having to do with the cost of the SunCatchers. And in that testimony you say that the cost is reduced by as much as 50 percent if there's a high

volume of SunCatchers manufactured compared to a low volume scenario?

MR. FITZGERALD: I think we're going to talk more about cost when we talk about alternatives. That will be -- Marc Van Patten will be joining me for that discussion.

MS. HOLMES: Let me just ask you now, and if we need to come back to it, we can.

MS. FOLEY GANNON: Right. Absolutely.

MS. HOLMES: Because this is -- it's just one question.

MS. FOLEY GANNON: No, since it's in the LEDPA, I think that's completely appropriate.

MS. HOLMES: Could you explain how many SunCatchers is a high volume and how many is a low volume?

MR. FITZGERALD: No, I couldn't.

MS. HOLMES: Thanks.

MS. HAMMOND: I have a couple of questions.

HEARING OFFICER RENAUD: Go ahead.

CROSS-EXAMINATION

MS. HAMMOND: Mr. Fitzgerald, you testified as to the differences between the Drainage Alternative -- Drainage Avoidance Alternative Number 1 and the LEDPA, and you stated that the Army Corps has preliminarily found that the Drainage Avoidance Alternative Number 1 is not

practicable in part because of cost considerations; is that right?

MR. FITZGERALD: That's true.

MS. HAMMOND: What is the data upon which the army corps' relying in making that preliminary draft finding?

MR. FITZGERALD: Well, there's some pricing information that's out there from the CPUC --

MS. HAMMOND: Pricing on electricity?

MR. FITZGERALD: That's right.

MS. HAMMOND: Is that the wholesale price of electricity or under power purchase agreements?

MR. FITZGERALD: The cost practicability or the cost items about the alternatives --

MS. HAMMOND: Okay.

MR. FITZGERALD: -- that came from the applicant and will be discussed when we talk about alternatives. It wasn't part of what I did on the 404B1.

MS. HAMMOND: Are these questions that are more appropriate for Mr. Van Patten?

MS. FOLEY GANNON: I think he will probably be able to give more thorough answers.

MS. HAMMOND: Okay. Couple more questions.

Mr. Fitzgerald, I'd just like to ask for a point of clarification.

Are 28 percent of the washes on site vegetated, or is it based on the average vegetation cover?

MR. FITZGERALD: It's based on -- the 28 percent is an average of all of the washes combined. So some washes have 22 percent cover, some washes have 29 percent cover. But the average cover of washes, vegetative cover is 28 percent.

MS. HAMMOND: Okay. Thank you.

And I have two questions for Mr. Wood.

Mr. Wood, I'm looking at a pictorial depiction of the special status plants that were found as a result of the late spring surveys.

MR. WOOD: Yes.

MS. HAMMOND: And I see that there are incidences of Brown Turbans around the edges of the site --

MR. WOOD: Yes.

MS. HAMMOND: -- as well as one incident -- as well as Harwood's Milkvetch around the perimeter of the site. And I do see that there's one incidence toward the middle.

MR. WOOD: Yes.

MS. HAMMOND: And I see one incidence of Wiggins' croton a bit aways away from the site; is that correct?

MR. WOOD: It's along Evan Hughes Highway.

MS. HAMMOND: Okay. Now, you testified that

avoidance of these plants as proposed in staff's condition of certification Bio 19 would render development of the site impractical.

MR. WOOD: No, I didn't say that.

MS. HAMMOND: Okay. Can you clarify, please?

MR. WOOD: I was talking about the feasibility of the creation of an island buffer around that population, whether or not those plants would be sustainable in the long term.

MS. HAMMOND: When you talk about an island buffer, are you referring to incidence not at the edges of the project site?

MR. WOOD: I believe the proposed -- the mitigation measure as proposed by staff talks about creating a buffer area around an individual plant. That would be avoided, that would be left alone.

MS. HAMMOND: Do you have an opinion on the practicality of creating that buffer?

MR. WOOD: Well, to repeat, I don't think that that is going to do a whole lot for a small number of annual plants growing in this habitat.

MS. HAMMOND: Okay. And so you don't have testimony as to the practicality or the practicability of creating island buffers?

MR. WOOD: Oh, certainly not.

MS. HAMMOND: Okay. Thank you.

HEARING OFFICER RENAUD: Cross-examination by CURE?

CROSS-EXAMINATION

MS. MILES: Mr. Fitzgerald, regarding the removal of the spur roads, did you still characterize it as an impact to have the vehicles driving to the SunCatcher units?

MR. FITZGERALD: Yes, we did.

MS. MILES: And can you describe -- elaborate a little bit on how you characterize that impact?

MR. FITZGERALD: We did it how the corps told us to do it, by looking at number of vehicle trips to each SunCatcher.

MS. MILES: So did you consider any impacts to -- so I assume that's related to air quality, right?

MR. FITZGERALD: Well, let me expand upon that.

For the access off the main maintenance road to a SunCatcher, we calculated the number of trips. And related to that, that access would be the same access that would be used during construction to install a SunCatcher. So we determined what we thought was a pretty conservative area of influence of impact during construction and then kept that as the indirect -- direct and indirect impact to vegetation from that activity.

So we put a 40-foot radius around every single pedestal, which ended up, you know, overlapping with the next pedestal in the wash. To say, during construction, and even during operations, it's conservative to say that vegetation within that footprint could get trampled, run over, uprooted, lost, or survive. The corps' response to that, that was really how they wanted us to evaluate that, and said, just so you know, vegetation that is lost, we will consider to be a permanent impact.

So there's a little bit of flexibility there, at least as far as how the corps -- what we expect to find from the corps in their permit in terms of monitoring, and they want the storm water plan, the erosion control plan, and they want to see a vegetation monitoring plan and an invasive species management plan.

So in answer to your question, yes, we did analyze that access and the construction direct and indirect impacts.

MS. MILES: Did you discuss restricting how cars could approach the SunCatchers so that, although I understand you assumed a conservative radius, in your words, around each SunCatcher, was there discussion about trying to restrict how to --

MR. FITZGERALD: Well, we worked with engineers to see what was the minimum radius possible in order to

get the equipment necessary to install a SunCatcher, or the pedestal and then the dish.

You know, I think, the sequencing of construction would ultimately -- when you're doing something over and over a number of times, thousands of times, you're going to find a way to do it in an efficient way that minimizes your time around a pedestal and the amount that you're traveling. So that's why we say we think it was a conservative estimate to say 40 feet radius. We're quite sure that after the installation of several hundred SunCatchers, that they won't be impacting a 40-foot radius around every SunCatcher.

MS. MILES: Yeah, the reason I ask is that I'm concerned that when you eliminate the road, then you're not having like an approved or accepted route of travel to the SunCatcher, and so workers who are approaching the unit would not feel confined to a specific route of travel and there might be more damage than would be done, disturbance, than if you had roads. And did you --

MR. FITZGERALD: Is that a question?

MS. MILES: -- that potential?

MR. FITZGERALD: Well, like I just described, while they're constructing it, they're going to develop a repeatable approach to every SunCatcher within that impact area that was defined. Once it's constructed and

operational, the number of trips to SunCatchers is, you know, once a month.

So it's a 50-foot perpendicular access off the maintenance road to the pedestal. I don't think that that's going to require any major safety problems.

MS. MILES: Thank you. Was the Mesquite -- I understood the Mesquite Lake alternative was one of the alternatives analyzed in the 404B1; is that correct?

MR. FITZGERALD: Yes.

MS. MILES: Turning to your response to question 7 in the July rebuttal testimony, you stated that the alternatives analysis rejected the Mesquite Lake alternative because that alternative site was not available for purchase and development within a reasonable time frame; is that correct?

MR. FITZGERALD: There were two reasons that Mesquite Lake was eliminated. One was the availability criteria; there was a high number of land owners, 52, and 70 parcels of land. But we -- in the corps' analysis, it was eliminated because of the amount of waters of the U.S., specifically wetland, not dry ephemeral washes, but 716 acres of wetlands. So the corps chose not to carry that alternative through because it didn't pass the corps' environmental screening criteria.

MS. MILES: Okay. In your rebuttal testimony in

response to question 8 from July, you stated the alternatives analysis shows that 300-megawatt alternative is not practicable because it would increase the cost per kilowatt by $250 compared to the 750-megawatt proposed project increasing construction by 75 million and, therefore, it does not mean the cost screening criteria.

Did I get that right?

MR. FITZGERALD: That sounds about right.

MS. MILES: So are you saying that the 300-megawatt alternative would actually cost more than the 750-megawatt alternative?

MR. FITZGERALD: That's what the numbers you just read indicate. And I think Marc Van Patten will address that during alternatives discussion.

MS. MILES: Would the Drainage Avoidance Alternative 1 also cost more than the 750-megawatt alternative?

MR. FITZGERALD: Well, I'll talk more about Drainage Alternative 1 later as well in the alternative section.

HEARING OFFICER RENAUD: This is still biology.

MS. FOLEY GANNON: Mr. Van Patten was providing the information, the cost alternatives, and that was submitted to the corps. I think that he can probably most meaningfully talk to this.

MS. MILES: Okay. I think I have a few more that are related to -- not to cost.

So all cost questions should go to Mr. Van Patten; is that correct?

MS. FOLEY GANNON: Yes.

MS. MILES: This is not relating to cost.

The 404B1 analysis states that for non-standard generator groups, conduit and cables must be measured and cut on site increasing labor and material costs as well as increasing installation time.

Oh, this does relate to cost. Should I wait? Okay. I can wait on that one too. I'm sorry.

HEARING OFFICER RENAUD: I'm sure you know cross-examination is about the direct, so stick to what the witness just testified to, please.

MS. MILES: I cannot cross-examine him on his rebuttal, most recent rebuttal submittal or his written submittal?

HEARING OFFICER RENAUD: Well, if it was -- to the extent that's about the biology; but so far I haven't heard anything that was.

MS. MILES: Okay. Well, when I prepared these, I was not aware that they were going to be divided in this way, so I apologize that there's a little bit of time that I -- it's taking me to go through them.

So one of the applicant's project design changes under the proposed LEDPA is to move the main services complex out of the secondary wash.

Is it not possible to move the main services complex out of the wash regardless of the alternative selected?

MR. FITZGERALD: It depends on the size of the plant and the configuration of the plant on where the main services complex would be.

MS. MILES: Right, but I'm not asking theoretically if it's possible, I'm asking is it -- did you consider it in relation to all of the other alternatives as a possibility that you studied.

MR. FITZGERALD: Well, I can get more into the logistical feasibility of some of the alternatives that were generated by the corps when we talk about alternatives.

MS. MILES: So, okay, I can ask that question again.

I think most of -- I have a few more biology.

The 404B1 analysis presented data on average numbers of wash crossings by truck per month and that it would be in the order of 6,400 road crossings per month; is that correct?

MR. FITZGERALD: That's what that analysis says.

MS. MILES: Especially considering the earlier testimony about speed limits, is it fair to say that any lizards in the washes would be subject to being run over by the trucks?

MR. FITZGERALD: It's a possibility.

MS. MILES: Okay. You prepared the supplemental cumulative impacts analysis which is Exhibit 11; is that correct?

MR. FITZGERALD: I don't think so.

MS. FOLEY GANNON: I believe that was Carolyn Dunmire from his firm, but it was not Mr. Fitzgerald.

MS. MILES: So you're not familiar with that analysis.

MR. FITZGERALD: Not in the detail that is probably required here.

MS. MILES: Then I will not ask you about that.

HEARING OFFICER RENAUD: Ms. Miles, cross-examination is about the direct testimony. Would you please limit your questioning to what he testified to. I know your expert is feeding you questions about all kinds of things, but you are the lawyer and you have to know what the direct was and limit your questioning to the scope of the direct.

MS. MILES: Thank you. No further questions.

HEARING OFFICER RENAUD: Mr. Budlong, are you

there?

Okay. Mr. Beltran, any questions?

MR. BELTRAN: No questions.

HEARING OFFICER RENAUD: All right.

Any redirect?

MS. FOLEY GANNON: I just have one question on redirect.

REDIRECT EXAMINATION

MS. FOLEY GANNON: Accessing from the maintenance roads to the SunCatchers, the normal maintenance I understand is washing the SunCatchers; is that correct

MR. FITZGERALD: Yes.

MS. FOLEY GANNON: Would the washing -- would the vehicles need to travel right to the SunCatcher to be able to wash it?

MR. FITZGERALD: No.

MS. FOLEY GANNON: Could that occur from the maintenance road itself?

MR. FITZGERALD: I'm not positive about that.

MS. FOLEY GANNON: Okay. Thank you.

HEARING OFFICER RENAUD: All right.

That's it for biology?

MS. FOLEY GANNON: That's it.

HEARING OFFICER RENAUD: All right. Let's move on to -- well, I guess we talked about doing visual next,

but what's your pleasure?

MS. FOLEY GANNON: We have a couple that are going to be on the telephone, if you'd like, who have been on the telephone all day, so we'd like to get them --

MR. THOMPSON: Actually, before that, if I may, one of the topics is worker safety.

We have some other witnesses, some of which are the result of questions that have been asked yesterday, or this morning, I don't remember, it's been so long. But as far as the worker safety, maybe we can settle that one right now and allow the staff's witnesses to go home.

