# APPENDIX Z PUBLIC COMMENTS ON DRAFT PA/EIS/EIR

(see PDF files on enclosed CD)



Desert\_Quartzite\_Solar\_Project, BLM\_CA <blm\_ca\_desert\_quartzite\_solar\_project@blm.gov>

# [EXTERNAL] Desert Quartzite Draft EIS Public Comment

**Hope Tracey** <hope@highdesertconsulting.net> To: blm\_ca\_desert\_quartzite\_solar\_project@blm.gov Thu, Aug 16, 2018 at 12:52 PM

1-3

To whom it may concern:

I'll make this short and sweet. It is irresponsible to place a solar project ANYWHERE near the Mule Mountains. Aside from the destruction of the dune complex that would occur (ACEC?!) there are extensive Native American sites, along with an extensive burial complex containing both prehistoric and historic burials. These sites absolutely lie within an ACEC. Vertebrate fossils have also been located south of this and future projects sited for the area here. Areas surrounding these solar projects have been blatantly vandalized by workers on these solar projects. These workers would be within walking distance to both prehistoric and historic sites located in the Mule Mountains ACEC. Furthermore, closure to this area for those of us that know it intimately is absolutely not acceptable. The historic (and prehistoric sites surrounding) the Bradshaw Trail also lie "too close for comfort" in relation to this project site (as well as the others slated for this area). Recreationists have been using this area for 100+ years. Why intentionally destroy something that has such value to the State of California? I do not support this nor any other project slated for this area. Period. Thank you.

Sincerely,

Hope Tracey 40344 Wood Court Palmdale, CA 93551 661-206-5860 ∯ क क



Mojave Desert Air, Quality Management District

ue, Victorville, CA 92392-2310 AUREAU OF 760.245.1661 • fax 760.245.2699

18 AUG 22 PN I: Vi Bour web site: http://www.mdaqmd.ca.gov Brad Poiriez, Executive Director ALM SPRINGS-SOUTH COAS RESOURCE AREA

August 20, 2018

**Riverside County Planning Department** 4080 Lemon Street, 12<sup>th</sup> Floor P.O. Box 1409 Riverside, CA 92502-1409 Attn: Russell Brady, Project Planner

**BLM** 1201 Bird Center Drive Palm Springs, CA 92262 Attn: Susie Greenhalgh or Brandon Anderson

## **Project: Desert Quartzite Solar Project**

The Mojave Desert Air Quality Management District (District) has received the Draft Environmental Impact Statement/Environmental Impact Report for the Desert Quartzite Solar Project. The proposed project consists of construction and operation of up to a 45- megawatt solar photovoltaic energy generation facility and associated infrastructure, including a 2.79-mile gen-tie line on a total of approximately 3,770 acres of public and private land.

The District has reviewed the DEIS/EIR and concurs with the proposed mitigation measures AQ-1, AQ-2, AQ-3, and TRN-4. The most current Dust Control Plan Requirements and Dust Control Plan Submission Form are available at http://mdaqmd.ca.gov/permitting/complianceforms.

The District supports the development of renewable energy sources; such development is expected to produce cumulative and regional environmental benefits.

Thank you for the opportunity to review this planning document. If you have any questions regarding this letter, please contact me at (760) 245-1661, extension 6726, or Tracy Walters at extension 6122.

Sincerely

Alan J. De Salvio Deputy Director – Mojave Desert Operations

City of

Blythe

AJD/tw

Town of

Desert Quartzite Solar Project DEIS EIR

City of

Victorville

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Hi Russell,

Thank you for transmitting the above reference project to ALUC for review. ALUC has previously found this project consistent under ZAP1010BL15 with conditions and has no further comments.

If you have any questions, please feel free to contact me.

Paul Rull

ALUC Urban Regional Planner IV



Riverside County Airport Land Use Commission 4080 Lemon Street, 14<sup>th</sup> Floor Riverside, Ca 92501 (951) 955-6893 (951) 955-5177 (fax) PRULL@RIVCO.ORG www.rcaluc.org



Desert\_Quartzite\_Solar\_Project, BLM\_CA <blm\_ca\_desert\_quartzite\_solar\_project@blm.gov>

# [EXTERNAL] A.Damiano & Co

sales@adamiano.com <sales@adamiano.com>
Reply-To: sales@adamiano.com
To: blm\_ca\_desert\_quartzite\_solar\_project@blm.gov

Dear Sir / Madam

We are manufacturing Overhead Transmission line materials

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Mon, Aug 27, 2018 at 9:39 PM

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Sincerely

## A.Damiano & Company

53 Dr. Meghnad Saha Sarani,

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Telephone :- 91-33-24198760

E mail :- sales@adamiano.com



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Department of Toxic Substances Control

Matthew Rodriquez Secretary for Environmental Protection Barbara A. Lee, Director 5796 Corporate Avenue Cypress, California 90630



Edmund G. Brown Jr. Governor

August 27, 2018

Mr. Russell Brady Riverside county Planning Department 4080 Lemon Street, 12th Floor Riverside, California 92501 rbrady@rivco.org

DRAFT PLAN AMENDMENT/ ENVIRONMENTAL IMPACT STATEMENT/ ENVIRONMENTAL IMPACT REPORT FOR DESERT QUARTZITE SOLAR PROJECT (SCH NO. 2015031066)

Dear Mr. Brady:

The Department of Toxic Substances Control (DTSC) has received your submitted document for the above-mentioned project. The project is located approximately 2. 75 miles southwest of the City of Blythe and 40 miles east of Desert Center, just south of the Interstate 10 (1-10) freeway, and 1.5 miles southwest of Blythe Airport in East Riverside County, Palo Verde Area Plan.

Based on the review of the submitted document DTSC has the following comment:

1. Section 4.9.3.– this section requires the Applicant to perform a Phase II Environmental Site Assessment prior to the construction activities to include groundwater sampling in the vicinity of the two uncapped onsite wells and removal of oil and lubricant container.

Section 3.9 mentions that trash and debris were also observed on the Bureau of Land Management portion of the project. If construction debris are observed, evaluation of whether debris contain any asbestos should be performed and by a certified asbestos contractor. Section 3.9 also mentions that the private portion of the Site was previously used for agriculture. Phase II should include the soil sampling to determine whether the soil was impacted by organochlorine and metals.

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Mr. Russell Brady August 27, 2018 Page 2

Should you have any questions regarding this letter, please contact Ms. Chia Rin Yen at 714-484-5392 or by email at <u>ChiaRin.Yen@dtsc.ca.gov.</u>

Sincerely,

Yolanda M. Garza Unit Chief Brownfields Restoration and School Evaluation Branch Site Mitigation and Restoration Program

kl/cy/yg

cc: Governor's Office of Planning and Research (via e-mail) State Clearinghouse P.O. Box 3044 Sacramento, California 95812-3044 State.clearinghouse@opr.ca.gov

> Mr. Dave Kereazis (via e-mail) Office of Planning & Environmental Analysis Department of Toxic Substances Control Dave.Kereazis@dtsc.ca.gov

Ms. Chia Rin Yen (via e-mail) Brownfields Restoration and School Evaluation Branch Site Mitigation and Restoration Program ChiaRin.Yen@dtsc.ca.gov



Desert\_Quartzite\_Solar\_Project, BLM\_CA <blm\_ca\_desert\_quartzite\_solar\_project@blm.gov>

# [EXTERNAL] comment on Desert Quartzite Solar DEIS

1 message

Linea .Sundstrom linea.sundstrom@gmail.com> To: blm ca desert quartzite solar project@blm.gov

Greetings:

This message is to convey our support for the proposed alternative, Alternative 1, to prevent damage to rock art and geoglyphs by construction of the Desert Quartzite Solar Project. This recommendation assumes that view-shed issues with rock art and geoglyph sites lying near the area of potential effect will be negotiated with interested and affiliated Native American communities.

Linea Sundstrom, Chair Conservation Committee American Rock Art Research Association arara.wildapricot.org Sun, Sep 9, 2018 at 10:48 AM

PUBLIC MEETING September 27, 2018

PUBLIC MEETING DESERT QUARTZITE SOLAR PROJECT DRAFT EIS/EIR REPORTER'S TRANSCRIPT OF PUBLIC MEETING Taken on Thursday, September 27, 2018 At 235 North Broadway Blythe, California At 6:30 p.m. REPORTED BY: JULIETTE L. BARRON CCR, RPR AZ CR #50359/CA CSR #11081/NV CCR #748

1	SPEAKERS:		
2			
3		Brandon E. Anderson, Project Manager, U.	S.
4		Department of Interior Bureau of Land Ma	anagement
5		Douglas J. Herrema, Field Manager, U.S. De	epartment
6		of interior Bureau of Land Management	
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8			
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10			
11			
12	Public Con	mments:	Page
13		Alfredo A. Figueroa,	9
14		La Cunade Aztlan SacredSite	
15		Grant Chaffin, Chaffin Farms	16
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1	MR. HERREMA: Good evening, everyone, and welcome.	
2	My name is Doug Herrema. I'm the Bureau of Land	
3	Management's Palm Springs South Coast Field Office Manager,	
4	and so I oversee the public lands that are relevant to this	
5	project, and you are all here tonight for the Desert	
6	Quartzite Solar Project Public Meeting.	
7	And so in a minute I will turn it over to Brandon,	
8	our project manager, who will give you a presentation, and	
9	at the end it will be time for public comment, and we will	
10	talk through that process. But I wanted to thank you for	
11	being here.	
12	The public part of our process, to determine	
13	whether or not to approve a project, is one of the most	
14	important parts. In fact, we really can't do our jobs	
15	effectively without it. So if you do have thoughts and	
16	comments, I would encourage you to speak up here or to send	
17	us written comments either online or in hard copy. So	
18	thanks again.	
19	And with that, I'll turn it over to Brandon.	
20	MR. ANDERSON: Thank you, Doug.	
21	Well, as Doug mentioned, we're going to discuss	
22	the Desert Quartsite's Solar Project. It's a plan amendment	
23	to the California Desert Conservation Area Plan.	
24	We're doing the Draft Environmental Impact	
25	Statement, and then the County is preparing a Draft	

Environmental Impact Report. 1 2 So in the presentation we are going to go over the 3 background project, go over the environmental process, how the public can get involved, and then we will go into the 4 5 oral comments. So Desert Quartzite, LLC, a company of First Solar 6 7 Development Incorporated, submitted an application to the 8 Bureau of Land Management for the Desert Quartzite's Solar Project. It's a photovoltaic solar project near Blythe 9 south of I-10 near the Arizona border. 10 The proposed project is 450-megawatts of solar 11 photovoltaic encompassing approximately 3,800 acres of land. 12 13 A hundred and sixty of those acres, which is here in the center of the project, is private lands that would be 14 developed. 15 There are two access roads; one in the north, the 16 17 secondary access in the south. The northern access route is 18 a primary road. It would have upgrades. The secondary 19 access would require parts of it would be new construction. There is an on-site substation. There is a 2.79 20 21 mile generation tie line or gen-tie line that would 22 interconnect the project to the Colorado River Substation, which is owned by Southern California Edison. There are 23 24 other facilities within the fenced area that go into detail 25 in the environmental document.

So the BLM has essentially two decisions that 1 2 we're going to make. The first is whether to grant, grant 3 with modification, or deny the solar application for the Desert Quartzite Solar Project, and whether or not to amend 4 5 the California Desert Conservation Area Plan to allow the project to move forward. 6 7 Riverside County, which we have a representative 8 here, Russell Brady, they have essentially two decisions to make: approve or deny the Conditional Use Permit and to 9 10 certify or not the Environmental Impact Report. So going into a little bit of the environmental 11 processes. BLM and Riverside County decided to do ajoint 12 13 Environmental Impact Statement and the Environmental Impact 14 Report. We have very similar processes. 15 We initiated this process in March of 2015 with 16 the publication of the Notice of Intent and the Notice of 17 Preparation. This initiated the public scoping process where we heard the concerns that the public you had, and 18 19 issues that we needed to analyze in our documents. So of those issues, we heard that the sensitive 20 Harwood's eriastrum and Mojave fringe-toed lizard, both BLM 21 22 sensitive species, were of issue, the Mojave desert tortoise, which is a state and federally listed species, the 23 24 sand transport corridor and the Mule Mountains in the 25 background were of particular concern. Cultural resources,

as well as air quality and visual, were among the things 1 2 that were brought up during the scoping period. 3 So BLM develops, in accordance with the National Environmental Policy Act, a range of alternatives, which 4 5 starts with the no project, which would mean we would deny the application and we would not amend the plan, to the 6 7 proposed. And then BLM developed two additional action alternatives to address some of the concerns that we heard 8 9 during the scoping. 10 So I will go into the development of these alternatives. So in addition to the proposed action, we 11 have Alternative 2, which is the resource avoidance. It 12 13 would produce 450-megawatts of photovoltaic energy. Ιt 14 would encompass approximately 3,000 acres. 15 This is the BLM preferred alternative. It reduces a lot of the impacts in the north where we have the 16 17 stabilized sand dunes as well as avoids the known locations for the Harwood's eriastrum within the solar project. It 18 19 also reduces impacts to the jurisdictional waters managed by the California Department of Fish and Wildlife as well as 20 sensitive cultural resources within the project itself. 21 22 The second action alternative beyond the proposed is Alternative No. 3. This is a reduced footprint 23 24 alternative. It would produce approximately 285-megawatts 25 of energy. It would encompass approximately 2100 acres.

And, again, both alternatives have this hundred and sixty 1 2 acres of private land within. This reduces the overall size 3 of the project and modeled habitats of the threatened endangered species, the desert tortoise and the two BLM 4 5 sensitive species we discussed earlier. It also maintains similar avoidance for the 6 7 cultural resources as in the Alternative 2 as well as the 8 jurisdictional waters. It reduces acreage up here in the northwest portions of the project where sand sources provide 9 10 sands to the stabilized sand dunes here. So current status: The BLM and Riverside County 11 published the Environmental Impact Statement/Environmental 12 13 Impact Report on August 10th. We are currently in a 90-day 14 public comment period. At the close of the 90-day public comment period, 15 16 which is November 8th at 11:59, BLM and Riverside County 17 will review the comments that we receive, respond to each one of those comments, make any necessary changes to our 18 19 analysis and the documents, and then we would publish a Final Environmental Impact Statement and Environmental 20 Impact Report. That would initiate our public protest 21 22 period for 30 days. At the end of the 30 days, BLM will 23 review and resolve any of the protests that are made on the 24 Plan Amendment and issue a Record of Decision on the 25 project.

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The CEQA side. Preparing a joint document follows 1 2 a very similar path. After the publication or the release 3 of the final, the County would have the decision as to whether or not to certify the EIR. 4 5 So going back to where we areat today. We're in the public comment period. There's two methods of making 6 7 comments. You have oral comments, which we'll do at the end of the presentation. We have a court reporter here in the 8 9 front who will dictate your oral comments. 10 The second way -- and there's a couple methods for 11 providing written comments. You can provide them on the comment card that we provided in the front here, and you can 12 13 submit those today. You can mail them into our address, the 14 Bureau of Land Management Palm Springs Field Office or we 15 have an e-mail account, which is also on the facts sheet. 16 You can email us any of your comments. 17 So in terms of oral comments. If you haven't 18 already done so and you would like to make oral comments, 19 please fill out this card. It helps us ensure that we're capturing the comments and the right person associated with 20 those, but note that any of the information you do provide 21 22 may be released to the public under appropriate laws. 23 So at the very beginning we're going to limit you 24 to three minutes to afford people opportunities tomake 25 comments; but if there is more time at the end, we'll allow

PUBLIC MEETING

a few people to speak. 1 2 So without further ado, I invite people to come up 3 and make public comments. 4 I think we have Mr. Figueroa. If you would like 5 to be first. 6 MR. FIGUEROA: Three minutes? 7 MR. ANDERSON: Three minutes to begin with and 8 then --PUBLIC COMMENTS: 9 10 MR. FIGUEROA: Okay. Well, thank you very much. 11 We're glad that you are having a meeting here in Blythe, but, you know, we've been protesting that damn project since 12 13 the last time 1950 -- 2015. I'm a native of the Palo Verde Valley here, and 14 15 I'm a monitor of the sacred sites of Chemehuevi Tribe, and 7-2 I'm also the founder of the La Cuna de Aztlan Sacred Sites 16 17 Protection Circle and a historian and an author. I have two books of the sacred sites that are here. 18 19 We totally oppose this project like we did before in 2015. So we will be submitting a full proposal -- I 20 7-3 mean, a full -- a full comments to the office over there in 21 22 Riverside that ties in all the -- all the majority of the 23 sacred sites here. 24 That's why in our culture you try to destroy one 25 site you affect the other site. All the sites are tied in

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## September 27, 2018

1	together.		7-3
2	So even the even the the California Energy	ר	
3	Commission there they made theirown study. They checked		
4	over 200 800 cultural sites that would be damaged if this		
5	projects in the hundred I mean, in the I-10 project east		7-4
6	of Riverside County. So Elizabeth Dr. Bagwell she's a		
7	good friend of mine in Sacramento. I don't know if she's		
8	still working there or not.		
9	The project's proposed to be built north of the		
10	sacred mountains, the Mule Mountains. The Mule Mountains		
11	represent "Calli." That's why the name of California is		
12	California because of the Mule Mountains.		
13	The whole Aztec calendar is overlaid here in the		
14	Colorado River centered with Blythe and the Big Maria		
15	Mountains, the Blythe Giant Intaglios, which are the main		
16	center.		
17	So we're not here to because we're reading a		7-5
18	book. This is part of our culture, and we're trying to		
19	introduce this so that people can understand why the time		
20	has come that we have to respect the sacred sites that we		
21	have introduced and they're there. Nobody can lie that		
22	they're there.		
23	Good thing that we have codices that we can read		
24	and we can describe the geoglyphs, and we can describe the		
25	petroglyphs so and plus our oral history.		

11

So you have -- when you go to the Supreme Court, 1 2 you'd better be sure you have enough evidence to 3 substantiate what you are presenting. Even the BLM has designated the Mule Mountains as 4 5 an area of critical environmental concern. Still I see there where it says that so -- because we have taken the 6 7 people from the -- the BLM from San Bernardino -- I mean, 8 from Palm Springs over so they could see the sites and so I 9 can explain to them what they mean as far as the Aztec 10 calendar and this and that, you see. 11 So we have these reports. We have them. There's just hundreds of geoglyphs, there's the petroglyphs, the 12 13 cremation sites. We can show you the bones where the cremation sites are. 14 15 And naturally the trail, the main trail that, 16 whew, goes all the way to Point Dumes over thereby 17 Santa Barbara that leads from the Colorado River. It's the main trail that goes and it crosses right there by the side 18 19 of the Mule Mountains where the -- what's called the Quechan Trail. It goes north and south to Avi Kwame-Spirit Mountain 20 down to the Gulf of California. 21 When our spirits die, as a matter of fact, they go 22 first to the Mule Mountains. The Mule Mountains. Cicimlt. 23 24 He's the spirit that takes our spirits up to Topock Maze. 25 Cicimlt. He's right there over there ten miles from here

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12 7-5 where he's together with Kokopilli and Cicimlt. 1 2 We can take you over there, and they don't have a 3 fence there. Nobody has a fence. We got to -- we are 7-6 trying to raise money tobuild fences. We need some help. 4 5 So -- we're getting ready? MR. ANDERSON: I was just going to say if the 6 7 people don't object, we can let Mr. Figueroa continue. MR. FIGUEROA: Yeah. Yeah. You can ask 8 questions, but I'm not finished yet. 9 10 Okay. We don't have to tell you anything as far as the climate. This year in Blythe I think we got less 11 than one-tenth of an inch of rain, I'm going to be 85 years 12 13 old, and this is one of the hottest years I have ever lived in my life here in Blythe and no rain. And the Colorado 14 15 River is just decreasing. Lake Mead is one-third full. 16 We don't need -- oh, Mesa Verde -- they have dug 17 that well -- dug, dug, dug, dug -- because it keeps going down and down and down. So it's the worst we've ever had 18 19 this year. Now, in China that they use a lot of carbon. 20 Thev build these solar-powered projects in the agriculture, and 21 22 it destroyed the agriculture. And this is proposed to be 23 two miles from the PaloVerde Valley. My lands! Two miles 24 from the Palo Verde Valley. You don't think that's going to 25 affect the Palo VerdeValley agricultural? You bet.

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13 The PVID -- we will see what they decide. 1 Let me 2 tell you, we are totally against it. So the PVID and all 3 the farms here in Blythe should be against italso. 4 MR. ANDERSON: I will give you three more minutes. 5 MR. FIGUEROA: Excuse me? 6 MR. ANDERSON: You have three more minutes. Т 7 have another -- a gentleman who will make a comment. 8 MR. FIGUEROA: I can't hear too good. MR. ANDERSON: I said there's -- we will give you 9 10 three more minutes. 11 MR. FIGUEROA: Okay. MR. ANDERSON: We have someone else who wants to 12 13 make a comment. 14 MR. FIGUEROA: Oh. No, no, no. No problem. No 15 problem. MR. ANDERSON: If there is no one else, feel free 16 to come back up. 17 18 MR. FIGUEROA: Okav. 19 Now, also the people from the airport, they totally opposed those other projects because we know what 20 happened to those two pilots from Blythe that were over 21 there at the Desert Center Solar Project, and they went just 22 23 over it and they -- whew. 24 Airplanes can't fly over it, nor the birds, nor 25 nothing can fly over it because it's -- the atmosphere is

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1	just too hot.	
2	So the airport there is very reluctant, and they	
3	don't need it there according to some of the people that	
4	I've talked to.	
5	Like the ones who were there in Las Vegas was the	
6	one that the airport for Las Vegas there they are	
7	totally against that plant that's built over there already.	
8	So what I'm saying is the airport doesn't need it there	
9	either.	
10	So we have we're not against solar power. Put	
11	them on top of the rooftops. California is already one of	
12	the most advanced states that has combated that have	
13	reached the quota of combating the the carbon electricity	
14	produced.	
15	So you can put them in the abandoned air bases.	
16	Put them over there where you need the energy is in the	
17	coast of California.	
18	Around five years ago there was an accident	
19	happened, a transmission line in Yuma. And it paralyzed all	
20	of Imperial Valley, Sac I mean, in San Diego and all of	
21	that.	
22	So this just makes it very, very, uh for	
23	anybody who wants to do any sabotage, just explode a	
24	transmission line. Where you can be putting solar power	
25	projects on the transmission lines. Property that has	

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### September 27, 2018

15 already been destroyed. 1 2 We have here the natural gas line -- natural gas 3 plant here in Blythe. It's a standby. And it -- if it 7-9 4 operates one month out of the year, it's a lot because they 5 don't need it. So we don't need more of these plantshere. If you need the power, like I said, put them over 6 7 there by the coast where they need it. 8 MR. ANDERSON: If you can wrap up your last 9 comment --10 MR. FIGUEROA: So thank you very much. MR. ANDERSON: -- we will bring you backup. 11 Sorry. 12 13 MR. FIGUEROA: We have ten laws -- state, federal, United Nation laws, mind you, and naturally our tribes --14 15 that support us in protecting the sacred sites. 7-10 16 I want to thank you. Later on if you have any 17 questions, give me some questions. We will present facts, 18 not methods, nor theory. 19 Thank you. 20 MR. ANDERSON: Thank you, sir. MR. FIGUEROA: Thank you very much. 21 22 You are not the same guy that I used to know. MR. ANDERSON: No. I'm a different guy. 23 24 (Laughter.) 25 MR. CHAFFIN: Thank you.

I apologize for arriving late. I thought that 1 2 this was sort of an informal thing much like a previous 3 solar or -- or powerline proposal where you can kind of come and go and people could -- you can talk to people and find 4 5 out the scope of the project and stuff like that. So I'm 6 sorry I was a little late. 7 My name is Grant Chaffin. I'm from Chaffin Farms. 8 I'm a third-generation farmer. My grandfather started our farm in 1946 in the central part of the Palo Verde Valley. 9 So I'm looking at your -- the scope of your 10 11 project. So will there be a transmission line that 12 parallels the existing Devers Palo Verde one line? 13 MR. ANDERSON: So we're not answer questions right 14 now. Just public comments. 15 MR. CHAFFIN: Okay. 16 MR. ANDERSON: If there's specific questions about 17 the project, we can talk about that. You can give me a call. I can give you a -- mybusiness card. Right now 18 19 we're just taking public comments. MR. CHAFFIN: Well, will there be a transmission 20 line that parallels the existing Devers Palo Verde one? 21 22 MR. ANDERSON: I will defer that. You can give me 23 a call after the meeting, and I can provide that information for you. 24 25 MR. CHAFFIN: Okay.

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If there is, I'm concerned about the impact that 1 2 that will have on the agricultural community; our ability to 3 farm the fields to access the fields. In terms of the diagrams that you have up here, it 4 5 looks like -- if I can walk over here -- you are proposing a site access on the south end on 22nd Avenue traveling 6 7 westbound from the intersection of 22nd Avenue and Rannells. 8 Is that -- is that -- am I looking at this correctly? 9 10 MR. ANDERSON: That is the access road. MR. CHAFFIN: Okay. My concern about this is that 11 we own property on both sides of this proposed access route, 12 13 and it is not a dedicated public road. So I would like to 14 address access there through our property. 15 And that's all the comments I have. Thank you. 16 MR. ANDERSON: Are there any other public 17 comments? People who'd like to speak? 18 (No response.) 19 MR. ANDERSON: We'll be here till 8:30. If you have written comments, feel free to fill them out here and 20 we will accept them now. Otherwise, feel free to talk 21 22 amongst yourselves. And if anybody else wants to come up, 23 come on up. 24 (The Public Scoping Meeting presentation 25 ended at 6:56 p.m.)

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1	(The Public Scoping Meeting concluded at
2	8:30 p.m. with no further comments.)
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PUBLIC MEETING September 27, 2018

19 CERTIFICATE OF REPORTER 1 2 State of Arizona) ss. 3 County of Mohave) 4 5 I, Juliette L. Barron, CCR, RPR, do hereby certify 6 That I took down in shorthand (stenotype) all of the 7 proceedings had in the above-entitled matter at the time and place indicated, and that thereafter said shorthandnotes 8 were transcribed into typewriting at and under my direction 9 and supervision, and the foregoing transcript constitutes a 10 full, true, and accurate record of the proceedings had, all 11 12 done to the best of my skill and ability. In witness whereof, I have hereunto affixed my 13 hand the 16th day of October, 2018. 14 15 16 17 18 19 20 21 22 Nulutto h. Ban 23 24 Juliette L. Barron, CCR, RPR 25 AZ CR #50359/CA CSR #11081/NV CCR #748

# Defenders of Wildlife Natural Resources Defense Council Sierra Club The Wilderness Society

October 3, 2018

Erika Grace AECOM 10 Patewood Dr., Bldg. VI, Suite 500 Greenville, SC 29615. Via email to: <u>blm\_ca\_desert\_quartzite\_solar\_project@blm.gov</u>

Re: Comments on the Draft Environmental Impact Statement (DEIS)/Draft Environmental Impact Report (DEIR) for the proposed Desert Quartzite Solar Project

Dear Ms. Grace;

Defenders of Wildlife (Defenders), Natural Resources Defense Council (NRDC), Sierra Club and The Wilderness Society (TWS) thank the Bureau of Land Management (BLM) for the opportunity to review and submit comments on the DEIS/DEIR for the proposed Desert Quartzite Solar Project (Project). Defenders submitted scoping comments on the Project, in conjunction with the Natural Resources Defense Council and the Sierra Club on April 13, 2015.

Defenders is a national environmental organization with 1.8 million members and supporters in the U.S., including 279,000 in California. Defenders is dedicated to protecting all wild animals and plants in their natural communities. To this end, Defenders employs science, public education and participation, media, legislative advocacy, litigation and proactive on-the-ground solutions to prevent the extinction of species, associated loss of biological diversity, and habitat alteration and destruction.

NRDC is a non-profit environmental organization with 1.3 million members and online activists, more than 250,000 of whom live in California. NRDC uses law, science and the support of its members and activists to protect the planet's wildlife and wild places and to ensure a safe and healthy environment for all living things.

Sierra Club is a national nonprofit organization of approximately 2.5 million members and supporters dedicated to exploring, enjoying, and protecting the wild places of the earth; to practicing and promoting the responsible use of the earth's ecosystems and resources; to educating and enlisting humanity to protect and restore the quality of the natural and human environment; and to using all lawful means to carry out these objectives. The Sierra Club's concerns encompass protecting our lands, wildlife, air and water while at the same time rapidly increasing our use of renewable energy to reduce use of fossil fuels and climate change. Towards this end, Sierra Club supports the development of renewable energy, energy efficiency, demand response and energy storage. With the goal of maximizing renewable energy in areas of low natural resource value and

avoiding renewable energy development in locations with high natural resource value, the Sierra Club has participated in landscape scale planning processes such as the Bureau of Land Management's (BLM)s Solar Energy Program, the recently-completed Desert Renewable Energy Conservation Plan (DRECP) and various other local and state planning efforts.

The mission of TWS is to protect wilderness and inspire Americans to care for our wild places. Founded in 1935, and now with more than one million members and supporters, TWS has led the effort to permanently protect 109 million acres of wilderness and to ensure sound management of our shared national public lands.

Our comments on the DEIS/DEIR are as follows:

1. **General**: Of the dozens of proposed renewable energy projects on public lands our organizations have evaluated and commented on, we consider the proposed Project to be more appropriately sited than most. Although much of the project site has not been previously disturbed, it appears to be relatively low in conflict with biological resources. Alternatives 2 and 3 to the Project would substantially avoid impacts to occupied habitat for the Mojave fringe-toed lizard, fully avoid impacts to microphyll woodlands, and would conform to most of the Conservation Management Actions (CMAs) of the Desert Renewable Energy Conservation Plan (DRECP). We understand that the Project is not subject to the DRECP CMAs due to the date (2007) of the original right of way application, although BLM analyzed the Project for conformance with those measures for consistency purposes.

We appreciate the concise nature of the DEIS/DEIR compared to those for previous renewable energy projects and find that the analysis is easy to read and comprehend, without diminishing its quality.

2. Alternatives to the proposed Project: There are two action alternatives to the Project proposed by the applicant (3,770 acres/450 MW); Alternative 2 – Resource Avoidance (2,782 acres/450 MW); and Alternative 3 – Reduced Project (2,047 acres/285 MW). BLM has identified Alternative 2 as the Preferred Alternative.

**Comment**: Alternatives to the proposed Project provide opportunities to avoid and, or minimize adverse impacts associated with the proposed Project. It is noteworthy that Alternative 2 would substantially avoid many adverse impacts while retaining the applicant's goal of generating 450 MW.

Alternative 2 is identified as the BLM Preferred Alternative, which would meet the purpose and need for both the BLM and the Project applicant. Alternative 2 is consistent with BLM's mandate to prevent the unnecessary or undue degradation of public lands and their resources and would conform with nearly all Conservation Management Actions (CMAs) in the Desert Renewable Conservation Plan (DRECP) approved by BLM in 2016.

3. **Water supply** (Page 2-11): If an on-site water supply well is not developed, water would be obtained from the Palo Verde Irrigation District, which would entail use of water from the Colorado River. Estimated water use during construction ranges from 1,400 to 1,800 acre-feet/year,

depending on duration of the construction period. Obtaining water from the Palo Verde Irrigation District would require trucking water to the project site, which would entail 57,000 truck-trips during the construction period; and an unspecified number for delivering water needed during the operational period of the Project.

**Comment**: We recommend that an on-site water well be utilized to eliminate the 57,000 truck-trips needed to deliver water. This option would reduce hydrocarbon, carbon dioxide and fugitive dust emissions associated with heavy-duty trucks.

4. **Project fencing** (Page 2-12): The desert tortoise exclusionary fence surrounding the Project is described as either temporary or long-term (permanent) and will be according to U.S. Fish and Wildlife Service (USFWS) specifications.

**Comment**: Please clarify if the fence will be temporary or permanent. It is our understanding that the USFWS will require the tortoise exclusion fence be installed for the life of the Project. During protocol surveys for the desert tortoise, no live individuals and no burrows were observed, and six old carcasses and one set of recent tracks were observed within the approximately 4,900-acre study area. Since no desert tortoise burrows were observed, it is reasonable to assume that some or all carcasses were carried onto the project study area by flash flood or predators.

BLM may want to discuss whether there is a need for desert tortoise exclusion fence surrounding the project with the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW).

5. **Site Preparation** (Page 2-13, 14): Proposed site preparation includes removing vegetation and creating a flat, compacted surface to allow delivery trucks, pile driving equipment and cranes to traverse the project area; followed by compacting the site to achieve approximately 85 percent of maximum soil density. Vegetation removal would entail either mowing or disking and rolling to achieve desired contours and compaction over approximately 88 percent of the project site.

**Comment**: We recommend that vegetation removal be limited to mowing to approximately 6 to 12 inches above the ground surface and leaving the natural root structure intact to minimize soil disturbance; and that soil compaction be limited to access roads necessary for vehicle and machinery to access solar panel and permanent infrastructure facilities. We offer these recommendations because the site is nearly level in its current condition and vegetation is relatively sparse. We recognize that safety and construction issues are important for project feasibility, so mowing vegetation should be required to the maximum extent practicable.

6. **Project decommissioning** (Page 2-20, 21): For analysis purposes, it is assumed that the Project would be decommissioned at the end of its 30-year life and would entail restoration of soil and vegetation and overall ecological function. Vegetation restoration would require returning the site to its preconstruction condition, or to a condition like that existing in the area after the 30-year life of the Project, which may be different because of climate change. However, the Authorized Officer (BLM Field Manager) may approve a different site restoration standard. Monitoring of site

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restoration to an acceptable condition, including the establishment of native vegetation, is expected to last for one to three years or until the site is determined to meet restoration criteria.

**Comment**: Although the Project is not subject to the DRECP CMAs, we recommend that criteria for successful restoration of the site be those contained in the DRECP. Given the relatively long time required for restoration of perennial shrubs in the desert environment, and especially in the Colorado Desert, we recommend that monitoring of the restoration of the site be required until the adopted criteria are met and that the stated expectation of one to three years be removed. We also recommend that BLM calculate the cost of restoring the site, including monitoring, to ensure that the Project owner's performance and reclamation bond is sufficient to cover all the costs of reclaiming and restoring the site according to the established criteria. It is essential that the bond funding be accessible to the permitting agencies in the event the Project owner sells the Project or becomes financially insolvent.

7. **Compensatory mitigation** (Chapters 4.3, 4.4): Compensatory mitigation will be required for long-term loss of habitat due to Project construction. We assume that the Final Environmental Impact Statement (FEIS)/Final Environmental Impact Report (FEIR) will include estimates of acres of compensatory habitat needed to satisfy federal and state agency requirements. Compensation may include a mix of acquisition of habitat on private land and habitat improvement on public lands managed by BLM.

**Comment**: We recommend that acquisition and permanent protection of private land habitat is the preferred method of compensatory mitigation given the large, cumulative loss of habitat within the region due to numerous large-scale solar energy projects. We have reviewed the compensatory mitigation requirements in Appendix G (Mitigation Measures) and find that it is consistent with compensatory mitigation required for other similar projects.

This concludes our comments on the DEIS/DEIR. Please contact us if you would like to discuss or have questions.

Sincerely

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October 27, 2018

Project Manager Bureau of Land Management Palm Springs South Coast Field Office 1201 Bird Center Dr. Palm Springs CA 92262 blm\_ca\_desert\_quartzite\_solar\_project@blm.gov

RE: Letter of Opposition for the Proposed Desert Quartzite Solar Project in Eastern Riverside County by First Solar Development LLC

Dear Project Manager,

I am a native of the Colorado River, born in Blythe CA, Elder, Historian of the Chemehuevi Sacred Sites Tribal Monitor since 2009. I am also the organizer of La Cuna de Aztlan Sacred Sites Protection Circle, (LCDASSPC), and we have a Memorandum of Understanding with the Bureau of Land Management Yuma Office to work in partnership to enhance cultural resources, protection, conservation and interpretation efforts.

Our organization is totally against the proposed Desert Quartzite Solar Power Project.

The project is proposed to be built approximately a mile north of the Sacred Mule Mountains and west of the rich agricultural Palo Verde Valley. The Mule Mountains, located 15 miles southwest of Blythe, California, represent earth/*Calli*, in Aztec history.

*Calli* means earth/house and is the third glyph of the 20 glyphs on the Aztec Sun Stone Calendar. The origin of the name California derives from Calli-Fornax meaning the hot house. In the Aztec cosmic tradition, when a person dies, their spirit first goes to *Calli*. There at *Calli*, the Great Spirit CicimitI takes the spirit to one of the four final resting places all based on how the person died and how they lived their life. In the beginning of the 19<sup>th</sup> century, the Mule Mountains were referred to as the upside down mountains and as the Molcajete Mountains because of the three peaks.

Ron Van Fleet, a Mojave elder and descendent of the last traditional Mojave Chief Peter Lambert, explained that Mastumho, with his magic wand, stirred the contents of the three-legged pot, or Molcajete. It is said that he threw the contents behind him, thus creating the Milky Way, the entire universe, water, and air. When he was finished, he placed the empty pot upside down on earth, with the three legs up, which created the three peaks of Hamock-Avi, the Mule Mountains. The Mojave oral creation story of Hamock-Avi is similar to the Aztec creation story of the Mule Mountains.

The BLM has designated the Mule Mountains as an Area of Critical Environmental Concern (ACEC) and is included in their maps due to the area's prominent geoglyphs, hundreds of petroglyphs, cremation/burial sites, major ancient trails, numerous indigenous ritual artifacts and the Molcajete

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round-hole design on top of the small hill. Furthermore, the project will destroy remnants of the north/south Quechan Trial that begins at Spirit Mountain Avi-Kwame, Mojave/Tlalocan Azteca located 15 miles northwest of Laughlin, Nevada, down to Yuma, Arizona. Included in the destruction would also be part of the Coco-Maricopa Trail that goes west to Point Dume, Malibu, on the Pacific Coast.

We have stated before in all our comments against the large solar projects being developed along the l-10 corridor in Eastern Riverside County that the sacred sites are all tied together and there is no way that they can be singled out. The solar projects cannot destroy just one sacred site without destroying the sacredness of the Creation story in the surrounding areas.

The California Energy Commission's (CEC) own cultural resources investigation had found an abundant of cultural resources as stipulated in their report. C-3 Cultural Resources Docket 09-AFC-8 C.3.1 Summary of conclusions dated 06/22/10 by Elizabeth A. Bagwell, Ph.D., RPA and Beverly E. Bastian: *Staff Finds that the GSEP construction impacts, when combined with impacts from past, present, and reasonably foreseeable projects, contribute in a small but significant way to the cumulatively considerable adverse impacts for cultural resources at both the local I-10 Corridor and regional levels. This analysis estimates that more than 800 sites within the I-10 Corridor and 17,000 sites within the Southern California Desert Region will potentially be destroyed. Mitigation can reduce the impact of the destruction, but not to a less-than-significant level.* 

Yet the CEC has not respected nor honored its own research or the BLM's despite all our touring with them of the sacred sites and describing what they mean in the human creation story.

Due to the heat intensity by the project, it will change the atmospheric conditions and a lot of the agriculture in the Palo Verde Valley will be affected.

In a recent article regarding the Jenko Solar Project in China, the Chinese are setting an example in protesting against the large solar panel projects in their country because they have not only contaminated their drinking water but also the climate change has ruined their agriculture industry. Apparently not even China is benefitting from these solar panel projects. The Jenko Solar Project is an excellent example of why in the United States, we do not need these projects near agricultural land much less near the Colorado River where its water reserve in Lake Mead is barely 1/3 of its capacity and all of its water has already been allocated. Lake Mead is at its lowest level since Hoover Dam created the lake in the 1930s according to an article in the Press Enterprise of July 9, 2014. The Colorado River, as we all know, is one of the main water sources in the Southwest United States and Northwest Mexico.

The Desert Quartzite Solar Power Project will need a lot of water for the project. Currently the Mesa Verde Community's well is drying up and they will have to dig down deeper. The other well is contaminated and has been closed for years. The main reason the asparagus fields that were planted at the Palo Verde Mesa were abandoned was because of the lack of water.

The Desert Quartzite Solar Power Project will have to drill wells from aquifers that lead to the Colorado River. The Colorado River Board of California has stipulated that all these aquifers within 50 miles go the Colorado River and any water taken from these aquifers has to be approved by the Board of Directors.

The Blythe airport is also in opposition of the solar power projects that are proposed to be built around the airport. According to Pat Wolfe, past operator of the airport, stated "currently the pilots are experiencing severe flying conditions when they fly over the Florida Light and Power Plant when they are taking off or when they are landing on the landing strip." The FLP was built despite the opposition of the Federal Aviation Administration (FAA). FAA regulations are that the plant was to be built no less than a mile away from the end of the runway and that the towers could not be more than 150 feet tall. These two regulations are being violated. The first phases of the proposed

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Blythe and McCoy Solar Power Projects have already been constructed. They are approximately five miles north of the Blythe Airport. The proposed plan is to build approximately on 15,000 acres.

Based on the United States Fish and Wildlife Service analysis, this area along the l-10 corridor is an important migratory route for numerous species as well as breeding and wintering stopover destination. The area has been designated as a Globally Important Area by the California Audubon Organization.

There are four National Wildlife Refuges in the Lower Colorado River Valleys, Havasu, Bill Williams, Cibola and Imperial.

Currently, one of the most recognized butterflies is the Monarch Butterfly that has its massive migration from the Northern United States and Canada down to Michoacán in the winter. It is an endangered species. One of its western migration routes is centered through the Colorado River/McCoy Valley. The Monarch image can be seen as part of the Midland Mountain outline in the Little Maria Mountain Range. The Monarchs, along with any other butterfly flying through the area will be completely destroyed as will the birds such as the eagles, herons, etc.

Given the area's importance for maintaining health and breeding fitness of migratory and resident birds, USFWS and the California Department of Fish and Game (CDFG) are concerned that avifauna protected by the Migratory Bird Treaty Act (MBTA), the Swainson's Hawks, California Endangered Species Act, the Bald and Golden Eagle Protection Act and designated as fully protected under section 3511, Fish and Game Code may be impacted by the construction of solar power projects. Special status species at risk local Gila Woodpecker, Elf Owl, burrowing owls, and additional state designated bird and bat species of special concern and other BLM designated sensitive species.

Another consequence of the construction of more solar power projects in the area is air pollution. There are many complaints by the Mesa Verde Community residents that are suffering from bronchitis, asthma, and other respiratory illnesses that lead to Valley Fever. These illnesses are related to the dust storms caused by the leveling of the pristine desert. Solar sites have been proposed nearly surrounding the Mesa Verde Community. Likewise, the residents of San Joaquin Valley parallel to 1-5 north from Bakersfield to Fresno have been suffering from a grave Valley Fever epidemic. Close to a hundred inmates from the State Correctional facilities including Avalon, Corcoran, Coalinga and Delano have died from Valley Fever caused by the leveling of 410,000 acres. The land was supposed to be for proposed solar power projects and also to be farmed but was fallowed because of the lack of water. Fungus is carried by the dust of the fields that are fallowed. A lot of the sick prisoners have been brought to the Chuckawalla and Ironwood prisons in Eastern Riverside County.

The Blythe airport, which lies a couple miles from the proposed project, has been declared as a backup for the Los Angeles International Airport in case it is attacked. The Blythe airport will be available to provide safe landing. Currently the Blythe airport is also used as a training site for pilots. Fortunately no pilots have yet crashed flying above the FLP.

As we know, two professional pilots of the First Solar Company crashed and died when they were flying above the Desert Sunlight Solar project north of Desert Center. They were reviewing the damage that had been done by the summer monsoons on the solar project during 2013. The solar power projects create a dramatic atmospheric change. This is not just a threat to the planes but also to all flying birds, etc. These are facts that have been researched and documented at the Ivanpah Solar Power Project plus at the Israel Bright Source Power Projects sites in Israel. This is proof that the atmosphere cannot sustain an airplane above or near the solar sites and the Desert Quartzite project will be approx. 2 miles southwest of the airport landing strip.

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According to David Danelski article of July 14, 2014, the heat created from the solar power towers of the lvanpah plant creates up to 800 degree temperatures and now the company has trained dogs to retrieve birds that perish while flying above the solar power plant.

The lvanpah project is currently receiving a lot of negative comments pertaining to the pilots that fly to and from Las Vegas International Airport and Nellis Air Force Base and other airports in Southern Nevada. As a matter of fact the lvanpah Solar Project is brightly seen from the cosmos as seen by satellite photography.

In 1975, San Diego Gas and Electric proposed to construct the Sun Desert Nuclear Power Plant that was going to be built within the same area as the proposed solar project site. After five years of protest by citizens and members of Riverside County and Colorado River Tribes, they were able to stop the construction of this nuclear plant. Also the SDG&E had purchased the John Norton 10,000 acre ranch that was to provide water to the plant. California's Governor Jerry Brown, during his first term, established the California Atomic Energy Commission. Meetings were scheduled in Blythe, so the community could stay well informed of the pros and cons of the construction of the nuclear power plant that eventually became the first nuclear power plant to be stopped in the United States.

In 2001, Pacific Gas and Electric, proposed the construction of a natural gas power line called the North Baja Pipeline that was going to traverse through the base of the Mule Mountains that would eventually destroy some of the sacred sites that were within the area. In June, 2001, Native Americans from the Colorado River, Chumash, Chemehuevi, Mojave, Quechan, the EDAW Inc., representatives of the BLM of the El Centro, Yuma offices, archeological and anthropological consultants toured the area. After seeing the significance and the sacredness of the area, the Pacific Gas & Electric circumvented the sacred sites and placed the natural gas line over traversed routes. In appreciation to our tour, **Dr. James H. Cleland from the EDAW Inc.** sent the following recommendation to our organization: **"I would like to take this opportunity to wish you well in your future endeavors (1) to educate the public about the importance of cultural heritage** and **(2) to work within the context of environmental and historic preservation programs to protect these unique and non-renewable resources from unnecessary damage."** 

Climate change and global warming have dramatically impacted weather patterns and most importantly, the unpredictable weather causing wildfires throughout the southwest. Since our first letter of opposition to the first proposed Desert Quartzite Solar Project dated April 3, 2015, much has happened in terms of climate change with regards to droughts. California is experiencing its worst drought in years and has suffered the worst year of wild forest fires in the history of the United States. In the past year, the area of Blythe has been one of the hottest years of all time.

Let me be clear, we don't oppose solar power, but we do believe solar panels belong on previously disturbed land and in areas where the energy will be utilized, on rooftops in large metropolitan and urban areas, parking lot covers, and abandoned military bases. Energy could also be generated from ocean waves.

Also, it would eliminate the need for 225 mile long transmission lines that present major threats to stable energy already generated and transmitted throughout the area. The incident in Yuma, Arizona, on September 8, 2011 blacked out most of Imperial, San Diego Counties, and Mexicali, B. C., when thousands of homes miles away went dark due to human error conducted at one of the transmission plants. This is a good example of why we don't need long transmission lines. This creates a target for foreign hackers and attacks on the energy grid.

Former Agriculture Secretary Tom Vilsack called for the USDA and the U.S. Forest Service to work more closely with tribal governments in the protection, respectful interpretation and appropriate access to Indigenous Cultural sacred sites. Vilsack said, "American Indian and Alaska Native values and culture have spirit and deserve to be honored and respected. By honoring and protecting sacred sites on national forests and grasslands, we foster improved tribal 10-16

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## relationships and a better understanding of the Native people's deep reverence for natural resources and contributions to society."

During President Barack Obama's speech of January 28, 2014, he stated that "And while we are at it, I'll use my authority to protect more of our pristine federal lands for future generations." Also, 109 House Democratic members urged President Obama to protect National Monuments using the Antiquities Act.

We wholeheartedly support the cultural resources that are related to the Native American human Creation Story and support all the laws that have been approved to protect the sacred sites by the United States government and the United Nations plus the resolutions by the Colorado River Indians Tribes and the National Congress of American Indians.

We are opposing the construction of the Desert Quartzite Solar Power Project because of its gross violation to the following Indigenous, State, Federal and United Nations laws that support our demands and why this project should not be constructed within sacred areas:

- National Congress of American Indians: Resolution #LNK-12-036, opposing the Department of Interior Fast-Track Polices of Renewable Energy Projects on Ancestral Homelands, June 17, 2012.
- Inter-Tribal Council of Arizona: Resolution 2012, opposing the Department of Interior Fast-Track Polices of Renewable Energy Projects on Ancestral Homelands, June 29, 2012. The Resolution specifies that whereas over 40 proposed solar and wind renewable energy projects are to be undertaken within a 50-mile radius of the Colorado River Indian Tribes Reservation which puts tens of thousands of acres of land within the ancestral territory homelands of CRIT as well as other Yuma tribes, at further risk of destruction.
- Colorado River Indian Tribes Resolution and Letter to President Barack Obama: opposing the construction of Solar Power Projects within 50-miles from the CRIT Reservation boundary of February 27, 2012.
- United Nations Declaration on the Right of Indigenous People Resolution of 2007: was adopted by the General Assembly during the 107<sup>th</sup> plenary meeting and was signed by President Barack Obama on December 15, 2010.
- Native American Sacred Places, March 6, 2003(S.B. 18)
- Native American Sacred Lands Act, June 11, 2003 (H.R. 2419)
- The Sacred Land Protection Act, July 18, 2002 (H.R. 5155)
- The Native American Sacred Sites Protection Act, February 22, 2002 (S.B. 1828)
- Accommodations of Sacred Sites and Federal Land, Signed by President Bill Clinton on May 24, 1996 (Executive Order 13007) This focuses on specific sites and Indian religion.
- Native American Graves Protection & Repatriation Act of 1990
- Archeological Resources Protection Act of 1979
- American Indian Religious Freedom Act, August 11, 1978
- The Civil Right Act of 1968
- Antiquities Act of 1906

La Cuna de Aztlán Sacred Sites Protection Circle under the auspices of the Athapaskan Tribe from Alaska, Chief Gary Harrison has submitted a petition to the United Nations to intervene and stop the construction of the Blythe Solar and McCoy Solar projects and declare the McCoy Mountains

(Kokopilli/Cicimitl/El Tosco geoglyphs site), Big Maria Mountains (Blythe Giant Intaglios, large white eagle), Granite Mountain that includes Granite Peak (Tamoanchan) as a World Heritage Site under UNESCO.

We strongly urge that BLM consider the above information and disapprove this notorious solar power project

Sincerely,

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Alfredo Acosta Figueroa Elder/Historian/Chemehuevi Tribe Monitor Sacred Sites

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Patricia Robles President of La Cuna de Aztlan

**Protection Circle** 



#### Basin and Range Watch

November 6th, 2018

**To**: BUREAU OF LAND MANAGEMENT Palm Springs South Coast Field Office 1201 Bird Center Drive Palm Springs, CA 92262

Email sent to: blm\_ca\_desert\_quartzite\_solar\_project@blm.gov

#### Re: Comments on the Desert Quartzite Draft Environmental Impact Statement/Environmental Impact Report [DOI-BLM-CA-D060-2017-0002 CA State Clearinghouse No. 20150310660

On behalf of Basin and Range Watch and Western Watersheds Project and its members, we strongly oppose this large-scale solar project that would convert biodiverse Colorado Desert natural communities on public lands into industrial energy sprawl. More advanced and modern distributed renewable energy alternatives are viable and need equal analysis.

Basin and Range Watch is a 501(c)(3) non-profit working to conserve the deserts of Nevada and California and to educate the public about the diversity of life, culture, and history of the ecosystems and wild lands of the desert. Federal and many state agencies are seeking to open up millions of acres of unspoiled habitat and public land in our region to energy development. Our goal is to identify the problems of energy sprawl and find solutions that will preserve our natural ecosystems, open spaces, and quality of life for local communities. We support energy efficiency, better rooftop solar policy, and distributed generation/storage alternatives, as well as local, state and national planning for wise energy and land use following the principles of conservation biology. We have visited the site of the Desert Quartzite Solar Project.

Western Watersheds Project is a non-profit organization with more than 1,500members and supporters. Our mission is to protect and restore western watersheds and wildlife through

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education, public policy initiatives and legal advocacy. Western Watersheds Project and its staff and members use and enjoy the public lands and their wildlife, cultural and natural resources for health, recreational, scientific, spiritual, educational, aesthetic, and other purposes.

#### Background

We are submitting comments on this Draft Proposed Plan Amendment (PA) to the California Desert Conservation Area (CDCA) Plan and Environmental Impact Statement/Environmental Impact Report (Draft P A/EIS/EIR), which analyzes environmental impacts of the proposed Desert Quartzite Solar Project (DQSP) for the Bureau of Land Management (BLM) Palm Springs South Coast Field Office and the County of Riverside. The DQSP is proposed for a right-of-way (ROW) grant application number CACA- 049397 filed with the BLM by Desert Quartzite, LLC (the Applicant), a wholly-owned subsidiary of First Solar Development.

The Project would generate up to 450 megawatts (MW) using solar photovoltaic (PV) technology.

The total Project area under application for BLM and County approval is approximately 5,275 acres. BLM describes that the application for the BLM ROW grant includes approximately 5,115 acres of BLM administered lands, and the application for a County Conditional Use Permit includes 160 acres of private lands. Within this application area, the Applicant has proposed a Project that would occupy approximately 3,770 acres. This includes 3,560 acres for the portion of the solar facility on BLM land; 54 acres for the proposed 230 kilovolt (kV) transmission line on BLM land, 2 acres for the offsite portion of a buried telecommunications line and possible above-ground electrical service line on BLM land, and 154 acres for the portion of the solar facility on private land. The larger acreage under application allows for the BLM and the County to consider various site layouts as Project alternatives for their environmental analysis. We recommend BLM choose the most environmentally-friendly alternative that conserves the maximum resource values.

If approved, the final proposed ROW grant for the Project would be 3,616 acres of BLM land, and the County authorization for use of the private land would cover 154 acres. What would the additional ROW acreage be used for?

The project location lies in both the Riverside East Solar Energy Zone and a Development Focus Area designated by the Desert Renewable Energy Conservation Plan (DRECP). But the project history predates both of those plans. Because the project would have many significant environmental impacts, the Bureau of Land Management (BLM) can by-pass those plans for better conservation management in this region. Furthermore, the Desert Renewable Energy Conservation Plan only makes recommendations and the BLM is not required to follow the Development Focus recommendation for this region. One very major flaw of the DRECP in this region is to recommend that the sand transport corridor be left alone, yet simultaneously the DRECP designated Develop Focus Areas on most of this transport corridor.

Basin and Range Watch has the following comments on the subjects reviewed by the BLM Supplemental Environmental Impact Statement for the BLM and the Environmental Impact

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Review for Riverside County, California. Basin and Range Watch can only support a No Action Alternative.

#### **Proposed Project**

#### **Energy Storage**

According to the DIES, the project would include energy storage systems. No other description of energy storage is given. What is the type and design? How will storage facilities be cooled in the extreme summer heat? A detailed description of battery storage technologies and cooling strategies needs to be provided in the EIS.

#### **Concrete Batch Plant**

Will the project will be required to have a concrete batch plant for construction? While the goal of the project is to reduce GHG emissions, it should be noted that concrete is very CO2 intensive to produce. As much as 10 percent of global CO2 emissions come from the production of concrete. Utilizing solar energy through Distributed Generation as an alternative would eliminate much of this carbon footprint because much if that environment is already built.

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#### **Purpose and Need Statement and Alternatives**

The BLM Purpose and Need Statement cites Executive and Secretarial Orders that really are not required to be specific to this project and this plan does not fulfill all the requirements in the orders.

Equally, BLM has rejected more environmentally acceptable alternatives based on the idea that these alternatives do not meet the scope of the Purpose and Need Statement. BLM is only allowing a specific Purpose and Need that is narrow to the requests of the applicant, but this shows a biased towards a project. A superior Purpose and Need Statement would incorporate better and more responsible environmental protections. The BLM has intentionally left environmental conservation out of the Purpose and Need Statement and this eliminates many major concerns from stakeholders. A broader purpose and need statement can be written for this project that will consider the environmental concerns of many public land owners.

The following orders are cited in the Purpose and Need Statement. These are vague and do not necessarily apply to the project site.

• Executive Order 13783 (March 28, 2017) and Secretary's Order 3349 (March 29, 2017) establishes policy to promote clean and safe development of the energy resources within the United States.

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Nothing in this order states that the Desert Quartzite site must be developed. What does "safe" mean exactly? If safe is referring to environmentally responsible, that Desert Quartzite is too big and will not meet this goal.

• Executive Order 13807 (August 15, 2017) and Secretary's Order 3355 (August 31, 2017) established policy to prioritize infrastructure projects and streamline the environmental review process.

The Desert Quartzite Solar Project review did not follow the guidelines of Secretarial Order 3355. EO 3355 requires EIS documents to be only 150 pages and the review to be completed in one year. The Desert Quartzite EIS is over 1,000 pages and has been under NEPA review since 2015. How does this even fit into the Purpose and Need Statement? It is not useful.

 Section 211 of the Energy Policy Act of 2005 established a goal for the Department of the Interior to approve non-hydropower renewable energy projects on the public lands with at least 10,000 MWs of capacity by 2015. To achieve and exceed this goal, the BLM has now authorized over 17,000 MWs of non-hydropower renewable energy projects. The BLM continues to prioritize renewable energy development on public lands.

This order seems irrelevant for the Purpose and Need Statement. AS BLM notes, the goal has been met and exceeded. It seems unusual that the DEIS will not cite more updated orders concerning BLM land and renewable energy megawatts. But this appears to be a rivalry of politics here.

• Desert Quartzite is a covered project under Title 41 of Fixing America's Surface Transportation Act (FAST-41). FAST-41 established new coordination and oversight procedures for infrastructure projects being reviewed by Federal agencies. The intent of the act is to improve early coordination between government agencies, increase public transparency, and increase government accountability.

Even if the project qualifies for FAST-41, this is hardly a justification for approval under the Purpose and Need statement. If the goal is indeed to increase accountability, public transparency and provide early coordination, this is not in the relevant scope of the project review. This is more of newer administrative procedure that should not influence the outcome of the project.

• Riverside County goals are also listed in the Purpose and Need Statement: *To locate the Project in a manner that maximizes operational efficiencies, furthers the objectives of landscape-level smart-siting planning efforts, avoids Desert Wildlife Management Areas, Areas of Critical Environmental Concern and National Conservation Lands where feasible, and minimizes water use, new linear developments, and environmental impacts in general.*  11-14

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To minimize environmental impacts and land disturbance by, among other things, siting the facility on relatively flat, contiguous lands with high solar insolation, in close proximity to established utility corridors, existing transmission lines with available capacity to facilitate interconnection, and accessible roads. ;I;

To assist, to the greatest extent possible, with achieving greenhouse gas (GHG) reduction objectives, including the requirements under SB X1-2 to increase the state's Renewable Portfolio Standard (RPS) to 33 percent by 2020 and under SB 350 to increase the state's RPS to 50 percent by 2030.