MS. HOLMES: Well, I believe -- I believe that Mr. Budlong had questions that he deferred from the May hearing that staff had addressed under the hazardous materials management section having to do with the on site use of hydrogen.

So if Mr. Budlong has those questions, I'd like to deal with them at the same time that we deal with worker safety because for us it's the same witnesses.

HEARING OFFICER RENAUD: Well, the problem with that is, as far as I can tell, Mr. Budlong is no longer here.

MS. HOLMES: Then perhaps he has foregone his opportunity to ask questions about the hydrogen system, in which case once we're done with worker safety and fire

protection, staff's witnesses can go home.

HEARING OFFICER RENAUD: Good. Proceed in that fashion.

MR. THOMPSON: I have seen a draft document that I believe was generated out of a proceeding called Abengoa. I've looked at the transcript of the first day of that proceeding, but the second day wasn't there. And I would ask staff's indulgence to see if there is a document that could be placed into the record that we could agree to.

HEARING OFFICER RENAUD: Yes, you may proceed, if that's what you needed me to say.

MS. HOLMES: Thank you. We call Alvin Greenberg and Rick Tyler, they need to be sworn.

(Rick Tyler and Alvin Greenberg were sworn.)

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

MR. TYLER: My name is Rick Tyler, Rick Tyler.

DR. GREENBERG: My name is Alvin Greenberg, A-l-v-i-n G-r-e-e-n-b-e-r-g.

DIRECT EXAMINATION

MS. HAMMOND: Mr. Greenberg -- or Dr. Greenberg and Mr. Tyler, did you prepare the section entitled "Worker Safety and Fire Protection" that was a part of the supplemental staff assessment identified as Exhibit

Number 302?

MR. TYLER: Yes, I did.

MS. HAMMOND: And, Dr. Greenberg, did you assist in the preparation of that document?

DR. GREENBERG: Yes, I did.

MS. HAMMOND: Were your statements of qualification attached to the document, the supplemental staff assessment?

MR. TYLER: Yes, they were.

DR. GREENBERG: Yes.

MS. HAMMOND: And did you prepare the Worker Safety and Fire Protection section's contribution to the staff's rebuttal testimony and errata, which is identified as Exhibit Number 303?

MR. TYLER: Yes, I did.

DR. GREENBERG: Yes, I did.

MS. HAMMOND: And were your statements of qualifications attached to that document?

MR. TYLER: No.

DR. GREENBERG: I am unaware.

MS. HAMMOND: And have your statements of qualification changed since the submission of the supplemental staff assessment?

MR. TYLER: No, they have not.

DR. GREENBERG: No, they have not.

MS. HAMMOND: Okay. Dr. Greenberg and Mr. Tyler, you have reviewed the applicant's presentation of an exhibit which has been identified as 139? It's a draft of the Worker Safety 7. Have you seen that exhibit?

MR. TYLER: Yes, I have.

DR. GREENBERG: Yes, I have.

MS. HAMMOND: And have you been able to -- do you have a stipulation with the applicant on a proposed condition of certification?

MR. THOMPSON: Before you respond to that, I feel -- I feel, first of all, an apology is in order on my part. I may have misunderstood our position and my client's position. So before you ask about a stipulation, I guess we should hear from my client.

Hopefully I'll still be retained at the end of this conversation.

So I interrupted right before you asked that crucial question. I apologize for interrupting.

MS. HAMMOND: That's fine.

DR. GREENBERG: Counselor, evidently we do not have a stipulation, but we do have a proposal from staff that we would like the applicant and intervenors and the committee to entertain.

MS. HAMMOND: Thank you.

DR. GREENBERG: Do they have it?

HEARING OFFICER RENAUD: This would be a proposed modification to Worker Safety 7?

DR. GREENBERG: Yes, with a new Worker Safety 8. It is patterned after a proposal for another site, the Abengoa power plant, and it was released today to the applicant for Abengoa. However, it is germane and relevant to this issue because it addresses fire protection and mitigation for impacts to a fire department. Just because it's a different county does not mean that it's not relevant to Imperial County.

The version you have in front of you has been modified to reflect Imperial Valley Solar and Imperial County Fire Department.

MR. TYLER: It basically adds a third option to the existing condition which allows the applicant to -- to -- if they cannot agree to the first or the second one, they can conduct a study or have a study conducted that would determine the final amount of mitigation.

HEARING OFFICER RENAUD: I guess I don't see that in this document we were just handed. Is that somewhere else?

MR. TYLER: Staff's existing conditions contain a part -- a one or two, and this would be an or three.

HEARING OFFICER RENAUD: Oh, I see, okay. So it's the old Exhibit 139 plus this one, all of it?

MR. TYLER: That's correct.

HEARING OFFICER RENAUD: In the alternative.

MR. TYLER: Right. With a small revision that Worker Safety 8 would now turn -- would now be marked Worker Safety 9 because that Worker Safety 8 would be in between the two.

HEARING OFFICER RENAUD: So I don't know if I dare ask.

Do the parties want to stipulate on the record to this, or do you want to work on it and get it a little more cleaned up first or something else?

MR. GALLAGHER: I think something else.

This is Sean Gallagher.

MR. THOMPSON: And, if I may, we received a letter -- a letter was written by Imperial County Fire Department that was mailed to staff last night. We got a copy of it. I'd like to ask that that be introduced or marked as an exhibit and distributed.

HEARING OFFICER RENAUD: Sounds good.

MS. FOLEY GANNON: That would be Exhibit 144 for identification purposes.

(Applicant's Exhibit 144 was marked for identification.)

MR. GALLAGHER: That was also docketed today. The letter provides some new information from the Imperial

County Fire Department. And it expresses -- if I had a copy of it, I'd read it. If I had a copy and my glasses, I'd read it.

HEARING OFFICER RENAUD: I've got mine, so I can read it if you want.

MR. GALLAGHER: It says -- it's basically that the county's not supportive of the quantification of the dollar amounts in the condition. And so I think that we'd be comfortable stipulating to staff's new proposal, if they took the dollar amounts out. And we're comfortable with the concept of being -- of a condition that requires us to negotiate with the county, we're comfortable with a condition that requires us to negotiate with county or hire an independent consultant, but we believe that having these very large dollar amounts in the condition, with which the county does not agree, is both inappropriate and is not useful in terms of facilitating negotiations.

HEARING OFFICER RENAUD: What is staff's position on that, if you've developed one?

MS. HAMMOND: Staff feels very strongly that dollar amount must stay in there. It's consistent with other conditions of certification regarding payments to fire departments in other solar cases before the CEC. And staff is -- would insist that that dollar amount stay if there is a stipulation.

HEARING OFFICER RENAUD: I seem to recall it in the Colusa matter; the final decision included a provision similar to the one that requires the parties to come to an agreement about it.

MR. TYLER: That's correct, but it did include dollar amounts and it did include a payment of the first year's installment.

In that proceeding the fire department did not request or did not -- there was no mention of a -- of a capital improvement at the start, but there was a yearly amount for embellishment or hiring of full-time staff.

HEARING OFFICER RENAUD: All right. Okay. Well, there's two ways to do this. One is that you parties workshop it and figure it out and come to us with a stipulation; the other is that you put on evidence and the committee decides. So choose option one or option two.

MS. HOLMES: Or could we perhaps do both and put on our evidence tonight and attempt -- if there's no resolution at the end of tonight, attempt to workshop it down the road, and that way we've not lost the opportunities for that.

HEARING OFFICER RENAUD: I'm not sure what you mean by resolution tonight though from putting on evidence. The committee's certainly not going to issue a decision. But --

MS. HOLMES: Then I suggest staff proceed with its case and explain --

MS. FOLEY GANNON: We're willing to stipulate.

HEARING OFFICER RENAUD: Stipulate to?

MS. FOLEY GANNON: To the proposed, the proposed condition.

MR. GALLAGHER: I've been overruled.

MR. THOMPSON: You'll note, not by me.

MR. GALLAGHER: Well, thank you.

HEARING OFFICER RENAUD: Okay. So the stipulation -- I'll take a crack at it, and you can correct me -- is to combine Exhibit 139, which is Worker Safety 7, the old Worker Safety 7, with the document that was just distributed. And we better mark it.

MS. FOLEY GANNON: So it should be the next staff's exhibit number?

MS. HAMMOND: Hearing Officer Renaud, it is not a combination of Exhibit 139 and the document that was just distributed. It was just the document that was distributed. And we'd like to mark that as the exhibit number next in order. I have number 304.

MR. TYLER: And that would be added to staff's testimony, which is not exhibit 139, but another exhibit, I believe.

HEARING OFFICER RENAUD: All right. Well, we'll

mark the document that was just distributed as Exhibit 304. I'm -- since it's got a lot of scrawling on it, I'm assuming that at some point someone's going to submit us a clean version.

MR. THOMPSON: Yes.

HEARING OFFICER RENAUD: Okay. Well, I'm taking the representations of counsel then that that's the stipulation.

(Staff's Exhibit 304 was marked for identification.)

MR. THOMPSON: Thank you.

HEARING OFFICER RENAUD: And if that's the case, I think there is no further need to pursue this item.

MS. HAMMOND: I would like to move our documents into evidence though that underlie that condition.

HEARING OFFICER RENAUD: All right. Please.

MS. HAMMOND: And that would be the worker safety and fire protection section of the supplemental staff assessment.

HEARING OFFICER RENAUD: That's 302.

MS. HAMMOND: And the worker safety and fire protection portions of the rebuttal testimony, unless that's already been moved into the record in toto. If not, I would move that it be so. As well as the document we have just marked as Exhibit 304, a stipulation on

Worker Safety and Fire Protection Number 6 -- oh, excuse me, condition of certification, Worker Safety Numbers 7 and 8.

HEARING OFFICER RENAUD: That's 304, yes.

MS. HAMMOND: I have two more documents --

HEARING OFFICER RENAUD: All right. Let's deal with the rebuttal testimony and errata.

MS. HAMMOND: Okay.

HEARING OFFICER RENAUD: We haven't marked any of that? I thought we had.

MS. HOLMES: I had requested, perhaps, yesterday when Ms. Hammond was out of the room that Appendix 1 be marked as Exhibit 301. That was not -- I don't believe that was identified last May; and that the supplemental staff assessment be marked as Exhibit 302. And I believe that that has not only been marked, but it's been moved.

HEARING OFFICER RENAUD: Yes.

MS. HOLMES: And that the rebuttal testimony be marked as Exhibit 303. And if it hasn't been moved, I would move so at this time.

HEARING OFFICER RENAUD: All right.

And is there any objection to any of those?

MR. THOMPSON: No.

HEARING OFFICER RENAUD: All right.

MS. HOLMES: And since we're moving things, may I

ask that Exhibit 301, which is Appendix 1 which addressed the Seeley Wastewater Treatment Plant that was prepared last -- March 18th, 2010, be moved at this time?

HEARING OFFICER RENAUD: Yeah.

No objection?

MR. THOMPSON: No.

HEARING OFFICER RENAUD: Okay. That's admitted.

And I guess we need a motion on applicant on the fire department letter.

MR. THOMPSON: I request that the fire department letter marked as Applicant's Exhibit 144 be admitted into the evidence.

HEARING OFFICER RENAUD: All right.

Any objections?

MS. HOLMES: No.

HEARING OFFICER RENAUD: That will be admitted then. Good.

MS. HOLMES: Excuse me, I'm sorry, it's getting late. Did Exhibit 304 get moved as well, or did it just get identified?

MS. HAMMOND: It just got identified, to my understanding.

HEARING OFFICER RENAUD: No objection, that's admitted.

(Applicant's Exhibit 144 was received into

evidence.)

(Staff's Exhibit 304 was received into evidence.)

MS. HAMMOND: I'd also like to mark for identification as Exhibit Number 305, this is what's called the Hoffman Study, and it was docketed two days ago, and it underlies staff's rebuttal testimony and errata.

HEARING OFFICER RENAUD: But is not contained within that document?

MS. HAMMOND: No, it's not.

HEARING OFFICER RENAUD: All right.

Is there any objection to that?

MR. THOMPSON: No.

MS. FOLEY GANNON: I'm sorry, what is this?

MS. HAMMOND: The Hoffman study is a document that was prepared by the -- prepared for the San Bernardino County Fire Department.

MS. FOLEY GANNON: Okay.

(Staff's Exhibit 305 was marked for identification and received into evidence.)

MS. HAMMOND: And I'd like to just ask my witness if he has any clarifications or corrections to his testimony. And that would be to the supplemental staff assessment Exhibit 302.

MR. TYLER: Yes. On page C.15-17 in the second

full paragraph on the page, the -- in the second line there's a date, May 5th -- that's actually May 10th, the submittal was actually done on May 10th. In the middle of that paragraph there's a reference to El Cento (sic) Fire Department, which is actually Imperial. I didn't catch it. And -- okay. That's fine.

And then the final one is to correct the existing ordering of the conditions to reflect the addition of Worker Safety 7 and 8. And I would simply make a change that Worker Safety -- the existing Worker Safety 8 be renumbered to Worker Safety 9.

HEARING OFFICER RENAUD: I think the way we'll deal with that is we'll ask staff to submit a clean version of all of those conditions.

MR. TYLER: Okay.

HEARING OFFICER RENAUD: With the numbering you wish.

MR. TYLER: Okay.

HEARING OFFICER RENAUD: Okay? Good.

Let me go back to 305. That's this Hoffman study. It's Docket Number 57720, for the record.