The county should consider alternatives that utilize rooftop solar systems in the built environment, to minimize impacts with water use and linear developments.

All of these impacts can be avoided with a rooftop/built environment alternative. Rooftops will have a flat surface and the communities of Palm Springs, Palm Desert, Indio and Desert Hot Springs are all close to transmission infrastructure. A rooftop alternative will have even less greenhouse gas emissions due to the fact that there will not be a large construction carbon footprint and there will not be a long commute with fossil fuel vehicles to remote sites.

#### • Also justified in the Purpose and Need:

Greenhouse Gas Reduction: Rooftop/built environment alternatives would use less GHG due to being close to the point of use.

Proximity to Electrical Transmission Facilities: All local communities in the region are close to transmission infrastructure including Blythe, Indio, Palm Desert, Desert Hot Springs and Palm Springs. This can easily justify a distributed generation built environment alternative.

High Potential Solar Resource Area: This includes all the rooftops and parking lot structures in southern California, which could easily match public lands ecosystems as places to construct solar projects.

Proven and Available Solar PV Technology: The technology works better in the built environment due to a ten percent transmission loss from remote solar projects in the California Desert hundreds of miles from load centers.

#### • The Over-generation Problem in California Due to Utility-scale Solar Projects

The BLM can justify a No Action Alternative simply by examining the need by utilities for additional utility-scale solar projects on public lands. The BLM should also examine the feasibility and problems with a plan to integrate 350 megawatts of battery storage on site. The Draft Environmental Impact Statement should consider an alternative that utilizes degraded brownfields and distributed generation. Under the National Environmental Policy Act, agencies are required to consider alternatives outside of their jurisdiction. A no large-scale energy alternative can be justified with the California Energy Efficiency Strategic Plan (CEESP). This plan 11-15

already exists as California state law and it can be fully implemented now. This is a state plan that prioritizes implementing rooftop solar and energy efficiency prior to developing largescale, remote solar and wind projects. The Draft EIS should also include and analyze an alternative that maximizes wildlife protection by avoiding, minimizing, and fully mitigating all direct, indirect, and cumulative impacts to wildlife and wildlife habitat to at least a no-net loss standard.

How will BLM fully mitigate significant impacts when recent Interior directives order off-sire compensatory mitigation to be halted?

The Need for this project is questionable, as it adds a large cumulative impact to grid congestion in California. The state is currently experiencing a worsening glut of solar power at peak times on the transmission grid system, as measured by the California Independent System Operator. This has been shown as the Duck Curve, where renewable energy generation exceeds demand in the middle of the day, then causes the need to ramp up generation at the end of the day after the sun sets with inefficient natural gas peaker plants. At times, as much as 13,000 MW is needed in 3 hours in the evening hours, as solar projects go offline at night.

The National Renewable Energy Laboratory (NREL) examined the problem (Denholm et al. 2015, p. 8): "NREL has also examined higher renewable penetration scenarios in California using PLEXOS with a Western Interconnection database derived from the Western Electricity Coordinating Council (WECC) Transmission Expansion Policy Planning Committee (TEPPC), with additional modification based on the LTPP database (Brinkman et al. 2015). The NREL study examined cases where California achieves greater than 50% reduction in electric sector carbon dioxide emissions by 2030 with a variety of renewable energy technologies and flexibility assumptions, such as increased export limits and reduced minimum local generation requirements. Total annual curtailment estimates range from 0.2% (with a balanced portfolio in a more flexible grid) to almost 10% (with a high-solar portfolio in a less flexible grid)."

In other words, increased curtailment of solar projects (shutting them off during peak times) is likely under higher penetration of photovoltaics onto the California grid, despite storage options.

With increasing penetration of photovoltaic solar energy onto the grid, will instability problems be alleviated with battery storage?

Can an on-site battery storage project alleviate this problem? How many megawatt-hours of storage will these batteries provide?

Would the battery facility need to be cooled? How much energy would be required to do so?

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This is a hot desert with summer temperatures reaching 118 degrees F at times. How will this heat affect battery efficiency? Will air-conditioning be used to cool battery bank buildings? How much electricity for air-conditioning will be parasitized off the grid? Or will liquid-cooling containers be used for batteries? All eyes will be watching to track the efficiency loss of battery storage in hot desert lowlands, compared with coastal urban load center alternatives.

To conserve habitat, the BLM should consider a No Action Alternative based on local small-scale distributed battery technology in urban centers. Battery storage is making advances for smaller-scale solar energy and would not require such a large facility that would need cooling. Batteries will create a waste/recycling issue as well and the BLM should be asking if batteries will be recycled.

#### California's Renewable Energy Standards and Goal

California's RPS can be met in the built environment:

The California Public Utilities Commission (CPUC) is driving energy policy in California, and the **California Energy Efficiency Strategic Plan (CEESP)** is current regulatory policy dating back to 2007. California's utilities developed the CEESP cooperatively with the CPUC. The current version is available online

at: http://www.energy.ca.gov/ab758/documents/CAEnergyEfficiencyStrategicPlan\_Jan2011.pdf

• Competitive Processes, Terms and Conditions for Leasing Public Lands for Solar and Wind Energy Development

While this is for all public lands, it was really designed for Solar Energy Zones (Designated Leasing Areas) and similar designations. The Desert Quartzite Solar Project application predates the Western Solar Plan and there are no requirements for the BLM to approve a project based on these orders.

#### • California Desert Conservation Area Plan

The California Desert Conservation Area (CDCA) Plan has several guidelines that should be followed in the Purpose and Need. All land on the project site are Class M (Moderate Use) *is based upon a controlled balance between higher intensity use and protection of public lands.* This class provides for a wide variety or present and future uses such as mining, livestock grazing, recreation, energy, and utility development. Class M management is also designed to conserve desert resources and to mitigate damage to those resources which permitted uses may cause.

While energy is part of the Class M designation, it should not be the dominant use. In the case of the Desert Quartzite Solar Project, about 5 square miles of public land would be geoengineered to accommodate a large-scale energy project. No other Multiple Use activities

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would be permitted and it would be inconsistent with the Class M (Moderate Use designation) <i>under</i> the CDCA Plan.	11-24	
The Desert Quartzite Solar Project would conflict with 11 of the 12 Plan elements in the CDCA. Those would be: Cultural Resources, Native American Values, Wildlife, Vegetation, Wilderness, Wild Horses and Burros, Livestock Grazing, Recreation, Motorized-Vehicle Access, Geology- Energy, Minerals and Land Tenure Adjustment.		
The Desert Quartzite Solar Project fails to meet the following Decision Criteria for the Energy Productions and Utility Corridors Elements:		
(1) Minimize the number of separate rights-of-way by utilizing existing rights-of-way as a basis for planning corridors –		
An alternative that builds energy storage on an existing project in the region would minimize the need for a huge build-out that would impact resources.		
(2) Avoid sensitive resources wherever possible –		
This project will conflict with Cultural, hydrologic, visual, air quality and biological resources	11-26	
(3) Conform to local plans whenever possible –		
The project would be inconsistent with the conservation guidelines of the Northeast Colorado Resource Plan (NECO) and the California Desert Conservation Area (CDCA) Plan.		
(4) Consider wilderness values and be consistent with final wilderness recommendations		
A 5- square mile project would be visible form all adjacent wilderness and conservation areas. The project will absolutely degrade wilderness values.		
<ul> <li>Relationship of the Proposed Action to the Desert Renewable Energy Conservation Plan</li> </ul>	ב ר	
"Pursuant to Section II.3.2.4 of the DRECP LUPA, the DRECP does not apply to "[a] project that is proposed in a BLM SEZ and that is considered a 'pending project' under the Western Solar Plan (the project application was filed before June 30, 2009)." As discussed above, the initial project application was filed before June 30, 2009, the Project is located within a SEZ, and the amendments contemplated by the Desert Quartzite Solar PV proposal either do not affect the	11-27	

project boundaries (e.g., change in project developer) or are related to avoiding resource or land use conflicts or adapting the Project to third-party-owned infrastructure constraints. Therefore, the Desert Quartzite Solar PV proposal is being processed under the CDCA land use plan decisions in place prior to the adoption of the DRECP LUPA and Western Solar Plan. "

Since this project application predates both the Western Solar Plan and the DRECP, the BLM does not need to prioritize this project approval over the DRECP Development Focus or the Western Solar Plan.

We request that the Purpose and Need statement be rewritten to emphasize BLM's commitments to protect valuable resources. A solar project of this size cannot avoid impacts to important resources.

 The project is home to BLM Sensitive Species. The Mojave fringe-toed lizard, California leaf-nose bat and the Harwood's milkvetch are three BLM Sensitive Species that occur on the site. The BLM is required to protect BLM Sensitive Species as defined in BLM Manual 6840 (Special Status Species Management)

The objectives of the BLM sensitive species policy are twofold, as follows:

1. To conserve or recover species listed under the Endangered Species Act of 1973 (ESA; 16 USC, Section 1531 et seq.), as amended, and the ecosystems on which they depend so that ESA protections are no longer needed for these species

2. To initiate proactive conservation measures that reduce or eliminate threats to BLM sensitive species to minimize the likelihood of and need for listing of these species under the ESA

Resources on the site are also protected by the Archeological Resources Protection Act of 1979. This statute (16 U.S.C. 470aa-470mm; Public Law 96-95 and amendments to it) was enacted

"...to secure, for the present and future benefit of the American people, the protection of archaeological resources and sites which are on public lands and Indian lands, and to foster increased cooperation and exchange of information between governmental authorities, the professional archaeological community, and private individuals."

 The Migratory Bird Treaty Act of 1918 was an Establishment of a Federal prohibition, unless permitted by regulations, to "pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatever, receive for shipment, transportation or carriage, or export, at any time, or in any manner, any migratory bird, included in the terms of this Convention . . . for the protection of migratory birds . . . or any part, nest, or egg of any such bird." (16 U.S.C. 703) Numerous Neotropical songbirds and other migratory birds will be negatively impacted by this solar project. 11-28

- Land Use Plan/ The California Desert Conservation Area: The lands lie under the FLPMA approved California Desert Conservation Area. The region is designated as Class M which is designated for a "controlled balance between higher intensity use and protection." A variety of uses are listed in this class and the problem is that designating up to 6 square miles as a Right of Way for ONLY solar energy is inconsistent with Class M (Moderate Use) designation. The solar project would be more appropriate on lands with Class I (Intensive Use) designation that is "lands managed for concentrated use to meet human needs". We request that the Purpose and Need Statement for the DEIS analyze the above conservation policies. The statement now is biased towards approval of renewable energy which does not reflect the wishes of all of the involved stakeholders in this project.
- The Endangered Species Act protects species that would occur on the site including the Desert tortoise, Yuma clapper rail, Yellow billed cuckoo and Southwest willow flycatcher. Lake-effects of a large-scale solar project could attract these species to an artificial lake and wetland effect.
- California Endangered Species include Gila woodpecker, Yellow billed cuckoo, Elf owl and the state Threatened Swainson's hawk and Arizona bell's vireo. These species could be impacted by the solar project next to the Colorado River riparian habitats and microphyll woodlands.
- The **Bald and Golden Eagle Protection Act** protects both golden and bald eagles, both of which could fly over the project site.

#### Proposed Action, Alternatives and Environmental Consequences

Basin and Range Watch has reviewed the proposed action and all alternatives. We have concluded that the No Action Alternative is the most sensible for this project due to the great impacts it would cause. The continuing changes to this project and converting the high-value desert ecosystem to photovoltaic have not eliminated major conflicts involving hydrology, biological resources, cultural resources, visual resources, and air quality.

What will the photovoltaic panels be made from? Thin-film, Cadmium-Telluride? Crystalline silicon? Copper Indium Gallium Selenide?

It would be helpful to know this during the review process because the texture of the panels could be instrumental in attracting birds to the lake effect produced by solar panels.

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Impacts would be similar on all three action alternatives. While a smaller alternative would be environmentally superior, the Resource Avoidance Alternative (BLM's preferred alternative) would be 2,700 acres or 4.2 square miles, and the Reduced Project Alternative would still be 2,100 aces or 3.3 square miles. These are still significant acreages which would drastically alter the landscape and create unmitigable impacts.

The DEIS suggests that these two alternatives would use thin-film Cadmium-Telluride modules and that their output is greater than other PV technologies. Because of this, they would need to use few panels, fewer acres and leave more land undeveloped. But thin-film tends to be a more reflective technology. It could be possible for example, that using a less reflective solar panel would reduce avian mortality. Equally, thin-film solar is the most glaring PV technology out there and can have bigger visual impacts than other solar technologies. This needs much more research and analysis.



^ Reflective glare from thin-film panels on the Silver State South Solar Project near Primm, Nevada. This glare is not produced from silicone panels.

#### **Rejected Alternatives**

The BLM rejected the following alternatives:

 Private Lands Alternative: These were eliminated over feasibility and the Williamson Act, but the BLM did not look at private lands outside of the general region. Since these remotely sited projects export their energy sometimes over 100 miles, it does not matter if the alternative is in the local region. A short modification to the Purpose and Need Statement would make distant private lands alternative feasible to this review. 11-36

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The DEIS also states that "the EIS for the McCoy Solar Energy Project (MSEP), located just north of the DQSP on the other side of I-10, the Applicant for that project evaluated more than 195,000 acres of private land within 20 miles of the CRSS, and determined that only 68 individual parcels, comprising about 4,700 acres, were available for sale or lease".

So in other words, BLM has 4,700 acres of private lands in the local region to review as an alternative.

- 2. Brownfield Sites: "The USEPA tracks 480,000 contaminated sites for potential reuse for renewable energy development as part of its RE-Powering America's Lands Initiative. Of these sites, USEPA has identified 5,000 sites nationwide as potentially suitable for PV development". Again, these sites do not need to be in the local area for BLM to consider them as a viable alternative. Just modify the Purpose and Need Statement.
- 3. Alternative Construction Methods "The Applicant considered using construction methods that would reduce or eliminate the amount of grading and vegetation removal that would occur during site preparation. In general, some level of both grading and vegetation removal is needed due to safety and constructability issues." Other solar energy projects have mowed vegetation including Ivanpah Solar, California Valley Solar Ranch and the Pahrump Solar Project. The vegetation is growing back. This can be a viable alternative.
- 4. **Migratory Bird and Special Status Species Protection Alternative:** During scoping, the USFWS requested that an alternative designed to minimize impacts to migratory birds, as well as other special status species, be considered. As shown in Table 2-7, some of the features of these suggestions are already incorporated into either the Proposed Action or into the Resource Avoidance or Reduced Project Alternatives. Other suggested features are not technically or economically feasible. As a result, a specific Migratory Bird and Special Status Species Protection Alternative was not developed, but the features which are feasible are encompassed within the existing alternatives.

We feel it is unfortunate that BLM rejected this alternative. It is good that the Fish and Wildlife Service requested this. When asked to space the panels irregularly, BLM's response is simply that this would reduce output for the solar panels. It is not the responsibility of the BLM to compromise existing resources so that the output of a project can be greater. The BLM should not be compromising regulations for the financial security of a solar developer. That indicates a bias towards the developer and ignores the concerns of all stakeholders. BLM also rejects underground gen-tie lines to pander to the financial concerns of the developer. BLM rejects requests to eliminate construction ponds but offers no solution to put nets over the ponds. 11-39

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**5.** Distributed Generation: This alternative was rejected for the following reasons: "Would not meet BLM's purpose and need to respond to an application for a solar PV facility on public lands." Change the Purpose and Need! "Would not meet BLM's renewable energy goals, as there are limited, if any, disturbed public lands where BLM might colocate a distributed generation project of equivalent size." BLM is required to consider alternatives outside of their jurisdiction under NEPA.

BLM states, "To be a viable alternative to the DQSP, there would have to be sufficient newly installed solar panels to generate 450 MW of capacity. The rate of PV manufacturing and installation is expected to continue to grow and larger distributed solar PV installations are becoming more common. California has approximately 40 million square feet (approximately 920 acres) of distributed solar. An additional approximately 90 million square feet (approximately 2,100 acres) would be required to provide 450 MW. In addition to planning and permitting barriers, replacing the action alternatives with a DG solar energy alternative would be speculative based on existing limitations on the integration of DG into the electric grid. The present electric grid, built decades ago, was based on a centralized generation approach and was not designed to handle high levels of distributed renewable energy systems"

Rejecting the DG alternative based on this justification is completely outdated due to the recent California state law passed by the legislature and signed into law by Governor Brown that mandates all residential homes constructed after 2020 be fitted with rooftops solar systems. The EIS should add a supplement in order to take this new information in:

# Solar required for new California homes starting in 2020, first-ever U.S. state mandate

BY TONY BIZJAK <u>tbizjak@sacbee.com</u>

Read more here: https://www.sacbee.com/latest-news/article210793889.html#storylink=cpy

May 09, 2018 01:11 PM Updated May 09, 2018 02:07 PM

California became the first state in the country Wednesday to require that new homes have solar panels on their roofs.

The mandate, which takes effect in 2020, won unanimous approval of the California Energy Commission. One commissioner predicted the "green" lifestyle regulation will eventually go national.

"We are the first, we will not be the last," said commissioner David Hochschild. "This is a landmark vote today."

Commissioner Andrew McAllister said the roof-top solar mandate isn't a "radical departure," but instead "one piece of an overall policy sweep that California has to reduce greenhouse gas emissions" and make new homes more energy efficient.

McAllister said he believed the solar industry is now mature enough and ready for the mandate. ...

https://www.sacbee.com/latest-news/article210793889.html

#### **Alternatives BLM Should Add**

#### 1. No Project Alternative that Designates the Entire Right of Way Solar Energy Free

The California BLM has considered this alternative for many large-scale renewable energy projects that have been reviewed in the last 10 years. This can be considered an Action Alternative because it maintains the Class M (Moderate Use Designation).

#### 2. Energy storage on Existing Project Site Alternative

Because of the over-generation problem, many projects have added a storage element to make their projects viable for times when there is peak demand. As it stands now, none of the existing renewable energy projects have this storage element. Why not consider that if storage were added to Genesis, Blythe, McCoy, Desert Sunlight, and Palen would there even be a need for these newer projects that have storage elements?

These new alternatives would also fulfill some of the CEQA requirements:

"CEQA requires analysis of a reasonable range of alternatives to the proposed Project to foster informed decision making and public participation (14 CCR § 15126.6(a)) and the identification of an environmentally superior alternative. If the environmentally superior alternative is the "no 11-43

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project" alternative, the EIR must also identify an environmentally superior alternative among the other alternatives (state CEQA Guidelines § 15126.6(e)).

The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision making."

#### Affected Environment/Environmental Consequences:

Water

The Applicant estimates that the 25-month construction timeframe would require a total of approximately 1,400 AF of water, or 700 AFY, and that a 48-month construction timeframe would require approximately 1,800 AF of water, or 450 AFY.

The Applicant estimates that operations would require up to 38 AFY, including 18 AFY for panel washing, and 20 AFY for other combined purposes.

The Applicant plans to obtain water for construction from newly installed onsite wells. However, testing has not been done to verify if this is feasible. If onsite production is not feasible, then water would be transported to the site by truck. This PA/EIS/EIR analyzes the impacts of both options.

At 2-11: If onsite groundwater is used, as proposed, a well to support construction, operations, and decommissioning would be installed west of the O&M Building, and water would be piped through a water line to the above-ground storage tank. Water trucks would be filled at the aboveground tank, and would transport water for use at active construction locations. A second, temporary well, to be used only during construction, may be installed either along the southwest perimeter of the facility, or along the southeast perimeter.

This is deferring groundwater well analysis to a later time after public comment. How does this impact the Colorado River groundwater accounting level?

An off-site water supply may be required as a temporary water source before a water supply well can be installed, or may be needed throughout the duration of construction if onsite production is not feasible. In the scenario where no well is installed and all water is delivered by truck, there would be an estimated 57,000 truck trips required for water delivery during construction. The source of this water would be the Palo Verde Irrigation District (PVID), which obtains water obtains water from the Colorado River through Priority 1 and Priority 3 rights

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pursuant to a 1933 Water Delivery contract with the United States.

What is the Carbon footprint and green-house gas emissions of these 57,000 truck trips? What is the impact on the contentious Colorado River water extraction. Water is becoming an evermore controversial problem in California, and between states. What is the exact use of this water? Panel washing does not need 18 afy according to other solar projects. Desert Sunlight Solar farm is required to use "no water" for thin-film panel washing. Other projects use no more than 5 afy. Why does this project require so much water for panel washing?

Where will areas of vegetation be left in place? Large areas of the ROW would not be occupied by the solar field or O & M buildings—will native vegetation be kept here?

The use of soil stabilizers would minimize the need to use water to control dust in those areas. What specific brands of soil stabilizers would be used, and what are the impacts of these fossil fuel derivatives on adjacent native vegetation and wildlife?

The Applicant plans to obtain water for construction from newly installed onsite wells. However, testing has not been done to verify if this is feasible.

#### **Eolian Sand Transport**

The DEIS at 3.13-2 describes how the entire ROW could be a sand transport corridor: "Pliocene, Pleistocene, and Holocene alluvium and dune sand overlays the older bedrock throughout the Project site." Building a solar field with associated chainlink fences, buildings, tortoise exclusion fences, and other facilities will block sand as prevailing winds move these eolian deposits around. The most recent Holocene sands are said to come from the west at Ford Dry Lake.

All fencing would be seven feet high, chain-link or wire fence and the upper one foot may be barbed wire. Where required, the base of the fence may include tortoise exclusionary fencing.

Since there is a regional sand transport system that moves through Chuckwalla Valley to the east, we are not clear how placing a large fenced solar project in the middle of a narrow chokepoint between two mountain ranges will not cause huge problems for the project—dealing with piling sand, and for biological resources.

#### **Biological Resources**

#### **Desert Tortoise**

The DEIS at 2-11, says: "Prior to mobilizing heavy equipment, the construction work area would be fenced with tortoise exclusionary fencing. The exclusionary fence may be temporary in nature, or may be installed at the base of the perimeter security fence. Whether the tortoise exclusionary fence is temporary or long-term in nature, it will be designed and installed to match specifications contained in the USFWS (2009) guidelines." 11-50

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This needs to be determined now, not after ROW granting and project approval.

The federally Threatened desert tortoise is declining range-wide, and this project—so close to Critical Habitat—is another cumulative impact to the species. We are considering petitioning to uplist the Mojave desert tortoise or populations because of these ongoing and unmitigated impacts.

#### Mojave Fringe-toed Lizard

Mojave fringe-toed lizards have patchy distribution and are vulnerable to local extirpations from habitat disturbance and fragmentation. They are sand transport corridor obligates that depend on fragile ecosystems requiring protection against both direct and indirect disturbance. The DEIS fails to the evaluate the relative significance of Project impacts to the local and regional (i.e., Chuckwalla Valley) Mojave fringe-toed lizard populations. Mojave fringe-toed lizard populations are believed to be decreasing.<sup>1</sup>

#### **Vegetation and Plants**

At 2-24, the DEIS says: The Plan would include identification of special-status plant species that could be impacted by Project activities; any required mitigation for special-status plants; and proposed methods for revegetation of temporarily disturbed areas with native species. The Applicant has conducted focused surveys for special status plant species, and the results of those surveys have been used to develop Project alternatives that would avoid, to the maximum extent practicable, impacts to special status plant species.

The California Native Plant Society has recommended that special status and rare plants be avoided, as seed collection, re-seeding, or transplanting these species has failed to mitigate or replace native plant populations, or prevent local extirpations of rare species.

#### **Deferred Mitigation Plans**

An above-average number of mitigation plans are deferred to a later date, to be written or determined at a time after public comment or project approval. This unacceptable to delay analyzing so many mitigation plans about sensitive species and resources. Plans such as these have in the recent past been developed in full public view early in the NEPA process. Now these significant plans are deferred until late without public review. These should be developed now.

• A Bird and Bat Conservation Strategy (BBCS) would be developed to describe measures to protect sensitive bird species.

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<sup>&</sup>lt;sup>1</sup> Cablk ME, JS Heaton. 2002 Nov. Mojave Fringe-Toed Lizard surveys at the Marine Corps Air Ground Combat Center at Twentynine Palms, California and nearby lands administered by the Bureau of Land Management. California: Marine Corps Air Ground Combat Center. Report M67399-00-C-0005. 115 p. *See also* Jennings MR, MP Hayes. 1994. Amphibian and reptile species of special concern in California. Rancho Cordova, CA: California Dept. of Fish and Game, Inland Fisheries Division, p. 94.

- Unavoidable impacts to burrowing owls would be mitigated in consultation with CDFW, and in compliance with the latest CDFW and California Burrowing Owl Consortium guidelines. Burrowing owls continue to decline throughout much of their range despite attempts by the CDFW to offset the loss of habitat and slow or reverse further decline of the species. BLM must thoroughly analyze the effects of passive relocation if it may be implemented at the Project site.
- Mojave Desert Tortoise Mitigation Plan.
- Raven Management Plan.
- Desert Kit Fox and Badger Management Plan. A system should be in place to pay for a kit fox monitoring plan to make sure another outbreak of canine distemper will not happen, as occurred at Genesis Solar Energy Project.
- VRMP, which would include components for habitat restoration and site revegetation (at 2-26)
- Also deferred until after the public review process, the Applicant has also developed a
  preliminary summary of a Stormwater Pollution Prevention Plan (or SWPPP), "which
  would be developed and implemented prior to Project construction. The SWPPP would
  describe BMPs to be used for stormwater management and erosion control. The
  Applicant would use facility design, site preparation and stormwater control techniques
  to protect the facility from potential flood damage, avoid modifying upstream or
  downstream drainage flow rates, and avoid the potential for stormwater pollution
  through erosion. These techniques would be designed to encourage sheet flow across
  the Project site." (DEIS at 2-18). This is yet again, another deferred plan which could be
  very important for how flood control berms and channels are designed. The public needs to
  be able to comment on these, especially in these flood-prone summer monsoon areas of
  southeastern California. The Genesis Solar Energy Project had major damage near Ford Dry
  Lake from large storm runoff. Debris left the ROW and impacted adjacent desert
  ecosystems. What are the applicant's plans for this type of scenario?

This is yet again, another deferred plan which could be very important for how flood control berms and channels are designed. The public needs to be able to comment on these, especially in these flood-prone summer monsoon areas of southeastern California. The Genesis Solar Energy Project had major damage near Ford Dry Lake from large storm runoff. Debris left the ROW and impacted adjacent desert ecosystems. What are the applicant's plans for this type of scenario?

#### **Discrepancies in Biological Resource Surveys and the DEIS**

 The species list (Appendix B) in the bio report (Appendix M) lists Palm Springs roundtailed ground squirrel (BLM Sensitive and CA Species of Special Concern) and southern grasshopper mouse (CA Species of Special Concern). Page 3.4-1 of the DEIS acknowledges these species were detected during small mammal trapping. However, neither species is included in Table 3.4-1 (Special-Status Wildlife Species Evaluated for Potential Occurrence within the Study Area).

2. O w	ther ere r	species that were detected during surveys (see pdf page 186 of Appendix M), but not included in DEIS Table 3.4-1:	
	a.	Merlin (CDFW Watch List)	
	b.	Mountain plover (BLM Sensitive, CA Species of Special Concern)	
	C.	Sandhill Crane – The survey report does not identify the subspecies that was detected. Subspecies <i>canadensis</i> is a CA Species of Special Concern. Subspecies <i>tabida</i> is state Threatened, Fully Protected, and BLM Sensitive.	
	d.	Willow flycatcher (State Endangered).	
	e.	Yellow-headed blackbird (CA Species of Special Concern)	11-55
	f.	American white pelican (CA Species of Special Concern)	
	g.	White-faced ibis (CDFW Watch List)	
	h.	Prairie falcon (CDFW Watch List and Bird of Conservation Concern)	
	i.	Short-eared owl (CA Species of Special Concern)	
The Preli these spe incorrect flycatche provide e predictin	mina ecies . For r, wh evide g imp	ry Biological Reconnaissance Assessment provides the potential for occurrence of (see pdf page 244 of Appendix M). Many of these predictions proved to be rexample, they predicted "absent" for mountain plover and "low" for willow nich were subsequently detected at the site. Not a big deal unless you want to nce that the potential for occurrence predictions in the DEIS are not reliable for pacts.	
3. Pa du O. co lo pu re if us pu si	age 3 etect .0035 ondu w de robal efere the o sed t rojec er ac te."	8.4-14: "In March and April 2013, a total of 17 black-tailed jackrabbits were red across the 4,855 acre Project site, equating to an estimate of approximately 5 black-tailed jack rabbits/acre. A total count of cottontail rabbits was not cted, therefore, a density estimate cannot be established for the species." This ensity seems impossible. Nevertheless, the density estimate does not account for bility of detection. Furthermore, the density estimate is meaningless with nce information. For example, 0.0035 black-tailed jack rabbits/acre could be high density at reference sites is 0.000001. Therefore, the density estimate cannot be o support the conclusion on page 4.4-9: "Due to lack of active nests near the t and low observed prey densities on the site (i.e., 0.0035 black-tailed jackrabbits re), golden eagles are expected to forage infrequently within the Alternative 1	11-56
4. Tl tł	his st ne po	atement on p. 3.4-15 supports our statement that the Project's location heightens tential for bird strikes: "Not only does the Study Area provide nesting habitat for	11-57

species of migratory birds and raptors, it is located along a major migration corridor (i.e., the Pacific Flyway, which runs from Alaska to Patagonia and stretches inland from the Pacific Ocean to encompass parts of Montana, Wyoming, Colorado and New Mexico). The Study Area's proximity to the Colorado River increases the likelihood of migratory birds stopping over."

5. Page 3.4-21 states: "The DRECP identifies wildlife corridors and linkages for use in evaluating the application of CMAs for the protection of biological resources. Figure D-1 of the DRECP identifies a desert linkage network for landscape wildlife linkages, Figure D-2 identifies multi-species linkages and ACEC boundaries within the East Riverside DFA, and Figure D-16 identifies Tortoise Conservation Areas and Linkages. The Project area is not situated within any of these linkages." This is misleading because the DEIS fails to disclose the fact that the Project would block a linkage "where maintenance or restoration of ecological connectivity is essential for conserving the unique biological diversity of California's deserts" (Figure 1).<sup>2</sup>



Author: gues Printed from http://bios.dfg.ca.gov

 <sup>&</sup>lt;sup>2</sup> California Department of Fish and Wildlife. 2016. Linkage Design for the California Desert Linkage Network
 [ds822]. Calif. Dept. of Fish and Wildlife. Biogeographic Information and Observation System (BIOS). Retrieved Nov 11, 2016 from <a href="https://www.wildlife.ca.gov/Data/BIOS">https://www.wildlife.ca.gov/Data/BIOS</a>>.

#### Figure 1. Linkage that overlaps the Project site.<sup>3</sup>

- 6. Page 4.3-22 states: "It is expected that some residual adverse effects would remain after mitigation measures have been applied, including net losses in waters of the state and vegetation resources." Thus, the proposed mitigation is insufficient to reduce direct, indirect, and cumulative impacts to less than significant levels. Whereas residual impacts may be unavoidable for some resources, there is no excuse for residual impacts that result in "net losses of waters of the state" because the lead agencies could require a higher compensation ratio that prevent net losses of water of the state.
- 7. Page 4.4-22: "Due to approximately 90,000 acres of existing suitable forage land on irrigated agricultural land within the Palo Verde Valley east of Alternatives 1, 2, or 3, and the distance of the alternatives from the Colorado River, it is assumed that migratory birds would only incidentally use the Alternative 1, 2, or 3 Project areas for forage land, and that these lands are of lesser value and importance for migratory bird foraging compared to lands closer to the River." This conclusion is not supported by substantial evidence, and it conflicts with the results of the bird surveys, which show numerous migratory birds use the Project site. The DEIS for Palo Verde Mesa Solar made the same argument.

The assumption that birds would only "incidentally" (i.e., by chance only) use the Project site due to its distance from the Colorado River is unjustified and not supported by evidence. Moreover, it conflicts with the BBCS's statement that: "[b]ased on migratory bird data collected from adjacent projects and data collected during the habitat assessment (POWER 2011), it was determined that the agricultural land within the Project site may be used as foraging habitat by raptors or waterfowl that are using the Colorado River."<sup>4</sup>

Most bird species migrate on a broad front, rather than an exact course set by specific geographic or ecological boundaries.<sup>5</sup> Distinct features in the landscape, such as the Lower Colorado River, provide birds with a landscape reference for orientation.<sup>6</sup> However, birds that follow the Lower Colorado River corridor are not confined to the river itself. Migrating birds in need of refueling resources are opportunistic, finding and using small, disjunct patches as well as larger more continuous patches. Even species that are generally restricted to waterbodies will use isolated oases (e.g., ponds) away from river. Indeed, Skagen et al. (1998) determined

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<sup>&</sup>lt;sup>3</sup> Ibid.

<sup>&</sup>lt;sup>4</sup> BBCS, p. 17.

<sup>&</sup>lt;sup>5</sup> Lincoln FC, SR Peterson, JL Zimmerman. 1998. Migration of birds. U.S. Department of the Interior, U.S. Fish and Wildlife Service, Washington, D.C. Circular 16. 113pp. Available at:

<sup>&</sup>lt;http://nctc.fws.gov/Circulars/Mig\_of\_Birds\_16\_98.pdf>.

<sup>&</sup>lt;sup>6</sup> Ibid.

that small, isolated riparian oases in southeastern Arizona hosted more avian species than the riparian corridor sites, and that the relative abundances of most migrating birds did not differ between sites relative to size-connectivity.

Similarly, the presence of suitable forage land east of the Project site cannot be used to justify the assumption that migratory bird use of the Project site would be incidental. Habitat selection by migrating birds is species-specific, and depends on a number of intrinsic and extrinsic factors.<sup>7</sup> Intrinsic factors include things such as the amount of food or predator protection provided by the habitat. Extrinsic factors include things such as habitat accessibility and weather patterns.

There are approximately 314 acres of citrus orchards within the solar facility site and 82 acres within the gen-tie line corridor.<sup>8</sup> Wells et al. (1979) compared avian use of citrus orchards against three different types of riparian communities (e.g., cottonwood-willow, honey mesquite, and salt cedar). The citrus orchards were located within a 10-mile radius of Blythe, and the riparian communities were located in the Colorado River Valley.<sup>9</sup> The study examined avian use of the sites across all seasons between the winter of 1975 and the summer of 1977. Citrus orchards ranked highest in avian density during both summers (1976 and 1977), and they ranked higher than at least one of the riparian communities during five of other six seasons studied. Some species were attracted to the citrus orchards because they provided dense shade. In addition, the citrus orchards were particularly attractive to granivores "undoubtedly due to grasses and forbs which often grow as a result of regular flood irrigations."<sup>10</sup> The solar fields associated with the Project will provide dense shade, and they will presumably contain grasses and forbs due to panel washing. Ultimately, some bird species will select the agricultural fields east of the Project site; however, others will undoubtedly prefer the conditions at the Project site. Indeed, biologists monitoring existing solar facilities in California have noticed the tendency of some species to congregate under solar panels due to the shade that is provided.

8. Page 4.4-23: "Various special-status mammal species, including several bat species, as well as the American badger and desert kit fox, might be impacted by the Project. However, no bat roosts were documented within the Project footprint, and direct take of the badger and kit fox would be avoided to the extent feasible through passive relocation. While habitats for these species would be lost, the displaced individuals would be able to utilize adjacent habitats. These species are present throughout the

<sup>&</sup>lt;sup>7</sup> Hutto RL. 1985. Habitat Selection by Nonbreeding, Migratory Land Birds. Chapter 16 In: Cody ML (ed.). Habitat Selection in Birds. Academic Press, Orlando, Fla.

<sup>&</sup>lt;sup>8</sup> DEIR, Tables 3.4-1 and -2.

 <sup>&</sup>lt;sup>9</sup> Wells D, BW Anderson, RD Ohmart. 1979. Comparitive Avian Use of Southwestern Citrus Orchards and Riparian Communities. Journal of the Arizona-Nevada Academy of Science 14(2):53-58.
 <sup>10</sup> Ibid.

region. Therefore, the Project would not cause these species populations to drop below self-sustaining levels." These statements are not supported by evidence. Indeed:

- a. The cumulative impacts map shows that there is not going to be a lot of "adjacent habitats" for the species that are displaced from the Project site. Furthermore, even if there are "adjacent habitats," those habitats may not be of sufficient size or quality to prevent the population from dropping below selfsustaining levels. The DEIS fails to provide any evidence that species displaced from the Project site could use "adjacent habitats," nor does it provide any analysis to justify the conclusion that those "adjacent habitats" would be sufficient to prevent populations from dropping below self-sustaining levels.
- b. We know for a fact that not all of the special-status mammal species "are present throughout the region." For example, the DEIS (pp. 3.4-20 and -21) acknowledges the limited number of known roosts occupied by CA leaf-nosed bat and cave myotis. This includes: "the largest winter colony of California leaf-nosed bats (*Macrotus californicus*) in the United States, as well as a maternity colony. It is also one of four maternity colonies for the cave myotis (*Myotis velifer*) in California." (p. 3.4-21). Both of these species are threatened by the loss of foraging habitat near roost sites.
- 9. Table 4.4-5 indicates 12,911 acres of MFTL habitat in the cumulative impacts study area. The DEIS fails to identify how this number was calculated, nor does it provide evidence that that much habitat exists. In addition, the table indicates 228 acres of impacts to MFTL from present and future projects. Neither number is consistent with the McCoy DEIS (note, they changed the numbers in the McCoy FEIS, although there was no valid scientific reason for those changes). This is what I wrote in my McCoy DEIS comments:

The DEIS indicates there are approximately 1,098 acres of occupied Mojave fringe-toed lizard habitat within the Chuckwalla Valley and Palo Verde Valley, of which approximately 655 acres (59.7 percent) occurs in areas where future projects are proposed.<sup>11</sup> The BLM subsequently concludes the mitigation measures proposed in the DEIS would provide suitable compensatory habitat for habitat losses.<sup>12</sup> The BLM cannot make this conclusion. My conclusion is based on the following rationale:

- a. Future projects would eliminate 655 acres of the 1,098 acres of the occupied Mojave fringe-toed lizard habitat within the Chuckwalla Valley and Palo Verde Valley. This leaves 443 acres.
- b. The core mitigation measure proposed in the DEIS is habitat compensation at a 3:1 ratio. One can assume all other projects that impact Mojave fringe-toed lizard habitat will also have to provide compensation at a 3:1 ratio.

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<sup>&</sup>lt;sup>11</sup> *Ibid,* p. 4.4-24.

<sup>&</sup>lt;sup>12</sup> Ibid.

c. At a 3:1 ratio, the projects would cumulatively have to provide 1,965 acres of compensation habitat. This will be impossible given only 443 acres of occupied Mojave fringe-toed lizard habitat will remain. Cumulatively, the projects would not even be able to accomplish compensation at a 1:1 ratio (which would require 655 acres).

The Mojave fringe-toed lizard exhibits a metapopulation structure. Definition of the term "metapopulation" has been subject to debate since it was first coined in 1969, but for the purposes of conservation and management a working definition is a population that has a spatially discrete distribution, and for which at least one or more local populations has a non-trivial probability of extinction.<sup>13</sup>

The fate of plant and animal metapopulations depends on three things: the persistence of local populations, the success of emigration and immigration, and movements in and out of the metapopulation as a whole.<sup>14</sup> A key element in each is the dispersal of individuals, both within and among patches of habitat.<sup>15</sup> Dispersal is thus a key determinant in the fate of a metapopulation, and ultimately the entire population.<sup>16</sup>

The analysis and mitigation presented in the DEIS fails to address the importance of metapopulation dynamics in maintaining a viable Mojave fringe-toed lizard population. As the DEIS acknowledges, many local populations of this species are quite small, and the fragmented pattern of distribution leaves the species vulnerable to local extirpations from additional habitat disturbance and fragmentation. Simulation models demonstrate clearly that populations in interconnected patches have a greater survival probability (i.e., persistence) than those in isolated patches and, moreover, that survival probability in connected patches increases with the degree of clustering among patches and with corridor quality.<sup>17</sup> Based on this knowledge, and knowledge of other factors (e.g., deterministic and stochastic factors) that affect the persistence of small populations, we believe that the Mojave fringe-toed lizard population in the Chuckwalla Valley and Palo Verde Valleys will not persist if there is a 59.7 percent loss of habitat.

#### **Avian Impacts/Polarized Glare**

This has been a big problem for the renewable energy projects located in the Chuckwalla Valley. Two of the solar projects in particular, Desert Sunlight and Genesis have reported high numbers 11-66

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<sup>&</sup>lt;sup>13</sup> McCullough DR. 1996. Introduction. Pages 1-10 in DR McCullough, editor. Metapopulations and Wildlife Conservation. Island Press, Washington (DC).

<sup>&</sup>lt;sup>14</sup> Wiens JA. 1996. Wildlife in Patchy Environments: Metapopulations, Mosiacs, and Management. Pages 53-84 in DR McCullough, editor. Metapopulations and Wildlife Conservation. Island Press, Washington (DC).

 <sup>&</sup>lt;sup>15</sup> Lidicker WZ Jr, WD Koenig. 1996. Responses of Terrestrial Vertebrates to Habitat Edges and Corridors. Pages 85-109 in DR McCullough, editor. Metapopulations and Wildlife Conservation. Island Press, Washington (DC).
 <sup>16</sup> Ibid.

<sup>&</sup>lt;sup>17</sup> Wiens JA. 1996. Wildlife in Patchy Environments: Metapopulations, Mosiacs, and Management. Pages 53-84 in DR McCullough, editor. Metapopulations and Wildlife Conservation. Island Press, Washington (DC).

of avian mortality. In fact, Wally Erickson of West Biological Consulting made a presentation at the Technical Symposium on Avian-Solar Interactions called Regional Observations and Trends in Avian Monitoring and Mortality. In the presentation, he said that the Desert Sunlight Project has reported some of the larger avian mortality numbers.

Both the Desert Sunlight and Genesis Project have reported a diversity of birds that have become avian mortalities and many of the birds were detected to have collision injuries. The Palen Solar Project would be located in between the two in the Chuckwalla Valley.

The Solar Industry and some agency representatives have suggested that many of the birds would have died in these locations even if no solar project had been built there. But the Bureau of Land Management conducted a study on this subject and it was presented at the Technical Symposium.

Amy Fesnock of BLM gave a very interesting talk on her background avian mortality study. BLM decided to piggy-back avian mortality surveys onto desert tortoise line distance sampling, which has a long history of annually counting tortoises for recovery estimates, across the desert in a rigorous scientific fashion.

Fesnock came up with a brilliant way to have surveyors also look for any dead birds along these transects, to estimate background avian mortality in more natural areas of the desert, not disturbed by solar development.

Surveyors were trained to find carcasses placed out in the desert, and 97% of detections were within 10 meters of the line. So 10 meters was used as the effective sampling width.

Carcasses were placed out on desert sites to see how long they lasted. USGS Mathematician Manuela Husto applied statistical sampling techniques to the data and applied detection curves for large, medium, and small birds, and was able to estimate when carcasses would no longer be observable.

453 transects were walked by biologists from March to May in 2015, in the Fremont-Kramer Area of Critical Environmental Concern (ACEC), Superior-Cronese ACEC, Ord-Rodman ACEC, Joshua Tree National Park, the Pinto Mountains, Chuckwalla ACEC, and Chocolate Mountains. So these surveys covered a huge swath of the California Desert with intensive surveys walking the ground searching the ground. Surveyors covered 37 square miles of relatively natural desert.

In all this survey effort, only 6 avian mortalities were found: one adult red-tailed hawk, apparently killed by a great-horned owl as it lay below an owl nest; one juvenile red-tailed hawk; one rock wren that was apparently predated by a loggerhead shrike, as it was preserved on a shrike perch impaled on a cactus; and three feather spots of unknown species.

This is far less than the avian mortality rate on solar projects. Some solar companies have implied that their bird mortality rate is not much greater than the natural background mortality rate in the desert, as before a project broke ground. But Fesnock's study refutes this strongly.

The desert background mortality rate determined from line distance sampling in 2015 was 0.024 birds/acre/year. This could be broken down further to 0.004 large birds/acre/year, 0.0026 medium-sized birds/acre/year, and 0.0214 small birds/acre/year.

But on three unnamed solar projects, Fesnock explained that the avian mortality rate increased to 1.7 birds/acre/year, 0.4 birds/acre/year, and 0.6 birds/acre/year.

Fesnock concluded, "When compared to mortality rates from solar projects, background mortality does not appear to be a significant factor and could easily be accounted in the sampling design error rates."

#### Accuracy of Reporting on Biological Monitoring

While we believe that the biologists hired to survey these projects are highly qualified individuals, we question the accuracy of the reporting because we have been told some biologists have lost jobs over reporting information. Interestingly, this was backed up at the last Desert Tortoise Council Symposium in 2016. Kathryn Simon of Ironwood Consulting told everybody that the politics of management from the solar companies often get in the way of accurate reporting. In the Symposium Abstracts, she reported "the political backing that supports energy development in the western part of the country has also resulted in the neglect or abuse of natural resources. While a great deal of effort is placed on properly siting and permitting a project, little or no oversight happens once the project enters construction and continues into operations and maintenance. This has led to a "power vacuum," often filled by the project proponent's "environmental" staff who often ensure the least amount of information leaves the project and is reported to wildlife agencies and the public. Specific examples of such behavior are provided and suggestions made for biologists on the ground in achieving their goals of proper monitoring oversight."

Are we getting the entire story?

#### **Focused vs. Incidental Surveys**

The mortality numbers reported on the Genesis Solar Project to the east were much higher when the mortality finds were incidental (workers randomly finding bird mortality). Now that surveys are focused, the numbers appear to be about half of what they were. This raises the questions: Is mitigation working? And are mortalities not being reported?

#### The Numbers and Alarming Lack of Mitigation Ideas

For photovoltaic projects, avian mortality is caused by collision and possibly dehydration as birds are unable to fly away. A study on 7 California large-scale solar projects found that from 2012 to 2016, 3545 mortalities from 183 species were detected. 11-68

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A diversity of species have been found including many water birds such as grebes, pelicans, ducks, coots and gulls to name a few. Special Status and Endangered Species include Yellow- billed Cuckoo, Yuma's Ridgeway (clapper) rail and Willow flycatcher. The impacts of large-scale solar projects and collisions in the desert to federally listed species have not been fully analyzed.		11-70
A dead Blue-footed booby was even found on one of the solar projects south of the Salton Sea in Imperial Valley.		
The Lake Effect and Polarized Glare	٦	
One main theory is that the polarized light from solar panels may attract birds and insects to solar projects in the Mojave Desert (Horvath et al. 2009).		
Does the light have to be polarized to attract birds? Could other factors such a texture, color and topographic features play a part?		
We request that this important impact be studied more before any more of these giant projects are approved. Specifically:		11-71
What is the mechanism of lake-effect, high polarized light pollution, chromatic, achromatic, glare, etc.?		
When the mechanism is identified, predictions of specific species can be tested in the field by altering the solar configuration.		
After that, data could be collected in the field to identify factors that may attract birds to solar projects.		
It is also possible that BLM's preferred Reduced Footprint Alternative that leaves a major wash with microphyll undeveloped may actually bait birds that would eventually hit solar panels. Only a No Action Alternative would avoid this possibility.	1	1-72
Because the proposed Desert Quartzite Solar Project would be situated in a significant location for migrating birds in the Pacific Flyway, we believe that the cumulative impacts that the project will cause along with other solar projects in the region would not be worth the approval of the project.	],	11-73
We are very concerned that the DEIS fails to adequately inform the public on the environmental impacts to birds of these large-scale solar projects and potential lake-effect impacts to mortality in flyways.		
Air Quality/Fugitive Dust		
We are also particularly concerned about the compromised air quality that will most likely result from the construction of this project.		11-74

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The land rush of large solar projects all over the southwestern US has resulted in expedited approval of many of these projects. In most of the cases, the developers have not adequately mitigated the fugitive dust that has resulted in the removal of large acreages of vegetated desert lands.

Removal of stabilized soils and biological soil crust creates a destructive cycle of airborne particulates and erosion. As more stabilized soils are removed, blowing particulates from recently eroded areas act as abrasive catalysts that erode the remaining crusts thus resulting in more airborne particulates.

We are concerned that industrial construction in the region will compromise the air quality to the point where not only visual resources, but public health will be impacted.

We are also concerned that the applicant will have no choice but to use more water in an already overdrafted aquifer to control the large disturbance they intend to create.

Large solar projects in desert areas are very bad for air quality. Removal of stabilized soils and biological soil crust creates a destructive cycle of airborne particulates and erosion. As more stabilized soils are removed, blowing particulates from recently eroded areas act as abrasive catalysts that erode the remaining crusts thus resulting in more airborne particulates.

The Right of Way for the Desert Sunlight Project to the west guaranteed that mitigation would control fugitive dust emissions, but photos taken of the Desert Sunlight Project during initial construction show "dust blackouts" that have occurred when there are strong wind events. These dust blackouts were reported to be rare in the area before First Solar disturbed so much of the ground with large earth moving machines.

Valley Fever has been blamed for 62 deaths among California prison inmates statewide, most at the Avenal and Pleasant Valley facilities, but also two at Blythe, California: http://www.pe.com/local-news/riverside-county/corona/corona-headlines-index/20130806-valleyfever-inland-inmates-may-replace-transferred-prisoners.ece

Epidemiologists investigated an outbreak of valley fever that had sickened 28 workers at two large solar power construction sites in San Luis Obispo County: http://articles.latimes.com/2013/may/01/local/lame-In-valley-fever-solar-sites-20130501 One of these projects was called Topaz, built by First Solar.

We are also concerned that this will add to the cumulative impacts of several constructed solar projects in the region.

#### **Visual Resources**

All three action alternatives would have huge visual impacts. The impacts would occur during construction and operation. If the project uses thin-film technology, it will not only produce a reflective lake-like appearance, but large glaring reflective flashes.

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BLM is reviewing the project site under VRM Class III standards. The VRM Class III is to "partially retain the existing character of the landscape. The level of change to characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape. The objective of this class is to partially retain the existing character of the landscape. The level of change to characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic should repeat the basic elements found in the predominant natural features of the characteristic landscape."

The project would be visible from several high visual quality scenic areas including the Mule Mountains, McCoy Mountains, Little Chuckwalla Mountains, Chuckwalla Valley and Blythe. The BLM has designated the region as VRM Class II originally and overlaps 6 Scenic Quality Rating Units.

The BLM should consider that all thee alternatives will create a visual disturbance as big as 3 to 5 square miles. Because of the immense size of the project, the visual disturbance would be inconsistent with VRM Class III. Any one of the three alternatives would not be consistent with the VRM Class III objective to "partially retain" the existing character of the landscape. The contrast would simply be too big. The level of change should be *moderate*, but this level would be major. It cannot be disputed that the changes WILL dominate the view.

In fact, the Bureau of Land Management has downgraded VRM Classes to VRM Class IV to approve other large-scale renewable energy projects. According to the Bureau of Land Management, even VRM III would have been inconsistent with the Silver State South Solar Project near Primm, Nevada. The BLM is reviewing two new large-scale energy project proposals in which they must downgrade the VRM Class to IV in Land Use Plan Amendments for both the proposed Crescent Peak Wind Project and the Gemini Solar Project. The Crescent Peak Wind Project can be referenced here: <u>https://eplanning.blm.gov/epl-frontoffice/eplanning/planAndProjectSite.do?methodName=dispatchToPatternPage&currentPageId</u> =122106

And for Gemini here: <u>https://www.blm.gov/press-release/blm-seeks-comments-gemini-solar-project-near-las-vegas</u>

In order for the Desert Quartzite Solar Project to be consistent with Land Use Plan designations, BLM would have to downgrade the region to VRM Class IV to approve the project. But BLM knows the visual resources are too important for that. Since the project predates the DRECP, the VRM Class IV should not be considered.

The Key Observation Point Simulations are perhaps some of the worst we have seen in the last 12 years. All of the KOP simulations are taken from ground level from a safe distance away. It does not appear that one of the 8 simulations were taken from closer than one mile away from where the actual project would be.

The simulations were also taken during mid -day and do not show all of the potential contrasts that could occur and do not show most of the visual impacts. If photos were taken from a closer point or a higher point, the full visual impacts would have been simulated better. There is also no simulation provided for dark sky impacts.

The DEIS has failed to analyze the full visual impacts that this project would inflict. For example, KOP 4 is the only simulation that even remotely gives the viewer an idea of how large the project would be. BLM can do a better job on this.

Why even have KOP 2? It was taken from an area and angle where the project can't even be seen. KOP 1c and KOP 6 are equally useless.

If the BLM would like to present a credible visual analysis for this project, several new KOP's should be prepared. These should be taken during different times of day, from closer distances to the project and from elevations with greater relief.

The following KOP Simulations should be created and would make this visual analysis far more significant.

- 1. Simulations from one quarter mile from the project on the east and west side.
- Simulations from higher up in the Mule Mountains, Little Chuckwalla Mountains and the McCoy Mountains.
- 3. Dark sky simulations highlighting the artificial security lighting.
- 4. Construction visual impacts from one quarter mile away.

Due to the immense size of the project, the BLM should evaluate impacts to area within the viewshed that are designated as VRM Class I and VRM Class II. The project will be highly visible from adjacent wilderness and conservation areas.

#### **Cultural Resources**

From the beginning, Native Americans representing Colorado River Tribes have been opposing all configurations of this project. They have not wanted mitigation, money or any compensation for the project. The region is part of their traditional values. We learned that the June 2016 meeting that an additional significant site was discovered recently near the proposed project site.

Nearly all of the sites recorded in the area as prehistoric have been described as having potential for subsurface manifestation. In addition to their individual research potential properties, the distribution of many of these sites in conjunction with other prehistoric sites recorded between Desert Center and Blythe may provide links between vestiges of the Coco-Maricopa trail system as well as clues to activities associated with transportation along that route. As such, these sites could be considered as part of a complex archaeological district that would include evidence of trade, travel, interaction among the several cultural groups

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associated with the area (Cahuilla, Chemehuevi, Mojave, Serrano), resource use along travel routes, seasonality of habitation, and trail spurs between the primary coastal-interior route and the springs and associated rock art sites in the bordering mountain ranges. This is a Cultural Landscape that requires much better description, analysis and consultation with Native people.

The playa edges, benches, and washes contain a very high level of archaeological remains and features, including ancient trail systems (https://www.fws.gov/carlsbad/PalmSprings/DRECP/Appendix%20L\_Bureau%20of%20Land%20 Manage ment%20Worksheets/Appendix%20L\_BLM%20Worksheets%20-%20ACEC\_Part5\_6.pdf).

Burial sites, bones and a whole village site were destroyed because Nextera did not do adequate enough surveys. This is not acceptable.

The BLM cannot mitigate these issues. Approval of this project will only make this situation worse.

#### Conclusion

We urge BLM to choose the No Action Alternative in order to conserve the maximum resource values for this desert, and retail public lands access. The project is so large that it will have negative direct and cumulative impacts for the region.

Thank you for considering these comments. Basin and Range Watch Western Watersheds Project thank you for this opportunity to assist the BLM by providing scoping comments for this important EIS. Please keep Basin and Range Watch and Western Watersheds Project informed of all further substantive stages in this and related NEPA processes and documents by contacting us at the addresses below.

Sincerely,

Kevin Emmerich Co-Founder Basin and Range Watch

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PO Box 70 Beatty NV 89003 atomicquailranch@gmail.com

ant

Laura Cunningham California Director Western Watersheds Project Cima CA 92323 Mailing: P.O. Box 70 Beatty NV 89003



Desert\_Quartzite\_Solar\_Project, BLM\_CA <blm\_ca\_desert\_quartzite\_solar\_project@blm.gov>

### [EXTERNAL] Desert Quartzite Draft EIS Comments from the Desert Tortoise Council

1 message

#### **Ed LaRue** <ed.larue@verizon.net> To: blm ca desert quartzite solar project@blm.gov

Wed, Nov 7, 2018 at 11:01 AM

Dear Mr. Anderson,

I am submitting the attached comments on the above-referenced project on behalf of the Desert Tortoise Council. Good luck with your planning efforts.

Sincerely,

Ed LaRue

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Desert Quartzite Solar-Final Comment Letter 11-7-2018.pdf



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Via email only

November 7, 2018

Brandon G. Anderson, Project Manager Desert Quartzite Solar Project Bureau of Land Management Palm Springs South Coast Field Office 1201 Bird Center Drive Palm Springs, CA 92234 Via email: <u>blm ca desert quartzite solar project@blm.gov</u>

RE: Comment Letter on Desert Quartzite Solar Project Draft Plan Amendment/ Environmental Impact Statement/ Environmental Impact Report (DOI-BLM-CA-D060-2017-0002 / CA State Clearinghouse No. 2015031066)

Dear Mr. Anderson:

The Desert Tortoise Council (Council) is a non-profit organization comprised of hundreds of professionals and laypersons who share a common concern for wild desert tortoises and a commitment to advancing the public's understanding of desert tortoise species. Established in 1975 to promote conservation of tortoises in the deserts of the southwestern United States and Mexico, the Council routinely provides information and other forms of assistance to individuals, organizations, and regulatory agencies on matters potentially affecting desert tortoises within their geographic ranges.

We appreciate this opportunity to provide comments on the above-referenced solar project. Given the location of the proposed project in habitats occupied by Agassiz's desert tortoise (*Gopherus agassizii*) (synonymous with "Mojave desert tortoise"), our comments pertain to enhancing protection of this species during activities authorized by the Bureau of Land Management (BLM) and Riverside County (County).

#### **Summary of Proposed Project and Alternatives**

First Solar Development, LLC (the Applicant), has submitted an application to BLM and the Riverside County Planning Department (collectively Agencies) to approve the construction, operation and maintenance, and decommissioning of a photovoltaic (PV) solar facility on BLM-administered and private lands. The total area of the Desert Quartzite Solar Project (DQSP or Project) under application for the Agencies' approval is approximately 5,275 acres; approximately 5,115 acres of BLM-administered lands, and 160 acres of private lands.

Three action alternatives are analyzed in the Draft Plan Amendment/ Environmental Impact Statement/Environmental Impact Report (Draft PA/EIS/EIR or Document). All three are located within the same 5,275 acres.

- The Proposed Action Alternative (PAA) would generate up to 450 MW of electricity and occupy approximately 3,770 acres 3,560 acres for the solar facility; 54 acres for the proposed 2.79-mile long transmission line (generation interconnection [gen-tie] line); 2 acres for the offsite portion of a buried telecommunications line and possible above-ground electrical service line on BLM land; and 154 acres for the solar facility on private land. The larger acreage under application allows for the Agencies to consider various site layouts as Project alternatives for their environmental analysis. If approved, the final proposed Project would be 3,616 acres of BLM land, and 154 acres of private land.
- The Resource Avoidance Alternative (RAA) was developed to specifically avoid locations of cultural and biological resources, drainages, and watercourses. Implementation of this alternative would also generate up to 450 MW, and would occupy a land area of 2,782 acres, including 2,622 acres on BLM land and 160 acres of private land. Under the RAA, the length of the gen-tie line would be 4.18 miles.
- The Reduced Project Alternative (RPA) further reduces the acreage of the solar arrays, with elimination of the proposed solar arrays primarily in the northern portion of the area to maintain habitat for the Mojave fringe-toed lizard and Harwood's eriastrum, a BLM Sensitive Species plant. The RPA would generate 285 MW, and would occupy a land area of 2,047 acres, including 1,887 acres on BLM land and 160 acres of private land. Under the RPA, the length of the gen-tie line would be 4.18 miles.

All three action alternatives would include 61 acres of temporary construction areas on BLM land for the solar arrays and gen-tie line.

The proposed Project would be located approximately 2.75 miles southwest of the City of Blythe, just south of the Interstate 10 (I-10) freeway, and 1.5 miles southwest of the Blythe Airport in Riverside County, California. Primary ingress and egress to the Project would use existing access roads. The secondary access route would require construction of approximately 0.7 mile of new road near the southeastern boundary of the Project.

#### **Analysis of Alternatives**

The Council supports alternatives not identified in the Draft PA/EIS/EIR to reduce the need for additional solar energy projects in relatively undisturbed habitats in the Mojave Desert. One such alternative is rooftop solar. The owners of large buildings should install solar panels on their roofs, and sell the power these panels generate back to utilities for distribution into the power grid. This approach puts the generation of electricity where the demand is greatest, in populated areas. It may also reduce transmission costs; the number of affected resources that must be analyzed under the National Environmental Policy Act (NEPA) and other environmental laws; mitigation costs for direct, indirect, and cumulative impacts; monitoring and adaptive management costs; and habitat restoration costs following decommissioning. The Draft PA/EIS/EIR should include an analysis of where the energy generated by this Project would be sent, and how the needs for energy in those targeted areas may be satisfied by rooftop solar.

In addition, the Agencies should include another viable alternative of locating solar projects on bladed or highly degraded tracts of land (e.g., abandoned agricultural fields) rather than destroying desert habitats and attempting to mitigate for the lost functions and values of these habitats, which is costly from an economic, environmental, and social perspective. To support the development of these additional alternatives, we note that a federal appellate court has previously ruled that in its EIS the BLM must evaluate a reasonable range of alternatives to the project including other sites and must give adequate consideration to the public's needs and objectives in balancing ecological protection with the purpose of the proposed project, along with adequately addressing the proposed project's impacts on the desert's sensitive ecological system (National Parks & Conservation Association v. Bureau of Land Management, Ninth Cir. Dkt Nos. 05-56814 et seq. (11/10/09). We believe the Agencies have artificially narrowed the Purpose and Need of the Draft PA/EIS/EIR so that only options rather than alternatives are presented. We believe that the Draft PA/EIS/EIR does not comply with NEPA as written and should include an analysis of a viable alternative where electricity generation via solar energy is located much closer to the areas where the energy use has the greatest demand, including urban/suburban areas (i.e., "rooftop solar").

#### **Use of Terms**

We are confused by what we perceive as the interchangeable use of the terms "reclamation," "revegetation," and "restoration." For example, "The Applicant has developed a Draft Decommissioning and Site Reclamation Plan," "reclamation of the public land to preapplication conditions," "Revegetation would include a combination of natural regeneration, mechanical reseeding, planting of nursery stock, and transplanting local vegetation," "proposed methods for revegetation of temporarily disturbed areas with native species," and in section "**4.1.7 Terms and Conditions found in FLPMA and BLM ROW Regulations**, the Agencies state "The "Performance and Reclamation" bond would consist of three components. The first component would be hazardous materials, the second component would be the decommissioning and removal of improvements and facilities, and the third component would address reclamation, revegetation, restoration, and soil stabilization." 12-4

Our confusion is based on the different definitions for these words. For example, reclamation is frequently limited to the physical or topographical appearance or conformation of an area. It usually does not include the biological components of the land or returning the land to its previous functions and values. Revegetation is limited to seeding or planting. It may not include the conformation of an area or the physical, chemical, or biological properties of soils and it may not return the land to its previous functions and values. We searched Appendix B -Acronyms and Glossary to see how the Agencies defined these words but found no definitions. We request that the Document be consistent in its use of terms regarding this important mitigation and that "habitat restoration" be the term that is used throughout the Document as it has an ecological/biological foundation that includes reclamation, revegetation, and returning the land to its previous functions and values. (Please see 2.3.4.2 Temporary Construction and the Society for Ecological Restoration's "Guidelines for Developing and Managing Ecological Restoration Projects." below). Please note that habitat restoration is the highest prioritized action for the Mojave desert tortoise in the Colorado Desert Recovery Unit (USFWS 2014a). Thus, implementing habitat restoration for the tortoise as mitigation for the proposed Project would comply with the Recovery Action Plan.

#### **Chapter 1 – Introduction and Purpose and Need**

**1.5.3** Major Authorizing Laws and Regulations/Agency Roles and Authorizations

The Agencies state "The United States Fish and Wildlife Service (USFWS) has jurisdiction over threatened and endangered species listed under the Federal Endangered Species Act (FESA) (16 USC § 1531 et seq.). Formal consultation with the USFWS under Section 7 of the FESA is required for any Federal action that may adversely affect a Federally listed species." While section 7(a)(2) of FESA requires this, section 7 (a)(1) of the FESA states that all federal agencies "...shall...utilize their authorities in furtherance of the purposes of this Act by carrying out programs for the conservation of endangered species and threatened species listed pursuant to section 4 of this Act." In section 3 of the FESA, "conserve," "conserving," and "conservation" mean "to use and the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition..."

When analyzing and implementing the proposed Project, we request that BLM demonstrate how it is contributing effectively to the conservation and recovery of the Mojave desert tortoise, especially in California, Colorado Desert Recovery Unit, and Chuckwalla Tortoise Conservation Area/population. We request that BLM show how mitigation for the proposed Project will do more than offset all direct, indirect, and cumulative impacts so that the status of the tortoise (see below) will improve. By providing this information, BLM would demonstrate its compliance with section 7(a)(1) of the FESA for the Mojave desert tortoise

#### Status of the Mojave Desert Tortoise

To assist the Agencies with their analysis of the direct, indirect, and cumulative impacts of the proposed Project on the Mojave desert tortoise, we provide the following information on its status and trend. We believe that, as written, the Document is deficient in divulging this information, and that it must be published in the Final Document.

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The Council has serious concerns about direct, indirect, and cumulative sources of human mortality for the Mojave desert tortoise given the status and trend of the species rangewide, within each of the five recovery units, within the Tortoise Conservation Areas (TCAs) that comprise each recovery unit, and the Chuckwalla TCA. The Project is less than 6 miles from the Chuckwalla TCA and is located in tortoise habitat.

<u>Densities of Adult Mojave Desert Tortoises</u>: A few years after listing the Mojave desert tortoise under the FESA, the USFWS published a Recovery Plan for the Mojave desert tortoise (USFWS 1994a). It contained a detailed population viability analysis. In this analysis, the minimum viable density of a Mojave desert tortoise population is 10 adult tortoises per mile<sup>2</sup> (3.9 adult tortoises per km<sup>2</sup>). This assumed a male-female ratio of 1:1 (USFWS 1994a, page C25) and certain areas of habitat with most of these areas geographically linked by adjacent borders or corridors of suitable tortoise habitat. Populations of Mojave desert tortoises with densities below this amount are in danger of extinction (USFWS 1994a, page 32). The revised recovery plan (USFWS 2011) designated five recovery units for the Mojave desert tortoise that are intended to conserve genetic, behavioral, and morphological diversity necessary for the recovery of the entire listed species (Allison and McLuckie 2018).

Rangewide, densities of adult Mojave desert tortoises declined more than 32% between 2004 and 2014 (Table 1) (USFWS 2015). At the recovery unit level, between 2004 and 2014, densities of adult desert tortoise declined, on average, in every recovery unit except the Northeastern Mojave (Table 1). Adult densities in the Northeastern Mojave Recovery Unit increased 3.1% per year (SE = 4.3%), while the other four recovery units declined at different annual rates: Colorado Desert (4.5%, SE = 2.8%), Upper Virgin River (3.2%, SE = 2.0%), Eastern Mojave (11.2%, SE = 5.0%), and Western Mojave (7.1%, SE = 3.3%) (Allison and McLuckie 2018). However, the small area and low starting density of the tortoises in the Northeastern Mojave Recovery Unit (lowest density of all Recovery Units) resulted in a small overall increase in the number of adult tortoises by 2014 (Allison and McLuckie 2018). In contrast, the much larger areas of the Eastern Mojave, Western Mojave, and Colorado Desert recovery units, plus the higher estimated initial densities in these areas, explained much of the estimated total loss of adult tortoises since 2004 (Allison and McLuckie 2018).

At the population level, represented by tortoises in the TCAs, densities of 10 of 17 monitored populations of the Mojave desert tortoise declined from 26% to 64% and 11 have a density that is less than 3.9 adult tortoises per km<sup>2</sup> (USFWS 2015). The Chuckwalla population is near the proposed Project and has a population below the minimum viable density, and an 11-year declining trend (-37.4%) (USFWS 2015). We are concerned that the proposed Project would bring additional indirect and cumulative impacts to this population and its density and trend would further decline.

<u>Population Data on Mojave Desert Tortoise:</u> The Mojave desert tortoise was listed as threatened under the FESA in 1990. The listing was warranted because of ongoing population declines throughout the range of the tortoise from multiple human-caused activities. Since the listing, the status of the species has changed. Population numbers (abundance) and densities continue to decline substantially (please see Table 1).

Table 1. Summary of 10-year trend data for 5 Recovery Units and 17 Critical Habitat Units (CHU)/Tortoise Conservation Areas (TCA) for Agassiz's desert tortoise, *Gopherus agassizii* (=Mojave desert tortoise). The table includes the area of each Recovery Unit and Critical Habitat Unit (CHU)/Tortoise Conservation Area (TCA), percent of total habitat for each Recovery Unit and Critical Habitat Unit/Tortoise Conservation Areas, density (number of breeding adults/km<sup>2</sup> and standard errors = SE), and the percent change in population density between 2004-2014. Populations below the viable level of 3.9 breeding individuals/km<sup>2</sup> (10 breeding individuals per mi<sup>2</sup>) (assumes a 1:1 sex ratio) and showing a decline from 2004 to 2014 are in red (USFWS 2015).

Recovery Unit	Surveyed	% of total	2014	% 10-year change
Designated Critical Habitat	area	habitat area in	density/km <sup>2</sup>	(2004–2014)
Unit/Tortoise Conservation Area	$(km^2)$	Recovery Unit	(SE)	
		& CHU/TCA		
Western Mojave, CA	6,294	24.51	2.8 (1.0)	-50.7 decline
Fremont-Kramer	2,347	9.14	2.6 (1.0)	-50.6 decline
Ord-Rodman	852	3.32	<b>3.6</b> (1.4)	-56.5 decline
Superior-Cronese	3,094	12.05	2.4 (0.9)	-61.5 decline
Colorado Desert, CA	11,663	45.42	4.0 (1.4)	-36.25 decline
Chocolate Mtn AGR, CA	713	2.78	7.2 (2.8)	-29.77 decline
Chuckwalla, CA	2,818	10.97	3.3 (1.3)	-37.43 decline
Chemehuevi, CA	3,763	14.65	2.8 (1.1)	-64.70 decline
Fenner, CA	1,782	6.94	4.8 (1.9)	-52.86 decline
Joshua Tree, CA	1,152	4.49	3.7 (1.5)	+178.62 increase
Pinto Mtn, CA	508	1.98	2.4 (1.0)	-60.30 decline
Piute Valley, NV	927	3.61	5.3 (2.1)	+162.36 increase
Northeastern Mojave	4,160	16.2	4.5 (1.9)	+325.62 increase
Beaver Dam Slope, NV, UT,	750	2.92	6.2 (2.4)	+370.33 increase
AZ				
Coyote Spring, NV	960	3.74	4.0 (1.6)	+ 265.06 increase
Gold Butte, NV & AZ	1,607	6.26	2.7 (1.0)	+ 384.37 increase
Mormon Mesa, NV	844	3.29	6.4 (2.5)	+ 217.80 increase
Eastern Mojave, NV & CA	3,446	13.42	<b>1.9</b> (0.7)	-67.26 decline
El Dorado Valley, NV	999	3.89	1.5 (0.6)	-61.14 decline
Ivanpah, CA	2,447	9.53	2.3 (0.9)	-56.05 decline
Upper Virgin River	115	0.45	15.3 (6.0)	-26.57 decline
Red Cliffs Desert	115	0.45	15.3 (6.0)	-26.57 decline
Total amount of land	25,678	100.00		-32.18 decline

<u>Density Juvenile Mojave Desert Tortoises</u>: Survey results indicate that the proportion of juvenile desert tortoises has been decreasing in all five recovery units since 2007 (Allison and McLuckie 2018). The probability of encountering a juvenile tortoise was consistently lowest in the Western Mojave Recovery Unit. Allison and McLuckie (2018) provided reasons for the decline in juvenile desert tortoises in all recovery units. These included decreased food

availability for adult female tortoises resulting in reduced clutch size, decreased food availability resulting in increased mortality of juvenile tortoises, prey switching by coyotes from mammals to tortoises, and increased abundance of common ravens that typically prey on smaller desert tortoises.

Declining adult densities through 2014 have left the Western Mojave adult numbers at 49% (a 51% decline) and in the Eastern Mojave at 33% (a 67% decline) of their 2004 levels (Allison and McLuckie 2018, USFWS 2015). Such steep declines in the density of adults are only sustainable if there were suitably large improvements in reproduction and juvenile growth and survival. However, the proportion of juveniles has not increased anywhere in the range of the Mojave desert tortoise since 2007, and in the Western and Eastern Mojave recovery units the proportion of juveniles in 2014 declined to 91% (a 9% decline) and 77% (a 23% decline) of their representation in 2004, respectively (Allison and McLuckie 2018).

<u>Abundance of Mojave Desert Tortoises</u>: Allison and McLuckie (2018) noted that because the area available to tortoises (i.e., tortoise habitat and linkage areas between habitats) is decreasing, trends in tortoise density no longer capture the magnitude of decreases in abundance. Hence, they reported on the change in abundance or numbers of the Mojave desert tortoises in each recovery unit (Table 2). They noted that these estimates in abundance are likely higher than actual numbers of tortoises and the changes in abundance (i.e., decrease in numbers) are likely lower than actual numbers because of their habitat calculation method. They used area estimates that removed only impervious surfaces created by development as cities in the desert expanded. They did not consider degradation and loss of habitat from other sources, such as the recent expansion of military operations (753.4 km<sup>2</sup> so far on Fort Irwin and the Marine Corps Air Ground Combat Center), intense or large scale fires (e.g., 576.2 km<sup>2</sup> of critical habitat that burned in 2005), development of utility-scale solar facilities (so far 194 km<sup>2</sup> have been permitted) (USFWS 2016), or other sources of degradation or loss of habitat (e.g., recreation, mining, grazing, infrastructure, etc.). Thus, the declines in abundance of Mojave desert tortoise are likely greater than those reported in Table 2.

<b>Recovery Unit</b>	Modeled	2004	2014	Change in	Percent
	Habitat (km <sup>2</sup> )	Abundance	Abundance	Abundance	Change in
					Abundance
Western Mojave	23,139	131,540	64,871	-66,668	-51%
Colorado Desert	18,024	103,675	66,097	-37,578	-36%
Northeastern Mojave	10,664	12,610	46,701	34,091	270%
Eastern Mojave	16,061	75,342	24,664	-50,679	-67%
Upper Virgin River	613	13,226	10,010	-3,216	-24%
Total	68,501	336,393	212,343	-124,050	-37%

Table 2. Estimated change in abundance of adult Mojave desert tortoises in each recovery unit between 2004 and 2014 (Allison and McLuckie 2018). Decreases in abundance are in red.

<u>Habitat Availability</u>: Data on population density or abundance does not indicate population viability. The area of protected habitat or reserves for the subject species is a crucial part of the viability analysis along with data on density, abundance, and other population parameters. In the Desert Tortoise (Mojave Population) Recovery Plan (USFWS 1994a), the analysis of population viability included population density and size of reserves (i.e., areas managed for the desert tortoise) and population numbers (abundance) and size of reserves. The USFWS Recovery Plan reported that as population densities for the Mojave desert tortoise decline, reserve sizes must increase, and as population numbers (abundance) for the Mojave desert tortoise decline, reserve sizes must increase (USFWS 1994a). In 1994, reserve design (USFWS 1994a) and designation of critical habitat (USFWS 1994b) were based on the population viability analysis from numbers (abundance) and densities of populations of the Mojave desert tortoise in the early 1990s. Inherent in this analysis is that the lands be managed with reserve level protection (USFWS 1994a, page 36) or ecosystem protection as described in section 2(b) of the FESA, and that sources of mortality be reduced so recruitment exceeds mortality (that is, lambda > 1)(USFWS 1994a, page C46).

Habitat loss would also disrupt the prevailing population structure of this widely distributed species with geographically limited dispersal (isolation by distance; Murphy et al. 2007; Hagerty and Tracy 2010). Allison and McLuckie (2018) anticipate an additional impact of this habitat loss/degradation is decreasing resilience of local tortoise populations by reducing demographic connections to neighboring populations (Fahrig 2007). Military and commercial operations and infrastructure projects that reduce tortoise habitat in the desert are anticipated to continue (Allison and McLuckie 2018) as are other sources of habitat loss/degradation.

Allison and McLuckie (2018) reported that the life history of the Mojave desert tortoise puts it at greater risk from even slightly elevated adult mortality (Congdon et al. 1993; Doak et al. 1994), and recovery from population declines will require more than enhancing adult survivorship (Spencer et al. 2017). The negative population trends in most of the TCAs for the Mojave desert tortoise indicate that this species is on the path to extinction under current conditions (Allison and McLuckie 2018). They state that their results are a call to action to remove ongoing threats to tortoises from TCAs, and possibly to contemplate the role of human activities outside TCAs and their impact on tortoise populations inside them.

Densities, numbers, and habitat for the Mojave desert tortoise declined between 2004 and 2014. As reported in the population viability analysis, to improve the status of the Mojave desert tortoise, reserves (area of protected habitat) must be established and managed. When densities of tortoises decline, the area of protected habitat must increase. When the abundance of tortoises declines, the area of protected habitat must increase. We note that the Desert Tortoise (Mojave Population) Recovery Plan was released in 1994 and its report on population viability and reserve design was reiterated in the 2011 Revised Recovery Plan as needing to be updated with current population data (USFWS 2011, p. 83). With lower population densities and abundance, a revised population viability analysis would show the need for greater areas of habitat to be protected for the Mojave desert tortoise. In addition, we note that none of the recovery actions that are fundamental tenets of conservation biology has been implemented throughout most or all of the range of the Mojave desert tortoise.

<u>Definition of an Endangered Species</u>: Agassiz's desert tortoise is now on the list of the world's most endangered tortoises and freshwater turtles. It is in the top 50 species. The International Union for Conservation of Nature's (IUCN) Species Survival Commission, Tortoise and Freshwater Turtle Specialist Group, now considers Agassiz's desert tortoise to be Critically Endangered (Turtle Conservation Coalition 2018).

The IUCN places a taxon in the Critically Endangered category when the best available evidence indicates that it meets one or more of the criteria for Critically Endangered. These criteria are 1) population decline - a substantial (>80 percent) reduction in population size in the last 10 years; 2) geographic decline - a substantial reduction in extent of occurrence, area of occupancy, area/extent, or quality of habitat, and severe fragmentation of occurrences; 3) small population size with continued declines; 4) very small population size; and 5) analysis showing the probability of extinction in the wild is at least 50 percent within 10 years or three generations.

In the FESA, Congress defined an "endangered species" as "any species which is in danger of extinction throughout all or a significant portion of its range..." The California Endangered Species Act (CESA) contains a similar definition. In CESA, the California legislature defined an "endangered species" as a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant, which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes. (California Fish and Game Code § 2062.). Given the information on the status of the Mojave desert tortoise and the definition of an endangered species, the Council believes the status of the Mojave desert tortoise is that it is an endangered species.

#### 1.5.5 California Department of Fish and Wildlife

The Agencies state "CDFW also has the authority to regulate potential impacts to species that are protected under the California Endangered Species Act (CESA) (Fish and Game Code §2050, et seq.). If appropriate, the Applicant would be required to file an Incidental Take Permit application, and the requirements of the Incidental Take Permit would apply to the Project independent of and in addition to the mitigation measures included in the PA/EIS/EIR."

In the paragraph preceding this, the Document explains the requirements of Fish and Game Code 1602 including the need to protect affected resources. We did not find similar language in the paragraph on the CESA. We request additional language comparable to that already provided for Fish and Game Code 1602 be provided for Fish and Game Codes 783, 2080, and 2081 in the Final Document. To Assist the Agencies, we provide the following subset of requirements for these codes:

- "The applicant will minimize and fully mitigate the impact of the take authorized under the permit."
- "All required measures shall be capable of successful implementation."
- "Impacts of taking include all impacts on the species that result from any action that would cause the proposed taking."

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• "The applicant has ensured adequate funding to implement the measures required under the permit to minimize and fully mitigate the impacts of the taking, and to monitor compliacne with, and the effectiveness of, the measures."

We note that this section says "If appropriate, the Applicant would be required to file an Incidental Take Permit application" with CDFW. We believe it is not at the Applicant's discretion to obtain an Incidental Take Permit for this Project for the reasons that follow. CDFW required an Incidental Take Permit for the Beacon Solar Energy Project, which is located primarily on old agricultural fields and adjacent to tortoise habitat. For this project, pre-project survey results were tortoise sign but no tortoises. Given the presence of tortoise sign and tortoise habitat both on and near the Project area and CDFW's past action, we believe that the Applicant will need an Incidental Take Permit. In addition, the Document includes wording that describes the Applicant capturing and removing tortoises from the Project area during the Operation and Maintenance phase of the Project. This activity requires an Incidental Take Permit from CDFW.

#### **Chapter 2 - Proposed Action and Alternatives**

#### 2.3.4.1 Preconstruction Surveying and Staking

"Once exclusion fence is established, biological surveys, clearance, relocation, and/or transplanting would be conducted, as determined necessary. These activities could include clearance surveys for Mojave desert tortoise and other sensitive species (e.g., Mojave fringe-toed lizard); translocation for Mojave desert tortoise; seasonal avoidance of nesting birds, including burrowing owls; passive relocation of burrowing owls, as necessary; and possible transplantation of sensitive plant species and species listed under the California Desert Native Plants Act." The wording of these activities is vague. Who determines whether this is necessary? As a minimum, clearance surveys for Mojave desert tortoise should be implemented according to USFWS (2017) protocol and CDFW requirements. We suggest this section be rewritten so it clearly describes the situations when the Applicant would conduct biological surveys, clearance, and relocation of tortoises.

#### 2.3.4.2 Temporary Construction

"The areas situated outside of the permanent ROW would be restored." This is the only information we were able to find regarding restoration of habitat in this chapter. Given that impacts to biological resources are significant for the proposed Project, we urge the Applicant and the Agencies to develop and include in the Document a habitat restoration plan with requirements that the Applicant must meet. We recommend using the most recent version of the Society for Ecological Restoration's "Guidelines for Developing and Managing Ecological Restoration Projects." These guidelines identify the essential elements of a habitat restoration plan.

(https://cdn.ymaws.com/www.ser.org/resource/resmgr/custompages/publications/ser\_publications/ser\_publications/bev\_and\_Mng\_Eco\_Rest\_Proj.pdf).

The Project's habitat restoration plan should be part of the Document, so the decisionmaker and the public have sufficient information to see if this plan is adequate and will restore the degraded/destroyed habitat. We note that in section **2.3.4.3 Site Preparation**, "Topsoil removed through grading in these areas would be stockpiled and used for post-construction 12-13

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reclamation of temporarily-disturbed areas." We appreciate the stockpiling of soil as this is one of many important components in a habitat restoration plan. However, this language discusses "reclamation of temporarily-disturbed areas," which may not be the same as "restoration of habitat." We request that temporarily disturbed areas be included in the implementation of the habitat restoration plan.

#### 2.3.5 Operation and Maintenance

"Further maintenance is also required to assure soil stabilization and vegetation restoration of temporary disturbance sites. These sites would be restored using methods defined in the Revegetation Plan." We did not find a "Revegetation Plan" as part of the Draft PA/EIS/EIR. We did find Appendix J - Draft Integrated Weed Management Plan, which is not a revegetation plan or a habitat restoration plan. We request that **Appendix J - Draft Integrated Weed Management Plan** be amended to include a "Habitat Restoration Plan for the proposed Project. Please see our comments under **2.3.4.2 Temporary Construction**.

#### 2.3.6 Decommissioning

"If the ROW grant is not renewed beyond the 30-year operational period, or the Project ceases for other reasons, the ROW grantholder would be responsible for removal of the Project facilities and restoration of the public land through decommissioning. The Applicant has developed a Draft Decommissioning and Site Reclamation Plan (Desert Quartzite 2015) which describes the general outlines of the proposed activities. The Draft Decommissioning and Site Reclamation Plan would be updated and finalized prior to decommissioning to ensure that the Project area would be restored according to applicable regulations and site conditions in effect at that time." We were unable to find the Draft Decommissioning and Site Reclamation Plan using the reference provided in the Draft PA/EIS/EIR, and when we searched online for this Plan using the reference provided in the Draft Decommissioning and Site Reclamation Plan (Desert Quartzite 2015) be part of the Document so the decisionmaker and the public have the opportunity to review it. Please see our comments under **2.3.4.2 Temporary Construction**.

"Decommissioning is expected to take up to a year to complete." However, we found no information how long restoration would take. Because the desert heals slowly from surface disturbance, we suggest that restoration would take much longer than decommissioning. We request that information on this issue be included in the Final Document.

#### 2.3.7 Applicant-Proposed Management Plans and Mitigation Measures

"The Applicant has proposed a variety of management procedures and mitigation measures, to be implemented during construction, operations, and decommissioning, to ensure compliance with all permit conditions, avoidance of environmental impacts where possible, and mitigation, reduction, and/or compensation for environmental impacts where avoidance is not possible." "Prior to construction, the Applicant would develop and implement an Environmental Inspection and Compliance Monitoring Program." Unfortunately, most of the management plans/compliance monitoring plan for mitigation measures are preliminary, or in need of being developed. We were unable to find the preliminary plans mentioned in the Document. Below is a list of these plans that are mentioned in the Document as planned for development or are in the preliminary. We were unable to find the preliminary plans in the Document.

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• Preliminary Hazardous Materials Management and Emergency Response Plan				
(preliminary but not found)				
• Storm Water Pollution Prevention Plan (preliminary summary, but not found)				
Hazardous Materials Business Plan (to be developed)				
• Spill Prevention, Control, and Countermeasure Plan (to be developed)				
• Vegetation Resources Management Plan (to be developed)				
• Environmental Health and Safety Plan (to be developed)				
• Bird and Bat Conservation Strategy (to be developed)				
• Mojave Desert Tortoise Mitigation Plan (to be developed)				
• Raven Management Plan (to be developed)				
• Desert Kit Fox and Badger Management Plan (to be developed)				
• Worker Environmental Awareness Program (to be developed)				
• Desert Tortoise Translocation Plan (to be developed, if needed)				
Phased Site Preparation Plan/Dust Control and Soil Stabilization Plan (to be developed)				
• Traffic and Monitoring Control Plan (to be developed)				
• Lighting Management Plan (preliminary, but not found)				
Cultural Resources Monitoring and Mitigation Plan (to be developed)				

• Paleontological Resources Monitoring and Mitigation Plan (to be developed)

This absence of these plans in the Document makes it difficult for the public to assess the adequacy of these plans and provide meaningful comment to the Agencies. In addition, their absence makes it difficult for the Agencies to evaluate correctly their direct, indirect, and cumulative impacts to the resource issues identified in the Document and their effectiveness at mitigating for these impacts. Thus, the public, the Agencies, and the decisionmaker are left to assume that the promised and preliminary plans will be adequate and appropriate. Given the status of the Mojave desert tortoise (please see **Status of the Mojave Desert Tortoise** above), we believe it is imperative that these mitigation plans be provided to the public so we can help determine their adequacy and effectiveness.

The Agencies state regarding the desert tortoise, "The measures are expected to include mitigation measures and habitat compensation ratios that are proportional to and consistent with the quality of habitat and management status associated with the Project area." We note that the Agencies describe the Project area as the 5,275 acres requested for the ROW. We also note that the indirect and cumulative impacts of the proposed Project extend beyond the 5,275 acres of the Project area for many impacted resources including the Mojave desert tortoise. As such, the mitigation for the tortoise, including compensation, should include all direct, indirect, and cumulative impacts, not just those within the Project area. This would be required under the CDFW's Incidental Take Permit for the proposed Project. We request that this actual impact acreage be calculated with input from CDFW and USFWS and be published in the Final Document.

#### **2.9.1 Rationale for Eliminating**

The Agencies provide reasons why alternatives other than the three action alternatives were eliminated. The reasons include 1) it is substantially similar in design to an alternative that is

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analyzed, and 2) it would have substantially similar effects to an alternative that is analyzed. We contend that the PAA and the RAA are substantially similar in design, and the RAA would have substantially similar effects to an alternative that is analyzed. Please see **Analysis of Alternatives** above.

#### **2.9.2.1 Site Alternatives**

The Agencies state "The Applicant's consideration of alternative locations for large-scale solar facilities was restricted by several criteria, including:

- Availability of a contiguous area of land large enough to accommodate the proposed Project;
- Technical constraints, including insolation, slope, and hydrology;
- Environmental impacts, based on the presence of potentially impacted resources and associated management and resource protection constraints; and
- Costs associated with site accessibility, and proximity to existing high voltage transmission facilities with sufficient available capacity and viable access to energy markets, including suitable interconnection and priority queue position" and "interconnection locations." "The Applicant identified the Colorado River Substation as one of the most viable interconnection points for new renewable projects."

In reading this information, we interpret the first criterion as needing to have one area large enough to generate 450 MW of electricity. We find this criterion to be limiting and found no information in the Document as to why a project of this size is required rather than, for example, a smaller project or smaller projects located near each other. One of the viable alternatives is for a project smaller than 450 MW but it is not the preferred alternative because it produces less electricity.

For the second criterion, much of southern California and the southwestern United State meet insolation, slope, and hydrology requirements for solar generation of electricity. Thus, the Agencies have a large geographic area to consider. For the third criterion, environmental impacts, these are minimized to the greatest extent when solar projects are placed in previously developed areas, especially when considering the direct, indirect, and cumulative impacts of such projects. Thus, areas previously used for agriculture (e.g., Antelope Valley in Los Angeles and Kern Counties) or developed areas in/near the Los Angeles Basin (e.g., rooftop solar) would meet this requirement. The fourth criterion, cost of construction, appears to be the deciding factor for the Applicant and not the Agencies as the Applicant selected the Colorado River Substation because it was <u>one</u> of the most viable. However, we found no information in the Document that other viable interconnection locations were identified or analyzed. The Agencies state that Applicant limited their search to Riverside County near Blythe and the Colorado River Substation.

The wording in the Document gives the impression that the Applicant selected the site because it met all of its criteria, not the legal criteria, and the Agencies created the Purpose and Need to meet the Applicant's selection of the Project site. Thus, it appears the Project site was "justified" after it was found in 2007, rather than objectively evaluating a range of locations for alternatives. For these reasons, we do not believe the Purpose and Need section of the Document complies with NEPA, and we do not believe that the Agencies have presented a

reasonable range of alternatives as required by NEPA. We find the RAA and RPA are options or variations of the PAA and not alternatives. Their direct, indirect, and cumulative impacts do not differ substantially from each other. We request that the Agencies rewrite the Purpose and Need to comply with NEPA, and develop alternatives to the PAA at other locations including those not on/primarily on BLM land to comply with NEPA, and analyze and publish these in the Final Document. Please see **Analysis of Alternatives** above.

#### **Chapter 3 – Affected Environment**

#### **3.4.1 Environmental Setting**

The Agencies present information on the presence of desert tortoise sign and tortoises. However, we were unable to determine from information provided in this section whether protocol level surveys were conducted in the "action area" for the Mojave desert tortoise. Such surveys help the Agencies to comply with section 7(a)(2) of the FESA. The USFWS defines "action area" in 50 CFR 402.2 and their Desert Tortoise Field Manual (USFWS 2009) as "all areas to be affected directly or indirectly by proposed development and not merely the immediate area involved in the action." In addition, California Department of Fish and Wildlife may require a survey of the entire project site. We request that the Final Document provide clarification of the type of survey methods implemented "during biological surveys" for the desert tortoise.

#### **Chapter 4 – Environmental Consequences**

#### 4.4.2 Applicant-Proposed Measures

In this section "No APMs specific to wildlife are proposed." Our interpretation of this section is that this statement includes the Mojave desert tortoise. We request that as a minimum standard mitigation measures for the tortoise be added to this section. Although the Agencies claim that the proposed Project is not subject to the Desert Renewable Energy Conservation Plan (DRECP), we believe that the mitigation measures for the tortoise contained in the DRECP should be applied to the proposed Project.

#### 4.3 Biological Resources – Vegetation Applicant-Proposed Measures

#### **Construction - Native Vegetation Alliances**

The Agencies state, "The potential introduction of invasive nonnative plant species is considered a permanent indirect impact as total eradication of invasive plants is rarely achieved. Implementation of APM BIO-3 (Construction-Related BMPs) would minimize the indirect loss of native and sensitive vegetation by limiting impacts to only areas that must be disturbed to complete construction. Related measures include Mitigation Measures VEG-8 (Avoidance of Biological Resources During Construction), VEG-9 (Special-Status Plant measures), and VEG-10 (Measures for Riparian Habitat and State Waters), which require biological construction monitoring, and avoiding and minimizing construction-related impacts to vegetation, jurisdictional waters, and special-status species."

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We were unable to find any mention in this section of implementing the Invasive Species Integrated Weed Management Plan (IWMP). Please add this information to the Final Document. In addition, **Appendix J – Draft Integrated Weed Management Plan** only covers the construction and operation and maintenance phases and maintenance of an approximately 300-megawatt (MW) solar power generating facility. The proposed Project is up to a 450 MW facility and has a decommissioning phase (that includes restoration) that should be covered by the IWMP. During the decommissioning phase, the Applicant or current lessee may be required to restore the habitat at the Project site to pre-project conditions if the site is not used for another development purpose. As such, the IWMP should include the decommissioning phase of the proposed Project.

We note that **Appendix J** - **Draft Integrated Weed Management Plan** focuses on weedy species currently present at the proposed Project Site. The methods discussed to control the occurrence of weedy species on the proposed Project Site and management methods to reduce/eliminate these occurrences are limited to methods currently identified in certain documents. The IWMP should include provisions for the use of future methods that may be more effective than current ones and should include weed species that are identified in the future as occurring on the proposed Project Site. In addition, the IWMP should include success criteria and an adaptive management component such that periodic monitoring for the life of the proposed Project indicates whether the methods used for weed management are effective. If not, other methods should be developed, implemented, and monitored for effectiveness. Please add this information to the IWMP.

Under *Native Vegetation Alliances*, the Agencies state "Construction activities could also result in changes to existing hydrology regimes and geomorphic processes." We agree but the discussion that follows this statement focuses on increased erosion potential and rate, volume, and sediment load of storm water runoff traveling offsite. We found no analysis of the disruption of sheet flow to vegetation downslope of the proposed Project that may deprive these plants of needed water for maintenance, growth, and reproduction/recruitment, which may lead to their mortality and change in vegetation type. We request that an analysis of these impacts be included in this section of the Final Document or refer the reader to another section where this analysis of indirect impacts is presented.

#### **Operation and Maintenance -** *Native Vegetation Alliances*

We did not find an analysis in the Document on the impacts of the photovoltaic heat-island effect (Barron-Gafford et al. 2016) from operation of the proposed Project. We request that an analysis of this effect be added to the Final Document in the sections analyzing indirect, cumulative, and residual impacts to biological resources (vegetation and wildlife), specifically the desert tortoise and its habitat, geology and soils, climate change, agricultural resources, water resources, and wildlife fire.

The Agencies state "Implementation of APM BIO-5 (Integrated Weed Management Plan) would mitigate the impacts associated with the spread of invasive weeds by requiring the finalization and implementation of an Integrated Weed Management Plan, thereby minimizing the effects of invasive weeds on native and/or sensitive vegetation alliances." We agree with this statement only if the topics we presented above are added to the IWMP and that the mitigation would minimize the impacts of lost/degraded vegetation that is used by tortoise for feeding, shelter, protection from predators, and connectivity. However, we note that it would not fully mitigate for these impacts.

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### 4.4 Biological Resources – Wildlife

#### Construction - Mojave Desert Tortoise.

We found mention of numerous direct and indirect sources of mortality likely to occur to the desert tortoise from Project construction, but no analysis of the extent of these impacts to the tortoise and its ability to survive (i.e., the consequences). We believe this is necessary given the tortoise's status rangewide, in California, in the Colorado Desert Recovery Unit and in the nearby Chuckwalla TCA/CHU. Please include this analysis in the Final Document and in the sections on operation and maintenance and decommissioning.

Regarding impacts to desert tortoise habitat, please add to the Final Document that construction activities result in increased wind erosion of soil and dust deposition, disruption of pollination systems, and the spread of invasive nonnative plant species both at the Project area and nearby areas. These impacts contribute to changes in vegetation type; increases in fire frequency, size, and intensity; fragmentation and reduction/loss of connectivity; reduced gene exchange; and reduced population persistence (USFWS 2014b). Adverse impacts to desert vegetation from dust deposition include increases in leaf temperatures and subsequent photosynthetic rates during early spring that may require an increased amount of water for growth and successful reproduction. If this increased amount of water is not available, these plant species may respond by reducing plant vigor and by reducing flower and seed production or abandoning reproduction for the year (USFWS 2014b). Subsequent years of dust may result in no recruitment of plants or plant mortality. These impacts in turn adversely affect the breeding, feeding, sheltering, and connectivity requirements of the desert tortoise. We did not find an analysis of the extent of these impacts to the desert tortoise in the Final Document and request that one be included for this section on construction and the sections on operation and maintenance and decommissioning.

We are concerned about the increased vehicle use/trips on new and existing access roads to the Project site. Increased vehicle use on roads equates to increased direct mortality and increased road edge effect to desert tortoises. Road construction, use, and maintenance adversely affect wildlife through numerous mechanisms that can include mortality from vehicle collisions, and loss, fragmentation, and alteration of habitat (Nafus et al. 2013; von Seckendorff Hoff and Marlow 2002).

Von Seckendorff Hoff and Marlow (2002) reported that they detected reductions in tortoise numbers and sign from infrequent use of roadways to major highways with heavy use. There was a linear relationship between traffic level and reduction. For two graded, unpaved roads, the reduction in tortoises and sign was evident 1.1 to 1.4 km (3,620 to 4,608 feet) from the road. Nafus et al. (2013) reported that roads may decrease tortoise populations via several possible mechanisms, including cumulative mortality from vehicle collisions and reduced population growth rates from the loss of larger reproductive animals. Other documented impacts from road construction, use, and maintenance include increases in roadkill of wildlife species as well as tortoises, creating or increasing food subsidies for common ravens, and contributing to increases in raven numbers and predation pressure on the desert tortoise. Based on this information, the Final Document should include analysis of the extent of these impacts to the desert tortoise and its habitats from the use of roads by vehicles associated with the proposed Project and associated mitigation given information on the species' population status.

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Regarding impacts from road construction/use, please analyze the five major categories of primary road effects to the tortoise in the Final Document and how this would affect the survival of the tortoise at a population (Chuckwalla), recovery unit, and species level: (1) wildlife mortality from collisions with vehicles; (2) hindrance/barrier to animal movements thereby reducing access to resources and mates; (3) degradation of habitat quality; (4) habitat loss caused by disturbance effects in the wider environment and from the physical occupation of land by the road; and (5) subdividing animal populations into smaller and more vulnerable fractions (Jaeger et al. 2005a, 2005b, Roedenbeck et al. 2007).

The Agencies indicate that a Raven Management Plan will be developed and implemented. We request that it be a Predator Management Plan that includes ravens, coyotes, and other animals that may prey on the tortoise during the life of the project. The Moapa Solar Energy Project resulted in high (>60%) mortality of small translocated tortoises compared to control animals (Burroughs 2018 in litt.). Regardless of whether tortoises are repatriated to the Project site or translocated, management of coyote predation on tortoises should be included in the predator management plan.

The Final Document should analyze the extent of impacts that all phases of the proposed Project would have on predation of the tortoise and how this would affect their survival at a population (Chuckwalla), recovery unit, and species level.

As stated in the Document, common ravens are known predators of the Mojave desert tortoise, and raven numbers have increased substantially because of human subsidies of food, water, and sites for nesting, roosting, and perching to hunt (Boarman 2003). Because ravens are able to fly at least 30 miles in search of food and water on a daily basis (Boarman et al. 2006) and coyotes can travel an average of 7.5 miles or more daily (Servin et al. 2003), the analysis of impacts of tortoise mortality from ravens and coyotes should extend at least 30 miles from the proposed Project. The Chuckwalla Desert Tortoise ACEC is approximately five miles west of the proposed Project Site and the Chuckwalla Unit of Mojave desert tortoise critical habitat is approximately 15 miles west of the proposed Project Site. Both are within the daily flight range of the raven and one is within the daily coyote range. The construction, operation and maintenance, and decommissioning phases should include provisions for monitoring and managing tortoise predators (e.g., raven and coyote) because of or contributed by the proposed Project.

In the Document, the Agencies indicate temporary ponds or tanks are needed for water during construction (page 2-44), and "Water required for construction purposes shall only be stored in retention ponds (equipped with wildlife exclusion fencing), or closed containers/structures (APM BIO-3)." We note that temporary ponds with fencing are not likely to exclude ravens unless the ponds are covered. If covered with netting, this may result in unauthorized take of ravens and other migratory birds. Please ensure that an effective method to exclude ravens and other predators from access to water used during the construction phase is implemented

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We request the Predator Management Plan include reducing/eliminating human subsidies for food, water, and sites for nesting, roosting, and perching to address local impacts (footprint of the proposed Project). This includes buildings, fences, and other vertical structures associated with the Project site. In addition, the Predator Management Plan should include provisions that eliminate the pooling of water on the ground or on roofs. The Predator Management Plan should include monitoring and adaptive management throughout the life of the Project to collect data on the effectiveness of it implementation and enact changes to reduce/eliminate predation on the tortoise.

Please ensure that all standard measures to mitigate the local, regional, and cumulative impacts of raven predation on the tortoise are included in this Predator Management Plan. USFWS (2010) provides a template for a project-specific management plan for common ravens. This template includes sections on construction, operation and maintenance, and decommissioning (including restoration) with monitoring and adaptive management during each project phase (USFWS 2010). In addition, the Applicant should contribute to the regional raven management plan (USFWS 2010) to address the indirect and cumulative impacts associated with this Project and other land uses in the desert to reduce the expansion of raven populations in the range of the tortoise.

#### **Operation and Maintenance** – *Mojave Desert Tortoise*

We have similar concerns regarding the impacts of roads to the desert tortoise and tortoise habitat as mention above under **Construction**. While the number of vehicle trips associate with operation and maintenance would be substantially reduced when compared to the construction phase, for the life of the project there would be increased use of the roads, off-highway vehicle use along powerline roads, and associated impacts in the road-effect zone. These impacts should be quantified and analyzed in the Final Document regarding how they would affect the survival of the tortoise at a population (Chuckwalla), recovery unit, and species level. Appropriate mitigation should be developed and implemented to avoid or offset these impacts.

The Agencies mention that operation and maintenance activities introduce trash into the area and attract common ravens and other Mojave desert tortoise predators. We were unable to find any mention or analysis of the extent of impacts to the tortoise from the new roosting, perching, and nesting sites that the Project would provide and request that this analysis be added and address how it would affect the survival of the tortoise at a population (Chuckwalla), recovery unit, and species level given the current status of the tortoise, which should be addressed in the Final Document.

The Agencies state "To minimize the chances for individuals of these species [including desert tortoise] to access the Project site, the Applicant will install Mojave desert tortoise exclusionary fencing at the base of the perimeter security fence and cattle guards at Project entrances. These structures will be inspected quarterly and their integrity maintained, as necessary. Finally, if any terrestrial special-status species gain access to the Project site despite implementation of these minimization measures, the Applicant will ensure that an Authorized Biologist captures and relocates the individual(s) outside of the Project site, coordinating with USFWS and CDFW, as needed."

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From this information, we presume that cattle guards will be used instead of fences at vehicle access points to the Project area. Standard cattle guards can trap desert tortoises resulting in injury or mortality. We suggest that the Applicant implement another method to exclude desert tortoises at vehicle access points to the Project area that has been tested as effective.

If the Agencies expect an Authorized biologist to capture and relocate the tortoise outside the project site, this activity would require an Incidental Take Permit from CDFW. Please see our comments under **California Department of Fish and Wildlife** above.)

Please see our comment above regarding heat islands under **Operation and Maintenance** - *Native Vegetation Alliances* as it includes a request for analysis of impact to the Mojave desert tortoise and its habitat.

#### Decommissioning – Mojave Desert Tortoise

The Agencies state "the restored wildlife access to large expanses of denuded habitat that lack food, water, and cover could subject special-status species such as Mojave desert tortoises to mortality hazards long after site decommissioning." We found no analysis of how that increased mortality would affect the survival of the tortoise at a population (Chuckwalla), recovery unit, or species level. We request that this analysis be included in this section of the Final Report.

#### **4.4.6 Cumulative Impacts**

The Document provided confusing information regarding the acres and percentages of habitat for the Mojave desert tortoise directly impacted by the proposed Project (ranges from 4.7% to 9.1%), impacts of present and future projects (1.9%), acreage for the Colorado Desert Recovery Unit. We say "confusing" as we were unable to find references that explain the calculations of these numbers. In addition, while there may be in total a large area that contains some/all of the life requisites for the Mojave desert tortoise, the calculation does not consider other crucial factors such as the quality or configuration of that habitat. In addition, habitat is only one part of the data set needed to determine the status of a wildlife species and potential impacts to that species from project implementation. A recent example is the greater sage-grouse where an estimated 50 percent of the species' habitat has been lost but the population declined by 90 percent. Data, including population size, density, and recruitment are crucial to analyzing the impacts of a proposed project on that species (e.g., Mojave desert tortoise) especially into the future and must be presented in the Final Document.

The Agencies conclude "General threats to common and special-status wildlife species in the cumulative effects study area include the fragmentation of habitat from roads and urban development, the effects of historic livestock grazing on wildlife forage structure and availability, the effects of military training activities, and agricultural development. In the context of other existing and reasonably foreseeable projects, the proposed Project has the potential to further reduce wildlife habitat and incrementally degrade adjacent habitat. Thus, the Project would contribute to the cumulative loss and degradation of habitat for Mojave desert tortoise, Mojave fringe-toed lizard, and other species in the Palo Verde watershed."

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We consider this a descriptive list of ongoing and future impacts to tortoise habitat, but do not see 1) the "analysis" part of the cumulative impact analysis from this loss of habitat or 2) impacts to the desert tortoise and how these impacts would affect the survival of the tortoise at a population (Chuckwalla), recovery unit, or species level. This type of analysis is required in all environmental assessments and environmental impact statements (see below).

The Council on Environmental Quality (1997) states "Determining the cumulative environmental consequences of an action requires delineating the cause-and-effect relationships between the multiple actions and the resources, ecosystems, and human communities of concern. The range of actions that must be considered includes not only the project proposal but all connected and similar actions that could contribute to cumulative effects." The analysis "must describe the response of the resource to this environmental change." Cumulative impact analysis should "address the sustainability of resources, ecosystems, and human communities."

The Council on Environmental Quality (CEQ) provides eight principles of cumulative impacts analysis (CEQ 1997, Table 1-2). These are:

**1.** Cumulative effects are caused by the aggregate of past, present, and reasonable future actions.

The effects of a proposed action on a given resources, ecosystem, and human community, include the present and future effects added to the effects that have taken place in the past. Such cumulative effects must also be added to the effects (past, present, and future) caused by all other actions that affect the same resource.

2. Cumulative effects are the total effect, including both direct and indirect effects, on a given resource, ecosystem, and human community of all actions taken, no matter who (federal, non-federal, or private) has taken the actions.

Individual effects from disparate activities may add up or interact to cause additional effects not apparent when looking at the individual effect at one time. The additional effects contributed by actions unrelated to the proposed action must be included in the analysis of cumulative effects.

3. Cumulative effects need to be analyzed in terms of the specific resource, ecosystem, and human community being affected.

Environmental effects are often evaluated from the perspective of the proposed action. Analyzing cumulative effects requires focusing on the resources, ecosystem, and human community that ay be affected and developing an adequate understanding of how the resources ar susceptible to effects.

4. It is not practical to analyze the cumulative effects of an action on the universe; the list of environmental effects must focu on those that are truly meaningful.

For cumulative effects analysis to help the decisionmaker and inform interested parties, it must be limited through scoping to effects that can be evaluated meaningfully. The boundaries for evaluating cumulative effects should be expanded to the point at which the resource is no longer affected significantly or the effects are no longer of interest to the affected parties.

## 5. Cumulative effects on a given resource, ecosystem, and human community are rarely aligned with political or administrative boundaries.

Resources are typically demarcated according to agency responsibilities, county lines, grazing allotments, or other administrative boundaries. Because natural and sociocultural resources are not usually so aligned, each political entity actually manages only a piece of the affected resource or ecosystem. Cumulative effects analysis on natural systems must use natural ecological boundaries and analysis of human communities must use actual sociocultural boundaries to ensure including all effects.

# 6. Cumulative effects may result from the accumulation of similar effects or the synergistic interaction of different effects.

Repeated actions may cause effects to build up through simple addition (more and more of the same type of effect), and the same or different actions may produce effects that interact to produce cumulative effects greater than the sum of the effects.

# 7. Cumulative effects may last for many years beyond the life of the action that caused the effects.

Some actions cause damage lasting far longer than the life of the action itself (e.g., acid mine damage, radioactive waste contamination, species extinctions). Cumulative effects analysis need to apply the best science and forecasting techniques to assess potential catastrophic consequences in the future.

# 8. Each affected resource, ecosystem, and human community must be analyzed in terms of its capacity to accommodate additional effects, based on its own time and space parameters.

Analysts tend to think in terms of how the resource, ecosystem, and human community will be modified given the action's development needs. The mast effective cumulative effects analysis focuses on what is needed to ensure long-term productivity or sustainability of the resource.

In addition, CEQ states, "The consequences of human activities will vary from those that were predicted and mitigated." "[M]onitoring for accuracy of predictions and the success of mitigation measures is critical." "Adaptive management provides the opportunity to combine monitoring and decision making in a way that will ensure protection of the environment and societal goals."

We were unable to find in the Document, the application of these eight principles of cumulative impacts analysis with respect to the Mojave desert tortoise or commitments by the Applicant to monitor the success of mitigation and implement adaptive management. We request that the Final Document be modified to include these eight principles in its analysis of cumulative impacts to the Mojave desert tortoise, to address the sustainability of the tortoise given the information on the **Status of the Desert Tortoise** (provided above), and to include monitoring and adaptive management for the mitigation measures that directly and indirectly affect the tortoise and its habitat.

Because of the deficiencies in the Document that we described above and the status of the Mojave desert tortoise, we cannot support any of the action alternatives and request that the Agencies select the no action alternative.

We appreciate this opportunity to provide input and trust that our comments will further protect tortoises if this Project is authorized. Herein, we ask that the Desert Tortoise Council be identified as an Affected Interest for this and all other BLM of Riverside County projects that may affect species of desert tortoises, and that any subsequent environmental documentation for this Project is provided to us at the contact information listed above.

Regards,

6022RA

Edward L. LaRue, Jr., M.S. Chair, Ecosystems Advisory Committee

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## **Environmental Assessment**

Submission Successful Your Submission ID is: Keystone\_EA\_RFO\_9\_2018-1-238045

#### Names & Addresses

Lenora F. Smith 14285 SW Cherry Hill Dr. Beaverton, Oregon 97008, United States Email Address: lenorafsmith@gmail.com Day Phone: 1503-646-1932 Evening Phone: 503-646-1932 Fax Number: Other Phone: Agency: Public Web Page Organization/Group: Oregon Council of Rock and Mineral Clubs Position: Secretary

#### Comments

Comment 1 ID: Comment Quartzite Solar Planning Title:

I think this is too close to the Quartzite Population and Shopping Area. This area mushrooms with people in the winter! Plus I think this will interfer with the Rockhounding Areas. There must be other places without people and business that will be available. One of the best places I have seen is in Oregon where I-5 and I-205 intersect outside of city of Tualatin, OR. You do not need to take a huge area so close to Quartzite, AZ.

Sincerely, Lenora Smith retired RN and lover of beautiful Rocks and Minerals, 14285 SW. Cherry Hill Dr., Beaverton, OR 97008

#### **Submission Classification**

Response Type:	Front Office Submission Form
Delivery Type:	Front Office Submission Form
Receipt Date:	09/21/2018
Status:	ACTIVE

#### Agreements

Yes - Withhold personally identifying information from future publications on this Land Use Plan?

Yes - Please include me on the mailing list for this Land Use Plan project web site?

#### **Original Submission Files**

TRIBAL HISTORIC PRESERVATION



01-003-2013-001

14-1

14-2

14-3

14-4

November 08, 2018

[VIA EMAIL TO:rbrady@rctlma.org] Riverside County Mr. Russell Brady-rctlma 4080 Lemon Street, 12th Floor, P.O. Box 1409 Riverside, CA 92502

#### **Re: Comments Regarding the Desert Quartzite Draft EIR**

Dear Mr. Russell Brady-rctlma,

The Agua Caliente Band of Cahuilla Indians (ACBCI) appreciates your efforts to include the Tribal Historic Preservation Office (THPO) in the Desert Quartzite Solar project. We have reviewed the documents and have the following comments:

\*Please provide our office with updates or a status report of the project as it progresses.

\*Appendix G- 42, Cultural- 4: Unanticipated Discoveries #2 states the BLM alone shall determine the appropriate treatment for cultural resources. This should be changed to reflect that the BLM will determine the treatment in consultation with the SHPO and tribes.

\*Appendix G-43, Cultural- 6: Tribal Observer. The term "Tribal Observer" marginalization the role of the Native American Monitor as an active participant in the identification and protection of cultural resources. This term needs to be changed.

Again, the Agua Caliente appreciates your interest in our cultural heritage. If you have questions or require additional information, please call me at (760)699-6907. You may also email me at ACBCI-THPO@aguacaliente.net.

Cordially,

Patrician Concen Pictura

Pattie Garcia-Plotkin Director Tribal Historic Preservation Office AGUA CALIENTE BAND OF CAHUILLA INDIANS

Because life is good.



Protecting and restoring natural ecosystems and imperiled species through Science, education, policy, and environmental law

#### VIA EMAIL AND USPS

November 8, 2018

Erika Grace AECOM 10 Patewood Dr., Bldg VI, Suite 500 Greenville, SC 29615 blm ca desert quartzite solar project@blm.gov

#### Re: Comments on the Proposed Desert Quartzite Solar Project Draft Plan Amendment/ Environmental Impact Statement/ Environmental Impact Report DOI-BLM-CA-D060-2017-0002 CA State Clearinghouse No. 2015031066 August 2018.

Dear Ms. Grace:

These comments are submitted on behalf of the Center for Biological Diversity's one million staff, members and on-line activists in California and throughout the United States, regarding the Desert Quartzite Solar Project Draft Environmental Impact Statement/ Environmental Impact Report/ Land Use Plan Amendment (DEIS/R), issued by the Bureau of Land Management ("BLM") and the County of Riverside ("County").

The development of renewable energy is a critical component of efforts to reduce greenhouse gas emissions, avoid the worst consequences of global warming, and to assist California in meeting its ambitious emission reductions goals. The Center for Biological Diversity (the "Center") strongly supports the development of renewable energy production, and the generation of electricity from solar power, in particular. However, like any project, proposed solar power projects should be thoughtfully planned to minimize impacts to the environment. In particular, renewable energy projects should avoid impacts to sensitive species and habitats, and should be sited in proximity to the areas of electricity end-use in order to reduce the need for extensive new transmission corridors and the efficiency loss associated with extended energy transmission. Only by maintaining the highest environmental standards with regard to local impacts, and effects on species and habitat, can renewable energy production be truly sustainable.

As proposed, the project right-of-way includes 5,115 acres of public lands and 160 acres of private lands in eastern Riverside County (at DEIS/R pg. ES-1). The 450 MW nameplate project is proposed to permanently disturb 3,616 acres of BLM land, and the County authorization for use of the private land would cover 154 acres (at DEIS/R pg. ES-1) in the Colorado Desert that currently provides habitat for many species including the threatened desert tortoise and the imperiled Mojave fringe-toed lizard (at DEIS/R Table ES-1). The proposed project, which would use photovoltaic panels, also includes a 2.97 mile gen-tie line that would run from the project site *Arizona* • *California* • *Nevada* • *New Mexico* • *Alaska* • *Oregon* • *Washington* • *Illinois* • *Minnesota* • *Vermont* • *Washington*, *DC* 

to the Colorado River substation. In addition to the No Action alternative and the proposed project, the DEIS/R also includes a Resource Avoidance Alternative and a Reduced Project Alternative. The Resource Avoidance Alternative is proposed as a 450 MW nameplate project on 2,622 acres of public lands managed by BLM and 160 acres of private land with a 4.18 mile-long gen-tie. Reduced Project Alternative is proposed as a 285 MW project on 1,887 acres on public lands managed by the BLM land and 160 acres of private land and a 4.18 miles gen-tie line. The DEIR/S fails to inform the public of the status of any power purchase agreements (PPA) for this proposed project. The proposed project includes battery storage (DEIS/R at 2-8), but it is unclear how much energy storage the modules would initially provide.