Okay. Done with that topic?

MS. FOLEY GANNON: Are they worker safety and hazardous?

MS. HOLMES: Unless Mr. Budlong has any

questions.

HEARING OFFICER RENAUD: Mr. Budlong?

I don't think Mr. Budlong is there.

MR. THOMPSON: We have some further direct in the area of what we call reliability, project design, and worker safety, and the worker safety aspects have to do with questions that were raised on the hydrogen. I raise it now in case you want to stick around.

MR. TYLER: I'll stick around.

MS. HOLMES: We are going to have the opportunity to ask -- to do cross-examination on reliability, I presume.

MR. THOMPSON: Oh, yes.

MS. HOLMES: Thank you.

MR. THOMPSON: Mr. Van Patten?

On the phone I hope I've got the following: Waymon Votaw, are you still with us?

MR. VOTAW: I'm on, yes.

MR. THOMPSON: Jason Pfaff, are you with us?

MR. PFAFF: Yeah, yeah, I'm with you. Sorry.

MR. THOMPSON: Michael Alhaladi, are you with us?

MR. ALHALADI: Yes, I am.

MR. THOMPSON: And Tariq Hussain, are you with us?

MR. HUSSAIN: Yes, I am.

MR. THOMPSON: All four of these individuals have testified previously, and their curriculum vitaes have either been in paper form or on the phone at the hearings that were held on May 24 or 25.

HEARING OFFICER RENAUD: All right.

MR. THOMPSON: I don't know what you want to do about -- they all have been sworn, but it was in May.

HEARING OFFICER RENAUD: We need a mass swearing in.

MR. THOMPSON: Not all of them are in California.

(Jason Pfaff, Waymon Votaw, Tariq Hussain, and Mohamed Alhaladi were sworn.)

THE REPORTER: Could you please individually state and spell your full names for the record.

MR. ALHALADI: I'll start. My name is Mohamad, M-o-h-a-m-a-d. And the last name is Alhaladi, A-l-h-a-l-a-d-i. And I go by "Mike."

MR. PFAFF: I can go next.

This is Jason. My name is Jason Pfaff with Power Engineering, and it's J-a-s-o-n P-f-a-f-f.

MR. HUSSAIN: This is Tariq Hussain. Spelled T-a-r-i-q, last name Hussain, H-u-s-s-a-, as in apple, -i-n.

MR. THOMPSON: And Waymon?

MR. VOTAW: Yes. My name is Waymon Votaw. The first, it's W-a-y-m-o-n, last is V-o-t-a-w.

MR. THOMPSON: Waymon, can you spell your name again?

MR. VOTAW: The last name is V-, as in Victor, -o-t-a-w.

MR. THOMPSON: Thank you. I urge you to get a little closer to those phones on you've got, gentlemen.

What I would like to do is discuss three or four issues, some of which are reaction to conditions of certification. And a couple of the areas I'm going to present you as a panel because questions have been raised in areas that concern the project design, reliability, availability. And I will introduce those and see if the parties have additional questions.

First of all in the design of the units, and I think this may be for you, Waymon, but if I've misdirected this, please help me. In Visual 6 staff has proposed adding a two-foot shield to reduce glint and the glare of the units.

Waymon, if this is you, would you please discuss what the impacts upon the SunCatcher -- Jason -- no, maybe not, the engineering of the SunCatcher, the development of the SunCatcher technology.

MR. PFAFF: Yeah, this is Jason.

I think the engineering is going to have to be directed to someone from Stirling or Tessera. I can discuss the visual implications of that and if it's a benefit.

MR. THOMPSON: Is Mr. Kanemoto on --

MS. HOLMES: We have our visual witnesses standing by.

I'm a little confused about what we're doing at this point. I thought we were going to be identifying the prepared testimony of Waymon Votaw, but it sounds like we're going to be doing something a little bit different.

MR. THOMPSON: We're going to be discussing reliability, water usage, the SunCatcher technology.

MS. HOLMES: What pre-filed testimony are we talking about at this point?

MR. THOMPSON: Well, this is in rebuttal to the staff's rebuttal on the conditions of certification.

MS. HOLMES: That was biology and worker safety. I don't believe there was any --

MR. THOMPSON: Well, that's right.

MS. HOLMES: -- additional rebuttal.

MR. THOMPSON: But there has been additional direct and questions on these areas.

MS. HOLMES: Well, we're happy to put our visual resources witnesses on if you'd like to hear visual next,

but I think the issue that you're talking about is something that was identified in our supplemental staff assessment, not in rebuttal.

MR. THOMPSON: That's right.

MS. HOLMES: I'm not complaining about having you ask questions about it, I just want to make clear that we didn't file any rebuttal and what you want to do at this point is ask some questions about something that's in the visual resources section of supplemental staff assessment.

MR. THOMPSON: That's right. And it was our fault we missed it.

MS. HOLMES: I don't have a problem with you asking questions. My question is are you -- do you need to cross-examine the visual resources witnesses, or do you want to -- it sounds to me like you want to provide additional direct testimony at this point on feasibility, which we haven't heard before.

MR. THOMPSON: Well, one of our witnesses is going to talk about the effectiveness of this shield, and we can do it in visual, or if Mr. Kanemoto wants to get on now, we can lump them together.

MS. FOLEY GANNON: Yeah, and if your visual people are available, I think they should be on so we can have a discussion.

MS. HOLMES: They are.

And we actually have some additional information about the whole issue of glint and glare, so perhaps it would be best to call those witnesses at this point.

HEARING OFFICER RENAUD: Let me add to the confusion. I thought we had moved to the topic of reliability, project design, and worker safety.

MR. THOMPSON: Yes.

HEARING OFFICER RENAUD: But what you're talking about sounds like visual.

MR. THOMPSON: It is the -- it is part of the project design affected by the visual recommendation.

HEARING OFFICER RENAUD: Let's do visual resources first. We've got everyone here. That's what we said we would do. Let's do it. And you can include the shield thing as part of visual, because it's suggested visual mitigation, right?

MR. THOMPSON: Right.

MS. FOLEY GANNON: So we're doing visual now, or we're not doing visual?

MS. HOLMES: We are doing visual.

I would point out that I have no cross-examination of -- I don't even know if you had witnesses --

MS. FOLEY GANNON: We did.

MS. HOLMES: -- on visual resources. So I don't

have a problem to stipulating to the introduction of your pre-filed testimony on visual resources if that would save the time of --

MS. FOLEY GANNON: Except there was one -- there was one condition that we brought up before that was introduced in Sean Gallagher's testimony that we can't wanted to discuss. I don't think it's going to take very long. There's just a few points that we wanted to raise about this, and hopefully we can, you know --

MS. HOLMES: So is Sean Gallagher testifying then on visual resources?

MR. GALLAGHER: If I need to.

MS. FOLEY GANNON: He was the one who just went in the overview, is what I was referencing in his overview he did.

MS. HOLMES: I have a suggestion.

I think it would be easier if staff put on its case on visual resources first and so that everybody would hear what it is that the applicant is responding to. I don't care which of their witnesses responds to it.

HEARING OFFICER RENAUD: Well, let me --

MS. HOLMES: I know it's out of order, but I think it might be faster.

HEARING OFFICER RENAUD: Yeah, usually we do the applicant first, but if that makes sense to everybody, --

MS. FOLEY GANNON: Whatever makes sense and gets us through the issues, I'm for.

HEARING OFFICER RENAUD: When Ms. Holmes wants something, she usually gets it.

MR. THOMPSON: My panel on the phone, grab a beer and sit back for a minute.

MS. HOLMES: Thank you. Then since there doesn't seem to be any objection, at this point I would like to call staff's witnesses on visual resources, who are Alan Lindsley and Bill Kanemoto.

Are you gentlemen on the phone?

MR. LINDSLEY: Yes.

MR. KANEMOTO: Hello?

MS. HOLMES: Thank you.

Could I have them sworn, please.

(William Kanemoto was sworn.)

THE REPORTER: Could you please state and spell your names for the record?

MR. KANEMOTO: William Kanemoto, K-a-n-e-m-o-t-o.

MS. HOLMES: And, Mr. Lindsley, are you on the line?

He was a few minutes ago.

HEARING OFFICER RENAUD: Less than that.

Alan Lindsley, are you there?

MS. HOLMES: Can I take a couple of minutes to

call him?

HEARING OFFICER RENAUD: Sure.

MS. HOLMES: Excuse me.

(Recess.)

HEARING OFFICER RENAUD: Thank you.

MS. HOLMES: We're ready to go.

Staff's witnesses for visual resources are Alan Lindsley and Bill Kanemoto.

And, Mr. Lindsley, Mr. Kanemoto was previously sworn. So could you please standby, the court reporter gets ready to swear you in.

(Allan Lindsley was sworn.)

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

MR. LINDSLEY: Alan Lindsley, A-l-a-n L-i-n-d-s-l-e-y.

DIRECT EXAMINATION

MS. HOLMES: Thank you. Mr. Kanemoto and Mr. Lindsley, did you prepare the visual resources section of Exhibit 302?

MR. LINDSLEY: Yes.

MR. KANEMOTO: Yes.

MS. HOLMES: And were statements of your qualifications included in Exhibit 302?

MR. LINDSLEY: Yes.

MR. KANEMOTO: Yes.

MS. HOLMES: Does that testimony contain information about glint and glare impacts?

MR. LINDSLEY: Yes.

MR. KANEMOTO: Yes.

MS. HOLMES: And is staff preparing a glint and glare report for the Calico project that we hope will be finalized this week?

MR. LINDSLEY: Yes.

MR. KANEMOTO: Yes, it is.

MS. HOLMES: And would the glint and glare report that's being finalized for the Calico project also be relevant to the glint and glare conclusions for the Imperial project?

MR. LINDSLEY: Yes, it would.

MS. HOLMES: I think what I'd like to do at this point is walk through the changes in the visual resources conditions of certification that the applicant has sponsored in Exhibit 122 and then ask Mr. Lindsley to provide a status report of where we are with the glint and glare report and what the potential implications are for this project.

So I think, Mr. Kanemoto, I believe we need to begin with you.

Could you respond to the applicant's proposed

changes for VIS 1?

MR. KANEMOTO: Yes.

Well, the applicant proposes to modify color treatment of the project where feasible. Staff doesn't object to this change, but we just note that if color treatment of the backs of mirror units in a color other than white is bound to be infeasible, that potential impacts of the project would be increased.

MS. HOLMES: Thank you. What about VIS 2?

MR. KANEMOTO: Applicant proposes deletion of condition VIS 2 item E referring to lighting on exhaust stacks, which was included by error. Staff agrees that removing that would be appropriate.

MS. HOLMES: And the change in the verification?

MR. KANEMOTO: Right. Applicant also proposed reducing notification of changes to temporary and permanent lighting plan to 30 days rather than 90 days. And staff has no objection to that change.

MS. HOLMES: What about the proposed deletion of VIS 3?

MR. KANEMOTO: Yes. Applicant has moved the original transmission line route away from the highway to the interior of the site and, therefore, proposes elimination of condition VIS 3. And staff has no objection to that deletion since the objective of the

original condition has been met.

MS. HOLMES: Thank you.

The proposed changes to VIS 4 and VIS 6 go to glint and glare concerns. So at this point I'd like Mr. Lindsley to discuss the status of the glint and glare report that's being prepared for the Calico project and its applicability to the Imperial project.

MR. LINDSLEY: Okay. In regards to VIS 4, the applicant shall employ a combination of measures as necessary, including the setbacks of the nearest SunCatcher units to a distance of 360 feet from the adjoining roadway or as necessary to avoid excessive glare, reduce visual height and dominance of SunCatchers.

We've modified this to make it a distance of a minimum of 223 feet to minimize the potential for photokeratosis, which is potential damage -- temporary damage to the eye.

MS. HOLMES: And would the justification for the reduced distance be provided in the glint and glare report that's being prepared?

MR. LINDSLEY: Yes.

MS. HOLMES: Thank you.

And is there a similar change to VIS 6?

MR. LINDSLEY: And VIS 6, yes, there will be the similar change to that item number 2, the project owner

shall add a perforated metal diffusion shield. That has been deleted as a requirement due to new information received yesterday.

MS. HOLMES: Thank you.

And what I'd like to propose at this time is that the record remain open to receive the glint and glare report that's being prepared. I'm not certain that it's going to be specific to Calico or whether there will be one for Calico and one for Imperial. The thought is that we have the same underlying analysis, and we want the underlying analysis to be consistent, obviously, within the two projects, that the individual conditions could be different because of the different project configurations.

But I would like the record to stay open in order to receive that report, which we hope will be within the next week.

HEARING OFFICER RENAUD: That's fine.

MS. HOLMES: Thank you.

The witnesses are available for cross-examination.

MR. THOMPSON: Would you give us about 30 seconds?

HEARING OFFICER RENAUD: Sure.

MR. THOMPSON: We have a unanimous thank you.

MS. HOLMES: That's good to hear at this time;

well, it's good to hear at any time of the day, it's especially nice to hear tonight.

HEARING OFFICER RENAUD: Cross from CURE?

MS. MILES: No.

HEARING OFFICER RENAUD: CNPS?

MR. BELTRAN: No.

HEARING OFFICER RENAUD: Thank you.

MR. THOMPSON: Jason, are you on?

MR. PFAFF: Yeah, I am. Go ahead.