The original application for the Right-Of-Way was filed ten years ago in 2007 (DEIS/R at pg. ES-1). Since that time, there have been many changes in technology and circumstances, including the adoption of the Solar Programmatic EIS and the Desert Renewable Energy Conservation Plan, and additional information has been obtained. The new land use plans coupled with the data procured from environmental analysis of proposals near the proposed right-of-way show that this right-of-way application was ill-placed on the landscape and should be significantly reduced in size to avoid sensitive resources or denied.

This DEIS/R for the proposed plan amendment and right-of-way application does not meet the NEPA or CEQA requirements because it: fails to provide adequate identification and analysis of all of the significant impacts of the proposed project on the desert tortoise, the Mojave fringe-toed lizard, rare plants and other biological resources; fails to adequately address the significant cumulative impacts of the project; and lacks consideration of a reasonable range of alternatives.

Of particular concern is the document's failure to include adequate information regarding the impacts to resources and the BLM's failure to fully examine the impact of the proposed plan amendment to the California Desert Conservation Act Plan ("CDCA Plan") along with other now adopted plan amendments. Failing to subject the proposed project to the updated plan amendment requirements will result in an unnecessarily impactful project that is the anathema of smart planning. The Mule Mountain area in particular had little planning guidance when the original application was filed but under the fast-track process and because of the adjacent transmission, several industrial scale projects moved forward within habitat that should have been protected to achieve the goals of the Northern and Eastern Colorado Plan (NECO). Unfortunately, this has resulted in unforeseen impacts to resources including unanticipated take of federally and state endangered species without the required permits and significant impacts to cultural resources. The subsequent plan amendments provide essential planning guidance which should be applied to all projects in the area should be subject to support good planning. And under CEQA, at minimum, the requirements of those plans for avoidance, minimization and mitigation must be considered in the DEIS/R in order to avoid significant impacts, minimize unavoidable impacts, and fully mitigate impacts of the project on the environment.

The DEIS/R fails to consider any potential alternative plan amendment that would protect the most sensitive lands from future development. Alternative siting and alternative technologies including a further reduced project alternative that would accommodate only the existing MW contract in the undisclosed PPA and an alternative for 450 MW of distributed PV developed in the built environment close to load centers should be fully considered in the DEIS/R, because



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they could significantly reduce the impacts to many species, soils, and other resources in the Colorado desert. Although the area of the proposed project is currently part of the solar PEIS' East Riverside Solar Energy Zone (SEZ) and the DRECP's East Riverside Development Focus Area (DFA), the DEIS/R fails to fully identify and discuss the NECO plan guidance that this project is still subject to. Regarding the DRECP, which is now in place and was crafted to minimize impacts in the Riverside East Development Focus Area (DFA) where this project is proposed, the DEIS/R provides an analysis of DRECP conservation areas within the DFA that do not apply (ex. wildlife connectivity corridors at pg. 4.4-30). However it fails to analyze how the proposed project alternative complies or doesn't comply with the DRECP. Instead the DEIR/S identifies that the Reduced Project Alternative applies some of the Conservation Management Actions (CMAs) from the DRECP but it still fails to identify which ones (DEIS/R at 1-11).

In the sections that follow, the Center provides detailed comments on the ways in which the DEIS/R fails to adequately identify and analyze many of the impacts that could result from the proposed project, including but not limited to: impacts to biological resources, impacts to water resources, impacts to soils, direct and indirect impacts from the gen-tie line, and cumulative impacts.

# I. The BLM's Analysis of the Proposed Plan Amendment and Proposed Project Fail to Comply with FLPMA.

As part of FLPMA, Congress designated 25 million acres of southern California as the California Desert Conservation Area ("CDCA"). 43 U.S.C. § 1781(c). Congress declared in FLPMA that the CDCA is a rich and unique environment teeming with "historical, scenic, archaeological, environmental, biological, cultural, scientific, educational, recreational, and economic resources." 43 U.S.C. § 1781(a)(2). Congress found that this desert and its resources are "extremely fragile, easily scarred, and slowly healed." *Id.* For the CDCA and other public lands, Congress mandated that the BLM "shall, by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the lands." 43 U.S.C § 1732(b).

The sum total of the proposed plan amendment to the CDCA plan from 2011 was one sentence: "The BLM's purpose and need for the Project is to respond to the Applicant's application under Title V of the Federal Land Policy and Management Act of 1976 (FLPMA) (43 USC §1761(a)(4)) for a ROW grant to construct, operate, maintain, and decommission a solar photovoltaic (PV) facility on public lands in compliance with FLPMA, BLM ROW regulations, and other applicable Federal laws, policies and plans." (DEIS/R at 1-3). Given the impact of the proposed project on other multiple uses of these public lands at the proposed site as well as other aspects of the bioregional planning, it is clear that BLM may also need to amend other parts of the plan as well and should have looked at additional and/or different amendments as part of the alternatives analysis.

While the Center understands the this project was arguably "grandfathered" and may not be subject to the PEIS and DRECP, there remain several concerns with the proposed land use amendment not the least of which is the BLM's failure to accurately address the governing regulatory framework from 2007 under the CDCA plan and NECO plan amendment. Even if BLM believed it could not require a new application that would comply with the PEIS and DRECP and avoid the numerous impactful issues that have been documented in detail through 15-11

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the environmental review process on the outdated application, it was certainly required to fully address the CDCA plan and NECO plan amendment.

Even after the DRECP was adopted some aspects of the CDCA/NECO plan remain in effect overall including ORV route designations. The Center has repeatedly sought stronger protections for desert tortoise and tortoise critical habitat in the DWMAs within the CDCA as a whole and particularly within the NECO planning area from ORV impacts. Despite the fact that desert tortoise populations in the NECO DWMAs continue to decline, BLM continues to allow activities that significantly impact tortoise and critical habitat within the DWMAs. For example, the BLM's NECO plan amendment adopted ORV "open wash zones" on 218,711 acres (25%) in the Chemehuevi DWMA and 352,633 acres (43%) in the Chuckwalla DWMA, and in an additional 1,042 square miles (666,880 acres) of desert tortoise habitat outside of both the DWMAs and critical habitat. As a result the NECO plan which is still in effect regarding ORV routes allows virtually unlimited ORV use in large parts of the DWMAs and allows significant damage to desert tortoises and their critical habitat to occur and these cumulative impacts have not been adequately considered in the DEIS/R.

As part of reviewing the proposed plan amendment BLM should also consider an alternative that would include amending the NECO plan routes to remove all "open wash zones" from all critical habitat and DWMAs in the planning area or at minimum in the project area. The BLM should also provide ongoing monitoring of critical habitat and the DWMAs (and make all reports publically available) to ensure that all *existing* route closures and other protections in the DWMAs are implemented and any *new* protective measures have the intended effect.

BLM has failed to take a *comprehensive* look at the proposed plan amendment for the ROW to determine if the proposed project interferes with the goals and objectives of the CDCA Plan as amended by the NECO, the Solar PEIS and the DRECP to the point where it would undermine the goals and objectives and make them ultimately unattainable—although the DEIS/R notes that this may be the case for some resources. For example, the DEIS/R recognizes that the NECO mitigation for impacts to Mojave fringe-toed lizards and their habitat needs to be mitigated at 3:1 (DEIS/R at 4.4-7). The DEIS/R also recognizes that that requirement may be available for purchase." (at pg. 4.4-7). The DEIS/R then states (at pg. 4.4-7):

"Therefore, compensation required under Mitigation Measure WIL-10 may be accomplished through acquisition and management of off-site habitat or, if suitable compensation habitat is not available, through off-site habitat enhancement and restoration (e.g., by controlling weeds). However, it is also uncertain whether off-site enhancement and restoration can feasibly and effectively restore natural sand transport function and aeolian sand habitat values. Therefore, with implementation of Mitigation Measure WIL-10 to the extent it is feasible, the Proposed Action's direct effects on sand transport may remain only partially mitigated."

First, the Center remains concerned that the significant impacts to these resources and others would doom the protections put in place under the Solar PEIS and the DRECP. Even if this site-specific project approval can be "grandfathered" it cannot be made based on outdated information; to do so could undermine the "bioregional" approach in the CDCA Plan as a whole

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(including the NECO amendment) as well as violate the fundamental planning principles of FLPMA.

Secondly, the DEIS/R fails to explain how weed control would be implemented as a mitigation strategy. It is unclear if the weed control is limited to on-site weeds or off-site weeds. If it includes off-site weeds, the location of implementation is unclear. The method to evaluate how much weed abatement would offset an acre of habitat destruction is also unclear. While we agree with the DEIS/R analysis that project effects may only be partially mitigated the DEIS/R is unclear how the mitigation would be quantified in order to evaluate how much of the impact would potentially be offset.

## A. The DEIS/R Fails to Adequately Address the Plan Amendment in the Context of the CDCA Plan.

Unfortunately, the DEIS/R fails to adequately consider the impacts of the proposed project and plan amendment and reasonable alternatives in the context of FLPMA and the CDCA Plan as amended by NECO. FLPMA requires that in developing and revising land use plans, the BLM consider many factors and "use a systematic interdisciplinary approach to achieve integrated consideration of physical, biological, economic, and other sciences . . . consider the relative scarcity of the values involved and the availability of alternative means (including recycling) and sites for realization of those values." 43 U.S.C. § 1712(c). As stated clearly in the CDCA Plan:

The goal of the Plan is to provide for the use of the public lands, and resources of the California Desert Conservation Area, including economic, educational, scientific, and recreational uses, in a manner which enhances wherever possible—and which does not diminish, on balance—the environmental, cultural, and aesthetic values of the Desert and its productivity.

CDCA Plan at 5-6. The CDCA Plan also provides several overarching management principles:

#### MANAGEMENT PRINCIPLES

The management principles contained in the law (FLPMA)—*multiple use, sustained yield, and the maintenance of environmental quality*—are not simple guides. Resolution of conflicts in the California Desert Plan requires innovative management approaches for everything from wilderness and wildlife to grazing and mineral development. These approaches include:

—Seeking simplicity for management direction and public understanding, avoiding complication and confusing in detail which would make the Plan in comprehensive and unworkable.

—Development of decision-making processes using appropriate guidelines and criteria which provide for public review and understanding. These processes are designed to help in allowing for the use of desert lands and resources while preventing their undue degradation or impairment.

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—Responding to national priority needs for resource use and development, both today and in the future, including such paramount priorities as energy development and transmission, without compromising the basic desert resources of soil, air, water, and vegetation, or public values such as wildlife, cultural resources, or magnificent desert scenery. This means, in the face of unknowns, erring on the side of conservation in order not to risk today what we cannot replace tomorrow.

—Recognizing that the natural patterns of the California Desert, its geological and biological systems, are the basis for planning, and that human use patterns, from freeways to fence lines, define its boundaries. Only in this way can the public resources can be understood and protected by the Plan that can be publicly comprehended, accepted, and followed.

CDCA Plan 1980 at 6 (first emphasis in original, second emphasis added).

The CDCA Plan anticipated that there would be multiple plan amendments over the life of the plan and provides specific requirements for analysis of Plan amendments. Those requirements include determining "if alternative locations within the CDCA are available which would meet the applicant's needs without requiring a change in the Plan's classification, or an amendment to any Plan element" and evaluating "the effect of the proposed amendment on BLM management's desert-wide obligation to achieve and maintain a balance between resource use and resource protection." CDCA Plan at 121. BLM reads this portion of the CDCA plan extremely narrowly and attempts to divorce it from the required NEPA analysis and alternatives. Looking at the CDCA Plan requirement in context with the NEPA review it is clear that the BLM was required to analyze not only whether alternative locations were available that would not require a plan amendment, but also how the proposed amendment would affect desert-wide resource protection and whether alternative locations and alternative plan amendments would avoid or lessen those impacts-BLM fails to address the latter issue and did not look at any site alternatives. The inclusion of a "no action" alternatives, a reduced acreage alternative, and an avoidance alternative as part of the NEPA analysis failed to cure this omission.

The CDCA Plan includes the Energy Production and Utility Corridors Element which is focused primarily on utility corridors with brief discussion of powerplant siting. Even in 1980 the CDCA Plan contemplated that alternative energy projects would likely be developed in the future but did not expressly provide planning direction for solar energy production. Nonetheless, the overarching principles expressed in the Decision Criteria are also applicable to the proposed project here including minimizing the number of separate rights-of-way, providing alternatives for consideration during the processing of applications, and "avoid[ing] sensitive resources wherever possible." CDCA Plan at 93. Because avoiding resources, including the sensitive sand habitats is clearly possible, it should be required. Unfortunately, the DEIS/R does not show that BLM fully considered the landscape level issues and management objectives or alternatives to the proposed plan amendment in the DEIS/R.

In addition, BLM should have considered the impacts to resources and existing land use plans for these public lands across several scales including, for example: in the Mule Mountain area in the Colorado Desert in California; and in the CDCA as a whole. 15-15

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Under the NECO plan, Wildlife Habitat Management Areas (WHMAs) "address other special status species and habitat management" (NECO at 2-2). NECO also states that "The existing restricted areas, DWMAs, and WHMAs form the Multi-species Conservation Zone" (NECO at 2-2) which is the conservation basis of the NECO plan. The proposed project area overlaps one of the multi-species WHMA that includes the Mule Mountains. Management emphasis for the Mule Mountain WHMA is on active management of specific species and habitats mitigation, and restoration from authorized allowable uses. The overlap of the proposed project is not addressed in the DEIS/R. The NECO Plan goals and objectives for "Other Special Status Animal and Plant Species, Natural Communities, and Ecological Processes" are very specific and focus on conservation:

Goals for special status animal and plant species, natural communities, and ecological processes are as follows:

• Plants and Animals. Maintain the naturally occurring distribution of 28 special status animal species and 30 special status plant species in the planning area. For bats, the term "naturally occurring" includes those populations that might occupy man-made mine shafts and adits.

• Natural Communities. Maintain proper functioning condition in all natural communities with special emphasis on communities that a) are present in small quantity, b) have a high species richness, and c) support many special status species.

• Ecological Processes. Maintain naturally occurring interrelationships among various biotic and abiotic elements of the environment.

The objectives are to

a. protect and enhance habitat

b. protect connectivity between protected communities

(NECO Plan at 2-52.) Further, the NECO Plan adopted action items to promote the objectives to "Protect and enhance habitat" (NECO Plan at 2-55), and "Protect connectivity between protected communities" (NECO Plan at 2-58). *See also* NECO Plan ROD at D-1, D-3.

For the first objective, to protect and enhance habitat, the first "action" is to:

Designate seventeen multi-species WHMAs (totaling 555,523 acres) such that approximately 80 percent of the distribution of all special status species and all natural community types would be included in the Multi-species Conservation Zone (Map 2-21 Appendix A). See Appendix H for a description of the process used to define the WHMA and the concept of conservation zones.

(NECO Plan at 2-55.) For the second objective, to protect connectivity, one of the actions states that: "The fragmenting affects of projects should be considered in the placement, design, and permitting of new projects." (NECO Plan at 2-58.) Other relevant "actions" include:

Require mitigation of impacts of proposed projects in suitable habitat within the range of a special status species and within natural community types using

commonly applied mitigation measures and conduct surveys in the proposed project area for special status species as follows (also see range maps 3-6a-f and 3-7a-f Appendix A):

(NECO Plan at 2-55.)

Thus under the NECO plan, the impacts to multiple species WHMA and to sand and playa areas and Mojave fringe-toed lizard should be avoided. As detailed below, the DEIS/R does not consider any alternative that would completely avoid these important areas, or adequately consider the impacts, or minimization and mitigation as required by the NECO plan (as well as NEPA and CEQA).

#### B. The DEIS/R Fails to Adequately Address Impacts to Multiple Use Class M Lands and Loss of Multiple Use in Favor of a Single Use for Industrial Purposes.

As FLPMA declares, public lands are to be managed for multiple uses "in a manner that will protect the quality of the scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values." 43 U.S.C.§ 1701(a)(7) & (8). The CDCA Plan as amended provides for four distinct multiple use classes (MUC) based on the sensitivity of resources in each area and although the use of the MUC classes were eliminated by the DRECP, because this proposed project was "grandfathered" it is still subject to these MUC classes. The proposed project site is in MUC class M lands (DEIS/R at 1-12). Under the CDCA Plan, Multiple-use Class M (Moderate Use) "protects sensitive, natural, scenic, ecological, and cultural resources values. For public lands designated as Class M the CDCA Plan intends a "controlled balance between higher intensity use and protection of public lands. This class provides for a wide variety o[f] present and future uses such as mining, livestock grazing, recreation, energy, and utility development. Class M management is also designed to conserve desert resources and to mitigate damage to those resources which permitted uses may cause." CDCA Plan at 13 (emphasis added). The proposed project is a high-intensity, single use of resources that will displace all other uses and that will significantly diminish (indeed, highly modify) over 3,600 acres of habitat including impacting aeolian transport in the dunes ecosystem and stabilized sand habitat, directly impacting habitat for desert tortoise and nibbling away a BLM-designated WHMA established to protect multiple species. While the DEIS/R does consider alternative configurations that would avoid some impacts to some resources, the proposed project creates the greatest impact to the sensitive resources of all the alternatives. Therefore its impact on reaching the "controlled balance" between multiple uses or the goals and objectives identified in the CDCA plan is clearly inadequate. Moreover, BLM does not address how the loss of multiple uses in such a large area might affect other nearby public lands in the CDCA such as creating greater pressures on those land for the remaining multiple uses.

The DEIS/R does not consider whether and how new access roads created for the proposed project may increase off-road vehicle use in this area and thereby significantly increase impacts from ORVs on species and habitats surrounding the proposed project. As another example, the DEIS/R tries to downplay the extent that the proposal would require changes in the route network resulting in permanently closing six access routes by contending that three of the routes was to the private parcel that is part of the project, therefore closing them does not

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diminish access to public lands. In lieu of an actual analysis of routes in the surrounding area, the DEIS/R downplays closing the routes by stating "there are other existing open routes on the perimeter of the Project area which would continue to provide the same level of access" (DEIS/R at 2-30). It does not appear that any attempt was made to modifying the project boundary to keep other routes accessible. We did not find where BLM proposes these route closures as part of the plan amendment or to provide a range of alternatives based on these proposed closures which will undoubtedly change use of the existing nearby routes, most likely causing increased use. While BLM notes that some impacts could occur it does not analyze those potential impacts. Even if BLM attempts to simply reroute along the fenceline for the proposed project a plan amendment would be required and BLM must then consider that new unauthorized routes to provide connections to the other routes, and/or entirely new unauthorized routes may be created by off-road vehicle users to avoid the industrial site entirely. There is no evidence that recreational off-road vehicle users will be content to drive for miles along a fence adjoining an industrial site rather than striking off cross-country to connect with more scenic routes. Past experience shows that the latter is quite understandably a much more likely outcome and BLM should recognize it by analyzing the impacts of this project on the existing route network and any proposal to amend that network.

#### C. Fails to Adequately Address Other Adopted Plan Amendments

As noted above, the DEIS/R fails to adequately address the proposed project in the context of other connected projects (including multiple renewable energy projects, substations and additional transmission lines), which to some extent the Solar PEIS for solar development in six western states undertaken by BLM and DOE and the DRECP undertaken in the California Desert District and parts of the Bishop and Bakersfield Field Areas did address. While both the Solar PEIS and the DRECP identify the Riverside-East SEZ and DFA as an area appropriate for solar development, both also identified avoidance areas for solar energy and strategies to minimize impacts from projects within the SEZ and DFA including minimization strategies that this proposed project should have adopted. The DRECP also put in place Conservation Management Actions (CMAs) to be applied in the DFA. While the DEIS/R applies some of these sensible management actions from the DRECP and PEIS, it fails to require the necessary avoidance and minimization measure in order to minimize impacts and not undermine goals and objective in currently adopted plan amendments.

#### D. The DEIS/R Fails to Provide Adequate Avoidance and Minimization Measures to Ensure that the BLM will Prevent Unnecessary and Undue Degradation of Public Lands and Fails to Show that County has Complied with CEQA

FLPMA requires BLM to "take any action necessary to prevent unnecessary or undue degradation of the lands" and "minimize adverse impacts on the natural, environmental, scientific, cultural, and other resources and values (including fish and wildlife habitat) of the public lands involved." 43 U.S.C. §§ 1732(b), 1732(d)(2)(a). Without clear analysis of the impacts to the goals of the more recent plan amendments and their requirements, the BLM cannot fulfill its duty to prevent unnecessary or undue degradation of the public lands and resources. Thus, the failure to fully address and implement the avoidance and minimization measures identified in the Solar PEIS and the DRECP, which was based on more recent data than the NECO plan, undermines BLM's ability to protect and manage these lands in accordance
with the statutory directive. In addition, by failing to adequately consider the avoidance, minimization and mitigation measures of the PEIS and DRECP, the County has failed to comply with CEQA.

As detailed below, the BLM's failure to adequately analyze the impact of this proposal on the goals of the more recent land use plan amendments precludes complete and adequate NEPA analysis and in addition undermines the BLM's ability to ensure that the proposal does not cause unnecessary and undue degradation of public lands. *See Island Mountain Protectors*, 144 IBLA 168, 202 (1998) (holding that "[t]o the extent BLM failed to meet its obligations under NEPA, it also failed to protect public lands from unnecessary or undue degradation."); *National Wildlife Federation*, 140 IBLA 85, 101 (1997) (holding that "BLM violated FLPMA, because it failed to engage in any reasoned or informed decisionmaking process" or show that it had "balanced competing resource values").

## **II.** The DEIS/R Fails to Comply with NEPA.

NEPA is the "basic charter for protection of the environment." 40 C.F.R. § 1500.1(a). In NEPA, Congress declared a national policy of "creat[ing] and maintain[ing] conditions under which man and nature can exist in productive harmony." *Or. Natural Desert Ass'n v. Bureau of Land Mgmt.*, 531 F.3d 1114, 1120 (9th Cir. 2008) (quoting 42 U.S.C. § 4331(a)). NEPA is intended to "ensure that [federal agencies] ... will have detailed information concerning significant environmental impacts" and "guarantee[] that the relevant information will be made available to the larger [public] audience." *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1212 (9th Cir. 1998).

Under NEPA, before a federal agency takes a "'major [f]ederal action[] significantly affecting the quality' of the environment," the agency must prepare an environmental impact statement (EIS). *Kern v. U.S. Bureau of Land Mgmt.*, 284 F.3d 1062, 1067 (9th Cir. 2002) (quoting 43 U.S.C. § 4332(2)(C)). "An EIS is a thorough analysis of the potential environmental impact that 'provide[s] full and fair discussion of significant environmental impacts and ... inform[s] decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment." *Klamath-Siskiyou Wildlands Ctr. v. Bureau of Land Mgmt.*, 387 F.3d 989, 993 (9th Cir. 2004) (citing 40 C.F.R. § 1502.1). An EIS is NEPA's "chief tool" and is "designed as an 'action-forcing device to [e]nsure that the policies and goals defined in the Act are infused into the ongoing programs and actions of the Federal Government." *Or. Natural Desert Ass'n*, 531 F.3d at 1121 (quoting 40 C.F.R. § 1502.1).

An EIS must identify and analyze the direct, indirect, and cumulative effects of the proposed action. This requires more than "general statements about possible effects and some risk" or simply conclusory statements regarding the impacts of a project. *Klamath Siskiyou Wildlands Center v. BLM*, 387 F.3d 989, 995 (9th Cir. 2004) (citation omitted); *Oregon Natural Resources Council v. BLM*, 470 F.3d 818, 822-23 (9th Cir. 2006). Conclusory statements alone "do not equip a decisionmaker to make an informed decision about alternative courses of action or a court to review the Secretary's reasoning." *NRDC v. Hodel*, 865 F.2d 288, 298 (D.C. Cir. 1988).

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NEPA also requires BLM to ensure the scientific integrity and accuracy of the information used in its decision-making. 40 CFR § 1502.24. The regulations specify that the agency "must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken. The information must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential." 40 C.F.R. § 1500.1(b).

## A. Purpose And Need and Project Description are Too Narrowly Construed and Unlawfully Segment the Analysis

#### 1. Purpose and Need:

Agencies cannot narrow the purpose and need statement to fit only the proposed project and then shape their findings to approve that project without a "hard look" at the environmental consequences. To do so would allow an agency to circumvent environmental laws by simply "going-through-the-motions." It is well established that NEPA review cannot be "used to rationalize or justify decisions already made." 40 C.F.R. § 1502.5; Metcalf v. Daley, 214 F.3d 1135, 1141-42 (9th Cir. 2000) ("the comprehensive 'hard look' mandated by Congress and required by the statute must be timely, and it must be taken objectively and in good faith, not as an exercise in form over substance, and not as a subterfuge designed to rationalize a decision already made.") As Ninth Circuit noted an "agency cannot define its objectives in unreasonably narrow terms." City of Carmel-by-the-Sea v. U.S. Dept. of Transportation, 123 F.3d 1142, 1155 (9th Cir. 1997); Muckleshot Indian Tribe v. U.S. Forest Service, 177 F. 3d 900, 812 (9th Cir. 1999). The statement of purpose and alternatives are closely linked since "the stated goal of a project necessarily dictates the range of 'reasonable' alternatives." City of Carmel, 123 F.3d at 1155. The Ninth Circuit recently reaffirmed this point in National Parks Conservation Assn v. BLM, 586 F.3d 735, 746-48 (9th Cir. 2009) (holding that "[a]s a result of [an] unreasonably narrow purpose and need statement, the BLM necessarily considered an unreasonably narrow range of alternatives" in violation of NEPA).

The purpose behind the requirement that the purpose and need statement not be unreasonably narrow, and NEPA in general is, in large part, to "guarantee[] that the relevant information will be made available to the larger audience that may also play a role in both the decision-making process and the implementation of that decision." *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989). The agency cannot camouflage its analysis or avoid robust public input, because "the very purpose of a draft and the ensuing comment period is to elicit suggestions and criticisms to enhance the proposed project." *City of Carmel-by-the-Sea*, 123 F.3d at 1156. The agency cannot circumvent relevant public input by narrowing the purpose and need so that no alternatives can be meaningfully explored or by failing to review a reasonable range of alternatives.

The BLM's purpose and need for the proposed Desert Quartzite project is "to respond to the Applicant's application under Title V of the Federal Land Policy and Management Act of 1976 (FLPMA) (43 USC §1761(a)(4)) for a ROW grant to construct, operate, maintain, and decommission a solar photovoltaic (PV) facility on public lands in compliance with FLPMA, BLM ROW regulations, and other applicable Federal laws, policies and plans.." (DEIS/R at 1-3).

BLM's purpose and need is very narrowly construed to the proposed project itself and an amendment to the Plan *for the project only*. The purpose and need provided in the DEIS/R retains the flaw of impermissibly narrow purpose under NEPA for several reasons, most importantly because it foreclosed meaningful alternatives review in the DEIS/R. Because the purpose and need and the alternatives analysis are at the "heart" of NEPA review and affect nearly all other aspects of the EIS, on this basis and others, BLM must revise and re-circulate the DEIS/R.

Similarly for CEQA review, the project objectives frame the alternatives analysis, the purpose of which is to enable the agency or commission to fulfill the statutory requirement that feasible alternatives that avoid significant impacts of a project must be implemented.

[I]t is the policy of the state that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects, and that the procedures required by this division are intended to assist public agencies in systematically identifying both the significant effects of proposed projects and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects.

(Public Res. Code § 21002.) The statutory language and case law make it quite clear that the Legislature intended public agencies to utilize CEQA's environmental review process and procedures to make determinations regarding feasible alternatives and mitigation measures based on a robust analysis. Nothing in CEQA states that the project objectives utilized by the agency must meet all of the applicant's proffered objectives. The statutory definition of "feasible" does not even mention the applicant's objectives. (Pub. Res. Code § 21061.1.) Nothing in CEQA states that an alternative may be found infeasible solely due to a conflict with one or more of the applicant's objectives. In fact, the CEQA Guidelines expressly provide that a feasible alternative may impede achievement of the project objectives to some degree. (See 14 C.C.R (CEQA Guidelines) § 15126.6(a), (b).) Framing project objectives too narrowly or too specifically would artificially limit the range of reasonable, feasible alternatives and could preclude consideration of a reasonable range of alternatives. *See City of Santee v. County of San Diego* (1989) 214 Cal. App. 3d 1438, 1455.

The County's identifies the purpose as "is to construct and operate a solar energy facility using a low-profile, PV solar technology that maximizes the generation of a renewable and reliable source of electrical power consistent with Federal and state policies and plans designed to promote environmentally responsible development of affordable renewable energy projects and green jobs in California." (at 1-4).

The Purpose and Need for the County is identical to the Project Applicant's purpose and need, which further limits the range of alternatives. There is no clear reason why 450 MW should be considered as an objective—the County must address feasible alternatives that would be smaller and avoid significant impacts to resources including the Resource Avoidance Alternative in the DEIS/R and others such as a Reduced Project Alternative only.

The Center is well aware that the original application was focused on permitting a project to take advantage of subsidies, tax credits and other funding, particularly for the American Recovery and Reinvestment Act ("ARRA") funds that drove projects to be placed in inappropriate areas, as this proposed project site is. The subsidies may or may not be available in the future and that must also be taken into account in the DEIS/R if the County chooses to consider financial feasibility and commercial financing as part of the objectives.

Moreover, in its discussion of the need for renewable energy production the DEIS/R fails to fully address risks associated with global climate change in context of including both the need for climate change mitigation strategies (e.g., reducing greenhouse gas emissions) and the need for climate change adaptation strategies (e.g., conserving intact wild lands and the corridors that connect them). All climate change adaptation strategies underline the importance of protecting intact wild lands and associated wildlife corridors as a priority adaptation strategy measure.

The habitat fragmentation, loss of connectivity for terrestrial wildlife, destruction of carbon sequestration of soils and introduction of predators and invasive weed species associated with the proposed project in the proposed location may run contrary to an effective climate change adaptation strategy. Siting the proposed project in the proposed location impacting the sand transport corridor, dune ecosystems, occupied habitat, important habitat linkage areas, major washes, and other fragile desert resources could undermine a meaningful climate change adaptation strategy by ignoring the need for significant avoidance, minimization and mitigation from any project built on any part of the proposed site. The way to maintain healthy, vibrant ecosystems is not to fragment them and reduce their biodiversity.

## B. Failure to Identify and Analyze Direct and Indirect Impacts to Biological Resources

The EIS fails to adequately analyze the direct, indirect, and cumulative impacts of the proposed project on the environment. The Ninth Circuit has made clear that NEPA requires agencies to take a "hard look" at the effects of proposed actions; a cursory review of environmental impacts will not stand. *Idaho Sporting Congress v. Thomas*, 137 F.3d 1146, 1150-52, 1154 (9<sup>th</sup> Cir. 1998). Where the BLM has incomplete or insufficient information, NEPA requires the agency to do the necessary work to obtain it where possible. 40 C.F.R. §1502.22; *see National Parks & Conservation Ass'n v. Babbitt*, 241 F.3d 722, 733 (9th Cir. 2001) ("lack of knowledge does not excuse the preparation of an EIS; rather it requires [the agency] to do the necessary work to obtain it.")

Moreover, BLM must look at reasonable mitigation measures to avoid impacts in the DEIS/R but failed to do so here. Even in those cases where the extent of impacts may be somewhat uncertain due to the complexity of the issues, BLM is not relieved of its responsibility under NEPA to discuss mitigation of reasonably likely impacts at the outset. Even if the discussion may of necessity be tentative or contingent, NEPA requires that the BLM provide some information regarding whether significant impacts could be avoided. *South Fork Band Council of Western Shoshone v. DOI*, 588 F.3d 718, 727 (9th Cir. 2009).

The DEIS/R fails to identify that the proposed project overlap with the Mule Mountain Wildlife Habitat Management Area (WHMA) as established under NECO. If the project is truly a "grandfathered" project then the NEPA and CEQA analysis must address the existing land use

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as the CDCA Plan as amended by NECO. The DEIS/R must to analyze the impacts to this important WHMA. While the DRECP and PEIS can and must be considered in determining whether there are additional reasonable, feasible avoidance, minimization and mitigation measures (and the DEIS/R must address the impacts of the proposed project on the subsequent goals and objectives of these later-adopted land use plan amendments), BLM and the County must first ensure conformance with the NECO plan amendment requirements.

#### 1. Desert Tortoise

The desert tortoise has lived in the western deserts for tens of thousands of years. In the 1970's their populations were noted to decline. Subsequently, the species was listed as threatened by the State of California in 1989 and by the U.S. Fish and Wildlife Service in 1990, which then issued a Recovery Plan for the tortoise in 1994. The U.S. Fish and Wildlife Service issued an Updated Recovery Plan in 2011. Current data indicate a continued decline across the range of the listed species1 despite its protected status and recovery actions.

The original and Updated Recovery Plans both recognize uniqueness in desert tortoise populations in California. This particular subpopulation of tortoise at the proposed project site is part of the Eastern Colorado Recovery unit<sup>2</sup>. Recent population genetics studies<sup>3</sup> have further confirmed 1994 Recovery Plan conclusions the Eastern Colorado Recovery unit was one of the most genetically unique recovery units. The proposed project site may have low desert tortoise densities and the latest publicly available data on this particular recovery unit documents it to have continuing declines<sup>4</sup>. Despite the fact that no live desert tortoise were found on the site during the protocol surveys, tracks were identified, indicating the site is still, to some extent, occupied habitat. The DEIS/R fails to identify and consider the localized impact to this recovery unit that is already in steep decline from eliminating over 3,760 acres of tortoise habitat from being occupied in the future.

While proposed mitigation measure Wil-2 requires Tortoise а Desert Relocation/Translocation Plan (DEIS/R at Appendix G-27), it also states that "if the preconstruction survey determines that more than 5 tortoises are located on the Project site, the Applicant shall identify an off-site translocation site that is depleted of tortoises, where tortoises may be translocated in accordance with USFWS (2011b) protocol" (IBID). It is unclear if there are less than 6 desert tortoises ultimately found during site clearance surveys where or if they would be translocated. While translocation remains a popular strategy for moving desert tortoise out of immediate harm's way, desert tortoise translocations still typically result in significant short-term mortality up to 45%<sup>5</sup> and the long-term unknown survivorship is unknown. Many mitigationdriven translocations fail due to poorly planned translocations<sup>6</sup>. Studies on the short-term integration of the translocated male desert tortoises into the recipient populations indicates that they are not being genetically integrated into the population<sup>7</sup>. If translocating desert tortoise is

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<sup>1</sup> USFWS 2015

<sup>2</sup> USFWS 1994

<sup>3</sup> Murphy et al. 2007

<sup>4</sup> USFWS 2015.

<sup>5</sup> Gowan and Berry 2010.

<sup>6</sup> Germano et al. 2015

<sup>7</sup> Mulder et al. 2017

necessary, the translocation plan needs to incorporate the most recent data including selection of appropriate habitat<sup>8</sup>, and other safeguards that will help to improve the survivorship of translocated desert tortoises and the recipient populations into which they are introduced. It is imperative to have this important plan updated and available for comment as part of the DEIS/R in order for the public and decision makers to be able to evaluate the effectiveness of the proposed strategies and not left until just prior to groundbreaking which is well after the environmental review process has concluded.

Mechanisms need to be included to assure that any and all mitigation acquisitions (ex. Mitigation Measure WIL-4 (Desert Tortoise Compensatory Mitigation) at Appendix G-29) will be conserved in perpetuity for the conservation of the desert tortoise and other wildlife as required by CDFW for mitigation for state listed species. Even if those acquisitions are within protected areas under the DRECP, additional assurances need to be put in place to achieve in perpetuity conservation.

NEPA mandates consideration of the relevant environmental factors and environmental review of "[b]oth *short- and long-term* effects" in order to determine the significance of the project's impacts. 40 C.F.R. § 1508.27(a) (emphasis added). BLM has clearly failed to do so in this instance with respect to the impact to the desert tortoise.

The 1:1 mitigation ratio of desert tortoise habitat outside of critical habitat as proposed in Mitigation Measure WIL-4 (Desert Tortoise Compensatory Mitigation) is actually inadequate to mitigate for the destruction of habitat because it does not really fully mitigate as required by CDFW in California. Mitigation presumes that acquisition will be appropriate tortoise habitat (occupied or unoccupied) which is currently existing and providing benefits to the species, to off-set the elimination of the proposed project site. However, this strategy is still *a net loss of habitat* to the desert tortoise, as currently they are using or could use both the mitigation site and the proposed project site. Therefore, in order to aid in recovery of this declining and federally and state threatened species, at a minimum a 2:1 mitigation ratio should be required as mitigation for the total elimination of desert tortoise habitat on the proposed project site and an additional condition that the habitat provide connectivity to this population must be required.

If tortoises are relocated or translocated, then the relocation and/or translocation areas need to be secured for tortoise conservation in perpetuity in order to preclude moving the animals subsequently if additional projects move forward on the relocation or translocation site(s), which has happened with other solar projects.

## 2. Mojave fringe-toed lizard/Sand dunes/Sand Transport System

The sand dune and partially stabilized sand dune habitat is crucial for the Mojave fringetoed lizard, which is the most southerly population of the Mojave fringe-toed lizard and likely the population most adapted to the increasing temperatures due to climate change. As proposed in the DEIS/R the proposed project site has the potential to impact four Sand Migration Zones (SMZs) – Wiley's Well Basin, Mule, Palowalla and Powerline SMZs. While most of the proposed project is proposed on Zone C (low sand migration), particularly in the northern part of 15-29

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<sup>8</sup> Nafus et al. 2016

the site and along the gen-tie to the Colorado River Substation is proposed in areas ranging from low to moderate sand migration to moderate to high sand migration (Appendix O – Plate ES-3). The Resource Avoidance Alternative 2 and the Reduced Project Alternative 3 would reduce impact to the sand migration areas. However each alternative would also have "indirect" impacts to the sand transport corridor, yet we could not find a quantitative analysis of the impacts, both direct and indirect, to the different parts of Sand Migration Zones in the DEIS/R. The DEIS/R fails to provide an alternative that completely avoids impacts to the sand transport corridor. The proposed PV technology allows for flexibility in project layout on the landscape, which could be arranged to avoid the sand transport corridor, both for the benefits in maintaining the current Aeolian processes and to reduce wear and tear on the solar equipment.

Other solar energy projects proposed to impact Mojave fringe-toed lizard habitat have identified mitigation ratios of 5:1 and 3:1 for direct impacts to all occupied Mojave fringe-toed lizard habitat and lesser ratios for indirect impacts. For example, Desert Sunlight project was required to mitigate any unavoidable impacts to the Mojave fringe-toed lizard habitat up to 5:1 for direct impacts to all occupied Mojave fringe-toed lizard habitat and lesser ratios for indirect impacts (Desert Sunlight FEIS at 4.4-40). The Desert Sunlight project (Desert Harvest FEIS at Wil-4) was also required to produce a Mojave Fringe-toed Lizard Protection Plan. The DEIS/R provides no explanation for failing to require a Mojave Fringe-toed Lizard Protection Plan for this proposed project which clearly is sited in more Mojave fringe-toed lizard habitat than the Desert Sunlight and will have significantly more impacts to the species if approved. The DEIS/R fails to identify why only a 3:1 mitigation ratio is being required for direct impacts. The DEIS/R fails to evaluate or propose mitigation for indirect impacts which is wholly inadequate because indirect impacts will impact the downwind portions of the sand transport corridor and alter sand transport, which will alter Mojave fringe-toed lizard habitat similarly to how building on it would affect it. As Barrows et al. (2006)<sup>9</sup> found, edge effects are significant for fringe-toed lizards and, in addition, the increase in predators associated with developed edges may also have a significant adverse effect on fringe-toed lizards and other species, therefore additional mitigation is warranted.

Despite the inadequacy of the proposed mitigation and as discussed above, the DEIS/R states "It is uncertain whether sufficient private lands meeting the habitat criteria may be available for purchase." (at pg. 4.4-7). Furthermore on that same page, it states:

"Therefore, compensation required under Mitigation Measure WIL-10 may be accomplished through acquisition and management of off-site habitat or, if suitable compensation habitat is not available, through off-site habitat enhancement and restoration (e.g., by controlling weeds or off-highway vehicle access). However, it is also uncertain whether off-site enhancement and restoration can feasibly and effectively restore natural sand transport function and aeolian sand habitat values. Therefore, with implementation of Mitigation Measure WIL-10 to the extent it is feasible, the Proposed Action's direct effects on sand transport may remain only partially mitigated." 15-34

<sup>9</sup> Barrows et al. 2006

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Clearly the lack of adequate mitigation land and the infeasibility of restoration of habitat elsewhere is a key reason to consider alternatives that will avoid impacts to both the sand movement zones or select the No Project alternative.

It is unclear in the DEIS/R if fencing will allow any sand habitat for Mojave fringe-toed lizards to remain on the proposed project site within the boundaries of the solar field. If it does, it puts Mojave fringe-toed lizards potentially in harm's way not only from construction but also from operation of the proposed project infrastructure from the motorized vehicles and roads used for maintenance, panel washing, etc. No analysis of the on-going impacts to Mojave fringe-toed lizards from road related mortality or use of other motorized equipment on site as part of the operations is provided. Other roads associated with development projects located in Mojave fringe-toed lizard habitat have documented significant mortality despite enacted avoidance and minimization measures,<sup>10</sup> particularly during construction. The DEIS/R completely fails to address any avoidance and minimization, as required. Based on the impact studies mentioned above, the DEIS/R needs to include additional Mojave fringe-toed lizard avoidance and minimization measures not only for construction but for operations and maintenance. Because of the failure to identify and analyze these impacts, a revised DEIS/R circulated.

## 3. Migratory and Other Birds and Burrowing Owls

Large-scale renewable energy facilities in California are having direct and indirect impacts on migratory birds<sup>11</sup>. The scale of the impacts and the significance to the overall population abundance and ecology of migratory bird species is potentially significant, yet due to a lack of standardized monitoring and analysis, the scale of the impacts remains unknown. It is essential that standardized before-after-control-impact surveys of migratory birds are conducted when developing projects, including the proposed project, in order to understand how renewable energy projects are affecting our migratory bird populations and to ensure that projects are developed in accordance with federal law and international treaties.

At this time, there are numerous large-scale solar energy projects operational in the California desert with others moving forward. The land being developed for renewable energy is habitat used by migratory bird species as they migrate and periodically stopover at various sites. These areas are crucial for the viability of the migratory populations. At solar facilities in California that are either under construction or operational, individuals of over 40 species of migratory birds have been found injured or dead<sup>12</sup> and this is far above the background mortality found during control surveys. Avifauna impacted by these facilities includes multiple species of raptors, passerines, and water birds, including the endangered Ridgway's clapper rail (*Rallus longirostris yumanensis*), and the federally threatened Yellow-billed cuckoo (*Coccyzus americanus*).

We are seriously concerned that birds of multiple species may perceive some solar facilities as large bodies of standing water or reflected airspace through which to fly especially for this project that is located along the Colorado River migration route. 15-38

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<sup>10</sup> Helix 2013

<sup>11</sup> Kagan et al. 2014

<sup>12</sup> IBID

Pursuant to Executive Order 13186, federal agencies taking actions that have, or are likely to have, a measurable negative effect on migratory bird populations are responsible for promoting the conservation of migratory birds. Per the Migratory Bird Treaty Act, and related regulations, the USFWS has no framework to accept compensation to help mitigate a project's impact on migratory bird populations and habitats; however, the BLM and the County may accept mitigation in collaboration with USFWS. At this time, it is essential that the agencies focus on identification of the source of mortality and likely extent so that it can be analyzed, avoided completely, or minimized and mitigated. Because the project may actually create an attractive nuisance for migratory birds, mitigation for migratory bird impacts should be separate from, and in addition to, mitigation for the loss of habitat for terrestrial species. As is well documented, this mitigation, to be effective, needs to involve riparian areas, additions to wildlife reserves and/or conservation and restoration of lands adjacent to riparian corridors or wildlife reserves. Consultation with the USFWS will provide a ratio, which we suggest should be a minimum of 3:1 due to the cumulative impacts of this project and other existing projects in the same area that have already "taken" birds.

With regard to the proposed project, the BLM and the County must require the project proponent to survey and accumulate accurate and reliable information on the background mortality rate of migratory birds at the project site and to establish protocols for mandatory standardized monitoring during and post-construction and commit to avoidance and mitigation measures. The project design should take into account this risk and adopt measures that could protect avian species if possible such as measures to change the "look" of panels so that birds do not mistake them for water. If the project is approved and constructed, then consistent monitoring must be put in place so that the agencies can assess the impacts to migratory birds and develop strategies to avoid, minimize and mitigate these impacts at this facility and use any information gleaned to help improve avoidance and minimization at other projects in the future.

Because every large scale solar project approved by BLM and County also has indirect impacts through loss of habitat for migratory birds, and since this loss is potentially significant, the DEIR/EA must provide for mitigation lands for the indirect loss of migratory bird habitat in addition to other mitigation lands.

## a. Ridgway's Clapper Rail (formerly Yuma clapper rail)

The Ridgway's clapper rail is protected under both the California and federal Endangered Species Acts, as endangered. Indeed, USFWS' Draft Yuma (Ridgway's) Clapper Rail Recovery Plan, First Revision<sup>13</sup> states that the Yuma clapper rail has a "high degree of threat and low recovery potential from loss of habitat due to lack of natural river processes that create and maintain marshes, and lack of security relative to the protection of existing habitats in the U.S. and Mexico". The USFWS identifies the population along the Colorado River and at the Salton Sea as non-migratory<sup>14</sup>, however one key action identified in the 2010 Draft Recovery Plan is "Identify migration pathways between the three core populations to assess metapopulation status and contribute to determinations on minimum population size and habitat necessary to support that population."<sup>15</sup> While the definition of "migratory" and "non-migratory" are not clearly

<sup>13</sup> USFWS 2010. Draft Yuma Clapper Rail Recovery Plan, 1st Revision

<sup>14</sup> USFWS 2006. Five year review – Yuma clapper rail.

<sup>15</sup> USFWS 2009. Draft Yuma Clapper Rail Recovery Plan, 1st Revision

defined in the Draft Recovery Plan, the rails (and other birds) do move between the lower Colorado River and the Salton Sea as well as along the Colorado River flyway. The proposed project site lies *between* the Lower Colorado River core population and the Salton Sea core population as well as along the Colorado River flyway. One dead Ridgway's rail was found at the nearby Desert Sunlight PV project in 2013<sup>16</sup>. Considering the landscape topography and the number of other waterfowl mortalities at adjacent solar projects, two migratory pathways may increase the potential for impacts, particularly to migratory waterfowl from the proposed project.

The DEIS/R fails to identify much less analyze the proposed project's potential for impacts to the highly imperiled and federally and state listed endangered Ridgway's (Yuma) clapper rail despite the fact that we requested a full analysis in our scoping comments on this project (dated 4-6-15). Core populations could be impacted by the proposed project when making movements from the Salton Sea to the Colorado River and back as well as when they transit the Colorado River. To date, two Yuma clapper rails that we know of have been found dead at industrial-scale photovoltaic projects. Because of already low and now declining population numbers, additional impacts and mortalities, will drive the Yuma clapper rail closer to the brink of extinction.

## b. Failure to Fully Evaluate At-Risk Avian Species

While the DEIS/R includes a discussion of the "lake effect" it appears to downplay the mortalities documented on the existing projects, and solely relies on the unavailable Bird and Bat Conservation Strategy to avoid, minimize and mitigate this type of impact. Clearly direct impacts<sup>17</sup> have occurred to at-risk avian species. It is likely that pre-construction on-site avian surveys are inadequate to evaluate the potential impacts of the proposed project to avian species due to the potential for attraction. Therefore the DEIS/R should have looked at nearby water features to evaluate the number and types of species that could be attracted to the thousands of acres of PV panels. Review of just one ebird local hotspot<sup>18</sup> indicates that numerous special status species occur at locations very close to the proposed project site including:

Common Name	Scientific Name	Status*
White-faced ibis	Plegadis chichi	SSC
Northern harrier	Circus cyaneus	SSC (breeding)(BP)
Ferruginous hawk	Buteo regalis	SSC(BP)
Swainsons hawk	Buteo swainsoni	ST
Sandhill crane	Grus canadensis	SSC (wintering)
Vermillion flycatcher	Pyrocephalus rubinus	SSC (breeding)
Vaux's swift	Chaetura vauxi	SSC (breeding)
willow flycatcher	Empidonax traillii	SE/FE(SWWF)
loggerhead shrike	Lanius ludovicianus	SSC (breeding)
yellow breasted chat	Icteria virens	SSC (breeding)
FE = Federally Endangered		
SE = State Endangered		
ST = State Threatened		

16 Kagan et al. 2014

17 IBID

18 https://ebird.org/hotspot/L1842425

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SFP = State Fully Protected SSC = Species of Special Concern SSC (BP) = Species of Special Concern – Bird of Prey

Many of these birds were also detected in the migration surveys reported in Appendix M, but we could not locate a discussion in the DEIS/R regarding potential impacts to them from the proposed project. In addition numerous "waterfowl" species of birds, species of gulls and terns and numerous other bird species that are attracted to water are also known from the general area. Therefore the impact analysis is incomplete and appears biased because it dismisses impacts to these species which are only considered to migrate through the area, and therefore assumes them to be less subject to impact—contrary to the evidence that they have been impacted at similar facilities similarly situated in migratory corridors.

Other resources to help analyze the potential impacts to migratory birds include the article19 written by Pat Flanagan, which used the existing data from e-Bird "hotspots" to evaluate potential migration pathways over the Mojave Desert using the following assumptions:

- "birds migrate toward breeding or wintering locations;
- Birds fly at an elevation allowing visibility over a wide area;
- Birds utilize great amounts of energy when flying and look for areas to rest, drink and eat;
- Over millennia birds have seen the Pleistocene lakes and Holocene wetlands come and go they know how to recognize and take advantage of a water source from even the briefest glint;
- Birds will veer off their route to access the promise from the glint;
- Birds ignore what has no immediate value."<sup>20</sup>

Comparing species at hotspots along a 380 mile migratory corridor from the Salton Sea to Death Valley National Park, shows a vast overlap in species along the transect, indicating the ubiquity of migratory birds on the landscape. The article also points to the problem with point-count bird surveys as are typically executed on proposed projects:

"Point-count surveys focus on undeveloped project sites, and provide scant understanding of the attractions to birds created by vertically-oriented mirrors or other smooth reflective panels; water-like reflective or polarizing panes; actively fluxing towers, open bodies of water; aggregations of insects that attract insectivorous birds."21

## c. Willow Flycatcher

The DEIS/R also downplays the presence of the willow flycatcher (*Empidonax traillii*) near the project site, failing to discuss it in the DEIS/R but noting that it was present during the migration surveys (Appendix M at pg. 93). The willow flycatcher is a state-listed endangered species. The southwestern willow flycatcher is a federally endangered species and all willow flycatchers are protected under California law. While the willow flycatcher is reported in the proposed project site area in the fall of 2014, it has been recorded regularly in the area.

<sup>19</sup> Flanagan, P. 2014

<sup>20</sup> Id. at 17.

<sup>21</sup> Id. at 19.

According to eBird hotspot list, which is reviewed by local experts prior to posting, willow flycatchers were documented at the nearby 22<sup>nd</sup> Ave. Oasis West of Stephenson Blvd. (e-bird hotspot). It is unclear if the birds were the federally protected southwestern willow flycatcher. However, southwestern willow flycatchers are known to migrate along the Colorado River<sup>22</sup>, and it is possible that the willow flycatchers were the southwestern subspecies. Mortalities of other species of flycatchers have been documented on the nearby Desert Sunlight PV project.<sup>23</sup> Mortalities of migrant birds may occur on the proposed project site, therefore, the County and BLM should consult with US Fish and Wildlife Service on impacts associated with the proposed project to the endangered southwestern willow flycatchers

## d. Western Burrowing Owl

The DEIS/R identifies four active burrowing owl burrows were detected on site during surveys of the proposed project area and they would be permanently impacted (at pg. 4.4-9). While burrowing owls are declining in California, the remaining stronghold for burrowing owls in California – the Imperial Valley – has documented decline of 18% in the 2011-2012<sup>24</sup>, resulting in an even more dire state for burrowing owls in California. Because burrowing owls are in decline throughout California, and now their "stronghold" is documented to be significantly declining, the burrowing owls on this proposed project site (and on other projects sites) become even more important to species conservation efforts. WIL-9 is wholly inadequate to offset the impacts to burrowing owls. While WIL-9 requires "6.5 acres per pair or individual bird documented during the preconstruction survey as anticipated to be impacted by the Project." (DEIS/R at Appendix G-37), this fails to use the best available science as a basis for the mitigation requirements. Please see below for discussion on appropriate mitigation acquisition.

WIL-9 requires a final Burrowing Owl Mitigation Plan if burrowing owls are found on the site in preconstruction surveys. No draft Burrowing Owl Mitigation Plan is provided despite the fact that four active burrows were found on site during wildlife surveys. WIL-9 proposes using passive relocation of owls (at Appendix G-37), despite the fact that there is no scientific evidence that passively burrow exclusion (or passive relocation) of burrowing owls is a successful strategy for long-term survival of burrowing owls. "Passively relocated" owls, need to be monitored to determine the effectiveness of that action. Therefore the County and BLM need to work with the state and federal wildlife agencies to set up a statistically useful monitoring program to assess the outcome of passively relocated owls.

Appropriate acres of burrowing owl habitat will need to be acquired to off-set impacts from the construction and operation of the solar project and transmission line. Mean burrowing owl foraging territories are 242 hectares in size, although foraging territories for owl in heavily cultivated areas is only 35 hectares<sup>25</sup>. The DEIS/R fails to identify the actual number of territories that occur on the proposed project site. Absent the actual number of territories that will be impacted, it will be impossible to determine the effectiveness of "nesting" the burrowing owl mitigation lands within mitigation lands acquired for other impacted species. Additional

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<sup>22</sup> USFWS 2013 at PDF pg 11.

<sup>23</sup> Kagan et al. 2014

<sup>24</sup> IID 2012

<sup>25</sup> USFWS 2003

mitigation acreage specifically for burrowing owls may need to be required – calculated using the mean foraging territory size times the number of territories. Even then, using the average foraging territory size for mitigation calculations may not accurately predict the carrying capacity and may overestimate the carrying capacity of the lands selected for mitigation. While the DEIS/R may have relied on guidance from CDFW from 2012, that guidance still does not fully incorporate current population declines<sup>26</sup> and additional research on the species habitat<sup>27</sup>. Lastly, because the carrying capacity is tied to habitat quality, mitigation lands that are acquired for burrowing owl that cannot be avoided, need to be native habitat on undisturbed lands, not cultivated lands, which are subject to the whims of land use changes. The long-term persistence of burrowing owls lies in their ability to utilize natural landscapes, not human-created ones.

## 4. Badger and Desert Kit Foxes

The desert kit fox and badgers are experiencing unprecedented impacts from development of renewable energy projects in their habitat. In our review of the earlier permitted projects, very few of them evaluate the impacts to desert kit fox populations or require any mitigation other than "passive relocation". This DEIS/R indicates that during surveys eight desert kit fox dens/complexes were occupied and a total of 91 potentially occupied dens/complexes occur on site (Appendix M at pg. 108). While WIL-8 requires the preparation of a Kit Fox Management Plan, no draft plan was provided in the DEIS/R. We remain concerned about the use of "passive relocation" with this species that generally go to great effort to return to their on-site territories.

Among other concerns about passive relocation, is the first case of canine distemper ever documented in desert kit fox swept through the desert kit fox population when the Genesis solar power project commenced construction. We share all of the State veterinarians' concerns about passive relocation as stated in a recent CEC proceeding<sup>28</sup>:

- "canine distemper virus (CDV) can cause repeated (cyclical) outbreaks. The time when this is most likely to happen is when susceptible young of the year are growing up and dispersing because density is high and animals are moving, therefore there is more opportunity to transmit the virus and more naïve animals present on the landscape to be infected. This time of year also corresponds to the time when projects are permitted to passively relocate foxes whose dens are within the project construction area
- Passive relocation or hazing activities conducted in an area experiencing or adjacent to distemper cases may enhance disease transmission and spread by multiple mechanisms.
  - First, animals stressed by disturbance or relocation may be more susceptible to illness and death because CDV infection decreases immune function (ref).
  - Second, passive relocation activities in an area experiencing clinical CDV cases may result in increased movement of animals shedding virus, thereby increasing the number of new cases or enhancing the spread of disease into new areas.

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<sup>26</sup> IID 2012

<sup>27</sup> USFWS 2003

<sup>28 &</sup>lt;u>http://docketpublic.energy.ca.gov/PublicDocuments/09-AFC-</u> 07C/TN200995\_20131022T141658\_Exhibit\_2005\_\_CDFW\_Outline\_for\_Proposed\_Desert\_Kit\_Fox\_Health\_M.pdf

• Little to nothing is known about the potential impacts of passive relocation on foxes from solar sites nor have alternative techniques been explored to determine best practices. Important unanswered questions include: • Do passively relocated animals re-establish territories adjacent to the solar site? Or might this depend on the density or spatial distribution of foxes around a site. Do relocated foxes experience lower survival or different causes of mortality that might need to be addressed through mitigation efforts? Recursion rate – how likely are relocated foxes going to try to get back on site and return • to former den areas? Demographic shifts of neighbors • Reproductive impact (n=1 relocated pair this year had den failure; most other dens were • successful this year in producing pups). • Rapid vs. slow relocation etc. • Utilization of artificial dens 15-43 • Longer term translocation decisions • Current monitoring limited in scope and inadequate to address needs (underfunded). Methods and outcomes for relocation are not evaluated systematically or reported." • These issues should also be incorporated into requirements for the proposed project, especially

These issues should also be incorporated into requirements for the proposed project, especially because this proposed project is near the distemper outbreak first documented at the Genesis solar project.<sup>29</sup>

Badgers and desert kit foxes were identified to occur throughout the project area (DEIS/R at pg. 4.21-13). Literature on the highly territorial badger indicates that badger home territories range from 340 to 1,230 hectares<sup>30</sup>. Therefore, the proposed project could displace *at least* one badger territory. While surveys prior to construction are clearly essential, even passive relocation of badgers into suitable habitat may result in "take". Excluding badger from the site is likely to cause badgers to move into existing badger's territory. WIL-8 includes several avoidance requirements as well as the passive relocation, however the DEIS/R fails to inform if these measures are even effective. The DEIS/R needs to include a Kit Fox and Badger Translocation Plan that clearly explains how these measures are intended to avoid and minimize impacts to these species and also includes post-translocation monitoring to accurately document the effects of "passive relocation" over the long-term.