MR. THOMPSON: You can go ahead.

MR. PFAFF: What I wanted to clarify, did I hear that VIS 6 is -- is no longer a requirement; is that what I heard?

MS. HOLMES: No. VIS -- the change to VIS 6 is that the 300 feet in item one has been changed to 220, and item 2 has been removed.

MR. PFAFF: Okay. I thought VIS 6 was the shield.

MS. HOLMES: A portion. Paragraph 2 of VIS 6 is the shield.

MR. THOMPSON: And that has been removed.

MS. FOLEY GANNON: Yeah.

I think the applicant does not need to call its VIS witnesses, so, Jason, thank you for joining us.

MR. THOMPSON: Thank you for standing by all day.

MS. HOLMES: I believe all the VIS witnesses have been on all day long.

HEARING OFFICER RENAUD: So may I presume that the 223 setback is okay with the applicant?

MR. THOMPSON: Yes. In fact, all of the suggested changes by staff are acceptable, more than acceptable to applicant.

HEARING OFFICER RENAUD: All right. Very good.

So we done with that topic?

MS. HOLMES: We are.

Thank you, Mr. Lindsley and Mr. Kanemoto, for being so patient today.

MR. KANEMOTO: Thank you. Have a nice evening.

MR. LINDSLEY: Thank you, everybody.

HEARING OFFICER RENAUD: All right. Let's see where we stand here because it's getting toward 10:00 and we've got to kind of make a decision about what to do.

What do we have left? I have on my list alternatives, reliability, project design.

MS. FOLEY GANNON: Right. And reliability and project design we would like to do next because those people are on the phone.

Alternatives, we have witnesses here.

I don't think they'll take that long.

HEARING OFFICER RENAUD: What about reliability

project design?

MS. FOLEY GANNON: Same thing.

MR. THOMPSON: Same panel. I don't think it's going to take that long for us.

HEARING OFFICER RENAUD: Yeah, we have an hour -- wait, alternatives?

Let's just start, see where we go.

MS. HOLMES: I have one question.

There were additional changes that were proposed to conditions of certification and noise transportation and hazardous materials. We can walk through them on the record or we can provide our responses in the brief, it's up to the committee.

HEARING OFFICER RENAUD: Let's do it in the brief.

MS. HOLMES: Thank you.

MS. FOLEY GANNON: I'm sorry, which ones were those again?

MS. HOLMES: Hazardous materials management, noise, and transportation.

MS. FOLEY GANNON: And those are the ones that we proposed changes.

MS. HOLMES: Those are changes that you proposed that we have responses to, and we will provide the responses in the brief rather than going through them at

the hearing.

MS. FOLEY GANNON: Okay. Thank you.

HEARING OFFICER RENAUD: All right. Although if you could deal with them in the workshop, that would be really nice.

MS. HOLMES: I'll put them on the list, those that I think there might be controversies about.

HEARING OFFICER RENAUD: Okay. Thanks. All right. Fine.

MR. THOMPSON: Reliability?

Waymon, you're still on, right?

MR. VOTAW: I am, yes.

MR. THOMPSON: I suspect these go to you.

DIRECT EXAMINATION

MR. THOMPSON: There are two aspects of reliability that I'd like to ask you a few questions about.

First of all, I believe it's still true that staff believes that it has insufficient information to make a determination on project reliability. Is that your understanding as well?

HEARING OFFICER RENAUD: Has insufficient, did you say?

MR. THOMPSON: Yes.

HEARING OFFICER RENAUD: That's what I thought

you said, but I wanted to make sure.

MR. THOMPSON: Waymon, is that your understanding?

MR. VOTAW: Yes, it is.

MR. THOMPSON: Now, first of all, with regard to Maricopa, in May you testified regarding the availability percentages of Maricopa. Do you have an update on how Maricopa is running?

MR. VOTAW: Yes. I'll answer that quickly. The SunCatcher availability through July 21st, our last reported update, was 97 and a half percent. The field availability, including the rest of the balance of plant equipment is going available 96.1 percent. And our on sun dish hours currently, or through July 21st, are at 74,922 hours.

MR. THOMPSON: Is there anything else about the experience at Maricopa that you would like to add regarding the availability and reliability of the units?

MR. VOTAW: Well, Maricopa has served as a --

MR. THOMPSON: You're fading out.

MR. VOTAW: Can you hear me?

MR. THOMPSON: Now, I can.

MR. VOTAW: Sorry. I was saying that Maricopa has served as a proving ground or a source of validation data for the assumptions that we made for availability

projections for the larger commercial fields.

What we've been able to validate from Maricopa is the --

HEARING OFFICER RENAUD: You still there?

MS. HOLMES: We have a reliability problem with the connection.

MR. THOMPSON: Seems like it's about 95 percent though.

HEARING OFFICER RENAUD: Could he call in on a land line or stop moving around or something?

Well, we got the stats on the update. Is there more from Mr. Votaw?

MR. THOMPSON: I do have some more, Mr. Votaw, another question.

But, Mike, are you still on the phone, Alhaladi?

MR. ALHALADI: Yes, I'm still on the phone.

MR. THOMPSON: Great.

Now, the reason you've been waiting around all day is that there have been various questions in the proceeding about hydrogen leaks and leaks in the system, and I wanted to make you available for any cross the parties may have on questions that we were unable to answer without you. And if you also could give us, if you have any updated experience from Maricopa on hydrogen

leaks.

MR. ALHALADI: Since we spoke in May, I have not heard anything new from the plant concerning hydrogen leaks. Mainly the inground system, the distribution supply and distribution systems are functioning proper with no leak. However, as we have projected, PCU origin leaks are occurring on a regular basis, and this is something we have projected and expected. And we have provided make up hydrogen to support any hydrogen loss to operations.

MR. THOMPSON: Thank you.

Hold on a minute. Don't go anywhere.

Waymon, are you back on?

MR. VOTAW: Yeah, I apologize, I'm back on.

MR. THOMPSON: Okay. Do you remember where you left off?

MR. VOTAW: I was trying to walk through the Maricopa experience.

The path I was on is essentially we have an expectation of availability for Imperial Valley Solar. The underlying of that assumption is sort of three-fold. It's based on experience, which we're gaining from Maricopa.

Again, the assumption is 98 percent availability has been largely validated by our operational experience

at Maricopa.

And then secondly, for the underlying reliability of the equipment, we've modeled that as a part of our projections, and the equipment at Maricopa is performing to expectations relative to its reliability. And we've additionally had increased testing from SES and their Tier 1 suppliers to further validate the reliability of components.

MR. THOMPSON: Thank you.

Let me move on to one other topic here.

Yesterday there were questions regarding the amount of water used during the operational phase of the power plant. And the -- the basis for the 33 acre feet.

One of the questions was are operations reliable with 33 acre feet a year.

Would you respond to that, please?

MR. ALHALADI: Waymon, you want to respond to at that, or do you want me to?

MR. VOTAW: I can jump in first, and then you can add on.

MR. THOMPSON: Pardon me. Who is "I" and "you"?

MR. VOTAW: This is Waymon speaking.

MR. THOMPSON: Okay.

MR. VOTAW: So for the bottom up build of water consumption for operations is based on the primary pieces

being washing of the mirrors, the repetitive washing to keep reflectivity high, also for potable water use, and then some for dust abatement.

The mirror washing assumptions for IVS assume just shy nine washes per year. That assumption is based on Sandia reflectivity measurements, the resulting loss in energy, and the cost associated with recovering that energy through labor to wash those mirrors.

What we've been able to do at Maricopa is to validate the amount of water that we're using associated with the mirror washing as well as the degradation from the soiling and its impact on energy to validate the assumption and give us confidence on the water consumption we'd use for that purpose, being mirror washing.

And then secondly, there's potable water assumptions. And those are pretty straightforward relative to staff shift rotations and the consumption of those personnel while on site.

MR. THOMPSON: Gentlemen, thank you very much. Hold on a minute.

Mr. Van Patten, I don't know that we've introduced you as a member of this panel. Have you been sworn today? I can't remember.

MR. VAN PATTEN: I've been sworn yesterday. It should be valid, I would think.

MR. THOMPSON: And let me add you on the panel without giving you any further direct in case there are questions regarding -- do you have something to say?

MR. VAN PATTEN: I have nothing to say unless asked directly.

MR. THOMPSON: Okay. Our panel is tendered for cross-examination in project description reliability and the other engineering disciplines.

HEARING OFFICER RENAUD: Thank you.

Staff, cross-examination?

MS. HOLMES: One moment, please.

CROSS-EXAMINATION

MS. HOLMES: I have a couple of preliminary questions I guess before I get into the specific reliability questions.

First of all, what's the piping material for the hydrogen?

MR. ALHALADI: It's 34 and 316 stainless steel.

MS. HOLMES: And the numbers that you just gave with respect to hydrogen leaks, has that information changed since you changed the type of hydrogen system?

MR. ALHALADI: No. We have not changed the engine itself, we have changed the amount of hydrogen going in and out of the engine; but as far as the leak rate, is the same.

MS. HOLMES: So it's unaffected by the volume of hydrogen?

MR. ALHALADI: No.

MS. HOLMES: No or yes?

MR. ALHALADI: No, the answer is not it has not been affected, no.

MS. HOLMES: Thank you.

MR. ALHALADI: Sure.

MS. HOLMES: And somebody, I can't remember who, talked about validating the assumptions for water use for the project.

Would you expect that the water demand is different or the same based on different environmental conditions? In other words, does water usage change depending on the particular environmental that the project is located in?

MR. VOTAW: We have found both from internal study and relying on external studies that the volume of water consumed is largely similar regardless of the soil type. In other words, the type of -- the amount of water with pressure is sufficient to remove various soiling types, but with varying sites you'll have different environmental conditions that change through the year that would vary the soiling rates through the year, so that we're using average soiling rates from that aggregated

experience.

MS. HOLMES: So would it be fair to say that you've validated a ball-park estimate of water use, not a specific volume of water use for the Imperial project?

MR. VOTAW: Well, we've used -- we have relied upon wash data from Albuquerque and the Sandia National Labs. We've used Maricopa data. We've used SEGs data for heliostat washing and reflectivity.

And what we've found is that the reflectivity curves are largely the same for all three sites and that the water consumption at both Albuquerque and at Maricopa are largely the same.

MS. HOLMES: Thank you.

I'd like to turn now to Exhibit 302. I know that there were some recent updates having to do with the operation of the Maricopa facility, but my questions are based on information that was provided in what I think is the unmarked exhibit, the testimony of Mr. Votaw.

MS. FOLEY GANNON: Let's take care of marking that right now. I guess we are at Exhibit 145.

(Applicant's Exhibit 145 was marked for identification.)

MS. FOLEY GANNON: And just so we don't forget, can we offer to have that submitted into the evidence, Exhibit 145, the rebuttal testimony of Waymon Votaw?

MS. HOLMES: No objection.

HEARING OFFICER RENAUD: All right. That's submitted.

MS. FOLEY GANNON: Thank you.

(Applicant's Exhibit 145 was received into evidence.)

MS. HOLMES: Mr. Votaw, in that testimony you describe an average 95.1 percent availability factor for the Maricopa plant; is that correct?

MR. VOTAW: I'm searching for the number, but that sounds correct from memory.

MS. HOLMES: It's on page 3 of your testimony, if that's --

MR. VOTAW: That was correct.

MS. HOLMES: I'm sorry; actually, it's not. I have 96.1, I made a typographical when I copied. 96.1.

MR. VOTAW: Correct.

MS. HOLMES: Thank you.

MR. VOTAW: Yes, as of that date, 96.1.

MS. HOLMES: And does that figure take into account, or I should say does it account for the subtraction of both planned and unplanned outages?

MR. VOTAW: That includes both, correct.

MS. HOLMES: And so planned outage would be something such as scheduled maintenance for nighttime when

you wouldn't expect the plant to operate; is that correct?

MR. VOTAW: Well, our calculation -- to be clear, our calculation would include both; but based on the period of operation, we're still only dealing with unscheduled maintenance and we have not run sufficient operating hours for the scheduled maintenance cycle to begin.

MS. HOLMES: That's fine.

So have there been unplanned outages?

MR. VOTAW: There have.

MS. HOLMES: Thank you.

Have all 60 Stirling -- let me step back for a moment. I want to use the right terminology.

Is the SunCatcher the Stirling engine and the solar array and associated equipment?

MR. VOTAW: It's the dish, plus PCU, plus the controls that -- the controls, the trackers, all the subsystems on the pedestal, if that's what you mean by "associated equipment."

MS. HOLMES: Right. Thank you.

Have all 60 of the Stirling engines operated during the time period that you've referenced in Exhibit 145?

MR. VOTAW: Yes, they have.

MS. HOLMES: And do you know how many of those

individual engines failed to operate due to engine-related issues?

MR. VOTAW: Could you clarify what you mean by "failed to operate"?

MS. HOLMES: Unplanned outage.

MR. VOTAW: Un- --

MS. HOLMES: I know, you're used to referring to an unplanned outage probably for the plant, but I'm asking you how many of those individual engines had operational problems that resulted either in no generation or reduced generation of electricity.

MR. VOTAW: Let me explain our maintenance concept, and maybe you can -- you can refine the question. I think I follow you, but I'm not sure how to answer your question.

So the way that -- the SunCatcher is modular. Most of our -- most of our maintenance interventions to date have been on the power conversion unit, not the dish structure or drives, it's on the power conversion unit. Being modular, if there is a -- if there is an intervention required, we swap a PCU, continue to operate that SunCatcher, and perform maintenance on that PCU that has been removed from the SunCatcher.

MS. HOLMES: Okay. How many --

MR. VOTAW: To date -- I'm sorry, go ahead.

MS. HOLMES: No, that's all right, finish your answer.

MR. VOTAW: To date the -- for the majority of the field, the SunCatchers have remained paired with the original PCUs since March.

MS. HOLMES: Okay. Let me ask this question then. How many of the PCUs have been replaced?

MR. VOTAW: I don't have that number off the top of my head, but there -- I mean, understanding, again, that maintenance interventions are expected on the SunCatcher, and that it's a -- it's a piece of machinery. We have had maintenance interventions on multiple PCUs and placed them back in service.

MS. HOLMES: When you have a maintenance intervention, do you calculate that -- do you include that in your calculations as an unplanned outage even if you get another PCU on the solar array quickly?

MR. VOTAW: We -- the availability of the field equipment -- so the response time and the swap time on the modular PCU stop would impact availability. Once an engine that is coming from the spare inventory is on the SunCatcher and is put back on sun, we would obviously not take an availability impact.

MS. HOLMES: How long does that take?

MR. VOTAW: We -- by design, we do it in less

than an hour. Maricopa, we're typically getting that done in about 45 minutes.

MS. HOLMES: And I don't know if you have this information, but I'll ask it anyway.

On a given day, of the 60 SunCatchers, how many times do you need to switch out the PCU?

MR. VOTAW: Unfortunately, I don't know.

MS. HOLMES: That's --

MR. VOTAW: Typically, in terms of a typical answer, I don't know. I mean, it's a probabilistic question, right, so that failures for components occur with a distribution around a mean, and the rate at which they occur across multiple components would change the probabilities of a particular PCU failing on a given day.

MS. HOLMES: Have any of the engines -- have any of the PCUs remained in service from the beginning?

MR. VOTAW: Yes, the majority of the field have.

MS. HOLMES: Have you experienced specific issues that you're seeing repeated over time with the PCUs?

MR. VOTAW: We talked about the elevation drives in the May discussion. And we've talked about hydrogen leakage, I believe. I cut out halfway through Mike's discussion of on-board hydrogen leakage. Those are the two things that are -- that are the most frequent --

MS. HOLMES: I'm sorry, I missed the first one.

MR. VOTAW: -- of the things that have occurred.

MS. HOLMES: Hydrogen leakage, and what was the first one you mentioned?

MR. VOTAW: The elevation drive ratcheting does not impact SunCatcher performance, but it's a -- it's a design change that we'd have to make for the GEN-1 equipment.

MS. HOLMES: Thank you.

When I talked with you in May, you said you couldn't calculate the average meantime between failure for each individual PCU. Is that still the case?

MR. VOTAW: Well, we are -- I think my answer before was that we -- if, for example, our rod seals have an expected life of 7,000 hours, and the field has only run to date less than 1500, we haven't seen any rod seal failures, so that the component MTBF for that particular component would not exist. Similarly for other components, we have had no failures.

What I guess the alternative approach, the way that I might have you think about it is our expected MTBF is driven by the underlying MTBFs of the critical components, namely things like rod seals or heater heads. To validate our assumed reliability of the equipment, we've tested those individual components on test stands and with longer run Sandia equipment. And we've proven,

for example -- or SES is reporting that the rod seals have surpassed 7,000 hours.

So the aggregation of those MTBFs, if you validate the individual components, is bringing us back to our original assumptions which underpin our maintenance costs and expected availability for the field.

MS. HOLMES: But you haven't been able to validate that with the 60 SunCatchers that are in service at Maricopa yet.

MR. VOTAW: Again, it would be -- if you've had no failures on a component, you'd get a meaningless answer. So, I guess it's a case where additional -- additional operating data on the longer life components are still being validated.

For the period in which we've operated, we've experienced -- well, for example, with a shorter life component such as a hydrogen valve, we've had hydrogen leakage, but those are expected, the values are expected to fail and interventions are designed to replace those. But longer life components, we'll continue to validate that with additional run time at Maricopa.

MS. HOLMES: Would you characterize the hydrogen leakage and elevation drive issues that you've experienced as being ones associated with the engines themselves or with the SunCatcher, in other words, the part of the

SunCatcher that's not the PCU?

MR. VOTAW: Elevation drives would be the -- they're designed to move the dish as opposed to hydrogen, which would be a part of the PCU.

MS. HOLMES: Thank you.

In your testimony in Exhibit 145 you referenced 80,000 operational hours. And I'm not very good -- I'm not very good at math, but I did figure out that that means that at least on -- if one were to assume this was an average, each of the 60 engines would have operated about 1300 hours on average.

Do you know how many of the 80,000 hours total of operation occurred without PCU failure?

MR. VOTAW: Within the -- well, I'm not sure I can answer that question.

You know, the total production or on-sun hours is produced while there are maintenance interventions occurring. So the -- once the PCU is swapped, the new engine continues to produce those on-sun hours despite the maintenance intervention, if you understand what I mean.

MS. HOLMES: I do understand what you're saying. Thank you.

You also reference operational history at Sandia.

Are Sandia and Maricopa similar facilities?

MR. VOTAW: They're both SunCatcher technology

based, but they are different generations of SunCatcher -- SunCatcher design.

MS. HOLMES: And did you provide reliability information about the Sandia facility? I didn't find it, that's why I'm asking the question.

MR. VOTAW: We have not in that the purpose of that facility was more for R and D as opposed to commercial operations; and by that I mean, it wasn't designed to maximize availability, it was designed to test components. So that with availability not a focus and commercial operation not its purpose, its availability number was really not something that was meaningful for the purpose of that facility.

MS. HOLMES: How many spare engines do you need in order to maintain availability in the 95 percent range?

HEARING OFFICER RENAUD: Would that be for the Maricopa or for proposed?

MS. HOLMES: Maricopa facility.

HEARING OFFICER RENAUD: All right.

MR. VOTAW: For Maricopa, on average, we maintain two spares.

MS. HOLMES: I think those are all my questions.

HEARING OFFICER RENAUD: All right.

Is there cross-examination from CURE?

MS. MILES: No.

HEARING OFFICER RENAUD: CNPS?

MR. BELTRAN: No.

HEARING OFFICER RENAUD: All right.

Redirect?

MR. THOMPSON: No.

HEARING OFFICER RENAUD: All right. Okay. I think we're --

COMMISSIONER BYRON: I have one question on my list.

HEARING OFFICER RENAUD: All right. Good.

COMMISSIONER BYRON: This is coming from the supplemental staff assessment, that early on there's a sentence that said the applicant expects the project will have an annual availability of 99 percent; but I think, as we've seen from the recent testimony and later in the report that I'm quoting from, yes, the Maricopa plant claimed an overall reliability factor of 95.1 percent, which I understand has now gone up a little bit based upon later data. So there's a little discrepancy there. 95 is certainly enough, but why -- but can anyone explain the discrepancy to me?

MR. THOMPSON: Waymon, can you -- did you hear the question from the commissioner?

MR. VOTAW: I did, and I'm not sure the source of the 99, I'm not sure if that's AFC or later, I'm

uncertain.

COMMISSIONER BYRON: I see.

MS. FOLEY GANNON: Where was the reference to 99?

COMMISSIONER BYRON: It was in the staff's -- supplemental staff assessment; but I'm willing to accept that, that it likely is from the original AFC. Okay.

HEARING OFFICER RENAUD: I want to ask one question. And that -- Mr. Votaw, are you still there?

MR. VOTAW: I am.

HEARING OFFICER RENAUD: Sort of projecting out to full operation of the proposed project, do you anticipate there would ever be a time when you would not have enough spare PCUs on hand to keep the project operational, you know, fully operational?

MR. VOTAW: From the asset manager standpoint, we have put in place a contractual structure that ensures that the project is protected against that event actuality; and by that I mean, for the initial critical years of operation, we are operating with a warranty from Stirling Energy Systems, and they are then obligated to provide whatever spares are required to meet their guaranteed availability, which is the same, 98 percent.

HEARING OFFICER RENAUD: I see. So the manufacturer is guaranteeing you'll have 98 percent, and part of their obligation is to make sure you have enough

spares to keep that -- to maintain that number, whatever that number of spares might be.

MR. VOTAW: That's correct. That's right.

HEARING OFFICER RENAUD: Okay. Thank you.

Anything further from anybody on this?

MR. THOMPSON: May I release the panel?

HEARING OFFICER RENAUD: Yes. Thank you.

MR. THOMPSON: Gentlemen, to your beds.

MS. FOLEY GANNON: And also, Tariq, who is on the land, who I think did not need to testify --

MR. THOMPSON: Oh, sorry, Tariq.

MS. FOLEY GANNON: -- thank you for joining us, and you are excused.

MR. HUSSAIN: Thank you.

HEARING OFFICER RENAUD: Okay. Well?

MS. FOLEY GANNON: We are getting to our last panel, which is on alternatives, and that will consist of Marc Van Patten and Mike Fitzgerald.

HEARING OFFICER RENAUD: Hold on one second.

All right. Let's just -- we just would like a quick ball-park estimate of what -- how much time it's going to take with this topic.

MS. FOLEY GANNON: I would anticipate our direct would be about 15 minutes.

HEARING OFFICER RENAUD: All right.

MS. FOLEY GANNON: Then it would be up to, I believe, for the cross. And I think the staff has an alternatives witness and CURE does as well.

HEARING OFFICER RENAUD: All right. Does staff intend to call an alternatives witness?

MS. HOLMES: Staff can call an alternatives witness if there's cross-examination available. We have one on the phone. But I don't know if there's any questions.

HEARING OFFICER RENAUD: All right. And, CURE, you have a witness for alternatives?

MS. MILES: Yes. I plan to bring Scott Cashen up. And I just have one question for him. It may go on for just five minutes.

HEARING OFFICER RENAUD: Yeah, I've heard of your one questions before, but all lawyers say that, so don't feel bad. All lawyers say, "I have one question," and then ten questions later.

So let's proceed, applicant, with alternatives.

MS. FOLEY GANNON: Both these witnesses have been previously sworn and their testimony has both been submitted into evidence.

DIRECT EXAMINATION

MS. FOLEY GANNON: Mr. Van Patten, I'd like to focus our testimony -- our discussion this evening on the

cost determination for the alternatives, because that seems to be the area where there's some questions.

Can you describe the approach that the applicant took to determining practicability in terms of the corps' regulatory program for the alternatives that were considered, how you went about evaluating practicability in terms of cost for the corps' alternative analysis?

MR. VAN PATTEN: We looked at the various off-site/on-site alternatives in view of what the land cost would be, the amount of acreage that was available, and the costs associated with the economies of scale of any particular site, the interconnections or all the linears that might be associated with the site or another, and the cost associated with that to find out which ones would cost on a dollar-per-kw basis, dollar-per-kilowatt basis at each location.

MS. FOLEY GANNON: And what were the main factors that seemed to control the differences in the overall cost per kilowatt between the alternatives? Were there certain things that would render the kilowatt hour to go up comparatively? What were the main factors that would go into that calculation?

MR. VAN PATTEN: Some of the main factors that would affect dollars per kilowatt, one of the larger ones had to do with the size of the parcels available for

putting a field on it, the length of interconnections for either the water supply or transmission line. Those are some of the primary ones that I can think of.

MS. FOLEY GANNON: And within the on-site alternatives, particularly with regard to Drainage Alternative 1, what was the conclusion regarding the practicability of that alternative?

MR. VAN PATTEN: Drainage Alternative 1 was considered -- our drainage alternative?

MS. FOLEY GANNON: The Drainage Alternative 1, which was the -- the alternative that is considered by the staff in their supplemental staff assessment --

MR. VAN PATTEN: Are you referring to the 632-ish --

MS. FOLEY GANNON: Yes, I am.

MR. VAN PATTEN: -- roughly, megawatt site?

MS. FOLEY GANNON: That's correct.

MR. VAN PATTEN: We would find that Drainage Alternative 1 would be impracticable.

MS. FOLEY GANNON: And can you describe in terms of -- I understand Mr. Fitzgerald said earlier about the environmental impacts and the other things that were considered. But in terms of cost, what was the cost differential between these two -- these two alternatives?

MR. VAN PATTEN: That's a great question; but I

don't have it at the tip of my tongue.

MS. FOLEY GANNON: Well, can you go -- can you turn to that document and we can maybe walk through the results of that?

MS. HOLMES: What document is "that document"?

MR. VAN PATTEN: It has to be something that's in the testimony that we can refer to.

I'm looking at the LEDPA. I can't -- I don't think it's on record, right?

HEARING OFFICER RENAUD: The LEDPA is, yes, it is.

MS. HOLMES: There's a draft LEDPA.

MS. FOLEY GANNON: Yes, the corps' alternative is here.

MR. VAN PATTEN: I am looking at page 28 of the draft LEDPA, Table 4.

MS. HOLMES: So what exhibit number is that? I'm sorry.

MR. GALLAGHER: This is Mr. Fitzgerald's testimony, I believe, that was referred to earlier by the date because we couldn't find the number.

MS. HOLMES: Indeed.