## 5. Cryptobiotic Soil Crusts and Desert Pavement and Air Quality

The proposed project is located in the Mojave Desert Air Quality Management District area, which is already in non-attainment for PM-10 particulate matter<sup>31</sup>. The construction of the proposed project further increases emissions of these types of particles because of the disruption and elimination of potentially thousands of acres of cryptobiotic soil crusts particularly in Zone C of the SMZ. Cryptobiotic soil crusts are an essential ecological component in arid lands. They are the "glue" that holds surface soil particles together precluding erosion, provide "safe sites" for seed germination, trap and slowly release soil moisture, and provide  $CO_2$  uptake

<sup>29</sup> http://articles.latimes.com/2012/apr/18/local/la-me-0418-foxes-distemper-20120418

<sup>30</sup> Long 1973, Goodrich and Buskirk 1998

<sup>31 &</sup>lt;u>http://www.mdaqmd.ca.gov/index.aspx?page=214</u>

through photosynthesis<sup>32</sup>.

The DEIS/R does not describe the on-site cryptobiotic soil crusts. The proposed project will disturb an unidentified portion of these soil crusts and cause them to lose their capacity to stabilize soils and trap soil moisture. The DEIS/R fails to provide a map of the soil crusts over the project site, and to present any avoidance or minimization measures. It is unclear how many acres of cryptobiotics soils will be affected by the project. The DEIS/R must identify the extent of the cryptobiotic soils on site and analyze the potential impacts to these diminutive, but essential desert ecosystem components as a result of this project.

While the DEIS/R discusses desert pavements and it does not identify if there are any desert pavements on the proposed project site. If desert pavements are present, the DEIS/R needs to identify how much and where these pavements are present and then provide an analysis of impacts from the proposed project. Instead the DEIS/R provides AQ-2 which requires "The Applicant shall in general avoid disturbing desert pavement surfaces during construction" (Appendix G-3).

6. Insects

The DEIS/R fails to address insects on the proposed project site. We could not locate any surveys or evaluation of rare or common insects are included in the DEIS/R. Dune habitats are notorious for supporting endemic insects, typically narrow habitat specialists<sup>33</sup> and BLM's has previously identified dunes as important for these species.<sup>34</sup> The DEIS/R fails to provide an adequate baseline on the insect fauna in order to evaluate impact from the proposed project, this baseline data is needed to ensure adequate environmental review.

## 7. Decommissioning and Reclamation Plan

Desert lands are notoriously hard to revegetate or rehabilitate<sup>35</sup> and revegetation never supports the same diversity that originally occurred in the plant community prior to disturbance36. The task of revegetating over six square miles will be a Herculean effort that will require significant financial resources. In order to assure that the ambitious goals of the revegetation effort is met post project closure, it will be necessary to bond the project, so that all revegetation obligations will be met and assured. The bond needs to be structured so that it is tied to meeting the specific revegetation criteria.

The project will cause permanent impacts to the on-site plant communities and habitat for wildlife despite "revegetation", because the agency's regulations based on the Northern and Eastern Colorado Plan's rehabilitation strategies<sup>37</sup> only requires 40% of the original density of the "dominant" perennials, only 30% of the original cover. Dominant perennials are further

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<sup>32</sup> Belnap 2003, Belnap et al 2003, Belnap 2006, Belnap et al. 2007

<sup>33</sup> Dunn 2005.

<sup>34</sup> Andrews et al. 1979, Tinkham 1975

<sup>35</sup> Lovich and Bainbridge 1999

<sup>36</sup> Longcore et al. 1997

<sup>37</sup> http://www.blm.gov/ca/st/en/fo/cdd/neco.html

defined as "any combination of perennial plants that originally accounted cumulatively for at least 80 percent of relative density".<sup>38</sup> These requirements fail to truly "revegetate" the plant communities to their former diversity and cover even over the long term. While VIS-4 requires the development of a Decommissioning and Site Restoration Plan, that plan is not available for public review. BLM's own regulations 43 CFR 3809.550 et seq. require a detailed reclamation plan and a cost estimate for decommissioning and it needs to be included in the revised DEIS/R. A comprehensive decommissioning plan must be developed for the whole project site.

## 8. Fire Plan

Fire in desert ecosystems is well documented to cause catastrophic landscape scale changes<sup>39</sup> and impacts to the local species<sup>40</sup>. The DEIS/R mentions the impacts of fire but it fails to adequately analyze the impacts of fire from all the aspects of the proposed project. While ignition sources from construction are identified (at pg. 2-24), the DEIS/R fails to recognize and therefore adequately analyze the impact from operations that have the potential to escape the site and spread the natural lands adjacent to the project site. At least three fires have occurred on the Topaz solar project in eastern San Luis Obispo County, as a result of electrical issues with the solar panels.<sup>41</sup>

The DEIS/R also fails to address the mitigation of this potential impact. Instead it relies on the development of a Hazardous Materials Management and Emergency Response Plan for construction and operation (at pg. 2-24). It is unclear that such a plan would cover preventing the escape of fire onto the adjacent landscape (avoidance), lay out clear guidelines for protocols if the fire does spread to adjacent wildlands (minimization) and a revegetation plan if fire does occur on adjacent lands originating from the project site (mitigation) or caused by any activities associated with construction or operation of the site even if the fire originates off of the project site.

## 9. Failure to Identify Appropriate Mitigation

Because the DEIS/R fails to provide adequate identification and analysis of impacts, inevitably, it also fails to identify adequate mitigation measures for the project's environmental impacts. "Implicit in NEPA's demand that an agency prepare a detailed statement on 'any adverse environmental effects which cannot be avoided should the proposal be implemented,' 42 U.S.C. § 4332(C)(ii), is an understanding that an EIS will discuss the extent to which adverse effects can be avoided." *Methow Valley*, 490 U.S. at 351-52. Because the DEIS/R does not adequately assess the project's direct, indirect, and cumulative impacts, its analysis of mitigation measures for those impacts is necessarily flawed. The DEIS/R must discuss mitigation in sufficient detail to ensure that environmental consequences have been fairly evaluated." *Methow Valley*, 490 U.S. at 352; *see also Idaho Sporting Congress*, 137 F.3d at 1151 ("[w]ithout analytical detail to support the proposed mitigation measures, we are not persuaded that they

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<sup>38</sup> Ibid

<sup>39</sup> Brown and Minnich 1986, Lovich and Bainbridge 1999, Brooks et al. 2013, Brooks and Minnich 2007

<sup>40</sup> Dutcher 2009

<sup>41</sup> http://www.sanluisobispo.com/news/local/article39055539.html;

amount to anything more than a 'mere listing' of good management practices"). As the Supreme Court clarified in *Robertson*, 490 U.S. at 352, the "requirement that an EIS contain a detailed discussion of possible mitigation measures flows both from the language of [NEPA] and, more expressly, from CEQ's implementing regulations" and the "omission of a reasonably complete discussion of possible mitigation measures would undermine the 'action forcing' function of NEPA."

Although NEPA does not require that the harms identified actually be mitigated, NEPA does require that an EIS discuss mitigation measures, with "sufficient detail to ensure that environmental consequences have been fairly evaluated" and the purpose of the mitigation discussion is to evaluate whether anticipated environmental impacts *can be avoided*. *Methow Valley*, 490 U.S. at 351-52. As the Ninth Circuit recently noted: "[a] mitigation discussion without at least *some* evaluation of effectiveness is useless in making that determination." *South Fork Band Council of Western Shoshone v. DOI*, 588 F.3d 718, 727 (9th Cir. 2009) (emphasis in original).

In contrast, CEQA requires even more--that mitigation be considered for unavoidable impacts and be adopted. The purpose of alternatives analysis in an environmental review document under CEQA is to enable the agency to fulfill the statutory requirement that feasible alternatives that avoid significant impacts of a project must be implemented.

"[I]t is the policy of the state that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects, and that the procedures required by this division are intended to assist public agencies in systematically identifying both the significant effects of proposed projects and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects."

(Public Res. Code § 21002.) The statutory language and case law are quite clear that the Legislature intended public agencies to utilize CEQA's environmental review process and procedures to make determinations regarding feasible alternatives and mitigation measures based on a robust analysis.

CEQA's mandates are not purely procedural. It also contains an important substantive mandate: public agencies are required "to deny approval of a project with significant adverse effects when feasible alternatives or feasible mitigation measures can substantially lessen such effects." (*Sierra Club v. Gilroy City Council* (1990) 222 Cal.App.3d 30, 41; *see also* Pub. Res. Code § 21002.) Thus, a thorough review of mitigation measures is needed, the County cannot rely on vague or unformulated measures to find that impacts have been mitigated.

Here, the DEIS/R does not provide a full analysis of possible mitigation measures to avoid or lessen the impacts of the proposed project and therefore the BLM cannot properly assess the likelihood that such measures would actually avoid the impacts of the proposed project.

## C. Key Plans Not Included

The DEIS/R fails to include key plans for public review. Plans identified in the DEIS/R and relied upon for adequate mitigation but which we could not locate in the document or its appendices include:

- Environmental Inspection and Compliance Monitoring Program and Plan (EICMPP) (Appendix G-1)
- Mitigation Monitoring, Reporting, and Compliance Program (MMRCP) (Appendix G-1)
- o Dust Control Plan (Appendix G-2)
- A plan that outlines the frequency of non-toxic soil stabilizer applications based on the specifications of the selected soil stabilizer (Appendix G-3)
- Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP) (Appendix G-7)
- Integrated Weed Management Plan (Appendix G-7)
- Vegetation Resources Management Plan (Appendix G-7)
- Desert Tortoise Translocation Plan (Appendix G-7)
- Raven Monitoring and Control Plan (Appendix G-7)
- Bird and Bat Conservation Strategy (Appendix G-7)
- Burrowing Owl Protection and Mitigation Measures Plan (Appendix G-7)
- Nesting Bird Monitoring and Management Plan (Appendix G-9)
- o Project Hazardous Materials and Emergency Response Plan (Appendix G-44)
- o Revegetation Plan (Appendix G-11)
- o Worker Environmental Awareness Program (Appendix G-13)
- o Drainage, Erosion, and Sedimentation Control Plans (Appendix G-14)
- Habitat Enhancement/Restoration Plan (Appendix G-16)
- o Compensation Land Management Plan (Appendix G-16)
- o PAR for Mojave Fringe-toed Lizard compensation (Appendix G-24)
- o Desert Kit Fox Management Plan (Appendix G-35)
- o Couch's Spadefoot Toad Protection and Mitigation Plan (Appendix G-39)
- Paleontological Resources Mitigation and Monitoring Plan (Appendix G-48)
- Traffic Monitoring and Control Plan (Appendix G-53)
- o Coordinated Transportation Management Plan (Appendix G-54)
- o Lighting Plan (Appendix G-63)
- Decommissioning and Site Restoration Plan (Appendix G-63)

Plans that are not currently required but need to be included:

- Management Plan for Sand Dune/Fringe-toed Lizard
- o Fire Plan
- Compensatory Mitigation Plan for State Waters

All of these plans are key components to evaluating the avoidance, minimization and mitigation to biological resources by the proposed project. Their absence makes it impossible to evaluate if the impacts from the proposed project could actually be effectively mitigated. Each of these plans needs to be included in the revised DEIS/R.

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## D. Impacts to Water Resources— Surface and Groundwater Water Impacts

As the DEIS notes, the proposed project will impact washes and ephemeral streams and is partially on an alluvial fan. These areas provide important habitat values that will be impacted by the proposed project. Moreover, the loss of natural surface water flows and the re-direction of surface waters will have significant impacts to the dunes and sand transport corridor. Periodic flooding which is common in these desert areas and caused significant unanticipated erosion at the Genesis site (particularly during construction) has also not been addressed adequately here. Therefore, the impacts on surface hydrology and soils from the proposed project have not been adequately addressed in the DEIS/R.

The proposal to a PV project would use significantly less water than other solar technologies. However in this arid area, the proposed project will still use a significant amount of water. During construction, water use is estimated to be 450-700 AFY (DEIS/R at 2-10). During operations the project would require 38 AFY, which would include water for washing panels (DEIS/R at 2-11). The DEIS/R is ambiguous about the source of water. Newly installed on-site wells are envisioned to provide water, however the DEIS/R states "testing has not been done to verify if this is feasible." (at 2-11). The DEIS/R fails to provide sufficient information to show that surface resources on other public lands will not be affected by the drawdown of the water table during construction and *over the life of the project*. Moreover, the cumulative impacts to groundwater resources from this project and others in the area could be significant annually and over the life of the project.

**Reserved Water Rights:** As BLM is well aware, the California Desert Protection Act ("CDPA") expressly reserved water rights for wilderness areas that were created under the act including the Palen-McCoy Wilderness and others. 16 U.S.C. §410aaa-76.42 The CDPA reserved sufficient water to fulfill the purposes of the Act which include to "preserve unrivaled scenic, geologic, and wildlife values associated with these unique natural landscapes," "perpetuate in their natural state significant and diverse ecosystems of the California desert," and "retain and enhance opportunities for scientific research in undisturbed ecosystems." 103 P.L. 433, Sec. 2. The priority date of such reserved water rights is 1994 when the CDPA was enacted. Therefore, at minimum, the BLM must ensure that use of water for the proposed project (and cumulative projects) *over the life of the proposed projects* will not impair those values in the wilderness that depend on water resources (including perennial, seasonal, and ephemeral creeks, springs and seeps as well as any riparian dependent plants and wildlife). In addition, national monument designation reserves water needed to fulfill the purposes of those monument designations.

For other public lands, even where no *express* reservation of rights has been made for other public lands in the CDCA, the DEIS/R should have addressed the federal reserved water rights afforded to the public to protect surface water sources on all public lands affected by the proposed project. Pursuant to Public Water Reserve 107 ("PWR 107"), established by Executive

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<sup>42</sup> The reservation excluded two wilderness areas with regard to Colorado River water. See 103 P.L. 433; 108 Stat. 4471; 1994 Enacted S. 21; 103 Enacted S. 21, SEC. 204. COLORADO RIVER. ("With respect to the Havasu and Imperial wilderness areas designated by subsection 201(a) of this title, no rights to water of the Colorado River are reserved, either expressly, impliedly, or otherwise.")

Order in 1926, government agencies cannot authorize activities that will impair the public use of federal reserved water rights.

PWR 107 creates a federal reserved water right in water flows that must be maintained to protect public water uses. U.S. v. Idaho, 959 P.2d 449,453 (Idaho, 1998) cert. denied; Idaho v. U.S. 526 U.S. 1012 (1999); Cappaert v. U.S., 426 U.S. 128, 145 (1976). PWR 107 applies to reserve water that supports riparian areas, reserve water that provides flow to adjacent creeks and isolated springs that are "nontributary" or which form the headwaters of streams. U.S. v. City & County of Denver, 656 P.2d 1, 32 (Colo., 1982). Accordingly, BLM cannot authorize activities that will impair the public use of reserved waters covered by PWR 107.

BLM must examine the federal reserved water rights within the area affected by the proposed project and other proposed projects in this area that will use significant amounts of groundwater. This examination must include a survey of the any water sources potentially affected by the proposed project. The BLM must ensure that any springs, seeps, creeks or other water sources on public land and particularly within the wilderness areas are not degraded by the proposed projects' use of water and continue meet the needs of the existing wildlife and native vegetation that depend on those water resources.

PWR 107 also protects the public lands on which protected water sources exist. Accordingly, BLM should not only consider the impact of projects on water sources present on public lands, but also the direct and indirect impacts of the proposed project on the surrounding lands as well as impacts to the ecosystem as a whole.

The Center is also concerned that the discussion in the DEIS/R is also incomplete because it fails to address any potential water rights that could arguably be created from use of groundwater by the proposed project on these public lands. While the Center recognizes that this issue may involve somewhat complex legal issues, at minimum, the BLM must address this question and to ensure that any water rights that could *arguably* be created will be conveyed back to the BLM owner and run with the land at the end of the proposed project ROW term. The BLM must provide a mechanism to insure that in no case will the use of water for the proposed project on these public lands result in water rights accruing to the project applicant that it could arguably convey to any third party. Therefore, any water rights *arguably* created by groundwater pumping on these public lands for the proposed project must not ultimately accrue to any third party for use *off-site or on-site* in the future for any other project. Moreover, BLM should ensure that the applicant will not use the groundwater associated with the project off-site for any purpose.

If on-site wells fail to provide the water necessary for construction and/or operation, water is proposed to be trucked on site as follows:

"..all water is delivered by truck, there would be an estimated 57,000 truck trips required for water delivery during construction. The source of this water would be the Palo Verde Irrigation District (PVID), which obtains water from the Colorado River through Priority 1 and Priority 3 rights pursuant to a 1933 Water Delivery contract with the United States. The water would be accessed from a pump station located along Neighbours Boulevard, just north of West 11<sup>th</sup> Street (URS 2016a)."

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DEIS/R at 2-11. However, no analysis of the impacts of 57,000 truck trips is presented in the DEIS/R.

Lastly, the DEIS/R fails to adequately address how and whether groundwater pumping could affect water rights in the Colorado River basin. Instead the DEIS/R (at 2-11) assumes that if such impacts occur they will be dealt with at a later date or in a monitoring and mitigation plan not yet available for public review.

This approach fails to comply with NEPA or CEQA which both require that impacts be assessed before the project is approved.

# E. The DEIS Fails to Adequately Identify, Analyze and Off-set Impacts to Air Quality

As noted above, disturbing intact desert pavement or stabilized sands and cryptobiotic soil crusts can increase PM 10 emissions and degrade air quality. The DEIS/R does not adequately address these issues as required under NEPA and CEQA either for direct, indirect or cumulative impacts. Other commenters have submitted evidence of recent dust storms in the area including photos that help show the importance of this issue for the Mule Mountain area.

## F. The Analysis of Cumulative Impacts in the DEIS/R Is Inadequate

A cumulative impact is "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." 40 C.F.R. § 1508.7. The Ninth Circuit requires federal agencies to "catalogue" and provide useful analysis of past, present, and future projects. *City of Carmel-By-The-Sea v. U.S. Dept. of Transp.*, 123 F.3d 1142, 1160 (9<sup>th</sup> Cir. 1997); *Muckleshoot Indian Tribe v. U.S. Forest Service*, 177 F.3d 800, 809-810 (9<sup>th</sup> Cir. 1999).

"In determining whether a proposed action will significantly impact the human environment, the agency must consider '[w]hether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment.' 40 C.F.R. § 1508.27(b)(7)." Oregon Natural Resources Council v. BLM, 470 F.3d 818, 822-823 (9th Cir. 2006). NEPA requires that cumulative impacts analysis provide "some quantified or detailed information," because "[w]ithout such information, neither courts nor the public . . . can be assured that the Forest Service provided the hard look that it is required to provide." Neighbors of Cuddy Mountain v. United States Forest Service, 137 F.3d 1372, 1379 (9th Cir. 1988); see also id. ("very general" cumulative impacts information was not hard look required by NEPA). The discussion of future foreseeable actions requires more than a list of the number of acres affected, which is a necessary but not sufficient component of a NEPA analysis; the agency must also consider the actual environmental effects that can be expected from the projects on those acres. See Klamath-Siskiyou Wildlands Ctr. v. BLM, 387 F.3d 989, 995-96 (9th Cir. 2004) (finding that the environmental review documents "do not sufficiently identify or discuss the incremental 15-58

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impact that can be expected from each [project], or how those individual impacts might combine or synergistically interact with each other to affect the [] environment. As a result, they do not satisfy the requirements of the NEPA.") Finally, cumulative analysis must be done as early in the environmental review process as possible, it is not appropriate to "defer consideration of cumulative impacts to a future date. 'NEPA requires consideration of the potential impacts of an action *before* the action takes place." *Neighbors*, 137 F.3d at 1380 *quoting City of Tenakee Springs v. Clough*, 915 F.2d 1308, 1313 (9<sup>th</sup> Cir. 1990) (emphasis in original).

Cumulative impacts analysis is also a critical part of any CEQA analysis.

[t]he cumulative impact analysis must be substantively meaningful. "A cumulative impact analysis which understates information concerning the severity and significance of cumulative impacts impedes meaningful public discussion and skews the decisionmaker's perspective concerning the environmental consequences of the project, the necessity for mitigation measures, and the appropriateness of project approval.

(*Joy Road Area Forest and Watershed Assoc. v. Cal. Dept. of Forestry* (2006) 142 Cal. App. 4<sup>th</sup> 656, 676.) Where, as here, the impacts of a project are "cumulatively considerable" the agency must also examine alternatives that would avoid those impacts and mitigation measures for those impacts. (CEQA Guidelines §15130(b)(3).)

The DEIS/R identifies many of the cumulative projects but does not meaningfully analyze the cumulative impacts to resources in the California desert from the many proposed projects (including renewable energy projects and others). Moreover, because the initial identification and analysis of impacts unfinished, the cumulative impacts analysis cannot be complete. For example, because the identification of insects on site is incomplete, the cumulative impacts are also therefore inadequate.

The DEIS/R also fails to consider all reasonably foreseeable impacts in the context of the cumulative impacts analysis. *See Native Ecosystems Council v. Dombek, et al,* 304 F.3d 886 (9th Cir. 2002) (finding future timber sales and related forest road restriction amendments were "reasonably foreseeable cumulative impacts"). The DEIS/R also fails to provide the needed analysis of how the impacts might combine or synergistically interact to affect the environment in this valley or region. *See Klamath-Siskiyou Wildlands Ctr. v. BLM*, 387 F.3d 989, 995-96 (9th Cir. 2004).

Among the cumulative impacts to resources that have not been fully analyzed are impacts to desert tortoise, impacts to Mojave fringe-toed lizard and sand dunes ecosystems, impacts to golden eagles, and impacts to surface hydrology, water resources and air quality. The cumulative impacts to the resources of the California deserts has not been fully identified or analyzed, and mitigation measures have not been fully analyzed as well.

## G. The EIS' Alternatives Analysis is Inadequate

NEPA requires that an EIS contain a discussion of the "alternatives to the proposed action." 42 U.S.C. §§ 4332(C)(iii),(E). The discussion of alternatives is at "the heart" of the

NEPA process, and is intended to provide a "clear basis for choice among options by the decisionmaker and the public." 40 C.F.R. §1502.14; Idaho Sporting Congress, 222 F.3d at 567 (compliance with NEPA's procedures "is not an end in itself . . . [but] it is through NEPA's action forcing procedures that the sweeping policy goals announced in § 101 of NEPA are realized.") (internal citations omitted). NEPA's regulations and Ninth Circuit case law require the agency to "rigorously explore" and objectively evaluate "all reasonable alternatives." 40 C.F.R. § 1502.14(a) (emphasis added); Envtl. Prot. Info. Ctr. v. U.S. Forest Serv., 234 Fed. Appx. 440, 442 (9th Cir. 2007). "The purpose of NEPA's alternatives requirement is to ensure agencies do not undertake projects "without intense consideration of other more ecologically sound courses of action, including shelving the entire project, or of accomplishing the same result by entirely different means." Envtl. Defense Fund, Inc. v. U.S. Army Corps of Engrs., 492 F.2d 1123, 1135 (5th Cir. 1974). An agency will be found in compliance with NEPA only when "all reasonable alternatives have been considered and an appropriate explanation is provided as to why an alternative was eliminated." Native Ecosystems Council v. U.S. Forest Serv., 428 F.3d 1233, 1246 (9th Cir. 2005); Bob Marshall Alliance v. Hodel, 852 F.2d 1223, 1228-1229 (9th Cir. 1988). The courts, in the Ninth Circuit as elsewhere, have consistently held that an agency's failure to consider a reasonable alternative is fatal to an agency's NEPA analysis. See, e.g., Idaho Conserv. League v. Mumma, 956 F.2d 1508, 1519-20 (9th Cir. 1992) ("The existence of a viable, but unexamined alternative renders an environmental impact statement inadequate.").

If BLM rejects an alternative from consideration, it must explain why a particular option is not feasible and was therefore eliminated from further consideration. 40 C.F.R. § 1502.14(a). The courts will scrutinize this explanation to ensure that the reasons given are adequately supported by the record. *See Muckleshoot Indian Tribe v. U.S. Forest Service*, 177 F.3d 800, 813-15 (9th Cir. 1999); *Idaho Conserv. League*, 956 F.2d at 1522 (while agencies can use criteria to determine which options to fully evaluate, those criteria are subject to judicial review); *Citizens for a Better Henderson*, 768 F.2d at 1057.

CEQA also requires a robust alternatives analysis as noted above. Here, BLM and the County too narrowly construed the project purpose and need and project objectives such that the DEIS/R did not consider an adequate range of alternatives to the proposed project.

The alternatives analysis is inadequate even with the inclusion of the reduced and avoidance alternatives. Additional feasible alternatives should be considered which would avoid all of the sand transport corridor and/or avoid stabilized sand habitats, including a distributed PV alternatives to avoid impacts to resources.

In addition a phased alternative should have been included which would allow the portions of the project that have the fewest impacts to move forward while also affording the project proponent time to find and acquire permits for more appropriate sites for one or more additional phases of the project reconfigured on other BLM lands or on previously degraded disturbed lands in this area and also to explore other off-site alternatives.

The BLM and the County should have also looked at alternative siting on previously degraded lands such as nearby farmlands, distributed solar alternatives, and other alternatives that could avoid impacts of the proposed project as well as impacts of the associated transmission lines and on-site substation.

The BLM failed to consider any off-site alternative that would significantly reduce the impacts to biological resources including sand movement zones including Mojave fringe-toed lizard habitat, desert tortoise habitat, burrowing owls, and others. Because such alternatives are feasible, on this basis and others the range of alternatives is inadequate. The Center urges the BLM and the County to revise the DEIS/R to adequately address a range of feasible alternatives and other issues detailed above and then to re-circulate a revised or supplemental DEIS/R for public comment.

In addition, alternatives that included alternative measures to reduce energy use could help meet the overarching goals of reducing GHGs. For example, funding community projects for training and implementation of energy conservation measures such as increased insulation, sealing and caulking, and new windows for older buildings and new or improved technologies for accomplishing these important goals. For example, air conditioning creates the largest demand for energy during peak times and there already exist methods to reduce the energy use from air conditioning but implementation has lagged well behind technology. Conservation and efficiency measures are an excellent and quick way of reducing demand in both the short- and longterm and reduce the need for additional power sources. In addition, many of the existing conservation and efficiency measures can provide immediate jobs and training in high population areas with significant unemployment (particularly among low skilled workers and youth).

The existence of these and other feasible but unexplored alternatives shows that the analysis of alternatives in the DEIS/R is inadequate.

## **III. Project Potentially Undermines the Goals of the DRECP**

The proposed project is proceeding under the "grandfathered" application, but the DEIS/R fails to analyze how the proposed project even if consistent with the NECO plan could undermine the goals of the DRECP. For example, DRECP LUPA-BIO-DUNE 2 to 5 are all put in place LUPA wide to protect sand transport corridors including those within DFAs. Because the proposed project may not be required to abide by these CMAs, the integrity of the sand transport corridor could be compromised and the goal of the DRECP for this sand transport corridor could also be compromised. The proposed project will also compromise LUPA-BIO-PLANT 2 and 3 through failure to safeguard or analyze the impacts to Harwood's eriastrum. These impacts to other existing planning must be fully addressed, avoided where possible, and minimized and mitigated in order for the project to comply with NEPA or CEQA.

## IV. Conclusion

Thank you for your consideration of these comments. In light of the overly narrow range of alternatives, and the many omissions in the environmental review to date, we urge the BLM and the County to revise and re-circulate the DEIS/R before making any decision regarding the proposed plan amendment and right-of-way application. In the event BLM and the County

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choose not to revise the DEIS/R and provide adequate analysis, the BLM and the County should reject the right-of-way application and the plan amendment. Please feel free to contact us if you have any questions about these comments or the documents provided.

Sincerely,

Hen 3 Centre

Ileene Anderson Senior Scientist/Public Lands Desert Director Center for Biological Diversity 660 Figueroa Street, Suite 1000 Los Angeles, CA 90017 (213) 785-5407 ianderson@biologicaldiversity.org

cc via email: Brian Croft, USFWS, <u>brian\_croft@fws.gov</u> Valerie Termini, CDFW, <u>vtermini@wildlife.ca.gov</u> Tom Plenys, EPA, <u>Plenys.Thomas@epa.gov</u>

Attachment: NECO WHMA Map 2-21, June 5, 2002

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State of California - Natural Resources Agency DEPARTMENT OF FISH AND WILDLIFE Inland Deserts Region 3602 Inland Empire Blvd., Suite C-220 Ontario, CA 91764 (909) 484-0459 www.wildlife.ca.gov



November 8, 2018

Mr. Russell Brady, Project Planner Riverside County Planning Department 4080 Lemon Street, 12<sup>th</sup> Floor Riverside, CA 92501 rbrady@rctlma.org

Subject: Draft Environmental Impact Report – Desert Quartzite Solar Project (SCH 2015031066)

Dear Mr. Brady:

The California Department of Fish and Wildlife (CDFW) received the Draft Environmental Impact Report (DEIR) for Desert Quartzite Solar Project (SCH 2015031066) (Project) from the Riverside County (Lead Agency) pursuant the California Environmental Quality Act (CEQA) and CEQA Guidelines.

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

## CDFW Role

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State. (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines, § 15386, subd. (a).) CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (*Id.*, § 1802.) Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW is also submitting comments as a Responsible Agency under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority. (Fish & G. Code, § 1600 *et seq.*) Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 *et seq.*), the Project proponent may seek related take authorization as provided by the Fish and Game Code.

Conserving California's Wildlife Since 1870

Draft Environmental Impact Report Desert Quartzite Solar Project SCH 2015031066 Page 2 of 5

## Project Location

The proposed Project is located approximately 2.75 miles southwest of the City of Blythe, just south of the Interstate 10 (I-10) freeway, and 1.5 miles southwest of Blythe Airport in Riverside County, California.

## Project Description

The Applicant (First Solar Development, LLC) proposes to construct, operate, maintain, and decommission a 450 MW solar photovoltaic (PV) energy generating facility and related infrastructure. The Project will utilize solar PV technology to generate electricity by using arrays of solar PV modules to collect radiant energy from the sun and convert it directly into direct current (DC). Each array, with approximate dimension of 800 feet length and 500 feet width, would be placed based on topography and geotechnical conditions. The Project area encompasses approximately 3,770 acre lands including 3,560 acres for solar facility on BLM land, 54 acres for 230 kilovolt (kV) transmission line (generation interconnection or gen-tie line) on BLM land, 2 acres for offsite portion of a buried telecommunications line and possible above-ground electrical service line on BLM land, and 154 acres for a portion of the solar facility on private land. According to the DEIR, the total amount of ground disturbance would be approximately 3,831 acres.

## State Threatened, Endangered, and Candidate Species

CDFW has discretionary authority over activities that could result in the "take" of any species listed as candidate, threatened, or endangered, pursuant to the California Endangered Species Act (CESA; Fish and Game Code, § 2050 *et seq.*). CDFW considers adverse impacts to CESA-listed species, for the purposes of CEQA, to be significant without mitigation. (Pub. Resources Code, § 21083; CEQA Guidelines, § 15065.) Take of any CESA-listed species is prohibited except as authorized by state law (Fish and Game Code, §§ 2080 & 2085). Consequently, if a Project, including Project construction or any Project-related activity during the life of the Project, may result in take of CESA-listed species, CDFW recommends that the Project proponent seek appropriate authorization prior to Project implementation. This may include an incidental take permit (ITP) or a consistency determination in certain circumstances (Fish and Game Code, §§ 2080.1 & 2081).

Please note that CDFW must comply with CEQA prior to issuance of an ITP for a Project. As such, CDFW may consider the lead agency's CEQA documentation for the Project. To minimize additional requirements by CDFW and/or under CEQA, the CEQA avoidance, minimization, mitigation, monitoring and reporting measures should be included in the CEQA document for issuance of the ITP.

#### Project Specific Comments and Recommendations

CDFW offers the comments and recommendations below to assist the Lead Agency in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources.

Draft Environmental Impact Report Desert Quartzite Solar Project SCH 2015031066 Page 3 of 5

#### Burrowing Owl

CDFW recommends focused surveys be conducted by using the updated CDFW Staff Report on the Burrowing Owl Mitigation (CDFW 2012). The surveys should be conducted over all potential suitable habitats within the entire Project site. If suitable habitat is found onsite, CDFW recommends burrowing owl surveys be conducted during the breeding season of March 1 through August 31 in accordance with the CDFW Staff Report on the Burrowing Owl Mitigation (CDFW 2012). The burrowing owl is protected under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (50 C.F.R. Section 10.13) and Sections 3503, 3503.5 and 3513 of the FGC, which prohibit take of all birds and their nests including raptors. Therefore, it is the responsibility of the project proponent to ensure compliance with these laws for the entire Project site.

## **Desert Tortoise**

All projects in desert tortoise habitat should be surveyed in the active season no matter the size of the project. The Project site is within known habitat of desert tortoise and may impact suitable habitat. CDFW recommends prior to the initiation of any Project activities, Permittee conduct Protocol Surveys for Determining Presence/Absence and Abundance. The surveys should be conducted by a CDFW approved biologist that is knowledgeable of desert tortoise ecology, and field identification of the species and their sign. Protocol level survey results are valid for one year during the calendar year they were conducted. No desert tortoises may be moved or handled without an Incidental Take Permit (ITP). CDFW recommends that the project proponent seek appropriate authorization prior to project implementation, which may include an ITP (Fish and Game Code, § 2081). CDFW recommends an approved biological monitor be present on site during all construction activities. Project proponent should identify minimization and mitigation measures, including compensatory mitigation, that will be implemented if the Project will affect desert tortoise or their habitat to mitigate impacts to a level of less than significant.

#### **Desert Kit Fox**

CDFW recommends the Applicant complete pre-construction surveys to confirm that kit foxes or their burrows are not found on site. Biological Monitors should conduct the pre-construction surveys for desert kit fox and American badger no more than 30 days prior to initiation of construction activities, including pre-construction site mobilization. Surveys should also address the potential presence of active dens within 100 feet of the project boundary (including utility corridors and access roads). If dens are detected, CDFW recommends each den be classified as inactive, potentially active, or definitely active den and a report be submitted to CDFW for review prior to collapsing the burrows. Desert kit fox is a protected species as a fur-bearing mammal pursuant to Tile 14 of the California Code of Regulations Section 460.

#### Nesting Birds

It is the Lead Agency's responsibility to comply with all applicable laws related to nesting birds and birds of prey. Migratory non-game native bird species are protected by international treaty under the federal Migratory Bird Treaty Act (MBTA) of 1918, as amended (16 U.S.C. 703 *et seq.*). In addition, sections 3503, 3503.5, and 3513 of the Fish and Game Code (FGC) stipulate the following: Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by FGC or any regulation made pursuant 16-7

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Draft Environmental Impact Report Desert Quartzite Solar Project SCH 2015031066 Page 4 of 5

thereto; Section 3503.5 states that it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by FGC or any regulation adopted pursuant thereto; and Section 3513 states that it is unlawful to take or possess any migratory nongame bird as designated in the MBTA except as provided by the rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA. Please provide a comprehensive avian monitoring plan during construction activities and project operation with quantitative risk assessment considering spatial and temporal variability.

Breeding bird season is usually February 15 through August 31, but note that some species of raptors (e.g., owls) may commence nesting activities in January, and passerines may nest later than August 31. CDFW recommends that the Lead Agency complete nesting bird surveys and consult with a qualified ornithologist for advice in developing specific avoidance and minimization measures to ensure that impacts to nesting birds do not occur and that the Project complies with all applicable laws related to nesting birds and birds of prey, including Burrowing Owl. CDFW recommends that Project-specific avoidance and minimization measures include, but not be limited to Project phasing and timing, monitoring of project-related noise (where applicable), sound walls, and buffers, where appropriate.

#### Lake and Streambed Alteration Program

Please note that notification is required for work undertaken in the bed, bank or channel of any river, stream, or lake, including ephemeral and intermittent streams. Fish and Game Code section 1602 states, "An entity shall not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake, unless all of the following occur...." Upon receipt of a complete notification, CDFW determines if the activities may substantially adversely affect existing fish and wildlife resources. CDFW recommends that the Lead Agency condition a measure requiring the submission of a Notification of Lake or Streambed Alteration to CDFW's Lake and Streambed Alteration Program. Based on information in the DEIR, including Appendix N, it appears notification under Fish and Game Code section 1602 is warranted.

For determining acreage of impacts to streams subject to notification under Fish and Game Code section 1602, any delineation should include all streams, including ephemeral and intermittent streams within the project boundary. The delineation report in the DEIR states that certain channels or watercourses were not considered to be potentially subject to Fish and Game Code jurisdiction, but without further detailed information related to water flow and hydrologic conditions, CDFW would expect notification for proposed activities within certain channels described. Please describe anticipated impacts of the project footprint on the streams in the project area and provide adequate mitigation measures. Include images/maps of all streambeds with overlay of construction, soil removal, and other disturbance areas. Discuss comprehensive restoration and mitigation plans for the project's temporary, permanent, and cumulative impacts on streams, including ephemeral and intermittent streams. Elucidate success criteria for measureable and accountable restoration and mitigation efforts.

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Draft Environmental Impact Report Desert Quartzite Solar Project SCH 2015031066 Page 5 of 5

#### Filing Fees

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089).

#### **Conclusion**

CDFW appreciates the opportunity to comment on the DEIR. If you should have any questions pertaining to this letter, please contact Dr. Shankar Sharma, Senior Environmental Scientist, Specialist (Renewable Energy) at shankar.sharma@wildlife.ca.gov or (909) 228-3692.

Sincerely,

Sutt Unlow

Scott Wilson Environmental Program Manager Inland Deserts Region

Cc: State Clearing House CORR 16-11



November 8, 2018

Desert Quartzite Solar Project Bureau of Land Management Palm Springs South Coast Field Office 1201 Bird Center Drive Palm Springs, CA 92234 Submitted via email to: <u>blm\_ca\_desert\_quartzite\_solar\_project@blm.gov</u>

## Re: Desert Quartzite Draft Plan Amendment/Environmental Impact Statement/Environmental Impact Report DOI-BLM-CA-D060-2017-0002 CA State Clearinghouse No. 2015031066

Dear Brandon G. Anderson, Project Manager,

Thank you very much for the opportunity to provide comments on the Draft Plan Amendment (PA), Environmental Impact Statement (EIS), and Environmental Impact Report (EIR) for the Desert Quartzite Solar Project. The Draft EIS/EIR covers 5,115 acres of land in Riverside County. The proposed action (Alternative 1) would impact 3,831 acres of habitat, 3,677 of which are administered by the Bureau of Land Management and 154 of which are in a privately-owned inholding. Given that the private land is under the authority of Riverside County, and was previously farmed for the production of jojoba oil, we are especially concerned with impacts to portion of the project under the authority of the BLM, which contains intact, undisturbed habitats. However, despite these historical land uses, habitat for rare plant species still exists within the inholding.

On September 10, 2018, California Governor Jerry Brown signed Senate Bill (SB) 100<sup>1</sup> (De Leon) into law, thus requiring, "100 percent of total retail sales of electricity in California to come from eligible renewable energy resources and zero-carbon resources by December 31, 2045." On the same day, the governor authored Executive Order (EO) B-55-18<sup>2</sup>, which, given global climate change, outlines specific measures that must be taken for the state to achieve carbon neutrality. Executive Order B-55-18 dictates that the goal of carbon neutrality, including the production of renewable energy, should be achieved with minimal environmental damage. Specifically, the EO states that, "all programs and policies to achieve carbon neutrality shall be implemented in a manner that supports climate adaptation and biodiversity, including protection of the state's water supply, water quality and native plants and animals." As an analog, physicians ascribe to a version of the Hippocratic Oath, in which they promise to ethically treat patients to the best of their ability while minimizing harm. Along those lines, land use decisions should be made such that the benefits of proposed actions are not outweighed by

<sup>&</sup>lt;sup>1</sup> <u>SB 100</u>

<sup>&</sup>lt;sup>2</sup> <u>E0 B-55-18</u>

their environmental consequences. In that spirit, the environmental impacts associated with Desert Quartzite should be minimized such that they are consistent with tenor of EO B-55-18.

The California Native Plant Society ("CNPS") is a non-profit environmental organization with more than 10,000 members in 35 Chapters across California and Baja California, MX. CNPS' mission is to protect California's native plant heritage and to preserve it for future generations through the application of science, research, education, and conservation. CNPS works closely with decision-makers, scientists, and local planners to advocate for well-informed policies, regulations, and land management practices. CNPS supports science-based, rational policies and actions, on the local, state, national, and international levels, that lead to the production of renewable energy and the reduction of greenhouse gases without endangering California's native flora.<sup>3</sup>

Along with our mission we provide the following comments on the Draft PA/EIS/EIR for the Desert Quartzite Solar Project:

## 1. Impacts to Rare Plants

Six plants included in the CNPS Inventory of Rare, Threatened or Endangered Plants (CNPS Inventory) were documented during surveys of the project area (see Table 1).

		Rare Plant	BLM
Scientific Name	Common Name	Rank	Sensitive
Astragalus insularis var.			
harwoodii	Harwood's milkvetch	2B.2	Ν
Johnstonella (Cryptantha)			
costata	ribbed cryptantha	4.3	Ν
Eriastrum harwoodii	Harwood's eriastrum	1B.2	Υ
Euphorbia abramsiana	Abrams' spurge	2B.2	Ν
Funastrum utahense	Utah vine milkweed	4.2	Ν
Proboscidea althaeifolia	desert unicorn-plant	4.3	N

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The distribution of these species within the project site is detailed in Table 2 below. This table provides an overview of the direct impacts to each species under the proposed project alternatives (a more detailed analysis of impacts appears in Table ES-1 in the DEIS/EIR). For example, *Astragalus harwoodii* var. *insularis* (Harwood's milk-vetch) occurs within the BLM-owned and the "Inholding" portions of the project area and will be directly impacted by project Alternatives 1-3. Furthermore, *Euphorbia abramsiana* (Abrams' spurge) occurs only within the BLM-owned portion of the project area and would be impacted directly by Alternatives 1-3. Below, we focus on three rare plant species that exemplify our concerns with Desert Quartzite.

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17-3
Scientific Name	BLM Presence	Inholding Presence	Alt. 1 Direct Impact	Alt. 2 Direct Impact	Alt. 3 Direct Impact
Astragalus					
<i>insularis</i> var.					
harwoodii	Y	Y	Y	Y	у
Johnstonella					
(Cryptantha)					
costata	Y	Y	Y	Ν	Ν
Eriastrum					
harwoodii	Y	N	Y	Y	Y
Euphorbia					
abramsiana	Y	N	Y	Y	Y
Funastrum					
utahense	Y	N	N	N	N
Proboscidea					
althaeifolia	Y	N	Y	Y	Y

Table 2: Distribution of rare plants within the project area

#### Eriastrum harwoodii

CNPS is especially concerned with the project's impacts to *Eriastrum harwoodii* (Harwood's eriastrum). *Eriastrum harwoodii* is on California Rare Plant Rank (CRPR) 1B.2 (plants rare, threatened, or endangered in California and elsewhere), and a BLM Sensitive species. Although Desert Quartzite is not a covered project under the Desert Renewable Energy Conservation Plan (DRECP)<sup>4</sup>, we contend that the Conservation Management Actions (CMAs), enacted to ensure the conservation of rare species, are germane to this project. Specifically, CMA LUPA-BIO-PLANT-2, implements "an avoidance setback of 0.25 mile for all Focus and BLM Special Status Species occurrences." Setbacks are to be "placed strategically adjacent to occurrences to protect ecological processes necessary to support the plant species." This means that all ground-disturbing activities would have to remain at least 0.25 miles away from all locations of *E. har*woodii on a project site. These setback requirements were deemed necessary to avoid direct and indirect impacts to rare species. This CMA is especially important for species such as *E. harwoodii*, which grows on the edge of sand dune habitat. As sand dune habitats are by their very nature unstable and subject to Aeolian movement, ensuring that *E. harwoodii* has space to shift with its naturally shifting habitat is of utmost importance.

Project Alternative 1 would directly impact 510 individuals and 110 acres of occupied habitat of *E. harwoodii*. It would also place photovoltaic (PV) arrays within 0.25 miles of many acres occupied by this species. Alternatives 2 and 3 would reduce direct impacts to *E. harwoodii* to 77 individuals and 35 acres of occupied habitat, while continuing to place PV arrays immediately adjacent to known locations, especially in the northwest portion of the project site. We advocate strongly for a redesign of the siting of PV arrays to conform to the 0.25 mile

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<sup>17-6</sup> 

setback requirement outlined in the DRECP. These measures are necessary to ensure the longterm persistence of this species. Elsewhere, *E. harwoodii* occurs in other locations where future solar energy development is likely to occur. This means that the cumulative impacts to this species are likely to increase in the future, thus necessitating conservation actions in line with DRECP CMAs on the Desert Quartzite project site. In the absence of the complete avoidance of *E. harwoodii* on the Desert Quartzite project site, off-site compensatory mitigation at a minimum ration of 2:1 (conserved to impacted) should be required.

#### Astragalus insularis var. harwoodii

We are also concerned about the potential impacts to *Astragalus insularis* var. *harwoodii* (Harwood's milkvetch), which is a CRPR 2B.2 taxon. Although it is on CRPR 2B (plants rare in California, but more common elsewhere), from a global perspective *A. insularis* var. *harwoodii* has a small range, being found only in California and Arizona. Desert Quartzite is located at the center of the California distribution of this taxon, and more than 26,000 individuals were observed in botanical surveys. Undeniably, Desert Quartzite represents a threat to this taxon in California.

Astragalus insularis var. harwoodii occurs throughout the project site with more 10,420 individuals to be affected by Alternative 1. Alternatives 2 and 3 reduce the number of individuals impacted slightly to 9,507 individuals. As a result, Desert Quartzite should be designed to ensure the long-term persistence of this species in California. This is especially important given that an estimated 12,658 individuals occur within the inholding (see Appendix M, page 53) on private land that is subject to review under the California Environmental Quality Act (CEQA). As *A. insularis* var. harwoodii is on CRPR 2B, it is included on the CDFW Special Plants list<sup>5</sup>. According to CDFW, "the plants of Rank 2B are rare, threatened or endangered in California, but more common elsewhere. Plants common in other states or countries are not eligible for consideration under the provisions of the Federal Endangered Species Act; however they are eligible for consideration under the California Endangered Species Act." As the inholding is private land, the impacts to this taxon must be analyzed comprehensively by Riverside County.

Also, Appendix A, Figure 3.3-3 does not show *A. insularis* var. harwoodii in the inholding. In contrast, Figure 10 in Appendix M shows an extensive population of *A. insularis* var. *harwoodii* within the inholding. The number of individuals of this species that are likely to be impacted by the project seems to be out of sync with the number of individuals that are reported in Appendix M. If, as stated Appendix M, Table 11, there are 12,658 individuals of *A. insularis* var. *harwoodii* present in the inholding, and the inholding will be converted completely to PV arrays, then how could the total number of impacted individuals only between 9,507 in Alternatives 2 and 3, and 10,420 in Alternatives 1? Lastly, like *E. harwoodii*, *A. insularis* var. *harwoodii* also occurs in other locations that will potentially be impacted by solar energy development.

<sup>&</sup>lt;sup>5</sup> CDFW Special Plants List

#### Johnstonella costata

Desert Quartzite threatens a large population of *Johnstonella costata* (ribbed cryptantha) with 64,234 individuals to be impacted in Alternative 1 and 30,178 individuals to be impacted by Alternatives 2 and 3. Because, *J. costata* is currently on CRPR 4 (plants of limited distribution), and the California Natural Diversity Database does not track occurrence level data for species at this rank, it is difficult to place the potential impact to this species in perspective. Documenting and assessing impacts to annual plant species is notoriously difficult, in that variation in population size varies from year to year. How large are populations of this species throughout its range? Does Desert Quartzite present a significant threat to persistence of this species in California? One thing for certain is that *J. costata* occurs in large quantities on Desert Quartzite and this signifies that the site has immense potential as habitat for rare species. While we agree that the botanical survey effort detailed in Appendix M was sufficient, a multi-year study of interannual variation in species composition on the site is warranted. This is necessary to ensure that rare species dormant in the seed bank and only apparent in years with a specific amount and timing of precipitation are detected.

#### 2. Habitat Impacts

#### Pleuraphis rigida Alliance

In California, the CDFW ranks sensitive natural communities (aka rare vegetation types) in accordance with NatureServe's global and state rankings<sup>6</sup>. The list of Sensitive Natural Communities<sup>7</sup> contains vegetation alliances ranked as globally (G1-G3) and/or state rare (S1-S3) rare. Under CEQA, an EIR is required if a project threatens "to eliminate a plant or animal community<sup>8</sup>." In the DRECP, the conservation of "unique landscape features, important landforms, and rare or unique vegetation types" is highlighted in Goal 1.4.

Alternative 1 will result in the loss of 40.4 acres of *Pleuraphis rigida* Alliance, which is globally rare and is ranked as G3 and S2.2 by CDFW. The number of impacted acres is reduced to 14 acres in Alternatives 2 and 3. According to the Manual of California Vegetation<sup>9</sup> (MCV), the Pleuraphis rigida Alliance occurs on "flat ridges, lower bajadas, slopes, dune aprons, and stabilized dunes." Vegetation alliances that are associated with sand dunes are highlighted for conservation in the DRECP. For example, CONS-BIO-DUNE-2 states that, "all activities will be sited and/or configured to maintain the spatial extent, habitat quality, and ecological function of Aeolian transport corridors unless related to maintenance of existing (at the time of the DRECP LUPA ROD) facilities/activities." Given its rarity and its association with Aeolian transport corridors we recommend that the project be redesigned to avoid stands of *Pleuraphis rigida*.

<sup>&</sup>lt;sup>6</sup> CDFW Natural Communities and NatureServe Ranking

<sup>&</sup>lt;sup>7</sup> <u>CDFW Sensitive Natural Communities List</u>

<sup>&</sup>lt;sup>8</sup> Article 5 of CEQA Guidelines

<sup>&</sup>lt;sup>9</sup> MCV Pleuraphis rigida Alliance

Microphyll Woodlands

Microphyll woodlands are characterized in the DRECP as, "drought-deciduous, smallleaved (microphyllus), mostly leguminous trees. Occurs in bajadas and washes where water availability is somewhat higher than the plains." These habitats include the "desert willow, mesquite, smoke tree, and the blue palo verde-ironwood" vegetation alliances. DEIR Appendix 1, Map 3.3-2 shows the location of *Parkinsonia florida-Olneya tesota* (palo verde-ironwood) alliance within the planning area. In the DRECP, Sonoran-Coloradan Semi-Desert Wash Woodland/Scrub including *Parkinsonia florida-Olneya tesota* Alliance must be avoided with a 200 foot buffer. The DEIR (Table ES-1) indicates that zero acres of *Parkinsonia florida-Olneya tesota* Alliance will be directly affected under Alternatives 1-3. However, a stand of *Parkinsonia florida-Olneya tesota* is located immediately adjacent to the PV arrays in the northeastern portion of the project site under Alternative 1. CNPS recommends that the project be redesigned to ensure, at a minimum, a 200 foot buffer to all stands of *Parkinsonia florida-Olneya tesota*.

#### 3. Mitigation Measures

According to Appendix M (pages 55-56), "the proposed methods of site development involve intensive and comprehensive soil surface disturbance by grubbing, grading, compaction, and application of soil surface stabilizers. This type of development inhibits re-establishment of natural plant communities: essentially nothing is allowed to grow between the panels."

Mitigation Measure (MM) Veg-9 details actions that must be taken to avoid, minimize, and compensate for impacts to special status plant species. While we see the utility of MM VEG-9.A,B, which detail the avoidance and minimization of impacts to special status plant species, we fail to see how this is reasonable given the nature of the site development (see quote from Appendix M above). Consequently, we advocate for the project to rely heavily upon off-site compensatory mitigation, as is outlined in MM VEG-9.C. That said, in the case of renewable energy projects such as Desert Quartzite, which are sited on public lands, securing off-site mitigation land is challenging. First, rare plants, by their very nature are regionally and/or globally scarce. Second, much of the land in the vicinity of the Desert Quartzite project is already publicly owned and under the jurisdiction of the federal government. These lands, managed primarily by the BLM, are already de facto conserved. If no occupied habitat is available on private lands, is MM VEG-9.C-I (Compensatory Mitigation by Acquisition) even feasible? Has the project proponent identified private land that is available for purchase containing populations of the rare species that will be affected by this project and could be used for compensatory mitigation by acquisition?

In the absence of land that is available for acquisition, MM VEG-9.C-II details compensatory mitigation by habitat enhancement/restoration. While habitat enhancement/restoration may be a reasonable mitigation measures for common species or for species that are from non-xeric habitats (see these references<sup>10,11</sup>) these measures rarely work for desert rare species.

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<sup>&</sup>lt;sup>10</sup> Ex Situ Plant Conservation

<sup>&</sup>lt;sup>11</sup> Restoring diversity: strategies for the reintroduction of endangered plants

In conclusion, three mitigation measures proposed in Appendix G are beset with serious flaws. Avoidance and minimization is clearly not feasible, off-site compensatory mitigation will be challenging given the project's location, and habitat enhancement/restoration is likely to be fully ineffective. Consequently, the mitigation measures proposed in the DEIS/EIR merit serious revision.

#### 4. Carbon Sequestration

The siting of solar energy projects on desert public lands is a Faustian bargain, in that ecosystems of immeasurable value are traded for short-term gain. Desert habitats are instrumental in sequestering atmospheric carbon<sup>12</sup>. Specifically, desert vegetation (especially woodlands and shrub-dominated ecosystems) and soils store vast amounts of carbon. This stored carbon is released into the atmosphere when these habitats are disturbed. As mentioned above, EO B-55-18 emphasizes the production of renewable energy while minimizing environmental impacts. Projects, such as Desert Quartzite run counter to this principle.

Alternatives to converting intact desert habitats to solar energy development include siting projects on already degraded lands, brownfields, and on rooftops in urban areas. The EIS/EIR evaluates and rejects the siting of the project on brownfields. Why doesn't the EIS/EIR evaluate the feasibility of siting the project on rooftops in urban areas or on already degraded lands?

#### 5. Selection of a Project Alternative

Alternative 1 is listed as the proposed action. The environmental consequences associated with each alternative are summarized in Table ES-1. Clearly, Alternative 4, the "No Action Alternative" would ensure the greatest level of protection for biological resources. In line with our mission to conserve California's native plant heritage and conserve it for future generations, CNPS advocates that decision makers select Alternative 4.

Alternative 1 includes the largest amount of impacted acreage (3,831 acres), and the greatest impacts to wildlife, cultural resources, rare plants, and common and sensitive habitats. Alternative 3 (Reduced Project, 2,112 acres) includes the smallest amount of impacted acreage and reduces the direct impacts to certain biological resources, including occupied habitat for *Eriastrum harwoodii*. Alternative 2 (Resource Avoidance, 2,845 acres) affects more acreage and negatively impacts more biological resources than Alternative 3 but is still far less damaging than Alternative 1.

The BLM has identified Alternative 2 as the agency preferred alternative. While CNPS does not support Alternatives 1, 2, or 3, Alternatives 2 and 3 are more favorable than Alternative 1. In the absence of selecting Alternative 4, decision makers should choose Alternative 3, as its smaller footprint will ensure a reduced impact on sensitive biological resources.

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<sup>&</sup>lt;sup>12</sup> Carbon Balance in California Deserts

#### 6. Conclusions

The Desert Quartzite Solar Project, if implemented, will have significant impacts to rare plants, sensitive vegetation types, and ecosystem services, such as carbon sequestration. The very nature of the project site means that mitigating for habitat loss will be challenging to impossible. While we advocate for the no project alternative, we recognize that compromise is often necessary. This means that, if faced with choosing between alternatives 1, 2, or 3, decision makers should select Alternative 3, the reduced project alternative. Once again, thank you very much for the opportunity to comment on Desert Quartzite. Please feel free to contact me with any questions.

Sincerely,

Nicholas Jensen, PhD Southern California Conservation Analyst California Native Plant Society 1500 North College Ave Claremont, CA 91711 (530) 368-7839 njensen@cnps.org



November 8, 2018

Desert Quartzite Solar Project Bureau of Land Management Palm Springs-South Coast Field Office 1201 Bird Center Drive Palm Springs, CA 92234 Email: blm\_ca\_desert\_quartzite\_solar\_project@blm.gov

Mr. Russell Brady Project Planner County of Riverside Riverside County Planning Department 4080 Lemon Street, 12<sup>th</sup> Floor Riverside, CA 92501-3634 Email: rbrady@rivco.org

Regarding: Notice of Availability of the Draft Environmental Impact Statement and Environmental Impact Report and Draft Land Use Plan Amendment (PA) to the California Desert Conservation Area (CDCA) Plan for the Desert Quartzite Solar Project, Riverside County, California, BLM Project No. CACA-049397

To Whom It May Concern:

The Colorado River Board of California (Board) reviewed Draft Environmental Impact Statement and Environmental Impact Report and Draft Land Use Plan Amendment (PA) to the California Desert Conservation Area (CDCA) Plan for the Desert Quartzite Solar Project (Project) (Federal Register/ Vol. 83, No. 155/ 39774, Friday, August 10, 2018). The Board appreciates the opportunity to submit comments for consideration by the U.S. Bureau of Land Management and the County of Riverside in preparation of the Draft Land Use Plan Amendment/Environmental Impact Statement/Environmental Impact Report (Draft PA/EIS/EIR).

Pursuant to the Draft PA/EIS/EIR, the proposed Project's water use is estimated to be approximately 1,400 to 1,800 acre-feet of water over a 2 to 4-year construction timeframe. Annual project operations, following construction, are estimated to require about 38 acre-feet per year.

As the Board has emphasized in prior comment letter dated April 10, 2015 (attached for reference), the project site is located within the delineation of the "Accounting Surface" area as defined by the U.S. Geological Survey (USGS) Scientific Investigations Report 2008-5113. The Palo Verde Mesa Groundwater Basin (PVMGB) groundwater aquifer beneath the project site is considered by USGS to be hydraulically connected to the Colorado River and groundwater

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withdrawn would be replaced by Colorado River water in total or in part. If it is determined that the wells are pumping Colorado River water, then a legally authorized and reliable water supply for the project must be obtained to offset this use of Colorado River water.

If the Project's water supply needs will be met via on-site groundwater wells, the Board supports the development and implementation of a Groundwater Monitoring and Mitigation Plan prior to project construction to avoid or offset any potential impacts to Colorado River water resources. The Board requests that the mitigation measure for the proposed project be consistent with those of the Palen Solar Project, in which BLM published a Record of Decision (ROD) for in October 2018. For more information, see <u>https://eplanning.blm.gov/epl-front-office/eplanning/planAndProjectSite.do?methodName=dispatchToPatternPage&currentPageId=9 8931</u>. Appendix B to the ROD contains the full text of mitigation measures and applicant measures and includes a mitigation measure (MM), WR-7, outlining a Colorado River Water Supply Plan for the Palen Solar Project:

"The Project Owner must develop a Colorado River Water Supply Plan (Plan) to prevent, replace or mitigate project impacts that deplete the PVMGB groundwater budget. The amount of PVMGB depletion requiring mitigation shall be equal to the amount of withdrawals from below the Colorado River Accounting Surface as determined by the Groundwater Monitoring and Mitigation Plan (APM-40, WR-3). The Plan must identify measures that will be taken to replace water on an acre-foot to acre-foot basis, if the project results in consumption of any water from within or below (+/-0.84 feet (the 95-percent confidence level of the surface) the Colorado River Accounting Surface, towards the purpose of ensuring that no allocated water from the Colorado River is consumed without entitlement to that water. The analysis must include the procedures described in Mitigation Measure WR-9 and be submitted to the BLM and Colorado River Basin Regional Water Quality Control Board for review and approval, and to the Metropolitan Water District of Southern California for review and comment, prior to the use of any water below the accounting surface.

The plan is required at any time that the BLM and/or the Project Owner determine, based on the results of the Groundwater Monitoring Plan (APM-40, WR-3), that groundwater withdrawals will likely reach the Accounting Surface during the life of the project. Should an approved plan for mitigation or replacement not be in place at the time groundwater withdrawals reach the Accounting Surface, all groundwater pumping shall cease until a mitigation/replacement plan is approved. The Plan must describe groundwater information, and proximity of the depth of project related groundwater pumping to the Colorado River Accounting Surface. The Plan must further describe that if project-related groundwater pumping draws water from below the accounting surface the following must occur:

1. Based on groundwater monitoring data, record the quantity of groundwater pumped from below the Accounting Surface, and

2. The Project Owner must implement water conservation/offset activities to replace Colorado River water on an acre-foot by acre-foot basis.

To effectively implement item (2) above, the Plan shall include the following information:

- Identification of water conservation/offset activities to replace the quantity of water diverted from the Colorado River;
- Identification of any required permits or approvals and compliance of conservation/offset activities with CEQA and NEPA;
- An estimated schedule of completion for each identified activity;
- Performance measures used to evaluate the amount of water replaced by each identified activity; and
- Monitoring and reporting protocol to ensure effective implementation of water conservation/offset activities and achievement of the intended purpose of replacing Colorado River water diversions.

The Project Owner must collaborate with the BLM, the Colorado River RWQCB, and/or the MWD, as appropriate, in order to identify acceptable water conservation/offset activities for the purposes of the Plan, with acceptable activities being those that are considered environmentally, physically, and economically feasible, while also effectively resulting in the replacement of Colorado River water. Water conservation/offset activities that have been considered and determined to not be viable and therefore may not be identified in the Plan include the following:

- Irrigation improvements in the Palo Verde Irrigation District (water unused by the PVID becomes available to MWD per the 2003 Colorado River Water Delivery Agreement executed by MWD, the Secretary of the Interior, Imperial Irrigation District, Coachella Valley Water District, and San Diego County Water Authority);
- Purchase of water allotments allocated by the Department of the Interior (all Colorado River water available to California in shortage, normal, or Intentionally Created Surplus conditions is already allocated and its use is limited to each entity's service area under executed water delivery contracts);
- Implementation of conservation programs in floodplain communities (all water unused by holders of higher priorities becomes available to MWD per the water delivery contracts executed by the Department of the Interior); and
- Participation in the BLM's Tamarisk Removal Program (use of Colorado River water by phreatophytes such as tamarisk is not charged as a use of water for U.S. Supreme Court Decree accounting purposes by the U.S. Bureau of Reclamation).

If the Project Owner has filed an application to the U.S. Bureau of Reclamation (USBR) to obtain an allocation of water from the Colorado River and such allocation is granted, it may be used to satisfy some or all the water conservation offsets on an accefoot per accefoot basis. However, the filing of an application for allocation of Colorado River water does not guarantee issuance of such an allocation. In addition, the Department of the Interior has already allocated all of California's apportionment to use of Colorado River water water during shortage, normal, and Intentionally Created Surplus conditions. Therefore, unless the Project Owner currently holds entitlement to the use of Colorado River water, an allocation is not assumed to be granted.

If the project does not result in diversion of Colorado River water (via pumping from near (within +/-0.84 feet at the 95-percent confidence level of the accounting surface), implementation of water conservation/offset activities identified in the Colorado River Water Supply Plan is not necessary. However, groundwater pumping below the Colorado River Accounting Surface is prohibited without an approved Plan in place."

The Board requests that the Project Owner prepare a Colorado River Water Supply Plan similar to the one for the Palen Solar Project, for review and approval by BLM and the Colorado River Basin Regional Water Quality Control Board, and for review and comment by the Board and MWD. The Colorado River Water Supply Plan should be separate from the Groundwater Monitoring and Mitigation Plan. This Plan must be developed, reviewed, approved of, and implemented as a separate, stand-alone document. In addition, the Board requests to be included, along with MWD, in the process of reviewing all groundwater and hydrologeological monitoring and reporting provided by the Project Owner related to local groundwater and Colorado River resources prior to approval of the reports. These reports should include the various documents listed above, as well as any additional pertinent groundwater monitoring data submitted by the Project Owner to BLM and the County.

If you have any questions or require further information, please feel free to contact Ms. Lindia Liu at (818) 500-1625, or via e-mail at lliu@crb.ca.gov.

Sincerely,

cguaug

Christopher S. Harris Executive Director

cc: Mr. Terry Fulp, Regional Director, U.S. Bureau of Reclamation Mr. William J. Hasencamp, The Metropolitan Water District of Southern California



### **COLORADO RIVER INDIAN TRIBES** Colorado River Indian Reservation

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November 8, 2018

Via Email and U.S. Mail

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#### RE: Comments of the Colorado River Indian Tribes on the Draft Environmental Impact Statement/Environmental Impact Report/Land Use Plan Amendment for the Desert Quartzite Solar Project.

To Whom It May Concern:

On behalf of the Colorado River Indian Tribes (CRIT or the Tribes), I write to respond to your August 9, 2018 notification regarding the Draft Environmental Impact Statement/Environmental Impact Report/Land Use Plan Amendment (DEIS) for the Desert Quartzite Solar Project (Project). After carefully reviewing the DEIS, the Tribes have concluded that it fails in many respects to meet the requirements of the National Environmental Policy Act (NEPA), the National Historic Preservation Act (NHPA), the California Environmental Quality Act (CEQA), and other federal, state, and local laws.

As a preliminary matter, the Colorado River Indian Tribes are a federally recognized Indian tribe comprised of over 4,440 members belonging to the Mohave, Chemehuevi, Hopi and Navajo Tribes. The almost 300,000-acre Colorado River Indian Reservation sits astride the

Colorado River between Blythe, California and Parker, Arizona. The ancestral homelands of the Tribes' members, however, extend far beyond the Reservation boundaries. Significant portions of public and private lands in California, Arizona, and Nevada were occupied by the ancestors of the Tribes' Mohave and Chemehuevi members since time immemorial. These landscapes remain imbued with substantial cultural, spiritual, and religious significance for the Tribes' current members and future generations. For this reason, the Tribes urge BLM and the County to deny the proposed Project, which has the potential to transform a significant cultural landscape to an industrial one. In the event the Project does move forward, however, the agencies must take steps to revise the DEIS to adequately consider and mitigate for impacts to cultural and other resources.

#### The DEIS Is Inadequate under NEPA and CEQA.

The purpose of NEPA is to inform the public and agency decisionmakers of a project's potential environmental impact before those decisionmakers act. By requiring an EIS to provide a complete picture in advance, the drafters of NEPA expected that decisionmakers would make better decisions. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989) (NEPA "ensures that the agency, in reaching its decision, will have available, and will carefully consider, detailed information concerning significant environmental impacts"). BLM has an obligation pursuant to NEPA to conduct its analysis "objectively and in good faith, not as an exercise in form over substance, [] not as a subterfuge designed to rationalize a decision already made . . . [and] not just to file detailed impact studies which will fill governmental archives." *Metcalf v. Daley*, 214 F.3d 1135, 1142 (9th Cir. 2000); *see also Earth Island Institute v. U.S. Forest Service*, 351 F.3d 1291, 1300 (9th Cir. 2003) (NEPA requires that federal agencies "consider every significant aspect of the environmental impact of a proposed action . . . [and] inform the public that [they have] indeed considered environmental concerns in [their] decision-making process[es].") (citations omitted).

Likewise, the EIR is "the heart of CEQA." *Laurel Heights Improvement Ass'n v. Regents* of University of California, 47 Cal.3d 376, 392 (1988) (citations omitted). It is "an environmental 'alarm bell' whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return. The EIR is also intended 'to demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action.' Because the EIR must be certified or rejected by public officials, it is a document of accountability." Id. (citations omitted).

Beyond merely disclosing potential environmental impacts, the environmental review statutes require agencies to develop tactics to address them. Specifically, CEQA requires the EIR not only identify a project's significant effects, but also requires the agency to adopt measures to avoid or minimize them. Pub. Res. Code § 21002.1. An EIR may not defer evaluation of mitigation to a later date. CEQA Guidelines<sup>1</sup> § 15126.4(a)(1)(B). NEPA's requirements are similar: the EIS must "[i]nclude appropriate mitigation measures" and discuss the "[m]eans to mitigate adverse environmental impacts." 40 C.F.R. §§ 1502.14(f), 1502.16(h). The statute

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"require[s] that an EIS discuss mitigation measures, with 'sufficient detail to ensure that environmental consequences have been fairly evaluated.' An essential component of a reasonably complete mitigation discussion is an assessment of whether the proposed mitigation measures can be effective." *South Fork Band Council of W. Shoshone of Nevada v. U.S. Dep't of Interior*, 588 F.3d 718, 727 (9th Cir. 2009) (quoting *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 352 (1989)).

Where, as here, the environmental review document fails to fully and accurately inform decisionmakers and the public of the environmental consequences of proposed actions, or identify ways to mitigate or avoid those impacts, it does not satisfy the basic goals of either NEPA or CEQA. *See* 40 C.F.R. § 1500.1(b) ("NEPA procedures must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken."); Pub. Res. Code § 21061 ("The purpose of an environmental impact report is to provide public agencies and the public in general with detailed information about the effect that a proposed project is likely to have on the environment; to list ways in which the significant effects of such a project might be minimized; and to indicate alternatives to such a project."). As a result of the DEIS's numerous and serious inadequacies, there can be no meaningful review of the Project by either the public or the agencies' decisionmakers.

### I. The DEIS Fails to Adequately Analyze or Mitigate for the Project's Impacts on Cultural Resources.

The proposed Project analyzed in the DEIS is a 450 MW solar project bounded by the McCoy Mountains to the north, the Mule Mountains to the southwest, and the Colorado River to the east. DEIS at 3.3-1. The southwestern edge of CRIT's reservation is approximately 10 miles from the Project site. Consequently, CRIT is traditionally and culturally affiliated with the Project area as the ancestors of CRIT's Mohave and Chemehuevi members have lived and traveled in the Project area since time immemorial. *See, e.g.*, DEIS at 3.5-6 ("The Patayan cultural materials and archaeological assemblage are recognized as directly ancestral to the contemporary Native American cultures of the region.")

### A. The DEIS Fails to Adequately Analyze or Mitigate for Impacts to the Mule Mountains and Surrounding Area.

The Mule Mountain Area of Critical Environmental Concern, "established to manage cultural resources," is located "approximately one mile southwest of the [Project] site." DEIS at 3.16-4. The Mule Tank Discontiguous Rock Art District, P-33-000594 and P-33-00073, is also located one mile southwest of the Project. DEIS at 4.5-4. As BLM recognized in establishing this ACEC, the Mule Mountains have tremendous cultural significance for area tribes, including CRIT. Because of this, the proximity of the proposed Project to the Mule Mountains, also known as Avi Ismalyk, is alarming to the Tribes. The dance circles, trails, petroglyphs, and intaglios associated with Avi Ismalyk play an integral role in Mohave cultural and spiritual beliefs, in addition to the plants and animals of the area. The landscape is identified in Mohave songs and stories. The DEIS acknowledges this connection:

"Mojave religious beliefs were especially well developed and emphasized a basic connection between the natural world and the world of the supernatural . .

During [dream state] travels, the Mojave would see important places and identify key geographical locations where certain important springs or mountains were situated.a...Oral traditions of the Mojave people are generally rich with detail, with mythical occurrences commonly associated with identifiable places and landmarks... Many stories are part of traditional song cycles, and the landmarks identified in the stories include those within traditional Mojave territory as well as places in the surrounding region. This strong identification with the landscape of traditional Mojave territory continues today." DEIS at 3.5-13.

Indeed, BLM recently recognized "the area of dense cultural resources associated with the Mule Mountains south of Blythe" in its environmental review of the proposed Ten West Link Project, selecting the resource-avoidance alternative as its preferred option to avoid some of these impacts. *See* Ten West Link EIS at ES-4.

While the Tribes appreciate that attempt to avoid cultural resource impacts—and likewise appreciate that Riverside County and BLM have also chosen Alternative 2: Resource Avoidance as their CEQA environmentally superior alternative and NEPA preferred alternative, respectively—CRIT must once again voice its opposition to the development of the Project in any form on this sensitive landscape. As this letter describes further below, the Tribes remain troubled by the Project's potential to remove, damage, or destroy cultural resources and artifacts. These resources are sacred and finite, and together make up the cultural footprint of the Tribes' ancestors. According to the belief system of CRIT's Mohave members, the disturbance of any cultural resources affiliated with their ancestors is taboo, and thus considered a severe cultural harm. CRIT therefore cannot support any project that will likely result in the disturbance or destruction of cultural resources and artifacts.

Moreover, despite the DEIS's attempt to downplay the possibility of unanticipated cultural resource discoveries, CRIT has every reason to fear that cultural resource impacts will be worse than the analysis predicts. As the DEIS acknowledges, the Project area is located in a region of significant prehistoric human activity. *See, e.g.,* DEIS at 3.5-5, 3.5-7 to -8 ("The trail network connected not only major pilgrimage locations, but also villages, springs, and important resource collection areas . . . including village sites in the study area . .a"). This not only increases the likelihood that previously undiscovered resources will be unearthed during Project construction, but enhances the cultural significance of this landscape to Tribal members as a means of connection to their ancestors. This is a high stakes location for cultural resource discoveries and for significant cultural harm if those resources are disturbed. CRIT has seen that pattern play out all too often with projects like Genesis Solar, in which almost 3,000 cultural artifacts were collected from the site during development and are now being stored in a museum hundreds of miles away where CRIT's members are not even allowed to view them. BLM's reliance on the archaeological surveys conducted for the Genesis project does little to alleviate the Tribes' fears. DEIS at 3.5-30.

Despite the Tribes' grave concerns and the close proximity of the Project to such a sensitive cultural resource area, the DEIS repeatedly insists that the Project "will not have an adverse effect to the Mule Tank District" because the Rock Art District is "located outside of the Project area." *See, e.g.*, DEIS at 4.5-6. Yet, this analysis fails to consider the risks to cultural

resources that come from being in the vicinity of a large development: vandalism, destruction, visual intrusion, loss of cultural value and tribal connection to the landscape, etc. The DEIS analysis must be revised to adequately consider these impacts.

Moreover, much of the traditional value of these cultural resources to the Tribes comes from maintaining the connectivity between cultural resource sites stretching from Spirit Mountain in Nevada to Blythe. The Mule Mountains play a key role in maintaining this connectivity within Tribal members' ancestral landscape. To the extent that this proposed Project and its impacts prevent access to the Mule Mountains for traditional practitioners or destroy the landscape connectivity necessary to traditional cultural practices, and thereby present a substantial burden on their religious free exercise, the federal government violates the Religious Freedom Restoration Act. *See Burwell v. Hobby Lobby Stores, Inc.*, 573 U.S. (2014).

### B. The DEIS Incorrectly Determines that All Impacted Cultural Resources Are Valuable for Data Recovery Only.

Despite acknowledging that "the potential for inadvertent discovery of historic resources is considerable and a potentially significant impact of the Project," the DEIS relies heavily on mitigation measures that emphasize data recovery and resource curation as a means of alleviating the Project's effects. DEIS at 4.5-9. As the DEIS blithely states, "although an important resource is lost forever [due to Project impacts], some of the information about that resource is maintained [through the proposed data recovery]." DEIS at 4.5-10, For the reasons discussed below, this proposed form of mitigation is not only grossly inadequate, but culturally devastating to Tribal members. BLM's focus solely on the scientific value of cultural resources violates state and federal law.

### 1. The Project Will Significantly Impact Prehistoric Cultural Landscapes.

Both state and federal law recognize that cultural resources include cultural landscapes. *See* National Register Bulletin, "Guidelines for Evaluating and Documenting Traditional Cultural Properties" ("A culturally significant natural landscape may be classified as a site" eligible for the National Register); Pub. Res. Code § 21074(a) (tribal cultural resources include "cultural landscapes"). Indeed, evaluation and protection of such landscapes is necessary to ensure adequate protection of both individual resources and their historic context. Recently, the California Office of Historic Preservation recognized the need for cultural resource professionals working on renewable energy projects to shift focus from a site level to the landscape level of assessment. While the DEIS briefly mentions that cultural landscapes may be protected under new state law (DEIS at 3.5-49), the DEIS makes no effort to identify or define any cultural landscapes in the vicinity of the Project. This omission is contrary to law, and not supported by the significant evidence available to the agencies.

The DEIS's cultural resource section reveals abundant evidence to support a cultural landscape eligibility determination. As the DEIS notes "[t]en prehistoric or historic trails are documented within the proposed Project solar facility site or within the vicinity of the Project, [and t]hree prehistoric trails fall within the Project boundaries . . . Ethnographic studies within the Project area have identified trails as having an important economic and spiritual use in both

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prehistoric and historic times." DEIS at 3.5-7. Other agencies have recently made cultural landscape designations under the NRHP and CRHR in this region based on much the same trail system. *See* Palen Solar Electric Generating System Revised Presiding Member's Proposed Decision (PMPD) at 6.3-34 to -48. The cultural landscape is the Tribes' way of life. The trails, which pass through the site, link the petroglyphs and rock shelters found on each surrounding mountain. The ancestors who created the petroglyphs in the boulders each had ties to the area and reasons for doing so and the entire landscape remains important to each tribal member individually and the Tribes collectively.

Project by project, the Tribes' cultural footprint is getting erased and this Project is no exception. The DEIS's omission of any discussion of cultural landscapes violates both NEPA and CEQA. The analysis must be revised to properly account for and mitigate these impacts.

#### 2. As the Prehistoric Sites Destroyed By the Project Contribute to Cultural Landscapes, Their Removal Constitutes a Significant Impact.

The California Environmental Quality Act ("CEQA") requires lead agencies to identify significant impacts to "historic resources" and mitigate these impacts. *See, e.g.*, CEQA Guidelines § 15064.5. Moreover, CEQA requires lead agencies to use preservation in place for archaeological resources if feasible, unless other mitigation would be more protective. CEQA Guidelines § 15126.4(b); *Madera Oversight Coal. v. County of Madera*, 199 Cal. App.4th 48, 82-87 (2011).

The DEIS explains that there are 92 known prehistoric sites, 9 known multi component sites, and 158 known prehistoric isolates within the APE.<sup>2</sup> DEIS at 4.5-5. Of those, 9 prehistoric sites are considered eligible under NRHP and/or CRHR criteria. DEIS at 4.5-6. Though the analysis acknowledges that "if loss of these resources cannot be fully mitigated, the impacts would be significant," the proposed mitigation centers almost exclusively on "eligible" resources. This focus on NRHP/CRHR-eligible resources as the only impacts requiring mitigation is arbitrary and capricious, and not supported by substantial evidence.

Indeed, the DEIS's analysis inappropriately silos these archaeological resources. Under its logic, if an individual resource is not *independently* significant, it does not merit protection. In ignoring the connective and cumulative value of these resources, the DEIS fails to evaluate whether any of these non-eligible prehistoric archaeological sites or isolates contribute to the cultural landscapes discussed in the prior section. . Even if these resources are not significant on their own—a characterization that the Tribes do not support—the DEIS must be revised to

<sup>&</sup>lt;sup>2</sup> As currently written, the DEIS does not make these totals readily apparent, instead providing a piecemeal accounting of survey results. In order to better inform the public regarding potential cultural resource impacts, the DEIS should be revised to include a concluding paragraph to the Cultural Resources section that clearly sets out the number of prehistoric, historic, and multi-component sites and isolates that will be impacted by each of the Project alternatives.

evaluate whether these resources are significant because of their contribution to a broader cultural landscape.

The DEIS's focus only on "eligible" resources misconstrues state and federal law. The DEIS must avoid conflating eligibility for the CRHR with significant impacts analysis under CEQA. Impacts to archaeological resources considered non-eligible for listing on the CRHR— perhaps because of their lack of integrity—may nevertheless be significant for CEQA purposes. Similarly, BLM must not equate significant cultural resources with only those buildings, sites, structures, objects, and districts eligible for inclusions on the NRHP. NEPA guidelines specify that EISs must address impacts to "historic *and* cultural resources" (40 C.F.R. § 1502.16(g) (emphasis added)), thus requiring a more expansive analysis than the one undertaken for National Historic Preservation Act purposes. The DEIS must be revised to properly consider these resource impacts under CEQA and NEPA, respectively.

### **3.** The Project Will Significantly Impact Areas of Critical Environmental Concern.

The DEIS notes that five areas of critical environmental concern are located within 20 miles of the Project area: Mule Mountain ACEC (approximately one mile southwest), Chuckwalla Valley Dune Thicket ACEC (approximately seven miles west), Palen Dry Lake ACEC (approximately 19 miles northwest), Chuckwalla Desert Wildlife Management Area ACEC (approximately 13 miles southwest), and Big Marias ACEC (approximately 14 miles northeast). DEIS at 3.14-4. The DEIS concludes that none of the ACECs will be directly impacted by the Project, but provides little to no explanation to support its conclusions, especially with respect to the Mule Mountain ACEC. DEIS at ES-11, 4.14-4, 4.14-10, 16-2, 16-3. Furthermore, the DEIS offers no explanation for why the significant cultural resources protected by these ACECs may not be indirectly and adversely impacted by the proposed Project. As demonstrated above, these cultural resources include areas sacred to area tribes, linked to cultural practices, and grounded in the undisturbed cultural landscape. The addition of a massive, industrial system to the area directly adjacent to the Mule Mountains has the real potential to adversely impact these values. The agencies must consider these impacts in a revised—DEIS.

#### 4. The Project Will Significantly Impact Tribal Cultural Resources.

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Finally, the DEIS utterly fails to consider the proposed Project's potential to adversely impact Tribal Cultural Resources, which are specifically protected under CEQA. As the DEIS explains, "[t]ribal cultural resources (TCRs) include sites, features, places, cultural landscapes, and sacred places or objects that have cultural value or significance to a Tribe. To qualify as a TCR, the resource must either: (1) be listed on, or be eligible for listing on, the California Register of Historical Resources or other local historic register; or (2) constitute a resource that the lead agency, at its discretion and supported by substantial evidence, determines should be treated as a TCR (PRC § 21074(a)(2)). Native American tribes that are traditionally and culturally affiliated with a geographic area can provide lead agencies with expert knowledge of TCRs." DEIS at 3.5-49. Despite acknowledging CEQA's requirement to consider impacts to Tribal Cultural Resources and despite input from multiple tribes regarding the importance of the cultural landscapes in the Project area, the DEIS fails to analyze or identify any TCRs in its impacts analysis. The analysis goes so far as to ignore information from the Twenty-Nine Palms Band of Mission Indians regarding a tribal cultural property crossed by and in the vicinity of the Project. DEIS 3.5-49.

This gross omission ignores the wealth of information available to the agencies regarding tribal cultural resources in the vicinity of the Project. This comment letter alone provides substantial evidence upon which the agencies can and should designate Tribal Cultural Resources. Proper consultation with tribes, including CRIT, will further support this those designations. This error must be remedied in a revised and recirculated DEIS.

### C. The DEIS Fails to Adequately Mitigate for the Project's Significant Cultural Resource Impacts.

The DEIS relies on numerous mitigation measures to purportedly reduce the Project's significant cultural resource impacts. *See, e.g.*, DEIS at 4.5-9 to -11. However, as detailed below, these mitigation measures are wholly inadequate, and provide little to no protection for cultural resources:

- CRIT acknowledges and appreciates the DEIS's emphasis on "[a]voidance of cultural resources [as] the preferred mitigation measure." Appx. G-41. However, as explained throughout these comments, the only way to truly avoid cultural resource impacts is to deny Project approval outright. Moreover, the DEIS's emphasis on protecting only NRHP- or CRHR-eligible resources ensures that this avoidance policy will do nothing to prevent the wholesale destruction of countless cultural resources on the Project site. These isolates and non-eligible resources make up the cultural footprint of many Tribal members' ancestors. Unless avoidance extends to these cultural resources as well, this measure does not provide effective mitigation of the Project's significant cultural resource impacts.
- BLM continues to rely on data recovery, removal of resources, and long-term curation as "mitigation" for impacts to prehistoric cultural resources. See, e.g., Appx. G-41 ("Resolution of adverse effects to historic properties will be developed in consultation and may include research and documentation, data recovery excavations, curation, public interpretation, or use or creation of historic contexts."); *id.* ("An example of treatment is

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data recovery at affected sites."). BLM attempts to paint data recovery as a way to "teac[h] us about the lives of historic people, all while ignoring the very real cultural and spiritual impacts on the living descendants of those people. DEIS at 4.5-10. As CRIT has repeatedly informed BLM, such efforts do not—in any way—mitigate for the significant cultural harms caused by removing the footprint of tribal members' ancestors from the landscape. Indeed, such measures cause more harm than good. BLM has informed CRIT that it is "required" by law to curate such resources, and that it cannot allow such resources to be reburied or otherwise left on-site. As CRIT has previously explained to BLM, this position is not supported by the Archaeological Resources Protection Act, curation regulations, or any ongoing or prior litigation.<sup>3</sup> Moreover, the U.S. House of Representatives recently passed the La Paz County Land Conveyance Act, H.R. 2630, which specifically authorized reburial of cultural resources unearthed on 8,800 acres of federal land transferred to La Paz County for commercial development. Consequently, the Tribes respectfully request that BLM reconsider its position on reburial and revise CUL-1, CUL-2, CUL-5, and CUL-7 accordingly. At the very least, the agencies should permit reburial of any isolates or other non-eligible prehistoric archaeological resources.

- The DEIS must be revised to clarify that archaeological monitoring and tribal monitoring will be required for all ground disturbing activities, including grading, disc and roll, and pile or stake driving, mechanical excavation, drilling, digging, trenching, blasting, or using high pressure water to cut into the ground. Given that the project site will be disturbed to a depth of 12 feet in some locations (DEIS at 3.5-30), comprehensive monitoring is necessary. A mitigation measure that fails to use tribal monitors for *all* ground disturbing activities will result in significant impacts, and the DEIS cannot conclude that partial monitoring will reduce impacts to the extent feasible. To reduce impacts to the extent feasible, tribal monitors must be present for all the activities described above and whenever machines are active. The DEIS, including CUL-1 (Measure 3), CUL-4, and CUL-6, must be revised accordingly.
- CUL-4 addresses proposed mitigation measures to address unanticipated discoveries. The mitigation repeatedly mentions the presence of the "Native American Tribal Observer," yet the glossary does not define this term or explain how or if it is different from a tribal monitor. Appx. G-42. CUL-6 simply states that "monitors shall be known as the Tribal Observer for this Project." *Id.* G-43. To avoid confusion on this point, the DEIS should be revised to exclusively use the term tribal monitor or to provide an exact definition of "Tribal Observer."

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<sup>&</sup>lt;sup>3</sup> In responding to a similar issue on the Ten West Link Transmission Line Project, BLM cited to "ongoing litigation" as a reason why reburial could not be accommodated. Further explanation included citations to CRIT's challenges to the Blythe and Genesis projects. Both court cases have been resolved, and neither involved a determination regarding the propriety of reburial on public lands.

- The DEIS proposes to defer the development of historic properties treatment plans and a monitoring and discovery plan until just "prior to the issuance of the NTP or a County Grading Permit." *See* CUL-2, CUL-5. This deferral is inappropriate, particularly because neither CUL-2 nor CUL-5 provides any performance standards or other mechanisms for determining whether these plans are sufficient to mitigate the proposed Project's impacts. It also runs afoul of both NEPA and CEQA. *E.g., Communities for a Better Environment v. City of Richmond*, 184 Cal.App.4th 70 (2010). Consequently, the Tribes request that any historic properties treatment plans and monitoring and discovery plans be developed and circulated for review and comment in advance of the release of any FSEIS.
- CUL-4, Procedure 2 states that "[t]he BLM alone shall determine the appropriate treatment for cultural resources on BLM-managed lands." Appx. G-42. In order to comply with the purposes of the NHPA, this mitigation measure must be revised to state that BLM shall make cultural resource treatment decisions in consultation with local area tribes. Similarly, CUL-4, Procedure 3 should be revised to state that ground disturbance shall not resume in the area of the discovery until a meeting this consultation is completed.
- BLM has traditionally required tribal representatives participate in the WEAP Training (CUL-7), to ensure that construction personnel can identify tribal cultural resources and other prehistoric properties. This mitigation measure should be modified to include this requirement.
- CULs -4 and -6 must be revised to provide tribal monitors with the authority to halt construction, at least until there can be the opportunity for review by CRS, alternate CRS, or other field staff. Without this power, the tribal monitors will be unable to minimize the potential impacts of the proposed Project. Likewise, CUL-4 must be clarified to provide that tribes must receive notice of newly discovered prehistoric resources within 24 hours of the notification to BLM. Without this time requirement, tribes will be unable to effectively participate in the determination of how to treat any newly discovered prehistoric resource.

#### D. The DEIS Fails to Support Its Conclusion that the Project Will Not Have Cumulative Adverse Effects on Cultural Resources

The DEIS acknowledges that "[n]umerous significant archaeological and historical resources have been previously discovered within the Project's broader geographical area, although many are not thoroughly documented." DEIS at 4.5-12. Cultural resources represent a direct linkage between present-day tribal members and their ancestors. Removal of these resources from the landscape is removal of the Tribes' footprint. Once such resources are gone, it will be difficult, if not impossible, for the Tribes to prove that these lands are part of their ancestral homeland, and that their ancestors lived and worked on these lands since time immemorial.

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The DEIS analysis summarizes the cumulative impacts of "seven past projects" in the vicinity of the Project. DEIS at 4.5-12 to -13. Yet, in doing so, the DEIS provides an inaccurate picture of cumulative cultural resource impacts in three significant ways: (1) by relying on the cultural resource numbers from the various project FEISs, rather than providing information as to how many cultural resources were actually discovered and/or disturbed when those projects were constructed, (2) by focusing solely on NRHP- and/or CRHR-eligible resources and ignoring noneligible and isolate discoveries, and (3) by ignoring impacts to cultural landscapes, as discussed above. As BLM is very aware, it is impossible to predict the location of undiscovered cultural resources and, therefore, actual cultural resource impacts can only be known once project construction has concluded. For the vast majority of the projects BLM lists in its cumulative analysis, those final impact numbers are readily available. Yet, BLM instead provides the cultural resource information from the respective project FEISs, effectively guaranteeing that cumulative impacts are understated. Moreover, BLM's discussion of only eligible resources ignores the broader cumulative impact of these projects for CRIT's members. The disturbance, destruction, and/or removal of any cultural resource-including isolates and non-eligible artifacts—contributes to the steady erosion of Tribal members' cultural footprint from their ancestral landscape. The DEIS's methodology fails to acknowledge this devastating impact and provides the public with an inaccurate cumulative picture.

Unsurprisingly, given this faulty analysis, the DEIS then concludes that "the Project's contribution to impacts would not be cumulatively considerable." DEIS at 4.5-14. The DEIS appears to reach this conclusion because the Project's direct destruction of cultural resources is only a small fraction of the overall total of cultural resources in the study area. *Id.* at 4.5-13. But this is the exact circumstance in which a cumulative impact should be recognized—where the individual project's contribution looks tiny on its own, but *together with other projects* represents a significant impact on a resource. *E.g., Kings County Farm Bureau v. City of Hanford*, 221 Cal.App.3d 692 (1990). The DEIS must be revised to recognize the Project's cumulatively significant impact.

#### **II.** The DEIS's Analysis of Impacts to Visual Resources Is Inadequate.

The Visual Resources section of the DEIS does not address the cultural implications of the Project's disruption of the visual landscape. While the DEIS considers impacts to general "viewer groups," it fails to consider the Project's visual impact on Tribal members. DEIS at 3.19-2. The Mule and McCoy Mountains are more than a recreational resource for the Tribes; they have longstanding cultural and spiritual significance as ancestral lands. Any large-scale visual alteration to this space disturbs the sanctity of the outdoor environment, degrades cultural values, and constitutes a significant impact. Despite this special significance, the DEIS does not mention the visual impact on CRIT members in the Visual Resources section, and the DEIS does not indicate that CRIT was consulted for this section. BLM must consult with the Tribes to determine the full significance of the visual landscape of the Mule and McCoy Mountains as cultural resources, and to explore possible additional or alternative mitigation that would best minimize visual impacts as a whole.

Additionally, the DEIS downplays the visual resources impacts by assigning the Project footprint "a Class III Interim VRM Objective," despite the fact that the "Project site is located in an area designated as VRI Class II, indicating a high scenic value." DEIS at 3.19-6. The Class III

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designation was reached through a systematic process that documents the landscape through three factors: scenic quality, public sensitivity, and visibility. DEIS at 3.19-3. Each of the three factors is evaluated separately and then combined through an overlay analysis to determine the Class. *Id.* By narrowly focusing on a single factor and describing the scenery as C-Quality, the description in the DEIS downplays the other two factors. In fact, the project area is assigned a high visual sensitivity level and the distance zone is assigned "foreground/middleground" due to the short distance to I-10 and other local roads. DEIS at 3.19-5 to -6. The sensitivity level is the highest possible and the foreground/middleground is the closest and most disruptive distance zone. It is misleading to only refer to one factor in the Class rating system when describing the impacts on visual resources in the DEIS. *Id.* 

### III. The DEIS Fails to Recognize the Environmental Justice Impacts of the Project on Tribes.

#### A. The Environmental Justice Analysis is Overly Narrow.

Under NEPA, BLM must consider, to the extent practicable, whether there is or will be an impact on the natural or physical environment that significantly and adversely affects Native American tribes. Specifically, BLM must consider whether significant environmental effects may have an adverse impact on Native American tribes that appreciably exceeds those on the general population. *See, e.g.*, EPA's 1998 Environmental Justice Guidance; Executive Order 12898. These analyses are required for an adequate consideration of environmental justice impacts.

Similarly, California law requires that local agencies consider issues of fairness and environmental justice in the planning context. *See* Cal.Gov. Code, § 11135. "Environmental justice" is defined in the Government Code as "the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies." (Gov. Code, § 65040.12, subd.. (e).) Likewise, CEQA and its implementing Guidelines require lead agencies to consider the public health burdens of a project as they relate to environmental justice for certain communities. A 2012 report from the California Attorney General discussing environmental justice concerns under CEQA explained that, "where a local agency has determined that a project may cause significant impacts to a particular community or sensitive subgroup, the alternative and mitigation analyses should address ways to reduce or eliminate the project's impacts to that community or subgroup." "Environmental Justice at the Local and Regional Level: Legal Background," State of CA DOJ, at 4.

As a preliminary matter, Chapter 3.6—which lays the groundwork for the DEIS's environmental justice analysis—does not recognize that tribes face unique environmental justice burdens. The Chapter only looks at "demographic and income data [from the Colorado River Indian Reservation].. asince sections of the Reservation are located in Blythe CCD." DEIS at 3.6-1. This Chapter must be revised to specifically evaluate which tribes may be adversely and inequitably affected by the proposed Project.

In addition, the Environmental Justice analysis fails to recognize that the proposed Project will result in adverse impacts on CRIT that appreciably exceed those of the general population. The DEIS contains no discussion specific to Native American groups whatsoever, choosing instead to move topically through a number of potential environmental justice issues: Air Resources, Geology and Soils, Hazards and Hazardous Materials, Noise, Recreation and Public Access, Social and Economic Effects, Transportation and Traffic, Visual Resources, and Water Resources. DEIS at 4.6-3. Yet, even in its discussion of Social and Economic Issues, the DEIS limits its discussion to housing and makes no mention of the unique impacts that this kind of development has on tribal groups. DEIS at 4.6-4.

This gross omission renders the analysis inadequate under federal and state law. Unlike most members of the public, tribal members maintain long-standing ancestral and traditional practices that connect their identities to *specific environments*. Tribal members cannot easily shift their use and enjoyment of public lands to other, non-industrialized areas, as may be the case for many members of the public. Once these ancestral ties are severed, either by the removal of cultural resources or the fencing and development of the entire site, they cannot be regained. Consequently, the DEIS must be revised to recognize the significant environmental justice impacts of the proposed Project on CRIT and other affected tribes.

#### B. As Mitigation for the Project's Significant Environmental Justice Impacts, the EIS Must Consider Preferential Hiring for Both Construction and Permanent Jobs.

One of the most substantial environmental costs of the proposed Project is the destruction of tangible cultural resources and the wholesale transformation of the ancestral homelands of Indian tribes, including CRIT. This cost is borne exclusively by tribal members. The power produced at the proposed Project, however, is unlikely to serve residents of the Colorado River Indian Reservation, and the climate change benefits will be spread across the globe. The massive profits, moreover, will benefit a small number of private companies. This imbalanced allocation of costs and benefits, which disproportionately disadvantages a minority population while providing them little or no benefit from the program, satisfies any recognized definition of environmental justice.

To begin to right this imbalance, CRIT urges BLM and Riverside County to adopt a mitigation measure to give employment preferences to Indians, as well as access to any necessary job training programs to ensure performance and experience requirements can be met. The agencies should also adopt mitigation measures that ensure that the project developer sources construction materials from tribal enterprises. CRIT has serious questions as to whether the proposed Project will bring much needed construction and permanent jobs to an area close to the Reservation. At a minimum, please provide additional information about the nature of the jobs related to the Project to ensure that Tribal members may be available for hire. Tribal members must have access to these jobs to ensure that at least some of the benefits of the proposed Project flow back to the disadvantaged minority community on the Reservation.

#### IV. The Project Is Not Exempt from the DRECP and the Western Solar Plan.

The DEIS claims that the Project qualifies as a "pending" application that is not subject to either the Western Solar Plan or the Desert Renewable Energy Conservation Plan (DRECP). ES-3. The DEIS justifies this exemption from the Western Solar Plan and DRECP by explaining that "[t]he initial project application was filed before June 30, 2009, the Project is located within a SEZ, and the amendments contemplated by the Desert Quartzite Solar PV proposal either do not affect the project boundaries (e.g., change in project developer) or are related to avoiding resource or land use conflicts or adapting the Project to the third-party-owned infrastructure complaints. *Id.* 

However, BLM should not apply these exceptions to the proposed Project. The original ROW grant application—the one that pre-dated the Western Solar Plan and DRECP—was originally filed for 7,245 acres on September 28, 2007. DEIS at ES-1. As presented in the 2015 Scoping Report, applicant First Solar sought a right-of-way for a 300 MW photovoltaic solar Project on 4,853 acres of public land and 160 acres of private land. Desert Quartzite Scoping Report, May 2015, at 1. Yet, the Project evaluated in the DEIS seeks approval for approximately 5,115 acres of BLM land and 160 acres of private land. DEIS at ES-1. Moreover, the parameters of the Project itself appear to have changed, as First Solar now seeks to produce 450 MW using "advances in photovoltaic (PV) solar technology." *Id.* The ROW application has been pending for over a decade, and the DEIS evaluates a substantially different Project than the one originally proposed in 2007. As such, it should be evaluated under the Western Solar Plan and the DRECP. The DRECP was intended to mitigate impacts across a broad range of development activities, and BLM should be applying the Conservation and Management Actions (CMAs) at every opportunity, regardless of when a project application was first submitted.

Even if BLM views the Project changes as minor, evaluating all ongoing solar projects under these new standards will ensure the type of region-wide, programmatic conservation and consistency that the Western Solar Plan and DRECP were designed to promote. For this reason, BLM should have at least analyzed an alternative that applied the DRECP CMAs, as the agency recently did in the Palen Solar Project SEIS/SEIR. The Tribes recognize BLM's inclusion of Appendix E, which discusses the Project's relationship to the DRECP, but this is not a substitute for a full and adequate analysis of the application of the DRECP's requirements to the Project within the body of the DEIS. The DEIS must be revised to analyze such an alternative.

## V. The Alternatives Section is Improperly Narrowed by the Project's Purpose and Need.

### A. The Project's Narrow Purpose Impedes an Adequate Alternatives Analysis under NEPA.

664, 666 (7th Cir. 1997) ("One obvious way for an agency to slip past the strictures of NEPA is to contrive a purpose so slender as to define competing 'reasonable alternatives' out of consideration (and even out of existence)."); *see also Methow Valley Citizens Council v. Regional Forester*, 833 F.2d 810, 815 (9th Cir. 1987) (EIR inadequate for failure to analyze alternative sites).

BLM's purpose and need for the Project "is to respond to a revised ROW application submitted by the Applicant to construct, operate, maintain, and decommission a solar PV energygenerating facility and associated infrastructure on public lands administered by the BLM in compliance with [Federal Lands Policy Management Act ("FLPMA")], BLM right-of-way regulations, and other applicable Federal laws and policies." DEIS at ES-2. The DEIS also lists various management objectives the Project would allegedly further. DEIS at 1-4. While it says that BLM will consider "changing the route or the location of the proposed facilities," the agency unreasonably narrowed the objective of the proposed action by focusing on this particular application, rather than the public goals of providing renewable energy. This narrowing limited the range of reasonable alternatives considered.

BLM states that "[0]ther alternative sites, technologies and methods . . . were considered by the BLM but eliminated from detailed analysis under NEPA." DEIS at 2-38. The alternative locations considered were all rejected. DEIS at 2-40 to -43. Relying on its improperly narrow statement of purpose and need, BLM failed to consider alternative technologies, projects, or locations that could meet the same renewable energy goals as the proposed Project without the same devastating environmental and cultural impacts. The DEIS analysis must be revised to correct this error.

#### B. The Alternatives Analysis Is Similarly Inadequate under CEQA.

CEQA requires an EIR to include analysis of alternative locations. CEQA Guidelines, § 15126.6(f)(2). The EIR must ask if "any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location." CEQA Guidelines, § 15126.6(f)(2). Only if the lead agency concludes that there are no feasible alternatives, may the agency avoid reviewing at least one alternative site. CEQA Guidelines, § 15126.6(f)(2); *see Laurel Heights Improvement Ass'n v. The Regents of the University of California*, 47 Cal. 3d 376, 399-407 (1988) (finding that the EIR should have explored the potential to locate the project somewhere other than the Laurel Heights property; fact that the University owned the Laurel Heights property did not exempt it from analyzing use of other sites). And, if the agency concludes that no feasible alternative locations exist, it must disclose the reasons for this conclusion in the EIR. CEQA Guidelines, § 15126.6(f)(2).

For this reason, Riverside County must take care in crafting its project objectives to ensure that the DEIR properly considers an adequate range of alternatives. *Cal. Oak Foundation v. Regents of Univ. of Cal.* (2010) 188 Cal.App.4th 227, 277 ("CEQA clearly recognizes the agency will look to the proposed project's particular objectives when developing its range of project alternatives."); *Shasta Bioregional Ecology Center v. County of Siskiyou* (2012) 210 Cal.App.4th 184. 196-97 ("The process of selecting the alternatives to be included in the EIR begins with the establishment of project objectives by the lead agency."); see also CEQA Guidelines §§ 15124(b), 15126.6(f). Yet, here, the County has artificially constrained its

alternatives analyses by stating that the purpose of the Project is to "construct and operate a solar energy facility." DEIS at 1-4. The County's basic objectives for the Project cite to a number of state and federal renewable energy goals and orders, including AB 32's greenhouse gas reduction targets and Secretarial Order 3285Al. While these state laws and policies all emphasize renewable energy and may encourage the development of utility-scale renewable energy projects, they do not require it, particularly when renewable energy projects will have significant and adverse environmental consequences. The DEIS's project objectives should include a commitment to protecting cultural and biological resources, as well as the visual integrity of the desert landscape.

Here, the County has failed to adopt the kind of project objectives that allow for the consideration of a broad range of CEQA alternatives. Rather that focusing on the public benefits to be achieved—reduction in greenhouse gas emissions, increased energy independence, and economic development, the County narrowly focuses on "generat[ion of] up to 450 MW of electricity using PV solar technology," thereby improperly precluding discussion of both distributed generation and disturbed lands alternatives. DEIS at 1-4. Such a limited range of alternatives violates CEQA's mandates because it fails to consider projects that can achieve the same goals as utility-scale solar projects, but with far fewer impacts to cultural and environmental resources. The DEIS must be revised to correct this inadequacy.

#### VI. The Biological Resources Analysis Is Inadequate under CEQA.

The California Department of Fish and Wildlife ("CDFW") has the authority to regulate projects that may impact species protected by the California Endangered Species Act. Under CEQA case law, the DEIS should have discussed CDFW's permitting process and any potential mitigation or project modifications that may be required by the agency. Specifically, the EIR project description must include a list of consultation requirements and "to the fullest extent possible, the lead agency should integrate CEQA review with these related environmental review and consultation requirements." CEQA Guidelines § 15124(d)(1)(C); *see Banning Ranch Conservancy v. City of Newport Beach*, 2 Cal.5th 918, 936-942 (2017). In *Banning Ranch*, the city ignored its "obligation to integrate CEQA review with the requirements of the Coastal Act" (specifically the Coastal Act's habitat designation requirements). *Id.* at 936. The Court invalidated the City's CEQA analysis because the "omission resulted in inadequate evaluation of project alternatives and mitigation measures. Information highly relevant to the Coastal Commission's permitting function was suppressed. The public was deprived of a full understanding of the environmental issues raised by the Banning Ranch project proposal." *Id.* at 942.

The DEIS notes that the California Department of Fish and Wildlife (CDFW) "has the authority to regulate potential impacts to species that are protected under the California Endangered Species Act." DEIS at 1-9. It further mentions CDFW's jurisdiction over modifications to stream and lake beds under § 1602 of the California Fish and Game Code, as well as CDFW's oversight of certain native plant harvesting activities. *Id.* The DEIS acknowledges that the Project applicant will need to comply with the requirements of a "Streambed Alteration Agreement . . . independent of and in addition to mitigation measures included in the PA/EIS/EIR," and also notes the possibility of CDFW requiring an Incidental Take Permit for species impacts and/or a permit for removal of native plants. *Id.* However, the

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DEIS analysis fails to discuss the results of it consultation with CDFW for the project. Indeed, the only discussion of consultation is a declaration that it "will occur" in the future. DEIS at 1-21. The DEIS includes an analysis of areas potentially subject to jurisdiction under CDFW's Streambed Alteration Program in Appendix N, but contains no substantive discussion of the additional mitigating requirements that will be imposed through consultation with and permitting from CDFW. Similarly, the DEIS discusses mitigating actions, such as selection of Mojave desert tortoise translocation areas, that will be "approved through the ESA Section 7 consultation process, and via the development of the Project's Desert Tortoise Translocation Plan (Mitigation Measure WIL-2)." DEIS at 4.4-6. Yet, where that consultation has not yet taken place, and the results of said consultation and its resulting plans are not included in the DEIS, this delay undermines the functions of both CEQA and NEPA-to inform both the decisionmakers and the public as to the true environmental impacts of the Project. 40 C.F.R. § 1502.1; CEQA Guidelines § 15002(a)(1). As in *Banning Ranch*, where there was "ample evidence" that sensitive coastal habitat was present, here there is ample evidence of occupied habitat for a number of sensitive species, and "the decision to forego discussion of these topics cannot be considered reasonable." See Banning Ranch, 2 Cal. 5th at 937; DEIS at 4.4-5. The DEIS must discuss the consultation with CDFW and compliance with its requirements, as well as those of any other local, state, or federal agency with jurisdiction over the Project. The BLM should complete this consultation before the final environmental review document is issued so that decisionmakers and the public are fully informed of Project impacts. Until it does so, BLM's conclusions that biological impacts will be less than significant are unsupported.

The DEIS also fails to acknowledge the cultural significance of these desert species to local tribes—either in the cultural resources analysis or the biological impacts discussion. A number of the animals at greatest risk from the proposed project (Mojave desert tortoise, Mojave fringe-toed lizards, golden eagles, Western burrowing owls, American badgers, desert kit foxes, and other various birds) are important to tribal culture because they hold power and spiritual value in Native American belief systems and oral traditions. The CEQA Guidelines explain that a historic resource need not be eligible for the California Register of Historical Resources ("CRHR") to be a "historic resource" under Public Resources Code sections 5020.1(j) or 5024.1; "historic resources" thus require a more expansive analysis than the one required under the CRHR criteria. CEQA Guidelines § 15064.5(a)(4). Such resources necessarily include viewsheds and landscapes, plants and animals used in and/or central to cultural and religious practices and creation stories, and religious and customary practices (e.g., hunting and gathering, religious ceremonies, and trailwalking). The DEIS must be revised to apply the correct definition of cultural resources for this Project and properly analyze these impacts.

A number of the plants at the project site also hold cultural value for CRIT. For example, the DEIS explains that "[v]egetation in the Project area is primarily composed of creosote scrub and open desert." DEIS at 3.19-1. Creosote has topical and internal medicinal purposes for tribal members, and was traditionally used by Mohave and Chemehuevi craftspeople for a number of utilitarian purposes, including waterproofing of baskets, cordage objects, and pottery. Once these and other desert sensitive plants have been destroyed through surface disturbing activities, this loss of traditional cultural lifeways cannot be readily mitigated.

Moreover, CRIT has serious concerns that the piecemeal mitigation measures proposed in the DEIS will adequately alleviate the tremendous stress that these large-scale renewable energy projects place on sensitive desert species. Much of DEIS's analysis of potential biological impacts relies on surveys to determine what species are present in the Project area, yet this methodology does not necessarily capture the extent to which other solar projects in the vicinity have already destroyed habitat and impacted the future viability of these desert species. The DEIS analysis must be revised to consider these devastating impacts.

### VII. The DEIS Improperly Narrows the Analysis of Growth-Inducing Impacts from the Project.

A draft EIR must discuss the ways in which the proposed project could foster growthinducing impacts. Pub. Resources Code § 21100(b)(5); CEQA Guidelines §§ 15126(d), 15126.2(d). The DEIS limits its analysis of growth-inducing impacts to population growth, housing capacity, infrastructure, and service capacity. DEIS at 5-5 to -6. However, CEQA requires an agency to also "discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively." CEQA Guidelines § 15126.2(d).

The DEIS should consider the characteristic of this project to induce further solar development. Specifically, the construction of the gen-tie line may "encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively." *See* CEQA Guidelines § 15126.2(d). Similarly, the viability of the proposed project could also serve to attract new project applicants to the area or ease the way for approval of other nearby projects, such as Crimson Solar. The analysis must consider future solar projects, which are constructed due to the growth-inducing effect of this Project, and their impacts to the environment.

#### VIII. Neither BLM Nor Riverside County Has Adequately Consulted with the Tribes.

In May 2016, the Colorado River Indian Tribes adopted a government-to-government Consultation policy to manage its relationship with federal agencies. *See* Exhibit 1. The genesis of this policy was the ongoing failure of the federal government to live up to the requirements for consultation contained in federal statutes, regulations, policies, and executive orders. CRIT requested that each federal agency acknowledge the policy prior to conducting government-togovernment consultation with its Tribal Council.

Unfortunately, to CRIT's knowledge, the Palm Springs South Coast Field office has not yet acknowledged the Tribes' consultation policy. While CRIT is very open to conducting inperson, government-to-government consultation with BLM regarding this Project, any consultation meeting would need to include acknowledgment and discussion of this policy.

The DEIS describes a June 10, 2015 field visit with CRIT in which three members and one elder were in attendance. DEIS at 6-3. The DEIS further discusses the Tribes' August 29, 2016 letter "notifying the BLM of their intent to conduct additional tribal surveys," and the presence of a CRIT monitor during the additional April 2018 testing. DEIS at 6-4. Yet, despite having received the Tribes' consultation policy and a written request from CRIT for Section 106

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government-to-government consultation in an April 2015 letter, BLM has failed to fulfill its obligations under the law to engage in this meaningful consultation with CRIT. In its analysis of whether the Project would cause a substantial adverse change to a resource identified through consultation with any California Native American tribe that requests consultation, BLM mentions only its consultation with Twenty-Nine Palms Band of Mission Indians Tribe. DEIS at 4.5-11. Despite the Tribes' repeated requests for Section 106 consultation on this Project, BLM only reached out to CRIT to set up government-to-government consultation in September 2018, once the DEIS had already been issued. Such a delay defeats the purposes of Section 106 consultation, which is meant to give tribes an opportunity to provide valuable input that will be meaningfully considered in the planning process. See 36 C.F.R. § 800.1(c) ("The agency official shall ensure that the section 106 process is initiated *early in the undertaking's planning*, so that a broad range of alternatives may be considered during the planning process for the undertaking.") Waiting until the DEIR has already been issued and much of the analysis has already been undertaken is not in keeping with BLM's consultation responsibilities. Nevertheless, CRIT once again renews its request that BLM acknowledge the consultation policy and engage in meaningful consultation about the Project.

The DEIS also contends that consultation under AB 52 is not applicable to the proposed Project because the date of the NOP pre-dated the effective date of AB 52. *See* DEIS at 1-21, 3.5-35. Nevertheless, the DEIS notes that "the County did consult with interested Tribesä after "[n]otices regarding the Project were mailed to 11 Tribes who had requested notifications regarding projects located within their Traditional Use Areas." DEIS at 3.5-35. To the best of our knowledge, CRIT did not receive this letter. Please provide a copy of the 2016 correspondence. The Tribes further direct the County to our April 13, 2015 letter (Exhibit 2), which formally requested government-to-government consultation with the County to discuss the Project. To date, this request has not been met. When responding to this comment, the Tribes ask that the County please confirm its understanding that CRIT requests this meeting.

Thank you for your consideration. Please copy the Tribes' Attorney General, Rebecca A. Loudbear, at rloudbear@critdoj.com, Deputy Attorney General Antoinette Flora, aflora@critdoj.com, and Acting THPO Director Bryan Etsitty, at betsitty@crit-nsn.gov, on all correspondence to the Tribes.

Respectfully,

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Chairman, Colorado River Indian Tribes

# EXHIBIT

#### Government-to-Government Consultation Policy of the Colorado River Indian Tribes

The federally recognized Colorado River Indian Tribes (CRIT or the Tribes) have over 4,000 active members from four distinct tribes – the Mohave, Chemehuevi, Hopi, and Navajo. The Tribes' reservation, which encompasses nearly 300,000 acres, straddles the Colorado River in both Arizona and California. The Tribes' ancestral homelands, however, extend far beyond the current reservation boundaries, into what is now public and private land in Arizona, California, and Nevada. As a result, the Tribes' cultural resources, including sacred sites, trails, and artifacts, are found beyond the reservation boundaries as well. The Tribes are deeply committed to the ongoing protection of such resources located both on- and off-reservation.

Federal law recognizes that CRIT is a sovereign government distinct from the United States. As a result of this status, the United States must engage in government-to-government consultation with the Tribes when actions or decisions of the United States have the potential to impact the Tribes, its government, tribal land, or cultural resources. This consultation must occur before the momentum toward any particular outcome becomes too great. The purpose of this government-to-government consultation must be to obtain CRIT's free, prior, and informed consent for such actions.<sup>1</sup> Desired outcomes include an ongoing, mutually beneficial relationship between federal agencies and the CRIT Tribal Council, deference to tribal sovereignty, and informed decision-making by both the United States and the Tribes. Federal agency staff and decision-makers must view consultation as more than listening and learning sessions with Tribal Council. Instead, there must be an ongoing, dynamic relationship between federal agencies and the Tribes that is built upon the agencies' concerted effort to understand the Tribes' history, culture, and government.

The Tribes have developed this policy paper to guide future government-to-government consultation with the United States and its administrative agencies.<sup>2</sup> This paper outlines CRIT's consultation rights and the specific characteristics that comprise minimally adequate consultation under federal law. This paper also offers additional suggestions to ensure that consultation is effective and mutually respectful.<sup>3</sup> If federal agencies do not follow this policy, CRIT does not consider the communications from the agencies to meet the consultation requirements of tribal or federal law. Acknowledgement of this policy is required before an agency schedules a government-to-government meeting with Tribal Council. CRIT is committed to seeking recourse

<sup>&</sup>lt;sup>1</sup> United Nations Declaration of the Rights of Indigenous Peoples, Articles 19 and 32; *see also* 36 C.F.R. § 800.1(f) (defining "consultation" as "the process of seeking, discussing, and considering the views of other participants, and where feasible, seeking agreement with them."); BLM Manual Handbook H-8120-1 at I-2 (consultation includes "[t]reating tribal information as a necessary factor in defining the range of acceptable public-land management options.").

<sup>&</sup>lt;sup>2</sup> 36 C.F.R. § 800.4(c)(2)(ii)(C); 43 C.F.R. § 10.5(d)(3); Improving Tribal Consultation and Tribal Involvement in Federal Infrastructure Decisions (January 2017) ("Improving Tribal Consultation"), Key Principle 8.

<sup>&</sup>lt;sup>3</sup> Required actions are distinguished from recommended actions by use of the words "must" and "shall" versus "should."

through all available political, legal, and media channels if this request is denied or if the agency fails to comply with this policy.