MS. FOLEY GANNON: No, no, no, that's not correct. That's not correct. This is an attachment --

MS. HOLMES: There's been two draft LEDPAs that

have been --

MS. FOLEY GANNON: No, no, this is the attachment to Exhibit 143, which is Mr. Fitzgerald's testimony submitted in July of -- July 21st. And referenced in Mr. Fitzgerald is an exhibit, which is called Exhibit 120- -- I'm sorry, I just had it here -- which is called Exhibit 129.

So if you look in our rebuttal testimony and you go towards -- it's called out as Exhibit 129. And that is the complete corps' version of the alternatives analysis which will be included as part of the FEIS.

MS. HOLMES: That's the corps' draft?

MS. FOLEY GANNON: That's the corps' draft, that's correct.

MS. HOLMES: And what page of --

MS. FOLEY GANNON: What page are you referring to?

MR. VAN PATTEN: I'm on page 29, Table 4.

HEARING OFFICER RENAUD: Pdf page number you mean?

MR. VAN PATTEN: No, it's the actual page number of the --

MS. HOLMES: It's what? I'm sorry.

MR. VAN PATTEN: Page 28.

MS. HOLMES: 28.

MR. VAN PATTEN: It's page 35 of the pdf of my version of the pdf that I got from Mr. Fitzgerald.

MS. HOLMES: I'm sorry, all I have is -- I have Arid CRAM draft, June 2010, on page 28.

HEARING OFFICER RENAUD: Is the document you're referring to contained within applicant's submittal of rebuttal testimony?

MS. FOLEY GANNON: It is.

HEARING OFFICER RENAUD: Okay. What page is it of that huge document?

MS. FOLEY GANNON: It is on page -- go towards the back of the document, after the CRAM analysis, you go to page 28, and there's a large table which is called Table 4. The page numbering on this is funny, because it starts out and then starts again.

HEARING OFFICER RENAUD: Very good. Thank you. That's what we needed.

Pdf page 431 if anyone is using the document on the computer.

MS. HAMMOND: Do you know what page number on the hard copy?

MS. FOLEY GANNON: Yeah, it's right here. It's page 28. I mean, as I said, unfortunately, it starts and then it stops again. See how it does that?

MS. HOLMES: I'm there, but I go back to the

beginning, and page 1 is the document from Chang Consultants? That's why I'm confused. Page 1 of that file, if you will --

MS. FOLEY GANNON: No, page 1 -- page 1 of that file is the introduction, and then it goes on -- there's some peculiarities in the page numbering, and we apologize, this was the corps' document. We took the pdf of the corps' document that they're putting in the FEIS. So the page number is a little funky, but they said it's --

MS. HOLMES: Could we go off the record for just a moment?

HEARING OFFICER RENAUD: Sure.

(Recess.)

MS. FOLEY GANNON: So the question was, Mr. Van Patten, to refresh your memory, we were going to talk through the way that the applicant first off did the calculations for costs associated with each one of these alternatives. And I think if we could just focus on Drainage Alternative 1, which is called up as Alternative 5 in the corps' -- it's Drainage Alternative 1 in the SSA and it's Alternative 5 in the 404B1.

HEARING OFFICER RENAUD: 66 megawatts.

MS. FOLEY GANNON: Correct.

MS. HOLMES: Well, actually, I think Drainage

Alternative 1 for the staff assessment was a little bit bigger than that, so it's not staff's Drainage Alternative 1.

MS. FOLEY GANNON: And actually, maybe before we get into the cost assessment, we can clarify that point.

Mr. Fitzgerald, can you speak to how Drainage Alternative 1 was developed, Drainage Avoidance Alternative 1 was developed?

MR. FITZGERALD: So once the army corps was engaged in the process and we were informed that an individual permit was required, the corps was trying to explain to the applicant and to other agencies that were involved what their alternatives analysis required.

And so in the process of doing that, they threw out two really hypothetical scenarios. One, to completely avoid washes; and another that avoided washes on a portion of the project, and you know, allowed impacts somewhere else. I mean, these were completely pulled out of thin air with no regard to any engineering.

Where the numbers came from on the size of the megawatts was the corps asked the applicant's engineering -- engineer or RMT to remove SunCatchers from the designated washes in their examples and tell us what the size of the project would be.

So the reality is that the corps Drainage

Alternative 1, if you take the SunCatchers out of the water, it's 634, or in this version of the corps, it's 606, but it hasn't been engineered. It could be 500 for all we know. But the analysis was done assuming that it's a 606 megawatt project.

MS. FOLEY GANNON: And you explained saying that the corps threw out a couple of different scenarios that they wanted to have evaluated. What was Drainage Alternative 1 designed to evaluate?

MR. FITZGERALD: Drainage Alternative 1 was designed to evaluate what the impacts to waters of the U.S. would be if you avoided all of the washes.

MS. FOLEY GANNON: All of the primary washes?

MR. FITZGERALD: All of the primary washes, that's right.

MS. FOLEY GANNON: And so, again, in calculating the project that would be left, the exercise was engineers just taking SunCatchers out of washes?

MR. FITZGERALD: Correct. They simply modified the schematic drawing from the originally proposed 750-megawatt project.

MS. FOLEY GANNON: And why does that not reflect what a project could be?

MR. FITZGERALD: Well, the more we looked at that alternative with the corps and independently with the

project engineers, for some of the logistics criteria that's outlined in the 404B1, such as irregular configurations of generator groups, it's much more cost effective and efficient, and less power is needed if you have generator groups that are aligned in linear square fashion.

As soon as you start modifying that configuration to avoid sensitive resources, which was done, to squeeze more SunCatchers in while avoiding washes, which was also done, you start to drive up inefficiencies in the design and costs. And you know, when you do that, you start lengthening utilities and requiring more compression to, you know, get hydrogen where it needs to be, et cetera, more ground disturbance, basically.

So not only is it not really a clean representation of the size that the project would be, but it's also not a clean representation of what the impacts would be either.

MS. FOLEY GANNON: So in your view, is Drainage Alternative 1 a project that if it was approved it could be built the way it's shown in these drawings?

MR. FITZGERALD: Did you just ask is corps Drainage Alternative 1, could it be built --

MS. FOLEY GANNON: The way it's shown.

MR. FITZGERALD: To my knowledge, no. There's

isolated SunCatcher groups that result from that configuration that just would not be built.

MS. FOLEY GANNON: And in designing, by contrast what's been determined to be preliminarily the LEDPA, has that been engineered?

MR. FITZGERALD: Yes.

MS. FOLEY GANNON: Did that engineering result in changes to the SunCatcher groups?

MR. FITZGERALD: Yes.

MS. FOLEY GANNON: Did you result in changes, maybe to things like location of the roads?

MR. FITZGERALD: Yes.

MS. FOLEY GANNON: So there was -- there were many per mutations that happened as a result of avoiding certain drainages?

MR. FITZGERALD: That's correct.

MS. FOLEY GANNON: And when you were designing the LEDPA, or exploring the LEDPA, did you start off with a similar premise of let's try to avoid "X" and see what happens? Like avoid certain drainages?

What was the way that you started off with looking at the LEDPA?

MR. FITZGERALD: Well, we looked at what some of the logistical criteria were, and we looked at what the various washes on the site, what their functions were. So

ultimately the design reflected preservation of the highest functioning washes in the project area, but --

MS. FOLEY GANNON: I guess what I'm trying to get at is like the Drainage Alternative 1 you just explained started off with the corps saying avoid all the primary washes, you pulled those out and you end up with this and then you start from there.

So did you start off with, when you were working with the engineers, did you say avoid, for example, Drainage C?

MR. FITZGERALD: Well, we started off with let's avoid everything; and they just said you wouldn't build half the project.

MS. FOLEY GANNON: I see. Okay. Thank you.

MR. FITZGERALD: I have a map I could hold up and show kind of what I'm talking about.

MS. FOLEY GANNON: I think we have the maps in the 404B1, unless it's helpful for the commission to see it, but I think we can move on from there.

Now, I'm going to be guilty of the one question equals ten, so I'm trying to hurry up here.

Just so we can clearly walk through again the cost criteria that was developed.

So what precisely went into, again, how you calculated the overall cost to allow for a comparison

between these alternatives? What are the factors that you put into the cost consideration?

MR. VAN PATTEN: We added everything that would have been applicable to any particular site, including the site cost --

MS. FOLEY GANNON: Let's focus on the on-site alternative; so the site cost is not relevant.

MR. VAN PATTEN: Okay.

MS. FOLEY GANNON: Let's focus on what is the things that drives --

MR. VAN PATTEN: For each alternative that might have been differentiated by avoidance of washes or degree of avoidance, what remained was different amounts of areas on which we could build a plant, and then that had a direct impact on things that were mentioned by Mr. Fitzgerald on how many linears there were on the site including service roads, how much area of SunCatchers we could build that led to different varying degrees of economies of scale.

For instance, if we had a main services complex, interconnection to the IV substation, water line to Seeley Wastewater Treatment Plant, to the extent that every alternative got smaller and we avoided more washes, the economies of scale decreased and many more costs that would have been common to any alternative as a proportion

to the plant size got larger and the cost per kilowatt installed became much larger for reduction alternative.

MS. FOLEY GANNON: Thank you.

And just quickly, we'll turn to Table 4, which I think is -- I won't even reference something on page 28, it's there, we all have it in front of us, I hope.

In this, and again, we'll just focus on the difference between what the Drainage Alternative 1 in the supplemental staff assessment or called out on this table as Alternative 5 versus Alternative 1 which is the proposed project and Alternative 3, which is what we have now designated as the LEDPA.

So looking at those alternatives, can you give me, first off, the conclusion based on the analysis that you just described, what did you determine about the cost per kilowatt hour associated with each one of these alternatives?

MR. VAN PATTEN: We started with the proposed project of 750 megawatts, which in our cost estimates, our best costs estimates resulted in a dollar per kilowatt installed of 2950. We found in our analysis that we could, although it's detrimental to the economics of the project, we could absorb up to $50 per Kw of additional cost in working to avoid additional wash areas and reach a conclusion that the 709 concept engineered with RMT to try

to maximize the available area of developable land, avoiding the maximum amount of washes that were desired by the corps and with input from the EPA, and found that the 709 would equate to the 3,000 per Kw that we thought we could do and that would fit within our PPA that was already signed and with a draft approval from the CPUC, which was acting as a ceiling for us, and that we could not impact the project further from a cost perspective and go to Alternative 5, which is the CEC's Avoidance Alternative 1, which had a cost per kw of 3,050 installed.

MS. FOLEY GANNON: Now, just to try to translate these, we're looking at the numbers. There's a difference in a hundred dollars per kilowatt for the proposed project versus Drainage Alternative 1; is that correct?

MR. VAN PATTEN: That's correct.

MS. FOLEY GANNON: And there's a $50 difference in interprets of cost per kilowatt -- and why did you use cost per kilowatt as the basic metric?

MR. VAN PATTEN: Well, the cost per kilowatt directly translates to the ability to get a return of your investment cost from the power purchase agreement that you've signed with the off-taker.

MS. FOLEY GANNON: So that's essentially what you're selling, what you're making. You're making kilowatts of energy.

MR. VAN PATTEN: Right.

MS. FOLEY GANNON: And by utilizing cost per kilowatt, we can compare the two --

MR. VAN PATTEN: Yeah, we can accurately compare between alternatives because our ceiling of the power purchase agreement price is limited, and we have to fix a cost below that that can be returned on an investment point of view that has a limit to how much that can be before it becomes impracticable or unfinanceable or cannot attract equity.

MS. FOLEY GANNON: So I understand that, again, when we're looking at this and we see it's a hundred dollars different, I think for many of us it's hard to know, is that too much? You know, $50 okay, hundred dollars is too much. And you had -- on this chart there's some different calculations about the difference in the cost construction for the proposed project, which give larger magnitude numbers.

And to understand what they mean, so they are saying that there would be a 35,000 -- 35-million-plus difference. Does that mean that the LEDPA cost $35 million more total, like just a bottom-line total?

MR. VAN PATTEN: On a dollar-per-kilowatt basis, that's what it would equate to.

MS. FOLEY GANNON: So if you did the 709

megawatts with the costs associated with the proposed project and you compared that to the 709 with the cost -- with the 3,000 per kilowatt cost, you get the 35 million.

MR. VAN PATTEN: Yes, that's correct.

MS. FOLEY GANNON: So that's trying to compare the economies of scale with the outage that you get with each of these alternatives; is that --

MR. VAN PATTEN: That's right. To get an impression of what the amount of money it would cost between the different alternatives.

MS. FOLEY GANNON: I understand.

MR. VAN PATTEN: You get an order of magnitude of what that thing would cost.

MS. FOLEY GANNON: Okay. And then just again briefly, and then we'll tender you for cross-examination, you reference briefly how you establish the notion of one of the most difficult things is setting a line between practicability and non-practicability; is that correct? And can you describe how you establish that, that line of where -- where would a project all of a sudden not become feasible in your view economically?

MR. VAN PATTEN: Well, there are various things, like I was saying before, establishes a ceiling for practicability. For instance, we have signed an agreement with an off-taker on the project, and it has an agreement

for 300 megawatts and an option on another 450. With those agreements, they set price ceilings. And under those price ceilings, we can only put so much investment into it, finance it, and get a return on equity up to a certain level, otherwise it becomes unfinanceable or unattractive for investments.

MS. FOLEY GANNON: And I think you said earlier that based upon these various considerations of being able to generate at a price that you could sell, considering the costs associated with the project, you came down with a -- at the end of the line a number that you were going to use to sort of draw the line of what was practicable and what would not be practicable. And what was that line?

MR. VAN PATTEN: Well, the line was $3,000 per kilowatt.

MS. FOLEY GANNON: Okay. Thank you.

I will tender the panel for cross-examination.

MS. HOLMES: Thank you.

CROSS-EXAMINATION

MS. HOLMES: In your testimony on May 10th, which is Exhibit 115, you said that smaller alternatives were not practical because the economies of scale achieved with a 750-megawatt project would not be available.

Is the 709-megawatt project that you're now

supporting practicable?

MR. VAN PATTEN: We believe it is practicable.

MS. HOLMES: So you've changed your testimony from May to July about the size of what's practicable.

MR. VAN PATTEN: Yeah, the minimum practicable size is now 709 megawatts.

MS. HOLMES: Thank you.

And is this largely what you referred to as economies of scale? Practicability, is it largely due to what you refer to as --

MR. VAN PATTEN: It has a direct impact on its practicability, the economies of scale.

MS. HOLMES: And when you're talking about economies of scale, are you talking about the number of SunCatchers that are required?

MR. VAN PATTEN: No. I'm talking about how many SunCatchers are attributable to the common facilities, which would include the main services complex or the interconnection that does not get shorter the more SunCatchers I take off the field, it stays the same length, so the cost stays the same.

MS. HOLMES: So it's not the number of SunCatchers, it's their relationship to other parts of the facility?

MR. VAN PATTEN: That don't change, that's

correct.

MS. HOLMES: You referenced just a few moments ago a power purchase agreement, and I believe that you said that the power purchase agreement is for 300 megawatts.

MR. VAN PATTEN: We have a power purchase agreement with SDG&E for 300 megawatts.

MS. HOLMES: Based on Table 4 of Exhibit 129, is it fair to say then that the power purchases agreement is for a project that's infeasible?

MR. VAN PATTEN: You could interpret it that way, yes.

MS. HOLMES: Did you -- did you -- do you interpret it that way?

MR. VAN PATTEN: We have said that a project below 709 megawatts is impracticable.

MS. HOLMES: Did you say that to the San Diego Gas & Electric Company with whom you have the proposed power purchase agreement?

MR. VAN PATTEN: We've had discussions like that.

MS. HOLMES: And does San Diego Gas & Electric company agree with you?

MR. VAN PATTEN: They haven't had an opinion of it.

MS. HOLMES: Are you familiar with other solar

thermal projects that have been proposed at the commission that are between 200 and -- are you familiar with other solar -- are you familiar with other solar thermal projects proposed at the energy commission that are in the neighborhood of 250 megawatts, for example, the Beacon facility --

MR. VAN PATTEN: Yes.

MS. HOLMES: -- that -- you are familiar.

So would you agree that it appears that the solar trough technology is economic at much smaller scales than the Stirling technology?

MR. VAN PATTEN: No, there's no -- I can't come to that conclusion based on the Beacon project.

MS. HOLMES: Can you come to that conclusion based on the size of your project?

MR. VAN PATTEN: All projects, every project, be it solar or wind or thermal, is site dependent.

MS. HOLMES: And what's the minimum size of the two Stirling projects that are currently before the commission?

MR. VAN PATTEN: I can't testify to Calico, but I can testify to that one -- that the minimum size that's practicable is 709.

MS. HOLMES: Do you have -- do you have knowledge of what the proposed size of the Calico facility is?

MR. VAN PATTEN: It's proposed to be 850 megawatts.

MS. HOLMES: Thank you. Those are all my questions.

HEARING OFFICER RENAUD: Any cross from CURE?

MS. MILES: One --

HEARING OFFICER RENAUD: Don't say that.

MS. MILES: One question related to the PPA.

CROSS-EXAMINATION

MS. MILES: With regard to the 300 megawatt PPA, if you do not have other PPAs, will you honor that PPA?

MR. VAN PATTEN: We have every reason to believe and are confident and are actively working on PPAs for the remainder of the project and are in various levels of success in achieving that. So we have every reason to believe we'll have PPAs for 709 megawatts at this site.

MS. MILES: But you didn't answer my question.

If you do not have other PPAs, will you honor this PPA?

MR. VAN PATTEN: We have no reason to believe we will not have any other PPAs --

MS. MILES: I'm not asking you if you have any reason to believe that.

MR. VAN PATTEN: But that's a hypothetical you're asking.

MS. MILES: It's a potential eventuality.

MR. VAN PATTEN: I don't know the answer of how my management would proceed with that answer or with that hypothetical, I just don't know, because it's there decision, not mine.

MS. MILES: The 404B1 analysis states that for non-standard generator groups, conduit and cables must be measured and cut on site, increasing labor and material costs as well as increasing installation time.

So can you explain how significant these costs are relating to the cut on site and of the cables and measuring of the cables?

MR. FITZGERALD: Are you directing that at me?

MS. MILES: Yes.

MS. FOLEY GANNON: Did you understand the question?

MR. FITZGERALD: Yeah, what --

MS. MILES: I can repeat the question.

MS. FOLEY GANNON: Maybe you could ask her to rephrase the question.

MR. FITZGERALD: I think I know what you're trying to ask.

MS. FOLEY GANNON: Why don't you let her rephrase the question.

MS. MILES: Thank you.

So the 404B1 analysis states that for non-standard generator groups, conduit and cables must be measured and cut on site increasing labor and material costs as well as installation time. Therefore, the construction cost would be higher and greater -- would be higher the greater the number of non-standard SunCatcher generator groups that are included.

Can you tell me how significant these costs are?

MR. FITZGERALD: Well, I think it says in the 404B1 that if 50 percent of the units had to be irregular configuration, that it would be very significant. It would tip the logistics criteria and cost to the point that they wouldn't do it.

MS. MILES: Okay. I'm asking on a practical level. Hard for me to envision why it's expensive to measure and cut conduit and cables.

HEARING OFFICER RENAUD: Well, but the testimony is that it is expensive, and I think that's your answer. You might not believe it, but that's what he said.

MR. VAN PATTEN: I'll try to do it more concise --

MS. MILES: Okay.

MR. VAN PATTEN: -- answer for that.

Right now we plan on doing things as systematically and repeatably as possible. If I have a

rectangular structure for my field, and my conduit are always "X" feet for either electrical or piping, I can pre-cut them in a fabric -- in a factory-like environment, ship them, install them. Whereas if I have any kind of irregular configuration, I have to do each one by hand individually for that size, for that length, and install it differently. All those things add cost because you're no longer able to benefit from the factory or mass production of the materials.

MS. MILES: Okay. Were mitigation and monitoring costs, such as land compensation or in lieu fees, considered in the evaluation of the economic aspects of the various alternatives?

MR. VAN PATTEN: No, they were not.

MS. MILES: Do you think that they would be a factor that should be considered in the alternatives analysis?

MR. VAN PATTEN: They might be a small factor, yes.

MS. WHITE: Could you please talk into the mic?

MR. VAN PATTEN: They could be a small factor.

MS. MILES: One of the applicant's project design changes under the proposed LEDPA is to move the main services complex out of the secondary wash. Is it possible to move the main services complex out of any wash

regardless of the alternative selected? Did you look at that possibility?

And I'm not sure who I should direct that to; perhaps Mr. Fitzgerald.

MR. FITZGERALD: Do you want to give me two alternatives to --

MS. MILES: Sure.

Drainage Avoidance Alternative 1 and the 300 megawatt.

MR. FITZGERALD: Okay. For the two corps drainage alternatives, essentially the 300-megawatt alternative is a subset of the originally-proposed action where they just cut out 60 percent of the project. So that one's obviously feasible.

The other -- the corps' Drainage Alternative 1, I just testified that it hasn't been engineered whatsoever; so could you move the main services complex else? Sure.

MS. MILES: Okay. So just to make sure I understood what you said regarding the 300 megawatt, it is feasible --

MS. FOLEY GANNON: Feasible, not practicable? Did you say practical or feasible?

MR. FITZGERALD: I said feasible.

MS. FOLEY GANNON: Okay.

MS. MILES: That's what I asked.

MS. FOLEY GANNON: Right. Feasible, right.

MS. MILES: So you've testified that it is feasible to move the main services complex out of the -- out of a wash in the 300-megawatt alternative.

MR. FITZGERALD: What I testified to was that the main services complex in the 300-megawatt project was a subset of the originally-proposed project. So are you asking could we shift that --

MS. MILES: Yes, that's what I'm asking.

MR. FITZGERALD: Sure.

MS. MILES: And did you study the potential for shifting that out of the wash? Because --

MR. FITZGERALD: If it didn't meet the cost practicability argument, why would we be engineering something that wasn't practicable?

MS. MILES: Well, I think that it would be a significant potential different impact regarding impacts to waters of the U.S. Like there's quite a few acres --

HEARING OFFICER RENAUD: We'd like you to ask questions, please.

MS. MILES: Okay. Well, he asked me a question.

HEARING OFFICER RENAUD: Well, you don't have to answer him. You're the lawyer.

MR. FITZGERALD: Sorry.

MS. MILES: Okay. I have some questions about

how impact numbers were calculated regarding how adjustments were made to the project design figures in order to reduce impacts to the waters of the U.S.

If you look at map 3 and map 5, the 750 megawatt --

COMMISSIONER BYRON: Ms. Miles, I note that on the list you're not -- you're not listed as requesting any cross. You said you were going to do one question. And I'm counting; we're into our fifth topic area.

MS. MILES: I asked to have one question on direct, not cross. That was regarding direct examination of Mr. Cashen.

HEARING OFFICER RENAUD: But you did not ask for any cross in this topic.

MS. MILES: I believe I asked for a half hour.

HEARING OFFICER RENAUD: I don't see it here.

MS. MILES: Well --

MS. FOLEY GANNON: I believe she did ask for half an hour with every witness.

HEARING OFFICER RENAUD: Well, okay. It's not on this list, but --

MS. FOLEY GANNON: Yeah, I think she did ask for a half hour with every witness.

MS. MILES: Thank you.

MS. FOLEY GANNON: You're welcome.

But I would offer that we said we were going to put off the discussion about the cost practicability when we were talking about biology, but we said we had Mr. Fitzgerald up to talk about impacts to waters of the United States. And it seems to me if we're going to start talking about a breakdown of impacts to waters of the United States, I mean, I understand it's a little difficult to parse it, but we really were focused on biology, and when we were saying that we would be focusing on the practicability associated with the alternative. So it does seem -- I think we're over the half hour. And I think we're -- so I think if there was a place that we could maybe really, really condense, because we've already talked about impacts to the waters of the United States, I would suggest it be here.

HEARING OFFICER RENAUD: I don't think the committee would be so concerned about your questioning if we had any concept of what it's for. We can't see where you're going, we don't see the relevance of it.

MS. MILES: I'm trying to get a sense of how the configurations have been changed in terms of how they've changed to affect waters of the United States.

HEARING OFFICER RENAUD: Well, isn't that all contained in the proposed LEDPA, which is in the record?

MS. MILES: Yes, and I had questions about the

maps that were in the record.

HEARING OFFICER RENAUD: Are you going to ask the author of the maps for that, about that?

MS. MILES: Yes.

HEARING OFFICER RENAUD: Okay. I mean, you haven't been referring to any document.

MS. MILES: I was about to refer to exhibit --

HEARING OFFICER RENAUD: Well --

MS. MILES: I was actually in the process of doing that. I was just about to mention Exhibit 119.

HEARING OFFICER RENAUD: We'll give you five minutes.

MS. MILES: Okay.

So specifically regarding maps 3 and 5 in Exhibit 119, looking at Washes J and Washes I, which are on the southwest corner of the site, why were SunCatchers placed in Wash I under Alternative 1 but not in the upland area between Washes J and I? For the LEDPA in Alternative 3, SunCatchers were placed in the upland area.

Do you have these images? Do you want to put it up. I think it might be easier to talk about it.

MR. FITZGERALD: She wants to know why there were SunCatchers placed in the 750-megawatt project that are no longer placed in the LEDPA?

MS. MILES: Yes.

Can we turn -- dim the lights? It's hard to see this map.

And that's as big as it can get?

MR. CASHEN: I can zoom it. It might distort it, but let me try it.

This is Alternative 1 in the LEDPA, and then I have a different map of Alternative 3.

MS. FOLEY GANNON: So can you point to which area you're questioning about, please?

MS. MILES: Yeah.

So looking at Washes J and I --

MR. CASHEN: Which are right here.

MS. MILES: -- in the southwest corner of the site, why were SunCatchers placed in Wash I under Alternative 1 but not in the upland area between Washes J and I?

MR. CASHEN: So right in here.

MS. MILES: For the LEDPA Alternative 3, SunCatchers were placed in this upland area.

MR. CASHEN: So they're now --

MR. VAN PATTEN: The reason for that is there are various factors for SunCatcher placement, like avoidance of washes, avoidance of environmentally-sensitive areas, and topographical reasons why there's an efficient layout.