#### Why A Formal Process is Needed

Federal agencies (including the Department of the Interior, Bureau of Land Management, and Bureau of Indian Affairs) have consistently failed to engage in adequate government-to-government consultation with CRIT and other tribes. The United States recently recognized this troubled history in suggesting needed modifications to the consultation process.<sup>4</sup> In CRIT's experience, agencies have asked for substantive tribal comments on project and policy documents after those projects and policies have already been approved or implemented. Agency staff and decision-makers have attended meetings with Tribal Council without adequate information or authority to meaningfully respond to the Tribes' concerns. Agencies have repeatedly refused to provide responses to CRIT's comments, including any explanation for why CRIT's requests cannot be accommodated. These failures have resulted in direct harm to CRIT, its members, and cultural resources of great importance to the Tribes.

As one example, BLM authorized construction of the nearly 2,000-acre Genesis Solar Energy Project on land once occupied by the ancestors of CRIT's Mohave members. The project involved significant grading along the shoreline of Ford Dry Lake, resulting in the removal of over 3,000 cultural resources over the vehement objections of the Tribes. These artifacts are now stored at the San Bernardino County Museum with no access for CRIT members. In accordance with cultural, spiritual, and religious practices, CRIT has repeatedly asked BLM to permit reburial of the Genesis artifacts, as well as any other artifacts that are inadvertently disturbed within the ancestral homeland. Yet, BLM has refused to engage in government-to-government consultation on this critical topic. Letters have been left unanswered, harmful agency policies have been issued without advance notice or consultation, and BLM officials have been unprepared to discuss their position when in-person meetings have occurred. These consultation failures have resulted in severe and ongoing harm to CRIT and its members.

#### **Basis of Consultation Right**

The fundamental principle underlying CRIT's right to meaningful consultation with the United States is the Indian trust doctrine. Pursuant to this doctrine, the United States has a fiduciary duty over tribal lands and resources as Indian trust assets.<sup>5</sup> As part of this duty, the United States has an obligation to consult with CRIT about federal actions that have the potential to impact these assets or other attributes of tribal sovereignty. For CRIT, tribal sovereignty includes an obligation to protect tribal and cultural resources that are located in the ancestral homelands of CRIT members.

<sup>&</sup>lt;sup>4</sup> Improving Tribal Consultation, at 1-5.

<sup>&</sup>lt;sup>5</sup> Seminole Nation v. United States, 316 U.S. 286, 296-97 (1942); Pit River Tribe v. U.S. Forest Service, 469 F.3d 768, 788 (9th Cir. 2006); Navajo Tribe of Indians v. United States, 364 F.2d 320, e322 (Ct. Cl. 1966).

This fundamental consultation right is engendered in federal statutes,<sup>6</sup> executive orders,<sup>7</sup> and agency policies.<sup>8</sup> These laws help implement and explain the consultation right that stems from the Indian trust doctrine, but do not diminish it.<sup>9</sup> Where appropriate, CRIT relies on these laws to support its definition of adequate consultation.

#### **Characteristics of Adequate Consultation**

*Tribal Sovereignty.* Government-to-government consultation must respect tribal sovereignty.<sup>10</sup> The federal government shall not treat consultation as a "box to be checked," but as a meaningful dialogue intended to result in consensus between the United States and the Tribes.

Addressing Tribal Concerns. The federal government shall timely seek and review CRIT's written and oral comments and provide comprehensive responses to Tribal concerns and requests.<sup>11</sup> Responses to written comments should generally be provided before any in-person government-to-government consultation. Prior to reaching its final decision, a federal agency must explain how that decision addresses CRIT's concerns.<sup>12</sup> Where an agency is unable to fully address CRIT's concerns, the agency shall clearly explain its reasoning based on the legal, practical, or policy constraints on its decision-making.<sup>13</sup> If CRIT has articulated its concerns in writing, this explanation should be in writing as well.

*Involved Parties.* Government-to-government consultation requires an in-person meeting between CRIT Tribal Council and the agency decision-maker with ultimate authority for a proposed project or action.<sup>14</sup> This decision-maker must be prepared with sufficient details about the proposed project or action, the Tribes' history, culture and government, and the Tribes'

<sup>&</sup>lt;sup>6</sup> See, e.g., National Historic Preservation Act (NHPA), 54 U.S.C. §§ 302701(e), 302706(b); 36 C.F.R. § 800.5(a); Native American Graves Protection and Repatriation Act (NAGPRA), 25 U.S.C. §§ 3002(b)-(c), 3003(b), 3004(b), 3005(a)(3); 43 C.F.R. § 10.5; Archaeological Resources Protection Act (ARPA), 43 C.F.R. §§ 7.7(b)(4), 7.16(b)(2)-(3).

<sup>&</sup>lt;sup>7</sup> Executive Orders 12875, 13007, 13175; September 23, 2004 "Memorandum on Government-to-Government Relationship with Tribal Governments"; November 9, 2009 "Memorandum for the Heads of Executive Departments and Agencies."

<sup>&</sup>lt;sup>8</sup> Secretarial Order 3317 § (b); Department of the Interior Policy on Consultation with Indian Tribes; BLM Manual 8210: Tribal Consultation under Cultural Resource Authorities; Bureau of Indian Affairs Government-to-Government Consultation Policy (BIA Consultation Policy) at V.1-3.
<sup>9</sup> 36 C.F.R. § 800.4(c)(2)(ii)(B); Executive Order 13175, § 2.

<sup>&</sup>lt;sup>10</sup> 36 C.F.R. § 800.4(c)(2)(ii)(B); BLM Manual 8120 at .08(A) ("The special legal status of tribal governments requires that official relations with BLM . . . shall be conducted on a government-to-government basis.").

<sup>&</sup>lt;sup>11</sup> Executive Order 13175, §§ 5(b)(2)(B), 5(c)(2); Improving Tribal Consultation, Key Principle 6. <sup>12</sup> BLM Manual 8120, Glossary of Terms ("consultation" defined to include "documenting the manner in which the [tribal] input affected the specific management decision(s) at issue."); BLM Manual Handbook H-8120-1 at I-1; Improving Tribal Consultation, Key Principle 6.

<sup>&</sup>lt;sup>13</sup> BLM Manual 8120 at .06(E) ("Field Office Managers and staff... shall document all consultation efforts."); Improving Tribal Consultation, Key Principle 6.

<sup>&</sup>lt;sup>14</sup> See, e.g., 36 C.F.R. § 800.2(a); BIA Consultation Policy at VI.A(4); BLM Manual 8210 at .06(A).

anticipated or specific concerns with respect to the proposed project or action.<sup>15</sup> This decisionmaker should also have formal training regarding tribal sovereignty, the Indian trust doctrine, and other aspects of federal Indian law. The agency should use its staff to communicate project information to CRIT and its staff and to prepare the agency decision-maker for the governmentto-government consultation. For example, prior to meeting with CRIT Tribal Council, it is the Tribes' expectation that agency staff will have provided baseline information about the project and its potential impacts to Tribal staff, such as survey results and ethnographic reports. However, CRIT does not recognize staff-to-staff discussions or communications as fulfilling the federal government's consultation responsibility.<sup>16</sup>

In addition, communications between CRIT and project applicants or proponents (where such applicants or proponents are not federal entities) are not government-to-government consultation. Such communications, however, can help to convey information and reduce conflict. Unless requested by CRIT, federal agencies shall not interfere with such communications. Finally, meetings held with representatives from multiple tribes do not constitute consultation with CRIT unless CRIT expressly agrees that consultation format.<sup>17</sup>

*Timing*. Government-to-government consultation must occur as early as practicable, so that tribal concerns can be taken into account before the momentum toward a particular project

or action is too great.<sup>18</sup> Federal agencies should provide basic information about a project or action and its potential impacts to CRIT as soon as the agency begins initial planning for a project or action or a private entity approaches the agency to submit an application.<sup>19</sup> Federal agencies should keep CRIT apprised of the decision-making timeline so that the Tribes can participate at appropriate junctures. Federal agencies shall continue to consult with Tribes until they make a decision on the proposed project or action, and if requested by the Tribes or required by law, until construction or implementation of the project or action is complete.

<sup>&</sup>lt;sup>15</sup> See also Pueblo of Sandia v. United States, 50 F.3d 856, 860, 862 (10th Cir. 1995) (Section 106 "mandates an informed consultation."); BLM Manual 8120 at .06(C) ("Field Office Managers shall recognize that traditional tribal practices and beliefs are an important, living part of our Nation's heritage, and shall develop the capability to address their potential disruption . . ."); BLM Manual Handbook H-8120-1 at I-2 ("BLM's representative must be authorized to speak for the BLM and must be adequately knowledgeable about the matter at hand."); Improving Tribal Consultation, Key Principle 5.

<sup>&</sup>lt;sup>16</sup> Quechan Tribe of the Fort Yuma Indian Reservation v. U.S. Dep't of Interior, 755 F. Supp. 2d 1104, 1118-19 (S.D. Cal. 2010).

<sup>&</sup>lt;sup>17</sup> Id.

<sup>&</sup>lt;sup>18</sup> 16 U.S.C. §§ 470a(d)(6), 470f (requiring consideration of historic resource impacts "*prior to the approval* of . . . the undertaking") (emphasis added); 36 C.F.R. §§ 800.1(c), 800.4(c)(2)(ii)(A); Executive Order 13175, §§ 5(b)(2)(A), 5(c)(1); Secretarial Order 3317, U.S. Dept. of the Interior, § 4(a); Dep't of the Interior Tribal Consultation Policy at 7-8; BIA Consultation Policy at VI.A; BLM Manual 8120 at .02(B) (consultation must "[e]nsure that tribal issues and concerns are given legally adequate consideration *during* decision-making) (emphasis added); BLM Handbook Manual H-8120-1 at V-5 ("... the BLM manager should initiate appropriate consultation with potentially affected Native Americans, as soon as possible after the general outlines of the land use plan or the proposed land use decision can be described.").

<sup>&</sup>lt;sup>19</sup> Improving Tribal Consultation, Key Principle 3.

Scope of Consultation. Federal agencies must be willing to engage in consultation on any potential impacts of a proposed project or action to CRIT, its members, its land, or its cultural resources.<sup>20</sup> Consultation shall not be limited to potential impacts to properties eligible for listing on the National Register of Historic Places<sup>21</sup> or equivalent state registers, or protected by the Native American Graves Protection and Repatriation Act. If federal approval is needed for only a portion of a proposed project or action, the agency shall nevertheless consult on potential impacts from the whole of the project or action. Federal agencies should not expect CRIT to provide information about impacts to cultural resources in scientific terms and should weigh the Tribe's cultural, spiritual, historical, and anthropological input with the respect and deference that it is due.<sup>22</sup>

*Confidentiality*. Information obtained via government-to-government consultation shall be kept confidential, except to the extent that CRIT provides information in a public forum (such as via a letter submitted during a comment period or comments made at a hearing) and to the extent such information must be revealed pursuant to federal or other applicable law.<sup>23</sup> If a federal agency determines that confidential information obtained from CRIT must be revealed, the agency shall inform CRIT prior to the release and make all reasonable attempts to limit its scope. Federal agencies shall acknowledge that confidential information is not limited to the location of sites eligible for listing on the National Register of Historic Places<sup>24</sup> or protected by the Native American Graves Protection and Repatriation Act, but includes any information about sensitive resources, culture, or religious beliefs, obtained through consultation.

*Resources.* Federal agencies must recognize that government-to-government consultation consumes scarce tribal resources. Agencies should minimize costs to CRIT by conducting government-to-government consultation meetings in Parker, Arizona<sup>25</sup>; providing clear and succinct information about proposed projects or actions and their potential impacts; and ensuring that agency staff document CRIT's interests and concerns. CRIT should not be required to repeatedly provide the same information to an agency because of agency staff turnover. Agencies should explore funding sources to remunerate the Tribes for participating in consultation.

#### **Key Requirements**

To aid in implementation of this policy, agency officials shall ensure their governmentto-government consultation efforts comport with this summary of key requirements:

- Initiate consultation as early as practicable.
- Timely seek and review CRIT's written and oral comments.

<sup>&</sup>lt;sup>20</sup> Executive Order 13175, § 1(a).
<sup>21</sup> 36 C.F.R. § 800.4(c)(2)(ii).
<sup>22</sup> See, e.g., BLM Manual Handbook B-8120-1 at II-5.

<sup>&</sup>lt;sup>23</sup> See 36 C.F.R. §§ 800.4(a)(4), 800.11(c); see also BLM Manual 8120 at .06(G).

<sup>&</sup>lt;sup>24</sup> 36 C.F.R. § 800.4(c)(2)(ii)(A); see also BLM Manual Handbook H-8120-1 at V-1.

<sup>&</sup>lt;sup>25</sup> Improving Tribal Consultation, Key Principle 4.

- Provide comprehensive responses to Tribal concerns and requests in the same format as such concerns and requests were provided to the agency.
- Explain agency decisions based on legal, practical, and policy constraints on decision-making.
- Involve agency decision-makers with ultimate authority in in-person consultation meetings.
- Sufficiently prepare for in-person consultation meetings with Tribal Council to be able to respond to and address the Tribes' concerns.
- Do not claim that communication with CRIT staff, between CRIT and project applicants, or in the presence of multiple tribes is government-to-government consultation.
- Consult on any potential impacts of a proposed project or action on CRIT, its members, its land, or its cultural resources.
- Keep information obtained via government-to-government consultation confidential.



### **COLORADO RIVER INDIAN TRIBES**

EXHIBIT

Colorado River Indian Reservation

26600 MOHAVE RD. PARKER, ARIZONA 85344 TELEPHONE (928) 669-9211 FAX (928) 669-1216

April 13, 2015

Via E-Mail and U.S. Mail

ATTN: Cedric C. Perry Project Manager BLM California Descrt District Office 22835 Calle San Juan de Los Lagos Moreno Valley, CA 92553 E-Mail: <u>blm ca descrt quartzite solar project@blm.gov</u>

#### Re: <u>Environmental Impact Statement for the Desert Quartzite Solar</u> <u>Project and Possible Amendment to the California Desert</u> <u>Conservation Area Plan, Riverside County, CA</u>

Dear Mr. Perry:

Per BLM's Notice of Intent, 40 Fed. Reg. 12195 (Mar. 6, 2015), the Colorado River Indian Tribes ("CRIT" or "Tribes") submit these comments to help guide the scoping and content of the Environmental Impact Statement the BLM is preparing for the Desert Quartzite Solar Project ("the Project"), a 300-MW photovoltaic energy-generating facility, which is proposed on 4,845 acres of public land, partially located within the Riverside East Solar Energy Zone (SEZ), southwest of Blythe, California. CRIT is a federally recognized Indian tribe whose members include Mohave, Chemehuevi, Navajo, and Hopi people. The southwestern edge of CRIT's reservation is approximately 10 miles from the Project site, consequently, CRIT is traditionally and culturally affiliated with the subject area as CRIT's Mohave and Chemehuevi members and their ancestors have lived and traveled in the Project area since time immemorial.

Because of the Tribes' past, present, and future connection to the land on which the Project is proposed, CRIT has grave concerns about the Project's potential for significant cultural resource impacts. The Desert Quartzite Project is one of dozens of renewable energy projects either approved or under consideration by BLM in the area. The collective impact of this transformation of the desert has had, and will continue to have, considerable adverse impacts on the Tribes and the cultural, spiritual, and religious practices of CRIT members. CRIT is increasingly concerned that the federal government intends to approve all renewable energy projects, no matter what the cost to affected tribes, native plants and animals, and the desert ecosystem as a whole.

CRIT is extremely concerned about cultural resource impacts relating to this Project, as it is located in an especially sensitive cultural resource area; the cultural resources and artifacts that
will be excavated, collected, and possibly damaged or destroyed to make way for the Project are both sacred and finite. According to the belief system of CRIT's Mohave members, the disturbance of any cultural resources affiliated with their ancestors is taboo, and thus considered a severe cultural harm. CRIT therefore cannot support any project that will likely result in the disturbance or destruction of thousands of cultural resources and artifacts.

The National Environmental Policy Act and the National Historic Preservation Act require BLM to fully analyze the Project's impacts to cultural resources before it publishes the draft environmental impact statement, to prepare and present measures to avoid or lessen impacts on cultural resources, and to consider impacts to Tribal members throughout its impact analysis, as detailed below.

### I. The DEIS Must Broadly Consider Impacts to Cultural Resources.

CRIT is concerned about the cultural harm that will result from both the unearthing and destruction of cultural resource artifacts and the Project's impacts on other resources. In preparing EISs for other solar energy facilities in the region, BLM has artificially constrained the definition of "cultural resources," thereby undermining the accuracy and quality of its subsequent analysis. In particular, BLM has taken the position that significant cultural resources are only those buildings, sites, structures, objects, and districts eligible for inclusion on the National Register of Historic Places. However, NEPA guidelines specify that EISs must address impacts to "historic *and* cultural resources" (40 C.F.R. § 1502.16(g) (emphasis supplied)), thus requiring a more expansive analysis than the one required by the National Historic Preservation Act. Such resources necessarily include viewsheds and landscapes, plants and animals used in and/or central to cultural and religious practices and creation stories, and religious and customary practices (e.g., hunting and gathering, religious ceremonies, and trail-walking). By using the correct definition of cultural resources for this Project, BLM will ensure that impacts to a host of important tangible and intangible resources are properly considered.

In addition, the DEIS must avoid conflating eligibility for the National Register of Historic Places under the NHPA and significant adverse effect under NEPA. In the past, BLM has taken the position that impacts to archaeological resources are significant for purposes of NEPA only if they are eligible for listing on the NRHP. This classification muddles two separate statutory schemes. Impacts to archaeological resources considered ineligible for listing on the NRHP—perhaps because of their lack of integrity—may nevertheless be significant for NEPA purposes.

### II. The DEIS Must Ensure that Potential Impacts to Known and Unknown Cultural Artifacts Are Analyzed and Avoided.

Given CRIT's ongoing experience with utility-scale solar development on BLM land near its Reservation, the Tribes are concerned with the Project's likely impact on both known and unknown archaeological resources. Many of these cultural artifacts are intimately linked to current CRIT members, who consider their disturbance and/or damage to be a significant cultural harm. While cremation sites are of unique importance to the Tribes, other types of artifacts, including

groundstones, ceramics, and lithics, are also held sacred. CRIT is also concerned about visual impacts to cultural resources, which have the potential to degrade cultural resource value.

The May 23, 2014 Revised Plan of Development (POD) for the Project states that "a Class I cultural resources records search and literature review has been completed and a Class III field survey of the Project Site will be performed in the future." Revised POD, p. 51. The results of the Class III survey have not yet been made available to CRIT, but the POD did state that the "Project Site is in an area known to be rich with cultural resources" and referenced the "ide variety of cultural resources" found at the nearby Blythe Solar Power Project and Genesis Solar Energy Project. *Id.* The POD surmises that "[t]he high density of cultural resources [at the Project Site] can be attributed to the proximity of the Colorado River and other natural resources," as "[p]rehistoric occupation of this area began several millennia ago." *Id.* Surveying reports and assessments conducted for nearby renewable energy projects corroborate this characterization of the Project site's cultural resource significance. For instance, an Ethnographic Assessment (EA) carried out for the McCoy Solar Energy Project in March 2013 identified substantial cultural resources in the Project's vicinity and recommended "[a]dditional archaeological research and pedestrian inventory.". McCoy EA, p. 71.

The Class III cultural resource survey must be completed prior to the DEIS's cultural resource analysis, so that the environmental review can take a hard look at potential impacts to the identified resources. CRIT encourages BLM to pursue non-invasive options for determining NRHP eligibility, such as an ethnographic report rather than destructive excavation and testing. BLM's formal government-to-government consultation, as required under Section 106 of the NHPA, can also be used to gather information related to the eligibility of these sites.

CRIT also reiterates that NRHP-eligibility is not determinative of NEPA significance. Given the strong connection between CRIT's members and these archaeological resources, the DEIS must analyze the potential harm from any disturbance to these items and potential methods for mitigation. CRIT does not consider excavation and "data recovery" adequate mitigation for the cultural harm caused by disturbance of these resources; as such, the DEIS must consider avoidance of such resources. If avoidance is not considered feasible, the DEIS must carefully document and justify this reasoning.

Finally, BLM has typically relied on Programmatic Agreements or Memoranda of Agreement to comply with Section 106 of the NHPA for utility-scale solar projects, which often improperly defers consideration of cultural resource impacts until after a project has already been approved. A programmatic agreement is **not** appropriate for this Project, as effects on known historic properties can, and must, be fully determined prior to Project approval. 36 C.F.R. § 800.14(b)(1). All cultural resources should be surveyed, inventoried, and evaluated in a manner that does not harm the resources or remove them from the site prior to preparation of the DEIS so that the environmental analysis fully and adequately takes cultural resource impacts into account. BLM has provided CRIT with early information regarding the Project, and now must consult with CRIT prior to beginning its DEIS cultural resource analysis in order to take into account CRIT's concerns related to adverse effects on known historic properties and potential impacts on

unanticipated cultural resources. 36 C.F.R. § 800.6(a). All information regarding sensitive historic properties and cultural resource information should be kept confidential. BLM must also ensure that cultural resource mitigation and treatment plans are in place prior to any ground disturbing activities at the site.

### III. The BLM Must Explain Why the Plan of Development Requires Desert Quartzite, LLC to Obtain a Cultural Resource Use Permit Under the Archaeological Resources Protection Act.

The May 2014 POD states that Desert Quartzite, LLC will need a cultural resource use permit under the Archaeological Resources Protection Act (ARPA) "based on the planned cultural resources investigations." Revised POD, p. 28. Yet, the ARPA only requires a permit where individuals are planning to excavate, remove, damage or otherwise alter archaeological resources—none of which would be necessary for a Class III survey. CRIT urges Desert Quartzite, LLC, Riverside County, and BLM to pursue a policy of cultural resource avoidance whenever possible; however, where avoidance is not feasible, *in-situ* reburial provides the next best option for cultural resource mitigation. A reburial policy further eliminates the need for an ARPA permit, as no cultural resource removal or excavation would take place.

BLM has told CRIT in the past that the ARPA prevents the agency from pursuing CRIT's preferred mitigation measure, but the law does not support this position. Companies are not required to obtain ARPA permits where they are conducting activities on public lands pursuant to other permits or entitles, such as a right-of-way grant. See 43 C.F.R. section 7.5(b)(1) (no ARPA permit is required "for any person conducting activities on the public lands under other permits, leases, licenses, or entitlements for use, when those activities are exclusively for purposes other than the excavation and/or removal of archaeological resources, even though those activities might incidentally result in the disturbance of archaeological resources"); see also Attaki v. U.S., 746 F.Supp. 1395, 1410 (D. Ariz. 1990) ("As evidenced by the language of the statute and the exemptions to its applicability, the Act is clearly intended to apply specifically to purposeful excavation and removal of archaeological resources, not excavations which may, or in fact inadvertently do, uncover such resources."); *Quechan Tribe of Ft Yuma Indian* Reservation v. U.S. Dept. of the Interior, 927 F.Supp.2d 921, 047 (S.D. Cal. 2013) (ARPA permit not required where Project's purpose was to provide reliable source of wind energy and not to excavate or remove archaeological resources ). Thus, BLM should clarify and revise its position with respect to the ARPA permit and allow CRIT to rebury any artifacts that cannot be avoided.

#### **IV.** The DEIS Must Adequately Consider Cumulative Impacts to Cultural Resources.

The BLM must take a hard look at cumulative impacts to cultural resources. NEPA requires agencies to consider cumulative impacts, meaning "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions." 40 C.F.R. §§ 1508.7, 1508.25(c)(3). "Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." 40 C.F.R. § 1508.7.

As CRIT has explained, the collective and continual destruction and removal of cultural resources from the Tribes' ancestral lands due to renewable energy projects has already caused tremendous spiritual harm to CRIT members. In addition to triggering extensive cultural resource removal, these renewable energy projects are often sited in a way that severs the connectivity between cultural resource sites—a connectivity that is vital to the traditional value of these cultural resources. In considering the potential cultural resources impacts of the Desert Quartzite Project, BLM must analyze those impacts in light of other past, present, and reasonably foreseeable future actions impacting cultural resources and list out the other projects it considers in analyzing cumulative impacts.

#### V. The DEIS Must Include a Distributed Generation Alternative.

BLM must take care in identifying its "Purpose and Need" for the Project to ensure that the DEIS properly considers an adequate range of alternatives. For other projects in the area, BLM has artificially constrained its alternatives analyses by stating that the purpose and need for solar energy projects is to "respond to the Applicant's application" for a right of way grant. *See, e.g.*, DEIS for the McCoy Solar Energy Project at ES-2. But under Ninth Circuit precedent, BLM is prohibited from "adopting private interests to draft a narrow purpose and need statement that excludes alternatives that fail to meet specific private objectives." *National Parks & Conservation Ass 'n v. Bureau of Land Management*, 606 F.3d 1058, 1072 (9th Cir. 2010). For this Project, BLM must identify the *public purposes* to be achieved, rather than simply reacting to the whims of the developer.

In addition, BLM has frequently stated that it is mandated to develop utility-scale renewable energy projects on public land in order to meet requirements set forth in the Energy Policy Act of 2005, Executive Order 13212, and Secretarial Order 3285A1. However, these federal laws and policies, while encouraging such development, do not require it, particularly when renewable energy projects will have significant and adverse environmental consequences. The "Purpose and Need" for the project should also include a commitment to protecting cultural and biological resources, as well as the visual integrity of the desert landscape.

For these reasons, CRIT urges BLM to adopt a Purpose and Need statement that allows for the consideration of a broad range of alternatives. In particular, the statement should focus on the public benefits to be achieved: reduction in greenhouse gas emissions, increased energy independence, and economic development. A statement of Purpose and Need focused on these topics will allow the DEIS to properly include both a distributed generation and disturbed lands alternative. Such Projects can achieve the same goals as utility-scale solar projects, but with far fewer impacts to cultural resources and other environmental resources. Relatedly, the DEIS must include consideration of an environmentally superior alternative with respect to cultural and biological resources.

### VI. BLM Must Consider the Environmental Justice Impacts of the Desert Quartzite Project.

The vast transformation of an entire cultural landscape has significant environmental justice implications. The renewable energy benefits of the Project will flow to energy customers in southern California and the shareholders of large energy companies. The impacts of the Project, however, will be uniquely felt by CRIT and other area tribes and their members whose interests in this area extend beyond economics to its cultural and spiritual value. As acknowledged by CEC Commissioner Karen Douglas in a siting proceeding for another utility-scale solar project proposed in this region, "Indian tribes maintain long-standing ancestral and traditional practices that connect their identities as Indian people to the environment, unlike other populations that do not have territories linked to their collective identities." Palen Solar Electric Generating System PMPD at 6.3057. Shifting the burden of renewable energy development to unique communities that have occupied this landscape since time immemorial, while providing such communities with no identified benefits, is the very definition of environmental injustice. BLM must both recognize and address such realities.

#### VII. BLM Must Implement Early Consultation on the Desert Quartzite Project.

According to the Notice of Intent, "BLM will consult with Indian tribes on a governmentto-government basis in accordance with Executive Order 13175 and other polices," presumably including the NHPA and its implementing regulations. This language implies that BLM will begin consultation at some point in the future—perhaps after the DEIS has been developed. But the regulations implementing Section 106 of the NHPA state that "[a]gencies should consider their section 106 responsibilities *as early as possible* in the NEPA process." 36 C.F.R. § 800.8(a)(1) (emphasis added); *see also id.* § § 800.2(c)(2)(ii)(A) ("The agency official shall ensure that the section 106 process is initiated early in the undertaking's planning, so that a broad range of alternatives may be considered during the planning process for the undertaking."); *id.* § 800.2(c)(2)(ii)(A) ("Consultation should commence early in the planning process ....").

Though BLM has sent CRIT written notifications regarding the early stages of the application process, these documents and invitations to public meetings are not a substitute for BLM's Section 106 consultation obligations. For numerous renewable projects throughout the region, including the Genesis Solar Energy Project, the Modified Blythe Solar Energy Project, and the Six-State Solar Programmatic EIS, BLM utterly failed to engage CRIT in meaningful consultation regarding the impacts of the projects. Instead, the agency has resorted to generic form letters arriving late in the process to fulfill its responsibility under the NHPA and other federal policies. Thus, CRIT requests that BLM promptly engage with the Tribes on a meaningful, government-to-government level for this Project. Consultation provides an appropriate forum for CRIT to communicate sensitive cultural resource information regarding the Project site, rather than having to do so in a public comment. CRIT also requests that BLM include a summary of all consultation with affiliated tribal entities and the State Historic Preservation Officer (SHPO), including identification of NRHP-eligible sites and development of cultural resource management and monitoring plans.

The DEIS should also address Executive Order 13007, distinguish it from Section 106 consultation, and discuss how BLM will avoid adversely affecting the physical integrity, accessibility, and use of sacred sites in the Project area.

Thank you for considering CRIT's comments. To best understand how these comments are taken into account in the DEIS, we request that BLM provide written responses to our concerns, either in a letter to the Tribe and/or in the DEIS. Please copy Rebecca A. Loudbear, CRIT Attorney General, at rloudbear@critdoj.com, and Nancy H. Jasculca, CRIT Deputy Attorney General, at njasculca@critdoj.com, on any written correspondence to the Tribe.

Sincerel

Chairman Dennis Patch Colorado River Indian Tribes

Cc: CRIT Tribal Council Rebecca A. Loudbear, CRIT Attorney General Nancy H. Jasculca, CRIT Deputy Attorney General Wilene Fisher-Holt, CRIT Museum/Cultural Resources David Harper, Chairman, Mohave Elders Committee



Brandon Anderson, BLM Project Manager Desert Quartzite Solar Project, BLM Palm Springs-South Coast Field Office 1201 Bird Center Drive, Palm Springs, CA 92234

Russell Brady, Riverside County Planning Desert Quartzite Solar Project, 4080 Lemon Street 12<sup>th</sup> Floor Riverside, CA 92501

### VIA EMAIL: BLM\_CA\_DESERT\_QUARTZITE\_SOLAR\_PROJECT@BLM.GOV

November 8, 2018

Re: Notice of Availability of the Draft Environmental Impact Statement and Environmental Impact Report and Draft Land Use Plan Amendment to the California Desert Conservation Area Plan for the Desert Quartzite Solar Project

Dear Mr. Anderson and Mr. Brady:

On behalf of First Solar, Inc. and its subsidiary First Solar Development, LLC (collectively, "First Solar"), we would like to provide the following comments on the Draft Plan Amendment/Environmental Impact Statement ("EIS")/Environmental Impact Report ("EIR") for the Desert Quartzite Solar Project, CACA-049397 ("DQSP" or the "Project"). BLM published the Draft PA/EIS/EIR on August 10, 2018, and provided a 90-day public comment period that closes on November 8, 2018. These comments therefore are timely-filed.

We appreciate the enormous amount of effort that has gone into preparing the Draft PA/EIS/EIR. We know that BLM, its consultants, coordinating agencies, and the U.S. Department of the Interior must allocate limited resources to many applications for utility-scale renewable energy projects on lands under BLM's jurisdiction, as well as to other priorities. Riverside County (the "County"), lead agency for the EIR, faces similar constraints. We also understand that as one of the projects under consideration at the time of BLM's adoption of the Desert Renewable Energy Conservation Plan ("DRECP"), BLM needed

20-1



to stop and take stock of the impact of the changes to the California desert land use plans effectuated by the DRECP, even though DQSP was plainly exempt from the requirements of the new plan.

As with other utility-scale solar facilities approved by BLM in the Riverside East Solar Energy Zone ("SEZ")/Development Focus Area ("DFA"), we believe DQSP will play an important role in efforts to revitalize our energy infrastructure and increase the nation's energy independence. If approved, DQSP will also help meet national and state renewable energy mandates and goals by generating roughly 450 MW of clean, renewable energy. DQSP also will be located near existing energy infrastructure, including transmission, and near existing development, which will minimize its impact on natural resources. We are hopeful that BLM will approve DQSP and the associated Amendment to the California Desert Conservation Area ("CDCA") Plan in a Record of Decision ("ROD"). We further hope that Riverside County will likewise approve the Project and the associated use permit and development agreement requested for the same.

Our comments on the draft PA/EIS/EIR fall into the following categories: (1) Support for BLM's and Riverside County's selection of Alternative 2; (2) Discussions of the role of the DRECP in the Project analysis; (3) Issues with the discussion of the so-called "lake effect" theory; (4) Application of new policies on avian impacts and compensatory mitigation; (5) Cultural resource reburial opportunities; (6) Issues with the analysis of sand transport corridor impacts; and (7) Targeted suggested redlines.

I. THE APPLICANT SUPPORTS SELECTION OF ALTERNATIVE 2

The draft PA/EIS/EIR identifies Alternative 2 as the federal agency's preferred alternative and the CEQA lead agency's environmentally superior alternative. Although Alternative 2 is not the proposed project and will require First Solar to make certain sacrifices, the alternative is feasible, subject to minor modifications recommended in these comments. First Solar would support selection of this alternative by BLM and the County.

Alternative 3, however, is not feasible and its selection by the agencies would not be warranted. In addition to the obvious reduction in MW, another six percent of energy generation would be lost under the smaller footprint which would require tighter row spacing (approximately 5 foot difference) and would result in more shading of panels on panels. A smaller project would also obviously receive fewer economies of scale than a 450MW project. Given that power prices are \$7-10 less per MWh since First Solar started permitting this project in earnest in 2014, First Solar cannot accommodate further unnecessary losses.

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20-3

20-4



We say that the losses are unnecessary because compared to Alternative 2, Alternative 3 does not offer any significant environmental benefits. As an initial matter, the draft PA/EIS/EIR misrepresents the impacts of Alternative 2, concluding that they will be 20% less than the proposed project in many areas because the footprint is 20% smaller. This crude calculation fails to recognize that the strategically drawn boundaries of Alternative 2 eliminate, for example, 100% of the proposed project's (Alternative 1's) impact on jurisdictional state waters and 100% of the direct impacts of the solar field on Mojave fringe-toed lizards ("MFTL") and special status plants including Harwood's eriastrum. Table ES-1 shows almost no benefit from Alternative 3 as opposed to Alternative 2 for Harwood's eriastrum and MFTL in terms of habitat acres preserved. Significant cultural resources sites are likewise completely avoided by Alternative 2.

In light of these circumstances, the draft PA/EIS/EIR appropriately recognizes that "the impacts of Alternative 3 to the *Pleuraphis rigida* vegetation alliance, state jurisdictional waters, occupied habitat for the Harwoods eriastrum, occupied habitat for the Mojave fringe-toed lizard, [and] CRHR-eligible cultural resources, . . . would be the same as Alternative 2 . . . ." (Draft PA/EIS/EIR at p. 2-38.) On top of this, Alternative 3 requires a longer gen-tie line with potentially greater impacts to birds. In exchange, Alternative 3 sacrifices a significant amount of generation, as it offers only 285 MW compared to the 450 MW that can be constructed under Alternatives 1 and 2. With California's recent adoption of a Renewable Portfolio Standard ("RPS") goal requiring that 100% of the State's energy come from renewable sources by 2045, and with the current average generation from renewables at around 30%, the generation lost by selecting Alternative 3 would need to be constructed elsewhere, which would have greater edge effects on the environment and impacts associated with redundant infrastructure to support multiple smaller projects, as well as any site specific impacts that might be greater in an area outside of a solar energy zone ("SEZ") / development focus area ("DFA").

Along with a 100% RPS, California also adopted this year a new provision of CEQA that allows the lead agency, when "describing and evaluating a project in an [EIR,] . . . [to] consider specific economic, legal, social, technological, or other benefits, including regionwide or statewide environmental benefits, of a proposed project and the negative impacts of denying the project." (Pub. Resources Code, § 21082.4, pending publication; see also Assembly Bill ("AB") 2782 [Friedman, 2018].) On top of this, the CEQA environmentally superior alternative is the alternative found to have an overall environmental advantage compared to other alternatives based on the impact analysis in the EIR. Alternative 2, which offers significantly more renewable energy through a more efficient design and is more consistent with State and Federal energy objectives has environmental benefits that outweigh the insignificant benefits



of less ground disturbance in the Project area. BLM and the County have thus appropriately selected Alternative 2 as the preferred and environmentally superior alternative.

# II. BLM HAS DONE MORE THAN ENOUGH TO EVALUATE THE ROLE OF THE DRECP IN ITS ANALYSIS OF THIS PROJECT

The Agencies published scoping notices announcing the preparation of an EIS/EIR for the Project in March, 2015. The long gap between then and the published notice of availability of the Draft PA/EIS/EIR in August, 2018, can largely be attributed to the BLM's consideration of whether and how to address the advent of the DRECP, which significantly amended the California Desert Conservation Area ("CDCA") land use plan. During this time, BLM developed and studied a revised reduced project alternative (Alternative 3) and required that the applicant prepare a detailed chart assessing how the proposed Project and the alternatives complied, in whole or in part, with the Conservation Management Actions ("CMAs") specified in the DRECP (Appendix E). The Project, however, is not subject to these requirements and while the draft PA/EIS/EIR mentions this several times (see, e.g., pages ES-3, 1-11 to 1-12, 2-3, 2-42, 3.3-4, passim), it does not present this point as consistently or completely as it should.

As recognized in the draft PA/EIS/EIR, "[p]ursuant to Section II.3.2.4 of the DRECP [Land Use Plan Amendment, or LUPA], the DRECP does not apply to '[a] project that is proposed in a BLM SEZ and that is considered a "pending project" under the Western Solar Plan (the project application was filed before June 30, 2009).'" More specifically, the DRECP provides that the land use plan decision made within it "will not affect" pending projects. (LUPA at p. 68.) First Solar filed its application for a right-of-way grant to construct DQSP on September 28, 2007 (CACA 049497) in an area that later became a SEZ, and it is therefore an exempt pending project. In addition to the foregoing, the DRECP LUPA expressly provides that DQSP will "not be subject to the DRECP land use plan decisions." (LUPA at 69.)

While the proposition that DQSP is exempt from the requirements of the DRECP is unassailable, some commenters on the draft PA/EIS/EIR might want to debate what this means. More specifically, some might interpret BLM's careful consideration of whether the Project is consistent with the DRECP's CMAs and its development of a CMA-compliant alternative (Alternative 3) as evidence that the CMAs should, in some way, apply to the Project. As the CMAs are "avoidance and minimization measures, design features, and compensation/mitigation measures" "designed to achieve the goals and objectives for activities within the LUPA's various land use allocations," they represent land use plan decisions, which plainly are not applicable to DQSP. (ROD at p. 63.) Indeed, the LUPA defines another group of exempt projects: those that had a draft NEPA document published no later than November 26, 2014 (60 days after release of the Draft EIS for the DRECP) provided that the final project-level NEPA document



includes: "a. Analysis using the best available information at the time of publication, including data developed in support of DRECP conservation and recreation strategies, and b. *Analysis describing the relationship between the project and the DRECP conservation and recreation strategies.*" (*Id.* at p. 68, italics added.) If the authors of the DRECP believed that the EIS for a pending project should include an analysis of how or whether the project complies with the CMAs ("DRECP conservation and recreation strategies"), they would have said so. As they did not, there was no need for the DQSP EIS to consider them.

In addition to the language in the ROD and the DRECP itself, the analysis in the EIS supporting the DRECP further demonstrates that the plan did not assume that CMAs would apply to DQSP. When the EIS evaluated the impacts of development contemplated by the DRECP and devised appropriate mitigation, it completed this analysis assuming that development of grandfathered projects would go forward, but without the presumption that the CMAs would be used to mitigate impacts of those projects. For example, the Cumulative Impacts Analysis (Final EIS at IV.25-39) contemplated that DQSP would require mitigation for impacts to a perceived sand transport corridor that would be similar to the mitigation required for the previously analyzed Palen and Devers-Palo Verde projects. The suggestion that DQSP should instead comply with the sand transport CMAs specified in the DRECP is consequently inconsistent with the plain language of the analysis of the DRECP under NEPA.

Furthermore, if we are going to believe that the balance struck by the DRECP carefully considered and made assumptions about the necessary CMAs based on pending projects, we must first recognize that the cumulative impacts analysis in the EIS identifies a 600MW DQSP on 7,236 acres as an Approved Project in Table IV.25-1.2 Such a project would not have been approved using subsequently developed CMAs, and consequently refusing to apply the CMAs to the Project now cannot be said to impugn the analysis of the DRECP.

BLM went above and beyond its obligations to consider a CMA compliant project alternative as well as whether and how the project as proposed complies with the CMAs. It ultimately concluded that the Project largely complies, which by itself would be legally sufficient, because even where the DRECP does apply, the plan allows a project proponent "to propose alternative methods for compliance . . . as part of any subsequent project-specific approvals." (ROD at p. 63.) But to the extent that any errors in the consideration of CMAs in the Project analysis are alleged, BLM should firmly assert, for all the reasons explained above, that the Project is not subject to the DRECP or the CMAs.

### III. DISCUSSION OF THE SO-CALLED "LAKE EFFECT" HYPOTHESIS IS INCONSISTENT AND OVERLOOKS CURRENT KNOWLEDGE

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The theory that polarized light pollution from PV panels can attract aquatic species that mistake the panels for bodies of water, potentially leading to population decline or even local extinction (see Horvath et al. 2010), also known as the "lake effect" hypothesis, was proposed in comments on the Solar PEIS.<sup>1</sup> BLM initially concluded that the theory was dubious.<sup>2</sup> Specifically, in response to allegations that polarized glare from panels could simulate the appearance of water and lead to collisions with panels, BLM initially responded that this effect, similar to bird collisions with the sides of buildings, could occur. However, BLM had no evidence that this phenomenon was actually occurring.

After multiple years of monitoring at least a dozen projects, BLM still does not have evidence that solar facilities cause significant mortality among water-dependent birds. Certain projects have documented greater water-dependent bird mortality, either due to collisions or stranding of birds that can only take off on water. However, no patterns have emerged that explain why some projects have higher avian (especially water-dependent avian) mortality than others. (See 2015 U.S. Department of Energy commissioned report prepared by Argonne National Laboratory and National Renewable Energy Laboratory, which concluded that although solar energy facilities appear to present a risk of fatality for birds, based on available data, there is no consistent pattern that supports or refutes the hypothesis that water-dependent species are particularly susceptible to mortality at solar facilities.)<sup>3</sup>

<sup>3</sup> Argonne National Laboratory, 2015. A Review of Avian Monitoring and Mitigation Information at Existing Utility-Scale Solar Facilities. April 2015.

<sup>1</sup> 

<sup>&</sup>lt;sup>2</sup> See BLM, Stateline Solar Farm Project (CACA 48669) Final Environmental Impact Statement Appendix G at G-19 (2013),

http://www.blm.gov/pgdata/etc/medialib/blm/ca/pdf/needles/lands\_solar.Par.30642.File.dat/APPENDI X\_G\_508.pdf. In fact, the "lake effect" theory was first suggested at least 30+ years ago in the McCrary study conducted at California's Solar One facility (McCrary, et al, 1986). The Solar One facility used highly reflective mirrors (heliostats) to concentrate sunlight at a centrally located boiler at the top of a tower. It had been suggested that reflective heliostats created the illusion of a body of water that could attract migrating birds and inadvertently cause collisions; however, the McCrary study concluded that the presence of large, man-made ponds and irrigated agricultural fields adjacent the facility attracted birds to that location (approximately 27% of the recorded fatalities were water birds) and the mortality effect on local bird populations was minimal.



The discussion of the lake effect in the draft PA/EIS/EIR does not accurately reflect the body of information that has been developed on this issue based on monitoring data from projects located just a few miles north of DQSP, elsewhere in the state of California, and around the world. BLM's analysis here looks exclusively at years-old data from the Desert Sunlight Project (a fixed-tilt PV solar project that may be distinguishable from DQSP in relevant ways on this particular issue) and the Genesis Solar Project (a solar thermal project using mirrored trough technology not associated with the polarized light/lake effect theory and yet seemingly more hazardous to birds based on the data). As demonstrated by the discussion in the recently published draft EIR for First Solar's Little Bear Solar Project in Fresno County, the data is more robust than represented, although still inconclusive. That discussion reads as follows:

Additional causes of avian injuries and fatalities at commercial-scale solar projects resulting from the operations of solar facilities currently are being evaluated by the USFWS, CDFW, and USGS. . . . Available studies suggest that . . . PV panels could attract both common and special-status migratory bird species to the Project site where they might mistake the reflective panels for a water body . . . (Roth 2016).<sup>4</sup> However, as yet, no empirical studies at commercial-scale solar projects have established a clear causal link between panels and the types of avian mortality and injury documented at solar sites. Limited monitoring data are available for avian collision with solar panels. Walston et al. (2014)<sup>5</sup> examined a 250 MW PV project (the California Valley Solar Ranch), where the mortality rate attributable to the project was approximately 0.5 birds per MW per year. Western EcoSystems Technology, Inc. (WEST) (2014a, 2014b)<sup>6</sup> examined three California PV facilities (the California Valley Solar Ranch, Desert Sunlight, and Topaz) and found most deaths were passerines (songbirds), followed by game birds (doves and pigeons). Water birds (mainly grebes and coots) were found at one of the facilities

<sup>6</sup> WEST, Inc. 2014a. Sources of Avian Mortality and Risk Factors at Three Photovoltaic Solar Facilities; WEST, Inc. 2014b. Background Avian Mortality at Solar and Wind Facilities.

<sup>&</sup>lt;sup>4</sup> Roth, S., 2016. How many birds are killed by solar farms? Desert Sun. August 17. https://www.desertsun.com/story/tech/science/energy/2016/08/17/how-many-birds-killed-solar-farms/88868372/.

<sup>&</sup>lt;sup>5</sup> Walston Jr., L.J., K.E. Rollins, K.E. LaGory, K.P. Smith, S.A. Meyers, 2016. A preliminary assessment of avian mortality at utility-scale solar energy facilities in the United States. Renewable Energy v. 92, p. 405-414. https://doi.org/10.1016/j.renene.2016.02.041.



(Desert Sunlight), but not at the other two. . . . Desert Sunlight was in the Mojave Desert, isolated from water, while the other two were located in the Central Valley close to the California aqueduct. WEST's 2018 summary of avian collision monitoring results from 2014, 2015, 2016 and 2017 for PV solar projects in Riverside County reports all bird fatality rates (as adjusted for searcher and carcass persistence bias) in the solar arrays was between 0.2 and 2.0 per MW per year (less than 0.1 to 0.4 per acre per year) (WEST 2018).<sup>7</sup> These findings could be viewed as lending support to the "lake effect" hypothesis; however, studies from other countries (Germany and South Africa) did not observe "lake effect" avoidance behavior nor a link with collision-related mortality in limited studies at PV facilities (Herden 2009, Visser 2016).<sup>8</sup>

A USFWS summary of avian solar facility mortalities by Dietsch (2016)<sup>9</sup> cited 3,545 bird deaths at seven Southern California solar farms from 2012 to April 2016. . . . All studies noted that monitoring data were preliminary, few facilities had data available, and additional data could cast new light on causes of avian mortality or means of reducing risk. While data collection at certain PV solar array-type facilities has documented instances of avian mortality resulting from collisions, the best available scientific information to date does not indicate a significant risk of significant avian mortality occurring at facilities such as the Project. Thus, according to available data, incidental loss of special-status bird species due to collision-related injury or mortality would be a less than significant impact.

https://www.bfn.de/fileadmin/MDB/documents/service/skript247.pdf.

<sup>9</sup> Dietsch, T., 2016. Update on Solar-Avian Interactions in Southern California. May 10. http://blmsolar.anl.gov/program/avian-solar/docs/Avian-Solar\_CWG\_May\_2016\_Workshop\_Slides.pdf.

<sup>&</sup>lt;sup>7</sup> WEST, 2018. Summary of Recent Findings on Avian Collisions.

<sup>&</sup>lt;sup>8</sup> Visser, E. 2016. The impact of South Africa's largest photovoltaic solar energy facility on birds in the Northern Cape, South Africa. Dissertation, University of Cape Town, February; Herden, C., J. Rassmus, B. Gharadjedaghi, 2009. NaturschutzfachlicheBewertungsmethodenvon Freilandphotovoltaikanlagen, BfNSkripten247. Section 6 and Annex Tables 24-30.



Including this additional information would not significantly change the analysis in the draft PA/EIS/EIR, but it does provide additional substantial evidence consistent with the conclusion that the lake effect likely does not exist, and if there is one, it is not having a significant impact on avian populations.

Related to this last point, although the discussion of the lake effect in the PA/EIS/EIR ultimately concludes that "the significance of the lake effect on the survival of avian populations and the integrity and function of ecosystems remains largely speculative", this conclusion is not uniformly supported by the observations in the underlying analysis. The draft PA/EIS/EIR inconsistently recognizes that the lake effect is speculative, while at the same time asserting that the effect poses a risk to birds. The former is more consistent with the data and decisions being made on other solar projects and First Solar accordingly asks that BLM consistently describe the "lake effect," and in particular the likelihood that the effect might be significant, as a speculative theory.

IV. BLM SHOULD UPDATE ITS APPROACH TO MONITORING AVIAN IMPACTS IN LIGHT OF NEW DATA AND NEW AGENCY POLICIES ON THE SIGNIFICANCE OF SUCH IMPACTS AND COMPENSATORY MITIGATION

As indicated in the previous section, there is no factual evidence that PV solar projects have a significant adverse impact on avian species. As a result, the reason to impose monitoring requirements for avian mortality through a Bird/Bat Conservation Strategy (BBCS) must be rooted in some other legal requirement. However, as this section of our comments discusses, onerous monitoring requirements cannot be justified in the name of existing law or BLM policy. First Solar does not assert that no monitoring occur, only that monitoring costs be constrained so that voluntary conservation measures that directly benefit avian species can be feasible.

The Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. § 703; "MBTA" or the "Act") is not a basis for requiring monitoring. A December 22, 2017 Memorandum Opinion issued by the Solicitor of the Department of Interior (Opinion M-37050) concluded that the MBTA in fact does *not* cover "take that results from an activity, but is not the purpose of that activity" (i.e., "incidental" take).<sup>10</sup> This decision was supplemented by new guidance from the United States Fish & Wildlife Service ("USFWS"), issued on

<sup>&</sup>lt;sup>10</sup> M-37050, The Migratory Bird Treaty Act Does Not Prohibit Incidental Take (Dec. 22, 2017), at <u>https://www.doi.gov/sites/doi.gov/files/uploads/m-37050.pdf</u>.



April 11, 2018 (the "USFWS Guidance" or "Guidance").<sup>11</sup> The Guidance, like Opinion M-37050, largely focuses on when USFWS will pursue criminal enforcement actions under the MBTA, but states that incidental take is not governed by the MBTA. Because compliance with the MBTA had been a driving force behind project monitoring requirements, the Guidance and Opinion M-37050, should change how monitoring of federal actions involving incidental take are evaluated.

Notwithstanding this shift in USFWS's interpretation of the law, USFWS and BLM still appear committed to imposing the same BBCS requirements as they did before in furtherance of the MBTA. The only difference is that now they claim other sources, including the National Environmental Policy Act, 42 U.S.C. §§ 4321-4247 ("NEPA"), the Federal Land Policy and Management Act, 43 U.S.C. §§ 1701-1789 ("FLPMA"), and BLM policy manuals 6500 and 6840,<sup>12</sup> require the same survey and monitoring requirements. For the following reasons, this interpretation is not supported by these authorities. First Solar urges BLM to consider voluntary conservation measures in combination with reduced (not eliminated) monitoring requirements to address potential avian impacts in lieu of relying on years of monitoring alone.

A. NEPA Does Not Require Avian Monitoring or a BBCS

As recognized in the USFWS Guidance, the authority to require mitigation for impacts to migratory birds going forward comes from environmental review statutes such as NEPA. "Birds are part of the human environment, and should be included in relevant environmental review processes as directed by NEPA."<sup>13</sup> USFWS has thus committed to continue to provide recommendations on "best management practices to protect migratory birds and their habitats . . . through [its] advisory role under other authorities, including NEPA...."<sup>14</sup>

186 IBLA 81, 83

<sup>13</sup> Guidance at p. 1.

<sup>14</sup> Guidance at p. 2.

<sup>&</sup>lt;sup>11</sup> Guidance on the Recent M-Opinion Affecting the Migratory Bird Treaty Act (Apr. 11, 2018), at <u>http://src.bna.com/ynP</u>.

<sup>&</sup>lt;sup>12</sup> BLM Manual 6840 (Special Status Species Management (Rel. 6-125 (12/12/2008))).



NEPA requires only that federal agencies analyze the potentially significant environmental impacts of their actions and consider mitigation measures as appropriate. Whether impacts are significant depends on their context and intensity. "Context" considers the setting of the proposed action, including the affected region, interests and locality, while "intensity" refers to the severity of impact, including both beneficial and adverse impacts; unique natural characteristics of the geographic area; the degree to which the effects of the action are likely to be highly controversial or uncertain or pose unique or unknown risks; the degree to which the action may establish a precedent for future actions; the degree to which the action threatens a violation of federal law imposed for the protection of the environment.<sup>15</sup> This last factor in particular has been a driving force behind the imposition of monitoring and mitigation for migratory bird impacts – and it no longer applies.

Based on the facts themselves, without the assumption of a violation of federal law, the need for intensive monitoring of PV projects has not been established. There might be extreme instances where the NEPA intensity factors discussed above could justify a different site-specific conclusion, but in general, the impact of most projects on migratory birds should not be found to be significant.<sup>16</sup>

The practice of imposing expensive monitoring as a matter of course at all solar projects is simply not justified under NEPA without the MBTA hook. The discussion of migratory bird impacts going forward should be significantly curtailed because NEPA requires that "[i]mpacts . . . be discussed in proportion to their significance", that "[t]here shall be only brief discussion of other than significant issues", and that an environmental impact statement should provide a "full and fair discussion of significant environmental impacts" that "focus[es] on significant environmental issues and . . . [avoids] the accumulation of extraneous background data . . . . "<sup>17</sup> Accordingly, NEPA should not be used to impose the two-year monitoring requirement proposed in the Draft PA/EIS/EIR. (CITE PAGE)

B. FLPMA Does Not Require Avian Monitoring or a BBCS

The suggestion that FLMPA requires expansive and expensive monitoring of migratory bird impacts is even less credible than the assertion that NEPA requires such activities. It may be true that FLMPA

<sup>16</sup> 40 C.F.R. § 1502.2.

<sup>17</sup> 40 C.F.R. §§ 1502.1, 1502.2.

<sup>&</sup>lt;sup>15</sup> 40 C.F.R. § 1508.27(b)(1)-(10).



declares that "the public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource and archeological values" and also directs the BLM to manage the public lands in accordance with the principles of multiple use and sustained yield. (FLPMA §§ 102(a)(8), 302(a).) BLM's land use planning regulations further contemplate that the BLM will monitor and evaluate the effectiveness of *mitigation measures*. (43 C.F.R. §§ 1610.4-9.) But as recognized in the recent Instruction Memorandum on Compensatory Mitigation, "FLPMA does not explicitly mandate or authorize the BLM to require public land users to implement compensatory mitigation [or 'augment BLM's existing appropriations'] as a condition of obtaining authorization for the use of the public lands.<sup>18</sup> "While FLPMA in some instances may be interpreted to authorize various forms of the mitigation hierarchy, such as avoidance and minimization, it cannot reasonably be read to allow BLM to require" other forms of mitigation or monitoring that do not directly relate to how public lands are used and/or ensure that use of public lands authorized by BLM will not cause unnecessary or undue degradation of those lands.<sup>19</sup> 43 U.S.C. §1732(b).

Monitoring avian mortality at utility-scale solar projects, after years of monitoring other neighboring projects along the I-10 corridor, has not uncovered evidence of a significant impact and does not assist BLM in its proper management of the public lands. Like compensatory mitigation, which "does not directly avoid or minimize the potential impacts, [the] application [of avian monitoring requirements] is particularly ripe for abuse."<sup>20</sup> "[P]roject proponents have every economic incentive to go along with these [requirements], if forced upon them, effectively treating them as a cost of doing business that they may willingly accept as long as the overall benefits of the project authorization outweigh the costs."<sup>21</sup>

The imposition of monitoring requirements pursuant to FLPMA is not necessarily improper in every context. Where, for example, monitoring can be applied in conjunction with adaptive management measures, monitoring might help avoid unnecessary or undue degradation or facilitate multiple uses of public lands and sustainable yields. The monitoring proposed in the utility-scale solar BBCS's, however,

<sup>19</sup> Id.

<sup>20</sup> Id.

<sup>21</sup> Id.

<sup>&</sup>lt;sup>18</sup> IM 2018-093 (July 24, 2018), at <u>https://www.blm.gov/policy/im-2018-093</u>.



is not coupled with proposals, contingent or otherwise, that could be triggered where necessary to protect the ecological value of public lands.

It is also important to recognize that FLPMA and the California Desert Conservation Area ("CDCA") Plan "require a careful <u>balancing</u> between multiple use and sustained yield management planning with protecting the quality" of various resources. (*Quechan Tribe*, 927 F. Supp.2d at 935 (emphasis added)). BLM must recognize the adverse impacts of its land use decisions and, where appropriate, reduce those impacts in compliance with FLPMA's multiple use provision. (*Accord id.* at 935 (finding that, in evaluating approval of a solar project, BLM adequately balanced the importance of helping California to achieve its renewable portfolio standard and GHG reduction objectives against the importance of preserving environmental and cultural resources when it found that mitigation measures would "avoid or substantially reduce adverse impacts."); *Desert Protective Council v. United States DOI*, 927 F. Supp.2d at 976-77 (finding that BLM fulfilled its multiple use mandate by implementing mitigation measures that would "avoid or substantially reduce adverse impacts" of a wind energy project).) Imposing onerous monitoring, when such monitoring has repeatedly failed to uncover significant impacts or new mitigation solutions, is not consistent with BLM's mission as prescribed by FLPMA.

C. Policy Manual 6840 Does Not Require Avian Monitoring or a BBCS

BLM Manual 6840 ("Special Species Management") outlines BLM's policy "to conserve and/or recover [Endangered Species Act ('ESA')]-listed species and the ecosystems on which they depend so that ESA protections are no longer needed for these species." BLM has cited this as another basis for imposing avian monitoring requirements on utility-scale solar projects.

Unlike the statutory and regulatory commands and land use plan principles that BLM must comply with, BLM's handbooks and manuals are not binding. The Interior Board of Land Appeals ("IBLA") has made clear that "provisions of the *BLM Manual*, unlike regulations, do not have the force and effect of law." (*Union Telephone Company, Inc.*, 173 IBLA 313, 328 (2008); *Pamela S. Crocker-Davis*, 94 IBLA 328 (1986) ("Instruction Memoranda and BLM Manual provisions do not have the force and effect of law and are not binding on either this Board or the public at large").)