When we did the 750, it was the initial

engineering of the site by RMT and how they thought they could lay it out based on that criteria. When we went to do the LEDPA study, they asked to use a slightly longer spacing. It used to be something like 112 by 58, and they made a change of 112 to 60 feet between SunCatchers. That two feet increase in the one direction helped to place these in the north-south direction just slightly more apart, and it allowed it to be laid out in such a way that you no longer had the interference between one SunCatcher and another. And it actually allowed us to be more efficient on some sites like that one where we previously couldn't put SunCatchers, and now we could. Because the computers that are generating the layout are working with inches or feet as to how they lay that out, and it made an impact there and a couple other areas of the site. So you should see a difference between the 750 and the 709 because of that.

MS. MILES: Okay. I think that answers my other questions in the other areas of the site as well then.

Okay. No further questions.

HEARING OFFICER RENAUD: Okay. Thank you.

Is there any redirect?

MS. FOLEY GANNON: A couple questions.

REDIRECT EXAMINATION

MS. FOLEY GANNON: First off, just a question,

Mr. Fitzgerald, when we're talking about the possibility of moving the main service complex or changing some of these alternatives, what would the result on the overall megawattage would you anticipate of moving, say, the main service complex out of the wash in the 300-megawatt alternative?

MR. FITZGERALD: It would have the same result as it did to get to the LEDPA --

MS. FOLEY GANNON: Which is what?

MR. FITZGERALD: -- a reduction in megawatts --

MS. FOLEY GANNON: So --

MR. FITZGERALD: -- exacerbating the cost.

MS. FOLEY GANNON: So your interpretation was that it would reduce the megawatts, so it would be probably less practical; is that correct?

MR. FITZGERALD: That's correct.

MS. FOLEY GANNON: Than the 300?

Okay. Thank you.

Mr. Van Patten, I'd like to go back and talk a little bit more about the PPA, and just to get some clarifications based on the questions that were asked you.

So as I understand it, you said you have a PPA for a 300-megawatt project; is that correct, or for 300 megawatts of the project; is that correct?

MR. VAN PATTEN: Yes, that's correct.

MS. FOLEY GANNON: And for the 450?

MR. VAN PATTEN: We have an agreement with SDG&E for an option on that 450. Obviously if it's a 709, it's for that much less.

MS. FOLEY GANNON: And based upon your analysis to date of a 300-megawatt project on its own, is that a -- is that practical, is that something you would build?

MR. VAN PATTEN: No.

MS. FOLEY GANNON: If you got a permit to just build a 300-megawatt permit, would you build it?

MR. VAN PATTEN: Our management has indicated no.

MS. FOLEY GANNON: Thank you.

HEARING OFFICER RENAUD: Okay. Thank you.

Any further cross, recross, whatever?

Mr. Beltran, I'm sorry.

CROSS-EXAMINATION

MR. BELTRAN: Just regarding, Mr. Van Patten, you just said that at 300 megawatts it would not be built. Did your management explain why? Can you share that us?

MR. VAN PATTEN: Cost practicability.

MR. BELTRAN: Profit?

MR. VAN PATTEN: The feasibility of building a project of that size at the cost per kilowatt, that that would be based on the power purchase agreement that we have.

MR. BELTRAN: Okay. Mr. Fitzgerald, early in your testimony you said that as things change, the methodology of analysis -- it appeared to me that you were considering -- you said that looking at the changes, as many things would just not get built, and you didn't explain why. Am I to assume that -- this doesn't ring a bell?

MR. FITZGERALD: If you could be a little more specific with what your question is.

MR. BELTRAN: Well, your comment was very vague, and I'm trying to understand what -- do you remember making the comment that when the Army Corps of Engineers came back to you and gave you these different alternatives, you looked at certain parts of your project, you talked about things being isolated or being mismatched, and that things wouldn't get built.

MR. FITZGERALD: What I was saying there was that the corps' alternatives were not engineered alternatives.

MR. BELTRAN: I got that.

MR. FITZGERALD: So certainly portions of those, which were essentially taken as subsets of the whole, and assumed that they could be built by the corps, frankly, the corps was throwing those out as defining what a practicability analysis does, so it was never really a --

MR. BELTRAN: I don't mean to be rude. I

understood all of that. What I didn't understand is why they wouldn't get built. Is it because they're -- is it because they're not economical? Is it because in your analysis you're looking at -- you're breaking your entire project into separate units and you're evaluating the contribution of each unit and these units that did not get built did not contribute significantly? Why didn't they get built?

MR. FITZGERALD: What is "they" that you're referring to?

MR. BELTRAN: It's whatever you referred to. You weren't specific, and that's why I'm asking the question.

MR. FITZGERALD: Okay. Okay. It has to do with the logistics criteria about isolating SunCatcher groups. So --

MR. BELTRAN: So it's the group, "they" is the groups.

MR. FITZGERALD: That's right.

MR. BELTRAN: Okay.

MR. FITZGERALD: And that's what I said.

Some generator groups would not be built, therefore, the megawatt size that was, you know, generated by just removing SunCatchers from washes per the corps' direction and answering the question how many megawatts is it now --

MR. BELTRAN: You've answered my question.

MR. FITZGERALD: Okay.

MR. BELTRAN: Mr. Van Patten, you've talked about the cost per kilowatt. There are several subsidies. There's a Treasury loan guarantee, there's ARRA funds. Are these figures after -- are they net of those subsidies?

MR. VAN PATTEN: The economics are based on those subsidies being factored in.

MR. BELTRAN: Okay. Was the PPA signed before or after you eliminated the Mesquite Lake option and/or the agricultural -- the ag land option?

MR. VAN PATTEN: We signed the PPA early this year, and the LEDPA was just -- you know, the analysis was just completed.

MR. BELTRAN: Was that before -- did you eliminate those options before or after the PPA was signed?

MR. VAN PATTEN: Well, the options would have been -- well, the original PPA with SDG&E was signed in 2005.

MR. BELTRAN: Okay. I had spoken to Mr. Gallagher last night about using -- he asked me a question, and I told him that I would like to have seen active agricultural land considered as an alternative,

because the Salton Sea restoration project provides -- it empowers the State of California to negotiate to purchase water for the project.

In your analysis of real estate for -- you went through a description of what I interpreted to be different types of land and you compared the cost of these types of land.

Did you consider active agricultural land?

MR. VAN PATTEN: In the alternatives that were considered for the --

MR. BELTRAN: From the very beginning of the project, did you ever consider siting your project --

MR. VAN PATTEN: I wasn't involved then, I'm only superficially familiar with what was done to select this project site.

MR. BELTRAN: Okay.

MR. VAN PATTEN: I have very limited ability to testify to specifically what they looked at and what they didn't look at, other than what we've already included in the LEDPA.

MR. BELTRAN: Well, I guess I -- I guess you picked up from where somebody else left off; I guess I'm assuming that you should have knowledge about that as well.

MR. VAN PATTEN: I don't.

MR. BELTRAN: You don't. Okay.

The thing for me is, you know, agricultural land in the Imperial Valley, just the transpiration from crops is 71 inches a year. A project of your size, or 6500 acres, comes out to over 38,000 acre feet of water just from the plants, it has nothing to do with evaporation or anything like that.

If the State of California was willing to purchase that water as a subsidy, just like the federal government is willing to subsidize your project through ARRA, it would be a significant reduction in cost of some of the alternatives.

I was wondering if those had ever been considered.

MR. VAN PATTEN: Not that I'm aware of.

MR. BELTRAN: Okay. Thank you.

HEARING OFFICER RENAUD: Okay. Thank you.

Any further questions?

MS. FOLEY GANNON: No.

HEARING OFFICER RENAUD: All right.

So does that conclude --

MS. FOLEY GANNON: That concludes applicant's -- that concludes applicant's testimony.

HEARING OFFICER RENAUD: Period, total.

MS. FOLEY GANNON: Period. For tonight. And we

have cultural hearings.

HEARING OFFICER RENAUD: Cultural, right.

Okay. And, staff, do you have a witness on this topic?

MS. HOLMES: We do, but I didn't hear any interest in cross-examination, so --

HEARING OFFICER RENAUD: All right. And the testimony's been entered into the record?

MS. HOLMES: The testimony's already been introduced.

HEARING OFFICER RENAUD: All right.

MS. FOLEY GANNON: And we have no cross.

HEARING OFFICER RENAUD: Okay. Good. Then we're done with that.

What remains besides cultural?

MS. FOLEY GANNON: I believe CURE had a witness, one question for their witness.

MS. MILES: One question.

HEARING OFFICER RENAUD: All right. Go for it.

DIRECT EXAMINATION

MS. MILES: Mr. Cashen, can you please discuss your concerns with the alternatives analysis presented?

MR. CASHEN: The Army Corps of Engineers chose the 709 megawatt as the LEDPA on the economic aspect only, not on the biological resources aspects. And I think that

needs to be established. But the proposed LEDPA would not alleviate many of the significant environmental -- or significant impacts to biological resources that occur on the project site.

Based on my discussions with experts and review of the literature, the proposed corridors within the LEDPA would not be viable for Flat Tailed Horned Lizards because of the increased predation that would occur that has been predicted in the applicant's documents and the excessive number of wash crossings and mortality that would occur to lizards as a result of being crushed by vehicles.

There would be no change to impacts to big horn sheep. The entire site would still remain fenced. There would be no change for badgers or other larger size terrestrial wildlife. There would be minimal, if any, change for impacts to special status plant species. There would be no changes to Golden Eagle foraging habitat or Burrowing Owl. Minimal changes to other birds.

Based on the maps that were provided in the applicant's 404B1 analysis, the maps that we were looking at earlier, it appears to me that there would be minimal changes to impacts to waters of the United States. I spent considerable amount of time poring over those maps and trying to figure out how the applicant was able to conclude that it was able to reduce impacts to waters of

the United States so significantly. And I could not figure it out. I see places now under the LEDPA where there will be SunCatchers in washes where they weren't under the original alternative.

And so I do not agree that the 709-megawatt alternative is LEDPA. However, I do agree with staff's analysis that concluded that the 300-megawatt alternative would significantly reduce the project's impacts on biological resources.

MS. MILES: Thank you. As I stated, no further questions.

HEARING OFFICER RENAUD: Thank you.

Any cross?

MS. FOLEY GANNON: No questions.

MS. HOLMES: No questions.

HEARING OFFICER RENAUD: Mr. Beltran?

MR. BELTRAN: No.

HEARING OFFICER RENAUD: All right. I think that wraps it up. Well done. Thank you, people.

We'll send out a formal notice of the cultural hearing. You have been directed by the committee to attend a committee-sponsored workshop on August 10th. You know about that.

Is there anything further we need to address before we adjourn?

MS. FOLEY GANNON: We had originally had on the schedule tentatively briefing due on Monday. So this coming Monday?

HEARING OFFICER RENAUD: Do you have any suggestions for topics, or just free for all, brief whatever you want?

MS. FOLEY GANNON: We can discuss this now or we could submit a list tomorrow before noon of the issues that we think would be appropriate for briefing. I mean, I would -- I would suggest if we could settle on a list, it would be beneficial.

HEARING OFFICER RENAUD: I agree.

MS. FOLEY GANNON: So we're willing to stay and talk about this tonight, but it may behoove everybody to get a little rest, and I have to drive to San Francisco; so I said if we could get a list to you by noon tomorrow, and then get responses.

HEARING OFFICER RENAUD: Sure.

MR. THOMPSON: And the other parties can react to the list.

HEARING OFFICER RENAUD: Ms. Holmes.

MS. HOLMES: Two items.

First of all, do we know when we'll get the transcript?

HEARING OFFICER RENAUD: They're usually pretty

quick. I've noticed that it's been just a few days lately. But --

THE REPORTER: We're on a three-day turn around, so you should get yesterday's by Thursday, I believe.

HEARING OFFICER RENAUD: Wow.

I don't know why you talk about Monday, though. I mean --

MS. HOLMES: I am kind of wondering what the rush is.

MS. FOLEY GANNON: I'm saying that was just our original schedule.

HEARING OFFICER RENAUD: You can have more time than that.

MS. FOLEY GANNON: I think it was trying to assist in making sure we got that to help with the proposed decision.

MS. HOLMES: To the extent that the committee can begin to work on those topics that were uncontested or on which the record is closed without briefs --

HEARING OFFICER RENAUD: We certainly can.

MS. HOLMES: -- many of us would appreciate additional time. But we don't have any interest in pushing briefing back to the point where it would hamper the schedule.

HEARING OFFICER RENAUD: All right. Well,

applicant and staff take the lead on opening that discussion electronically tomorrow or convene a conference call and just let us know what you're going to do.

MS. FOLEY GANNON: Okay. Thank you.

COMMISSIONER BYRON: So listen, y'all, thank you very much for your perseverance and your patience tonight. I think we've got a very rich evidentiary record, in some cases overly rich, but I do appreciate all your efforts to get us through a fourth day of testimony. It looks like we'll have one more day at least that we need to cover cultural resources, and it sounds like there may be some closure on some other topics that are open. But I'd like to thank you, and we'll be adjourned.

(Thereupon the hearing adjourned at 11:25 p.m.)

CERTIFICATE OF REPORTER

I, PETER PETTY, an Electronic Reporter, do hereby certify that I am a disinterested person herein; that I recorded the foregoing Evidentiary Hearing Before the California Energy Resources Conservation and Development Commission, that I thereafter had it transcribed under my direction.

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.

I WITNESS WHEREOF, I have hereunto set my hand this 2nd day of August 2010.

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PETER PETTY