As stated by the IBLA:

[BLM Manual provisions] are not the type of material required [] to be published in the Federal Register. They do not prescribe any rule of law binding on BLM. They are not intended and were not written to require



strict conformance with their terms. Rather, they permit a flexible approach in the preparation of environmental analyses, considering a multitude of variable factors.

(*Cascade Holistic Economic Consultants*, 60 IBLA 293, 300 n.5 (1981); *see also McMaster v. United States*, 731 F.3d 881, 888-889 (9th Cir. 2013) ("BLM manuals are not legally binding."), *citing Schweiker v. Hansen*, 450 U.S. 785, 789-790 (1981) (holding that a Social Security manual did not bind the Social Security Administration because it is not a regulation and has "no legal force").) BLM Manuals thus generally cannot require BLM to impose a BBCS or any specific provisions as a condition of land use approval.

Even if BLM Manual 6840 were enforceable, its stated purpose is to establish a "policy for management of species listed or proposed for listing pursuant to the Endangered Species Act and Bureau sensitive species which are found on BLM-administered lands." (Manual 6840.1.) With regards to procedures applicable to project-specific use approvals, as opposed to the conservation activities that are the primary focus of the policy, the Manual provides that, in addition to following the consultation and other procedures to comply with the ESA, "[i]n the absence of conservation strategies, [BLM shall] incorporate best management practices, standard operating procedures, conservation measures, and design criteria to <u>mitigate *specific* threats</u> to Bureau sensitive species . . . ." (Manual 6840.2C7.) The Manual also provides that "Off-site mitigation may be used to reduce potential effects on Bureau sensitive species", however this recommendation is not compatible with the current Compensatory Mitigation policy discussed above.

Monitoring and surveying a long list of avian species, many of which are not ESA-listed, ESA candidates or special status species, is not consistent with the activities contemplated in the Manual. Monitoring is not a measure that would mitigate any threats to special status species, nor is the threat to special status species specific.

As recognized by the IBLA, "To establish error in BLM's implementation of [Manual 6840], a party must show that the [NEPA document] failed to disclose impacts on a special status species that would cause it to become threatened or endangered." (*Native Ecosystems Council*, 139 IBLA 209, 219 (1997); *see also id*. ("The BLM Manual is not a regulation, does not have the force and effect of law, and is not binding on this Board. *Oregon Natural Resources Council v. BLM*, 129 IBLA 269, 277 (1994); *New Mexico Wilderness Coal.*, 129 IBLA 158, 162 (1994); *Pamela S. Crocker Davis*, 94 IBLA 328, 332 (1986).) Courts have recognized that it is up to the agencies themselves to enforce compliance with their internal procedures, and no cause of action for breach of those procedures exists. (*Schweiker v. Hansen*, 450



U.S. 785, 789, *rehearing denied*, 451 U.S. 1032 (1981); *United States v. Caceres*, 440 U.S. 741, 755-56 (1979).) Omitting avian mortality monitoring from the EIS and incorporated BBCS would not establish an error in BLM's implementation of Manual 6840.

### D. Policy Manual 6500 Does Not Require Avian Monitoring or a BBCS

Manual 6500, also cited by BLM as a basis for imposing avian monitoring requirements, provides a "basic approach and program objectives for managing fish and wildlife resources on the public lands for the social and economic well-being of all Americans." With regard to land use approvals, the policy directs BLM to "Ensure full consideration of the wildlife, fish, and special status species in land use plans and other BLM activities . . . ." (Manual 6500.06.) Beyond this, however, it is evident that the intent of the policy is to prescribe actions for areas designated for wildlife management. Indeed, one of the few references to monitoring directs BLM to "Monitor ongoing *management actions* and determine if habitat management objectives are being met." (*Id.* (italics added).) BLM can ensure full consideration of wildlife species without implementing expensive, futile monitoring requirements and in reverse, imposing such requirements will not help BLM preserve wildlife resources for "the social and economic well-being of all Americans."

In sum, for the reasons provided above, BLM is not legally obligated to continue the practice of imposing onerous and expensive monitoring requirements in a project BBCS. First Solar would rather see monitoring costs be constrained so that the company can put the resources that would otherwise go to funding those efforts toward voluntary conservation measures, consistent with the Department of the Interior's mitigation policies and thus strongly urges BLM to consider this approach.

### V. THE APPLICANT SUPPORTS REBURIAL OF TRIBAL RESOURCES TO THE EXTENT THAT TRIBES REQUEST REBURIAL AND BLM HAS THE AUTHORITY TO GRANT THE REQUEST

The following discussion is offered in the spirit of cooperation with both Native American tribes and BLM. The issue of reburial of cultural isolates has been a difficult one for all parties. Our hope is that this discussion could eventually pave the way for solutions acceptable to all parties.

For several years, Native American tribes asked utility-scale solar developers to secure as mitigation for their projects the right to re-bury cultural items and artifacts inadvertently discovered during project development. For almost as many years, developers and tribes were told that this proposal violated BLM's policies. During construction of the McCoy Solar Energy Project, however, BLM sent a letter to the Colorado River Indian Tribes ("CRIT") in which BLM committed to a modified process regarding the



management of isolate cultural resources (defined as "archaeological manifestations that are not an archaeological site and consist of three or fewer artifacts that are less than 25 meters apart"). Specifically, BLM proposed to allow for reburial of isolates by Tribal Cultural Consultants or other Tribal designees as part of an ongoing monitoring process (preferred). Alternatively, however, after consultation with BLM, burial could be performed after removal and storage of the artifacts, provided that the artifacts would be buried in the area where they were found at a later date. These reburial options were also offered at the Blythe Solar Project. Members of the CRIT and other tribes have stated that they hope to have similar options for isolates on future projects. For a time, BLM seemed amenable to this idea. More recently, however, BLM has indicated that the approach at McCoy and Blythe was an exception, not the rule, and that further extension of this practice would violate agency policies.

First Solar asks BLM to reconsider this position to the extent that tribes are requesting an isolate reburial option. It seems possible, for example, for BLM to determine that certain material (inadvertently discovered isolates) in the East Riverside SEZ "are not or are no longer of archaeological interest and are not to be considered archaeological resources under [the Archaeological Resources Protection Act ('ARPA')]", which otherwise requires collection of archaeological resources excavated from federal lands. 43 C.F.R. § 7.3(a)(5). If the items are not required to be collected and curated under ARPA, BLM would be free to allow reburial. Other strategies for achieving the same outcome might also be feasible. To the extent that formally adopting a practice of allowing for limited reburial could involve an administrative process that could take time to resolve, however, First Solar notes that these activities need not delay the Project and asks BLM to ensure that it does not. As with other projects, isolates can be held securely on site until BLM and the tribes determine their final disposition.

# VI. THE DISCUSSION OF SAND TRANSPORT RELIES ON AN EVIDENTIARY STANDARD THAT SIGNIFICANTLY EXCEEDS LEGAL REQUIREMENTS AND IS AT TIMES INCONSISTENT

First Solar agrees with, and concurs that the data supports, BLM's ultimate conclusion in the sand habitat discussion section "that, even if the regional Dale Lake Palen-Ford dune system operated as a continuous transport corridor in the past, it probably does not do so today." (Draft PA/EIS/EIR at p. 3.3-7.) However, BLM's broader analysis of impacts of the Project on sand transport is inconsistent.

As an initial matter, BLM suggests that site specific studies prepared by a consultant, as is customary in support of an environmental impacts review, are not sufficient to overcome sweeping, even speculative, conclusions made in higher-level/regional studies that have been peer-reviewed or published. The implication – that applicants for a right-of-way grant need to spend tens of thousands of dollars and



several months more to prepare peer reviewed reports (or even longer if studies must be published) – is alarming and goes well beyond the evidentiary requirements of NEPA or the California Environmental Quality Act ("CEQA"), pursuant to which the draft PA/EIS/EIR has been prepared. The DRECP furthermore recognized that the peer-reviewed regional studies exalted in the draft PA/EIS/EIR were inadequate for making site-specific determinations, as LUPA-BIO-DUNE-1 requires a study (though not a peer-reviewed study) to verify the location and extent of sand dune DRECP vegetation types and/or Aeolian sand transport corridors. BLM should not impose a more demanding and expensive data generation standard on a project that is exempt from the DRECP.

Substantively, BLM presents several theories of impacts that assume conditions that are not present on site. First, BLM suggests that the regional sand corridor concept developed by Zimbleman in 1995 is relevant. Yet several studies cited in the draft PA/EIS/EIR have demonstrated that it does not to apply to the Project site. The Project will not impact a regional sand transport corridor because, to the extent that it ever extended as far as the Project site, any historic corridor is largely shut down, particularly in the area approaching DQSP.<sup>22</sup> BLM has furthermore not established that the conditions that have led to cyclical reboots of sand transport in other areas (e.g., around Palen and Ford Dry Lake) are found in the area of the Project and might justify a theory that sand transport could be reestablished and expanded – especially not during the limited lifetime of the Project.

In addition, although the hydrologic conditions in FP1 might provide "stabilizing moisture" that is generally critically important for eolian systems, this does not mean that the FP1 area is a critically important sand source. Indeed, the conditions in FP1 are largely the result of development blocking a natural wash and there is no evidence that sand impacted by this concentration of moisture actually contributes to any surrounding habitats. Indeed, the mud ponding deposits in FP1 are only one to two inches thick and overlie older sediments (stabilized dune deposits of the mid to later Holocene), as indicated in Plate 6B. The representation in the draft PA/EIS/EIR that this active watercourse area is "critically important for eolian sand systems as a sand source and stabilizing moisture for sand dune systems" takes observations from the report in Appendix O out of context. (Draft PA/EIS/EIR at 3.3-3.) The draft PA/EIS/EIR fails to explain which sand dune system benefits from these conditions, which it

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<sup>&</sup>lt;sup>22</sup> This is all probably a moot point, because BLM's and the County's preferred/environmentally superior Alternative 2, and Alternative 3, completely avoid local, fluvially sourced transport zones, which are the only zones found in the Project area. But nevertheless, the draft PS/EIS/EIR could do more to make this clear.



must clarify as part of making this conclusion, given that "the Project area itself does not contribute sand to dunes located further eastward" and as noted in Appendix O, winds sufficient to support sand transport in the area blow west to east. (Appendix O at p. 14, citing Muhs et.al (1995).)

The conclusion that the Project will not have a significant impact on sand transport resources is evident in Appendix O and the draft PA/EIS/EIR, but difficult to pluck out of the wavering discussion. BLM should clarify that the Project will not have a significant impact on sand transport habitats and clearly link this conclusion to the evidence.

# VII. THE APPLICANT REQUESTS TARGETED REVISIONS TO CLARIFY AND CORRECT ASPECTS OF THE DRAFT PA/EIS/EIR

In addition to the general comments above, First Solar has prepared the attached chart of targeted redlines that it asks BLM and the County to implement to clarify and correct representations about the project, surrounding environmental conditions, and mitigation measures required to reduce impacts.

In particular, these changes include insignificant modifications of the proposed alternatives to clarify how First Solar intends to proceed and to supplement Alternative 2 in accordance with the latest survey data. With regards to the development procedures, First Solar asks that BLM and the County clarify that development can proceed in phases, as has been common among utility-scale solar projects, in particular where power purchase agreements are secured at different times for only a portion of the project's name-plate generation to meet gradually increasing renewable generation targets. Constructing the project in phases will not have a meaningful impact on the environmental impacts of the project, which are scheduled to take up to 48 months, but have been analyzed for completion on a much more aggressive timeline (25 months). In general, the impacts of the Project in terms of traffic, air quality, noise, ground disturbance, hazardous materials use, intensity of water use, etc. will be reduced on a daily basis under a more drawn out, phased approach. If construction of the Project proceeds in phases, however, First Solar will need to provide maps and drawings to the BLM project manager and other key monitoring staff prior to the start of each phase to ensure that these individuals have an upto-date and accurate understanding of the Project construction plan.

With regards to proposed changes to the Alternative 2 footprint, recent cultural resource studies have determined that areas avoided by Alternative 2 for purposes of reducing impacts to cultural resources do not in fact contain resources that are eligible for listing. Including these areas in the footprint of the right-of-way grant will give First Solar more flexibility to avoid other more sensitive areas, if any are unexpectedly discovered, during the course of development. The proposed change would add

20-15

20-14



approximately 58 acres to Alternative 2, as depicted in Attachment 2. First Solar asks that the County and BLM consider incorporating this map into the final PA/EIS/EIR.

### VIII. CONCLUSION

We appreciate the opportunity to provide comments on the DQSP Draft PA/EIS/EIR and would again like to thank BLM for their careful and comprehensive review of the Project. We look forward to working with the Bureau to finalize the Project design and begin construction on this important renewable energy infrastructure proposal. Please let us know if you have any questions about these comments or require further information to evaluate the Project.

Sincerely,

Louis DeRosa, First Solar

Jill E.C. Yung, Paul Hastings LLP

www.firstsolar.com

20-16



Attachment 1 – Targeted Revisions



Text Reference	Comment	
ES-5; Pg. 2-34	The length of the gen-tie for the Resource Avoidance Alternative is	
	misrepresented in multiple places. Text should be revised as follows:	
	Under the Resource Avoidance Alternative, the length of the gen-tie line	20-18
	would be <u>3.89</u> 4 <del>.18</del> miles.	
	Also, the Gen-Tie Line Corridor row in Table 2-5 needs to be revised	
	accordingly.	
ES-7	The impacts to State Jurisdictional Waters and Wetlands as identified in	
	Appendix N should be 0 acres for both Alternative 2 and Alternative 3. The	
	California Department of Fish and Wildlife ("CDFW") has commented that	
	waters identified as abandoned channels (0.39 acres under Alternative 2 and	20.10
	0.36 acres under Alternative 3) might not be abandoned and thus might be	20-19
	jurisdictional. However, CDFW will not make a final determination regarding	
	whether these areas are jurisdictional and whether a lake and streambed	
	alteration agreement is required for disturbances in these areas until the EIR	
	is certified by the County.	
ES-13	Water use for Alternative 3 should be less than for Alternatives 1 and 2 as	
	Alternative 3 would develop fewer acres where water for dust control is	20.20
	needed. However, the construction schedule, using the same amount of	20-20
	workers as the other alternatives, would also be shorter, meaning the	
	timeframe for water use/withdrawal would be more compact.	
ES-15	Table ES-2, BIO-3 identifies potential impacts to Federal protected wetlands	
	as defined by Section 404 of the Clean Water Act (CWA) and any state-	
	protected jurisdictional areas as potential significant impacts of Alternatives	
	1, 2, and 3. However, Alternatives 2 and 3 have no impacts on Federal waters	20-21
	and might not impact any State waters, depending on CDFW's decision on a	
	forthcoming application for a lake and streambed alteration agreement, if	
	one is deemed necessary.	
Pg. 1-1	Delete the first instance of the following sentence (used twice in the same	
	paragraph): The larger acreage under application allows for BLM and the	20-22
	County to consider various site layouts as Project alternatives for their	
	environmental analysis.	
Pg. 1-11	Before the last sentence of the third paragraph in section 1.6.2, insert the	
_	following sentence:	20-23
	DQSP is furthermore called out by name as a pending project on 4,845 acres in	
	the DRECP. (See DRECP Proposed LUPA and Final EIS (Oct. 2015) at p. IV.25-7;	



	see also id. at IV.25-6 [accounting for DQSP as an approved project on 7,236	20-23
Pg. 1-11	acres].)   Revise the last sentence of the fourth paragraph in section 1.6.2 as follows:   Additionally, Alternative 3 (Reduced Project Alternative) considers whether   and how application of some mitigation and avoidance measures developed   through the DRECP LUPA (called Conservation and Management Actions   [CMAs] in the DRECP LUPA) would, if applied, change the project layout and   mitigation measures.	20-24
Pg. 1-17	The following statement is inaccurate: "Both the NOI and the NOP announced the dates, times, and locations of public scoping meetings in Parker, Arizona on March 23, 2015, and in Blythe, California, on March 24, 2015." Rather, the NOI stated: "The date(s) and location(s) of any scoping meetings will be announced at least 15 days in advance through local news media, newspapers and the BLM Web site at: http://www.blm.gov/ca/st/en/fo/ cdd.html." BLM and the County then posted the appropriate notices in	20-25
Pg. 1-17	accordance with these representations.   Revise the text of the EIS as follows:   A total of six individuals made public comments at the meetings in Parker; no members of the public showed up for the meeting in Blythe.	20-26
Pg. 1-21	Section 1.9.2 Revise the text of the EIS as follows: These permits and approvals are <u>generally</u> local ministerial actions <u>, but to the</u> <u>extent they are discretionary</u> , they will follow environmental review in compliance with CEOA that will parallel or follow CEOA compliance.	20-27
Pg. 1-21	The draft PA/EIS/EIR represents that "California Department of Fish and Wildlife (CDFW): Informal consultation will occur with the CDFW, Inland Desert Region, concerning the scope of biological resource studies and species of interest relative to the portion of the proposed Project on private lands." In fact, Consultation will be required on the entire project site for a 2081 permit (state environmental laws apply on federal lands, especially for private applicants). The applicant will also consult with CDFW to avoid or secure a permit for impacts to state waters	20-28
Pg. 1-23	Table 1-2. Anticipated Permits and Approvals – delete reference to the   Migratory Bird Treaty Act in accordance with new USFWS policies. There is no   permit or approval required under this law as currently applied by the federal government.	20-29



Pg. 2-6	Section 2.3.3 Consistent with the applicant's general comments, the text of the draft	00.00
	PA/FIS/FIR should be modified as follows:	20-30
	The DOSP would consist of a sinale unit with a generating capacity of 450 MW	
	that may be constructed in phases.	
Pg. 2-29	Section 2.3.7.11	
0	First Solar requests the following addition to the text:	
	"The Plan would provide for curation of recovered archaeological materials	
	with an accredited curation facility if feasible."	
	<b>Reason:</b> All efforts will be made to find curation facilities. However, in some	20-31
	instances on past projects, more artifacts have been collected than there is	
	time/space to curate, and curation facilities are therefore unwilling to accept	
	all but the most valuable resources.	
Pg. 2-35	Section 2.6	
	The draft PA/EIS/EIR states that: "The Reduced Project Alternative further	
	reduces the acreage of the solar arrays, with elimination of the proposed	
	solar arrays primarily in the northern portion of the area to maintain habitat	
	for the Mojave fringe-toed lizard and Harwood's eriastrum, a BLM Sensitive	
	Species plant."	
	Compared to Alternative 2, the Reduced Project Alternative does not avoid	
	any additional occupied habitat for the MFTL or Harwood's eriastrum. The	
	areas avoided by Alternative 3 furthermore are not themselves habitat.	
	BLM's conclusion that avoiding additional areas in the north eastern portion	
	of the proposed project site might "maintain habitat" is based on the	20-32
	presumption that a sand source, created by the interruption of the Palowalla	
	Drainage Area by the construction of the Blythe 21 Solar Project in 2009,	
	might migrate west, contrary to conventional knowledge about wind patterns	
	sufficient to move sand in the area, and contribute source sand to the	
	occupied habitat avoided by Alternative 2. There is no evidence in the record	
	to support this theory, which is at odds with the conclusions drawn by the	
	geologist/sand expert that studied the potential impacts of the Project on	
	sand resources. The ponding sediments that have collected and can	
	accumulate in this area are thin and sit on top of older alluvium, supporting	
	the conclusion that the sand is a recent phenomenon created by	
	anthropogenic conditions that did not create the sand habitat occupied by	
	MFTL and Harwood's eriastrum. BLM should accordingly delete the sentence	
	quoted above.	



Pg. 2-38	Section 2.8 The draft PA/EIS/EIR states that "the impacts of Alternative 3 to the Pleuraphis rigida vegetation alliance, state jurisdictional waters, occupied habitat for the Harwoods eriastrum, occupied habitat for the Mojave fringe- toed lizard, CRHR-eligible cultural resources, and groundwater use would be the same as Alternative 2" While this is mostly true, and true to the extent that the intensity of the use will be the same (if not greater, due to a shorter project schedule), overall groundwater use will likely be reduced under Alternative 3 because the smaller project footprint will require less dust control.	20-33
Pg. 2-44 to Pg. 2-46	Section 2.9.2.3 The Migratory Bird and Special Status Species Protection Alternative and associated Table 2-7. Potential Actions to be Incorporated for Protection of Migratory Birds and Other Special Status Species is a historic artifact of this permitting process dating back to the USFWS's scoping comments and pre- application meetings in 2014 and 2015. It does not reflect significant changes in the agency's implementation of the MBTA or the information that has been generated over the past three years of project analysis, including the conclusion that there is not a single, uniform sand transport corridor running from Joshua Tree National Park or beyond that washes over the entire Project site. These additional reasons for rejecting the proposed alternative should be documented by BLM	20-34
Pg. 3.3-4	Section 3.3.1.2 The second paragraph of section 3.3.1.2 (Sand Dunes) appears to dismiss the value of the project-specific sand dune and sand transport studies commissioned by the applicant because they were not peer-reviewed, published in scientific literature, or specifically developed by or for BLM in support of their own land use planning efforts, in contrast to the studies relied on by BLM when it designated the project site as an area <i>suited for</i> <i>development</i> in the DRECP. The suggestion that an applicant must produce peer-reviewed or published site-specific studies in support of its application is troubling, as this is not required by NEPA, FLPMA, or any other authority. Indeed, not even the DRECP itself, (where it applies) imposes such a demanding requirement. The relevant DRECP CMA, LUPA-BIO-DUNE-1, requires a study (not peer-reviewed) to verify the location and extent of sand dune DRECP vegetation types and/or Aeolian sand transport corridors. The logical corollary to this requirement is that all the studies that BLM relied on	20-35



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	when designing the DRECP (and deciding that the Project area was likely suitable for development) were not detailed enough to support project specific decisions. BLM cannot now assert that the same regional studies can nevertheless overrule a site specific analysis.	20-35
Pg. 3.3-4 to Pg. 3.3-7	Section 3.3.1.2 The discussion of sand resources on and around the Project site begins with a "Description of the Regional Sand Corridor", presenting as a given something that the discussion later recognizes is disputed. Indeed, the draft PA/EIS/EIR states that "The regional sand corridor is a complex, regional-scale network of sand dunes, oriented from northwest to southeast, stretching from the central Mojave Desert in the west to the Colorado River." But then it goes on to recognize that there are "two prevailing hypotheses", including "that the sand corridor operates as a transport corridor on a regional scale, and that the corridor operates as a transport corridor on a regional scale, and that the corridor is made up of an agglomeration of individual dune systems, disconnected from each other, and each sourced and operating on a local scale." Further down, the analysis discusses how even proponents of the regional corridor theory conclude that it is episodic and that "[f]or the Project area and the Dale Lake-Palen-Ford dune systems, the conclusion that operation of the sand corridor is episodic is important in demonstrating that, <u>even if the regional Dale Lake Palen-Ford dune system operated as a</u> <u>continuous transport corridor in the past, it probably does not do so today</u> ." This conclusion is not inconsistent with the studies commissioned by the applicant, but BLM's discussion makes it appear, at least at first, that the site- specific Kenney report included in Appendix O got things wrong. NEPA and CEQA are concerned with the impacts of the Project on the <i>existing</i> environment – not the environment as it once was or as it might be in a hypothetical, but not reasonably foreseeable, future. It would thus appear that the Kenney report is adequate and accurate for its purpose and BLM should clarify this point.	20-36
Pg. 3.3-16	Section 3.3.1.4 The text below should be revised as follows to be accurate: The state delineation identified the presence of areas potentially subject to CDFW jurisdiction under the Department's Lake and Streambed Alteration Agreement Program (California Fish and Game Code (FGC) Sections 1600- 1616) as well as areas that are not jurisdictional (i.e., abandoned channels) but that CDFW still needs to evaluate as part of its permitting process. The	20-37



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	areas are shown on Figure 4.3-1, along with the overlap of the areas with the different alternative footprints. These	20-37
Pg. 3.4-11	The Affected Environment discussion recognizes that a preliminary assessment concluded that two locations – <i>outside the project boundary</i> – had the potential to support Couch's spadefoot toad due to their extent and association with dry desert wash woodland plant species. But after surveying these areas, it was determined that neither held ponded water for the requisite 8 days needed to support the species' life cycle. BLM nevertheless proposes mitigation measures for a species that has not been observed and for which there does not appear to be any habitat (and if there is, it is offsite). This mitigation measure should be deleted.	20-38
Pg. 3.5-1	Add citation to Lerch 2018 here: "A BLM Class III Archaeological Survey Report has been completed by Statistical Research, Inc. (SRI), in support of this PA/EIS/EIR (Lerch et al. 2016, and Lerch 2017, and Lerch 2018, provided in Appendix P)." Lerch, Michael K. 2018. Results of Thermal Features Testing, Alternate Route Survey, and Final NRHP/CRHR Evaluations of Cultural Resources: Addendum 2 to Class III Archaeological Survey of the Desert Quartzite Solar Project, Palo Verde Mesa, Riverside County, California. Prepared for BLM, Palm Springs, California. November.	20-39
Pg. 3.5-2	Add Addendum 2 to Appendix P. Section 3.5.1 Add citation to Lerch 2018 to: "In April 2018, SRI and BLM conducted archeological testing on three cultural resources to determine if there are subsurface deposits (Lerch 2018)."	20-40
Pg. 3.5-30	Section 3.5.1.6 The boundary of the indirect APE on Figure 3.5-1 is incomplete. After: "SHPO agreed with the APE in 2014," note that SHPO also agreed in 2018 with a small modification of the APE where it enters the CRSS.	20-41
Pg. 3.5-36	Change "According to the current ROW configuration, <u>1918</u> eligible sites fall within the Project area and may also be impacted by the Project through direct or indirect impacts." Reason: Laboratory analysis of site P-33- 024393/CA-RIV-12027 has determined that this site is ineligible for listing in the NRHP/CRHR, and therefore all instances of discussion of numbers of eligible sites need to be lowered by one. This conclusion will be fully reported in Addendum 2 to Appendix C, and referenced in the FEIS/EIR as (Lerch 2018),	20-42



	which is currently in preparation, and will be submitted to BLM in mid-	20-42
	November.	
Pg. 3.5-42	Table 3.5-1	
0	Following completion of laboratory analysis after testing three sites with	20-43
	thermal features, site 33-024393/CA-RIV-12027/SRI-3237 is now	20 10
	recommended as Not Eligible for listing in the NRHP/CRHR (Lerch 2018).	
Pg. 3.13-1	Please update this section with the results of the paleontological field survey	
	(El Adli 2018a, 2018b), and add the following references to Appendix C:	
	El Adli, Joseph J. 2018a Paleontological Survey of the Desert Quartzite Solar	20-44
	Project, Palo Verde Mesa, Riverside County, California. Prepared for BLM,	
	Palm Springs, California. September.	
	2018b. Paleontological Resource Mitigation and Monitoring	
	Plan for the Desert Quartzite Solar Project, Palo Verde Mesa, Riverside	
	County, California. Prepared for BLM, Palm Springs, California. September.	
Pg. 3.14-2	Section 3.14.1.2	
	The draft PA/EIS/EIR provides that "In accordance with the CDCA Plan,	
	motorized-vehicle access would be managed with Multiple-Use Class	
	guidelines." However, while the Project is properly evaluated within the	20-45
	multiple-use class framework because of its grandfathered status, other	
	activities, such as OHV use, are not similarly preserved. This paragraph	
	should be revised to reflect the DRECP framework that now governs these	
	activities.	
Pg. 4.1-7	Table 4.1-1	
	The radius for cumulative impacts due to noise includes areas within 0.5 mile	00.40
	of the Project, which the draft PA/EIS/EIR represents includes the Crimson	20-46
	Solar Project. That Project is more than 0.5 miles from DQSP and the analysis	
	furthermore does not demonstrate that the projects are likely to be	
	constructed on overlapping timelines.	-
Pg. 4.1-8	Table 4.1.1	
	The draft PA/EIS/EIR represents that the Rio Mesa Solar Electric Generating	00.47
	Facility will contribute, along with the Project, to cumulative impacts on	20-47
	Recreation and Public Access. The Rio Mesa project was abandoned by its	
	applicant at least five years ago. This project should be removed from the	
D. 1110	analysis.	00.40
Pg. 4.1-18	Table 4.1-3 (Reasonably Foreseeable Projects Within the Cumulative Impact	20-48
	Analysis Area)	



	Table should be revised to reflect currently foreseeable projects. Rio Mesa Solar should be removed; construction updates should reflect current project status (e.g., the fact that the Blythe Mesa Solar Project had not been constructed as of March, 2016 should be updated to reflect the fact that construction has still not begun).	20-48
Pg. 4.3-9	Table 4.3-3 (Summary of Direct Impacts to Special-Status Plant Species) represents that Alternative 2 will impact one acre of occupied Harwood's eriastrum habitat when no such impacts are present; this conclusion is based on the fact that the project boundary is within 250 feet of a single occurrence of Harwood's eriastrum. This is not a direct impact and the project is not impacting occupied habitat. Either the scientific basis for treating the habitat as occupied must be explained or the document should be revised to reflect no direct impact.	20-49
Pg. 4.3-12	The draft PA/EIS/EIR speculates that the project might have direct or indirect impacts on Native Vegetation Alliances avoided by the Project or the Project alternatives to the extent that wind patterns change (essentially, that they reverse themselves). The discussion provides no evidence-based reason to believe this can occur or that it might occur. These impacts are speculative and should be removed from the discussion.	20-50
Pg. 4.1-13	Section 4.3.3.2 The following text should be revised to reflect the actual situation with regards to potential impacts to jurisdictional streams: However, the Alternative 2 footprint directly impacts 0.39 acres of potentially jurisdictional non-jurisdictional abandoned channels that CDFW has yet to confirm are in fact abandoned. Actual impacts to these channels, including the precise locations, areas, and volumes of soil disturbance, are unknown, pending development of a detailed grading plan for this area. If these areas are in fact dormant channels, or some other form of jurisdictional channel, as will be determined by CDFW, avoidance or mitigation will be required. Mitigation measure VEG-10 (Measures for Riparian Habitat and State Waters) requires compensation for impacts to jurisdictional streams, at a ratio to be determined by CDFW.	20-51
Pg. 4.3-16	Section 4.3.4 BIO-3 Same as above. In addition, the abandoned channels are made up of almost 80 fragments of abandoned channels along roadways and underling sheets of sand. Their scattered and pervasive nature will make it impossible to avoid	20-52



	them all if CDFW in fact determines that these features are a type of iurisdictional water	
	<b>Bavised text:</b> The footprints for Alternatives 2 and 3 completely avoid the EP1	
	and EP2 watercourses and their associated dormant channels but directly	
	impact 0.39 and 0.36 acres of potentially jurisdictional abandoned channels	
	respectively that CDEW has yet to confirm are in fact abandoned. Actual	
	impacts to those channels, including the presice locations, grads, and volumes	20-52
	af soil disturbance, are unknown, nonding development of a detailed arading	20 02
	of soil disturbunce, the unknown, penang development of a detailed grading	
	plun for this area. If these areas are in fact dominant channels, or some other	
	form of jurisdictional channel, as will be determined by CDFW, avoidance or	
	mitigation will be required. Mitigation measure VEG-10 (Measures for	
	Riparian Habitat and State Waters) requires compensation for impacts to	
	jurisdictional streams, at a ratio to be determined by CDFW. Both areas are	
	situated on the edge of the Project, and could potentially be avoided by	
	detailed Project design.	
Pg. 4.3-21	The cumulative biological resources impacts analysis concludes that "since	
	Alternative 2 disturbance footprint is relatively smaller in size, the	
	contribution to cumulative impacts would also be commensurately	
	decreased." [See Pg. 4.4-31] As noted in other comments, the impacts of	20-53
	Alternative 2 compared to Alternative 1 are not "commensurately" different	
	because Alternative 2 avoids all impacts to Harwood's eriastrum and MFTL, as	
	well as other special status species. The strategic removal of areas from	
	development has an impact that goes beyond simply having a smaller	
	footprint.	
Pg. 4.4-8	The draft PA/EIS/EIR notes that "As demonstrated by Potter and Weigand	
-	(2016) at Palen dunes, there is the potential for inactive areas within dune	
	fields to become active within a very short timeframe." (See Pg. 4.3-12) The	
	implication that the same conditions exist in the Project area as at the Palen	
	dunes is not support by substantial evidence and is contradicted by the	
	detailed stand study in Appendix O. BLM has not established any basis for	20-54
	extending the Potter and Weigand analysis to the Project site. Moreover, the	
	analysis fails to address the likelihood, if there is a basis for believing sand	
	migration may become more active in the future, that this change will take	
	place in during the next 30 years (the lifespan of the Project).	
Pg. 4.4-8:	The impacts analysis relies on WII -12, which requires that "Prior to ground	
APPENDIX G-39	disturbance, the Applicant shall prepare and implement a Couch's Spadefoot	20-55
to G-40	Toad Protection and Mitigation Plan (Protection and Mitigation Plan) to	
	rough roughling and miligation rian (roughling and miligation rian) to	



		_
	avoid, minimize or mitigate impacts to Couch's spadefoot toads and their breeding habitat during construction, operation, and decommissioning of the Project." The existing site surveys failed to identify any occupied or potential habitat for this species. There is no basis for requiring this mitigation measure. WIL-12 should be omitted from the final PA/EIS/EIR.	20-55
Pg. 4.4-12 to Pg. 4.4-	For the reasons provided in Section III of the comment letter to which this	
15: Pg. 4.4-20	chart is an appendix, the discussion of the unsubstantiated lake effect theory	
10) 1 8: 11 1 20	should be revised as follows:	
	The theory that A potential risk to migrating hirds is associated with Polarized	
	Light Pollution (PLP), which creates the "lake effect" in which PV panels may	
	mimic the reflective and light polarizing characteristics of water, causing $m_{-}$	
	Migrating water-dependent birds to may mistake fields of PV panels for <del>as</del>	
	water bodies, commonly referred to as the "lake effect", has been raised in	
	public comments on solar projects since at least 2012 (see the Stateline Solar	
	Farm Project). In fact, the lake effect theory was first suggested at least 30+	
	vears ago in the McCrarv study conducted at California's pioneering Solar One	
	facility (Mcrary, et al., 1986). The theory has at least two variants, including	
	(1) that and consequently be attracted to them. The lake effect has recently	
	been postulated as a causal factor in injuries and mortalities of water birds at	
	some solar facilities in the California Desert. Mmigrating water-dependent	
	birds may attempt to land on what they perceive solar panels as water,	20-56
	attempt to land on them, and instead collide with the solar panels or other	
	structures <del>, resulting in injury or death. Additionally, some</del> and (2) that water-	
	<u>dependent</u> birds <u>that</u> require a running start across a water surface to take off	
	might land and become fatally stranded at a solar facility. If these birds	
	successfully land at the solar facility, they will be unable to take off again. But	
	after gathering data incidentally and through implementation of monitoring	
	plans of varying exactness at several solar facilities, the significance of the	
	lake effect on the survival of avian populations and the integrity and function	
	of ecosystems remains largely speculative (Horvath et al. 2009).	
	The <del>re were also a substantial</del> percentage of mortalities found at <u>other distinct</u>	
	<u>areas within the projects include <del>fencelines (</del>12.5% for Desert Sunlight<del>,</del> and</u>	
	13% for Genesis <del>)</del> <u>at fencelines</u> , <del>gen-tie lines (</del> 22.2% for Desert Sunlight <del>,</del> and	
	9% for Genesis <del>) at gen-tie lines</del> , and <del>water ponds (</del> 5.8% for Desert Sunlight,	
	and 21.8% for Genesis <u>at water ponds<del>)</del>.</u>	
	1	


	Operation and maintenance of the Project is likely to may result in similar direct and indirect impacts to migratory birds moving through the region via collision, drowning, entanglement, or other "unknown" causes (which may or may not be attributable to the solar facility). However, <u>based on the raw</u> results of monitoring at solar projects using similar photovoltaic technology as <u>DQSP in the same area (McCoy Solar Energy Project and Blythe Solar Energy</u> <u>Center) and given the discovery rates even at Desert Sunlight found only 0.16</u> <u>birds per day over several thousand acres, these impacts are not expected to be significant. Furthermore, the majority of the migratory birds encountering the Project would not be expected to nest on the facility. In the unlikely event that migratory birds nest at the operating facility, direct or indirect impacts could occur to species protected under the <del>Migratory Bird Treaty Act and the</del> Eish and Game Code</u>	20-56
Ρσ / 5-1	Area of Potential Effects, Change "SHPO concurred with the APE in 2014" to	20-57
18.4.3 1	"SHPO concurred with the APE in 2014, and with a small expansion of the APE	20-07
	where the gen-tie line enters the CRSS in 2018."	
Pg 4.5-2	See suggested edit above.	20-58
Pg. 4.5-2	Section 4.5.1.1	
-	The statement:	
	<i>"Although both alternatives would reduce the number of sites that would be</i>	
	directly impacted, there would be indirect effects to these sites, including	20-59
	making them inaccessible for future research, and surrounding them with	20 00
	Project components"	
	The existing text is inaccurate. Both Alternative 2 and Alternative 3 avoid	
	NRHP- and CRHR-eligible sites, and furthermore none of these avoided sites	
	are enclosed by Alternative 2 or Alternative 3 boundaries, meaning that they	
	will still be accessible from outside the Project fence.	
Pg. 4.5-3	Please edit the following section as noted to include the results of testing	
	reported in Lerch (2018):	
	<u>Direct APE</u>	
	seventeen <u>Sixteen</u> additional NRHP-and CRHR-eligible sites are located within the ADE. These include three sites (CA BIV 12028, CA BIV 242, and CA BIV	20-60
	T72) that are eligible prohistoric trails that load into the district. Twolve	
	Fleven prehistoric sites (thermal and other rock features) and 2	
	multicomponent sites (1 trail with debris scatter, and 1 artifact and debris	
	scatter) have been determined to be as eligible for the NRHP and CRHR	
	Three of the prehistoric thermal feature sites initially recommended as	



	possibly eligible by I been determined to	Lerch et al. (2016) v be not eligible for	vere tested in April : listing in the NRHP/	2018 and have CRHR (Lerch 2018)	20-60
Pg. 4.5-6	4.5.3.1 Alternative 1 Please edit the follo 33-024393/CA-RIV-1 (Lerch 2018): Of the 287 sites a maintenance, and c 195 archaeological s artifacts and featur determined eligible	1: Proposed Action wing paragraph an 12027 has been def and 621 isolates, t decommissioning of sites and all 621 of res. Of these, <u>98</u> s for the NRHP or CF	d table as follows, to termined ineligible f the proposed const f the Project would the isolates by dama sites (listed in Table RHR.	p reflect that site P- ollowing testing cruction, operation, permanently affect aging and displacing e 4.5-1) have been	
	Avoidance of the prehistoric resourc networks. SRI recom resolution aerial ph The remaining archa	eligible sites was tes include trails to nmended further in totographs and a maeological sites wer	recommended by that are related to vestigation of these nore detailed field re re determined to be	SRI. Three of the prehistoric trade sites by use of high- ecording using GPS. not eligible.	
	The Mule Tank Disc 000773, is located of Project area may fal district's elevation a an adverse effect to Table 4.5-1. NRH	ontiguous Rock Art outside of the Proje Il within the viewsh above the Project an o the Mule Tank Dis P and CRHR Eligible	District, P-33-00050 ct area one mile to t ed of the Mule Tank rea. However, the P trict.	04 and P-33- the southwest. The c District due to the roject will not have	20-61
		Direc	ct APE		
	Site Name	Site Type	Eligible under NRHP/CRHR Criteria	Proposed Effects Determinations	
	P-33-001821/CA- RIV-1821	Prehistoric thermal rock features with associated artifacts	Eligible, Criterion D/4, A/1, and B/2	Adverse Effect	
	P-33-024283/CA- RIV-11937	Prehistoric thermal rock features with	Eligible, Criterion D/4	Adverse Effect	



					-
		associated artifacts			
	P-33-024361/CA- RIV-11995	Prehistoric thermal rock features with associated artifacts	Eligible, Criterion D/4	Adverse Effect	
	P-33-024385/CA- RIV-12019	Prehistoric thermal rock features	Eligible, Criterion D/4	Adverse Effect	
	P 33 024393/CA RIV-12027	Prehistoric thermal rock features	Eligible, Criterion D/4	Adverse Effect	2
	P-33-024459/CA- RIV-12091	Prehistoric thermal rock features	Eligible, Criterion D/4	Adverse Effect	
	P-33-024394/CA- RIV-12028	Prehistoric trail	Eligible, Criterion D/4, A/1, and B/2	Adverse Effect	
	P-33-024496/CA- RIV-12128	Prehistoric thermal rock features with lithic scatter	Eligible, Criterion D/4	Adverse Effect	
	P-33-024497/CA- RIV-12129	Prehistoric thermal rock features with associated artifacts	Eligible, Criterion D/4	Adverse Effect	
	Please delete site P- determined Not Elig testing (Lerch 2018)	33-024393/CA-RIV ible for listing in th	-12027 from Table e NRHP/CRHR base	4.5-1, as it has been ed on the results of	
p. 4.5-8	Alternative 2: Resou Please edit the follo 33-024393/CA-RIV-1	irce Avoidance Alte wing paragraph and 12027 has been det	rnative d table as follows, t ermined ineligible	to reflect that site P- following testing	2



solates nd CRHR-		RHR, but would b	s. Of these, <del>three</del> for the NRHP or C	artifacts and feature determined eligible
ind rties as a <b>hin the</b>	ogical sites/isc wer NRHP-and OLTURAL-1 an istoric proper Affected With	32 fewer archaeo on, including 67 fe gation Measures dverse effects to l le Sites Adversely Alternative 2	affect a total of 4 the Proposed Actical resources. Mit serve to resolve a 2. P and CRHR Eligib Direct APE	Alternative 2 would when compared to t eligible archaeologic CULTURAL-2 would result of Alternative Table 4.5-2. NRHF
Effects ations	Proposed E Determinat	Eligible under NRHP/CRHR Criteria	Site Type	Site Name
e Effect	No Adverse	Eligible, Criterion D/4	Prehistoric thermal rock features with associated artifacts	P-33-024361/CA- RIV-11995
e Effect	No Adverse	Eligible, Criterion D/4	Prehistoric thermal rock features	P-33-024393/CA- RIV-12027
e Effect	No Adverse	Eligible, Criterion D/4	Prehistoric thermal rock features with associated artifacts	P-33-024497/CA- RIV-12129
<del>e  </del> 	No Adverse	Eligible, Criterion D/4	thermal rock features Prehistoric thermal rock features with associated artifacts	P-33-024497/CA- RIV-12129



	Please edit the following paragraph and table as follows, to reflect that site P- 33-024393/CA-RIV-12027 has been determined ineligible following testing (Lerch 2018), and site P-33-024497/CA-RIV-12129 is avoided by Alternative 3: Of the 287 sites and 621 isolates, the proposed construction, operation, maintenance, and decommissioning of Alternative 3 would permanently affect 128 archaeological sites and all 621 of the isolates by damaging and displacing artifacts and features. Of these, twoone sites (listed in Table 4.5-3) have has been determined eligible for the NRHP or CRHR, but would be avoided.	
	Alternative 3 would affect a total of 687 fewer archaeological sites/isolates when compared to the Proposed Action, including 87 fewer NRHP-and CRHR- eligible archaeological resources. Mitigation Measures CULTURAL-1 and CULTURAL-2 would serve to resolve adverse effects to historic properties as a result of Alternative 3. Table 4.5-3. NRHP and CRHR Eligible Sites Adversely Affected Within the Direct APE,	20-
	Site Name Site Type Eligible under Proposed Effects Determinations	
	P-33-024393/CA- RIV-12027Prehistoric thermal rock featuresEligible, Criterion D/4No Adverse Effect	
	P-33-024497/CA- RIV-12129 Prehistoric thermal rock features with associated artifacts Prehistoric thermal rock features with associated	
p. 4.5-9	4.5.4 Application of CEQA Significance Thresholds Please update section with the results of the thermal sites testing, which found that site P-33-024393/CA-RIV-12027 has been determined Not Eligible for listing in the NRHP/CRHR based on the results of testing (Lerch 2018).	20-
p. 4.5-12	4.5.6 Cumulative Impacts Please update section with the results of the thermal sites testing, which found that site P-33-024393/CA-RIV-12027 has been determined Not Eligible for listing in the NRHP/CRHR based on the results of testing (Lerch 2018).	20-
р. 4.5-13-1	4.13 Paleontological Resources	- 20



Pg. 4.9-1	Please update this section with the results of the paleontological field survey (El Adli 2018a, 2018b). Section 4.9-1 Lists soil stabilizers as bazardous materials to be used by the	20-66
Pg. 4.9-1	Section 4.9-1 Lists soil stabilizers as hazardous materials to be used by the	
	Project. Measures AQ-1 and AQ-2 establishes that any soil stabilizers used on- site shall be BLM-approved and non-toxic, and therefore any soil-stabilizers used on site would be non-hazardous. The Project proposes removing "soil stabilizers" from the list of hazardous substances on pg. 4.9-1.	20-67
MM HAZ-2	Text references on pages 4.9-17, 4.9-21, and 4.9-24 state that measure HAZ-2 requires the Applicant to prepare and implement a Broken PV Module Detection and Handling Plan. These references are incorrect as MM HAZ-2 does not require a Broken PV Module Detection and Handling Plan, but rather requires that damaged or broken modules shall be recycled or disposed of in an appropriately licensed landfill. The Project proposes removing references to a Broken PV Module Detection and Handling Plan in the draft PA/EIR/EIS.	20-68
WIL-2	The requirements of mitigation measure WIL-2 in relation to tortoise translocation conflict with recent USFWS guidance <sup>23</sup> on Desert Tortoise translocation and Desert Tortoise Translocations Plans. First Solar recommends updating WIL-2 to reflect the most recent 2017 guidance and ensure consistent application of these requirements across all Project analysis and plans.	20-69
Pg. 4.19-17	The draft PA/EIS/EIR states that "because the transmission lines for Alternatives 1, 2, or 3 would be above ground and at least partially visible from I-10, the distribution and gen-tie lines would not be consistent with the Riverside County General Plan LU Policy 14.5 requiring new electric distribution lines, which would be visible from designated or eligible state and County Scenic Highways, to be placed underground." For a variety of reasons, the analysis concludes that this inconsistency would not result in a significant environmental effect. In addition to the reasons given, it should be noted that the gen-tie line for the project would parallel existing gen-tie lines for other projects leading into the Colorado River Substation. Given this	20-70
MM VEG-8.19	context, the Project will not have significant visual impacts. Measure 8.19a describes success criteria for revegetated areas. Specifically, it says that "at least 80 percent of species observed within the temporarily dicturbed areas shall be pative species that paturally occur in desert scrub	20-71

<sup>23</sup> USFWS. 2017. Translocation of Mojave Desert Tortoises from Project Sites: Plan Development Guidance (draft).
U.S. Fish and Wildlife Service, Las Vegas, Nevada.



	habitat. First Solar proposes changing "species" to "relative plant cover" so that the sentence reads:	
	<i>"At least 80 percent of the <u>relative plant cover</u> <del>species</del> observed within the temporarily disturbed areas shall be native species that naturally occur in desert scrub habitats."</i>	20-71
	<b>Reason:</b> Basing the criteria on the coverage percentage is more in line with industry standards and is more accurate in describing the intent of this measure. As originally written, if multiple types of weeds are present, even at very low cover, this would fail to meet the success criteria. Alternatively, if only a few weed species were present but very widespread, the success criteria would be achieved.	
MM VEG-9 B.2	Item B-2 requires collection and long-term storage of seed for all direct impacts to special status plants regardless of whether compensatory mitigation is required. The DEIR/EIS identified only a single listed plant, Harwood's eriastrium which the project will avoid completely, obviating the need to collect seeds. The remainder of the sensitive plants identified on site consist of relatively common annual species with low rarity rankings. Given their prevalence across the site, it would be expected that the seed bank would sufficiently preserve germplasm for these species, and that therefore seed collection and storage is excessive. Furthermore, since these species are annuals, there are no guarantees that collection will be possible in the year preceding construction. Finally, the DEIR/EIS does not discuss the potential benefits of germplasm collection, but still concludes that the project does not exceed applicable NEPA or CEQA thresholds of significance after incorporation of the remainder of MM VEG-9 and other VEG measures.	20-72
	Between their prevalence on site and substantial seed bank, in addition to protection provided through mitigation efforts (Item C of MM VEG-9), seed collection and storage is not necessary. First Solar therefore requests that seed collection requirements be eliminated.	
	If BLM does not eliminate seed collection requirements, it must at a minimum, ensure that the measures are feasible and permit offsite seed collection to ensure that construction is not unduly delayed waiting for plants to sprout and to account for insufficient seed selection onsite.	



MM VEG-9 A	Measure VEG-9A states that the <i>"Designated Botanist shall be responsible for protection special status plant occurrences within 100 feet of the project boundaries."</i> While First Solar understands the intent of this measure to avoid impacts to special status plants, the Project cannot be responsible for any impacts to special status plants outside of Project. First Solar proposes the following change to this sentence:	20-
	"Designated Botanist shall be responsible for providing protection <u>from</u> <u>Project activities</u> to special status plant occurrences within 100 feet of the Project boundaries."	
MM TRN-4	Measure TRN-4 states that the Project will pave 16th Avenue/Seeley Avenue between Neighbours Boulevard (State Route 78) and the site entrance. This measure mainly addresses concerns over air quality, specifically fugitive dust that would be emitted as a result of travel over an unpaved 16 <sup>th</sup> avenue by worker vehicles and potentially water trucks. The analysis concluded that even though an 83% reduction in fugitive dust emissions on this unpaved road could be achieved by limiting vehicle speed to 15 mph and watering the road three times per day, construction fugitive dust emissions would still be significant and unavoidable. TRN-4 is included in the DEIR/EIS to reduce these on-road construction fugitive dust emissions.	20-
	The BLM based their analysis off of the South Coast Air Quality Management District Air Quality Analysis Handbook, Tables XI-A, XI-D, and XI-E <sup>24</sup> , which show an 84% reduction in fugitive dust from the measures described above, as well as a 99% reduction in fugitive dust from paving. These tables also conclude an 84% reduction in fugitive dust from the use of dust suppressants on unpaved parking areas and other spaces used by on-road vehicles. Combining this measure with the above 84% reduction from limited vehicle speeds and watering, a 97.3% reduction in construction emissions would be expected, essentially equivalent to the reduction achieved through paving. Furthermore, the DEIR/DEIS contemplates the use of suppressants on the access road in section 4.2.2, "The Applicant may achieve required control efficiency through application of dust suppressants, consistent with	

<sup>24</sup> South Coast Air Quality Management District (SCAQMD). 2012. Air Quality Analysis Handbook, Tables XI-A, XI-D, and XI-E. http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysishandbook/mitigationmeasures-and-control-efficiencies/fugitive-dust.

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applicable regulations," as well as in the Project's preliminary Dust Control Plan which was also considered in the DEIR/DEIS analysis. Paving is not necessary to achieve the desired mitigation.	
Similarly, operational fugitive dust emissions along 16 <sup>th</sup> avenue are anticipated to be negligible, and therefore less than significant. Paving is thus not necessary to keep operational emissions below significant thresholds, and is unnecessary.	
Requiring improvements to the 16 <sup>th</sup> Avenue access road prior to installation of the Project fence is also not feasible, as the staging areas associated with the Project would be used for such improvements. Prior to use of the staging areas, those areas would need to be surveyed for desert tortoise and fenced, as required by measures VEG-8.11, TRN-1, and WIL-1.	
Considering this information, the Project proposes the following changes to measure TRN-4:	20-74
Prior to construction of the Project fence, solar facility, gen-tie, temporary construction areas, and other facilities, the Applicant shall complete improvements to 16th Avenue/Seeley Avenue between Neighbours Boulevard (State Route 78) and the site entrance. <u>The Applicant may improve 16<sup>th</sup> Avenue</u> to applicable County standards through the use of dust suppressants and measures described in the Project's Dust Control Plan (MM AQ-1) through paving, or through equivalent means. Any proposed improvements shall be reviewed and approved by the Riverside County Transportation Department prior to implementation. The current unpaved road shall be paved with 32-foot wide asphalt concrete pavement designed for truck traffic, and 8-foot graded shoulders per County Standard No. 106. The improvements paving shall include improvement of the intersection of 16th Avenue/Seeley Avenue and State Route 78 to allow for a turning lane off of 16th Avenue/Seeley Avenue onto State Route 78.	
Prior to road <u>improvements</u> <del>construction</del> , survey monuments shall be located and tied out, and corner records filed with the County Surveyor. A grading plan shall be submitted to the County transportation department for review and approval prior to issuance of a grading permit. Completion of road improvements shall not imply acceptance for maintenance by the County.	



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	Traffic signing and striping shall be performed by the County, with all costs	20-74
	borne by the Applicant, unless otherwise approved by the County Traffic	
	Engineer.	-
MM HAZ-1	Text references on pages 4.9-9, 4.9-10, 4.9-16, 4.9-17, 4.9-20, 4.9-21, 4.9-23,	
	and 4.9-24 refer to measure WATER-1 as requiring sampling and analysis of	
	groundwater to verify that Project construction does not release	00.75
	contamination. These references are incorrect, as WATER-1 does not require	20-75
	this testing. Measure HAZ-1 is the measure that requires such testing. First	
	Solar thus recommends replacing references to WATER-1 on these pages with	
	The draft PA/FIR/FIS states that the conformance of the Project with	-
	applicable County land use and other plan policies is evaluated throughout	
	Chapter 4 and summarized below Table 5.2. However, the policies are barely	~ ~ ~
	mantioned in Chapter 4. Instead, the relevant policies are identified by	20-76
	mentioned in Chapter 4. Instead, the relevant policies are identified by	
	of Appendix E	
	Mitigation massure REC 1 provides that "REC 1: Access to Mule Mountains	
APPENDIX G-52	ACEC. The Applicant shall ensure that the alternative assess route to the Mule	
	Acec. The Applicant shall ensure that the alternative access route to the Mule	
	Mountains ACEC (identified in Figure 3.14-3) is accessible by performing light	
	clearing and grading prior to Project construction, and then periodically	20-77
	throughout the duration of the Project. This measure is not proportional to	
	the impacts of the Project. Although First Solar may be required to provide a	
	replacement route to replace the one lost to the project, the maintenance	
	obligation exceeds BLM's authority. Unless BLM can show that the	
	replacement route would be materially different from the existing route	
	without periodic maintenance, BLM should remove this requirement.	J



Attachment 2 – Proposed Revised Alternation 2 Boundaries



:\Users\FS104849\Desert Quartzite\Site Layout\2018-11-05 Alt Project Layout\Desert Quartzite Project Layout Alt 2 - 110518.dwg FS104849 Nov 05, 2018 - 10:48am

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Date: November 8, 2018

PREPARED FOR SUBMISSION TO:

Bureau of Land Management Palm Springs South Coast Field Office 1201 Bird Center Drive Palm Springs, CA 92234 Email: <u>blm\_ca\_desert\_quartzite\_solar\_project@blm.gov</u>

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### Subject: Eolian Geomorphic review of the United States Department of Interior – Bureau of Land Management "DRAFT California Desert Conservation Area Plan Amendment/Environmental Impact Statement/Environmental Impact Report for the Desert Quartzite Solar Project Proposed Right-of-Way (ROW) Grant CACA-049397" dated August, 2018 (Draft PA/EIS/EIR)

This letter provides comments regarding the Bureau of Land Management (BLM) Draft Plan Amendment Environmental Impact Statement/Environmental Impact Report (Draft PA/EIS/EIR) for the Desert Quartzite Solar Project (Project) dated August 2018. The Draft PA/EIS/EIR is a comprehensive report on the environmental impacts of the Project in which a portion discusses and utilized findings from the Kenney GeoScience report prepared by the author and referenced as:

### Kenney GeoScience, 2017 Geomorphic and Stratigraphic evaluation of the stable early to mid-Holocene eolian (windblown) dune systems for proposed Desert Quartzite Solar Project (DQSP) eastern Chuckwalla Valley, Riverside County, California; report dated September 22, 2018, report dated September 22, 2017 - (DQSP Sand Report)

The intent of this letter is to address portions of the Draft PA/EIS/EIR report that reference and interpret the DQSP Sand Report to describe eolian systems and the potential impacts of the Project on the same, as this is my area of expertise. My comments do not address the conclusions drawn about impacts to biological resources, even though that discussion in the Draft PA/EIS/EIR references my report, as I am not an expert in this field. It is nevertheless understood that there is an intrinsic link between eolian systems and biology in terms of habitat for some flora and fauna species and BLM may accordingly need to revise its conclusions about biological resource impacts based on clarifications below regarding the dune systems within and around the Project site.

Section 3.3.1.2 of the Draft PA/EIS/EIR purports to provide a balanced review of scientific literature regarding dune systems across southeastern California, but gives short shrift to the DQSP Sand Report, which specifically addresses dune systems within and occurring locally around the Project. Among other things, the Draft PA/EIS/EIR provides a deceptive overview of the current scientific consensus regarding



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regional dune systems (i.e. regional sand migration corridors), the age of periods of time when dune systems were more active (i.e. early Holocene), and when regional dune systems become dominantly stabilized (i.e. since the early to mid Holocene). The Draft PA/EIS/EIR fails to discuss that the DQSP Sand Report findings indicating that the dunes in the area of the Project were consistent with the geomorphic history of regional dune systems. The primary findings regarding dune systems in the region of the Project, and the descriptions of proposed sand migration corridors, are largely ignored. It is unclear why the BLM has dismissed the detailed local and regional geomorphic and literature analysis that I presented throughout the DQSP Sand Report.

BLM's review fails to present the findings of numerous reports that provide strong evidence that the vast majority of sand in eolian systems is derived from local sources, and that while nearly all dune systems across southeastern California had a robust development phase in the early Holocene, since that time (i.e.  $\sim 5$  to 8 kya) they have become strongly stabilized with orders of magnitude less eolian sand migration and associated deposition. The Draft PA/EIS/EIR presents almost exclusively information with some longstanding scientific dogmas and apparent biases regarding the age, mobility, stability, and temporal dune activity. The analysis further relies on inappropriate and unfounded comparisons of dune activity within other regional dune systems (e.g., the Palen Lake dune systems) in addition to an inaccurate assessment of potential future dune activity and potential expansion associated with climate change.

It is good to keep in mind that the hypothesis proposed by Zimbelman et al. (1995) infers that there is a very robust eolian sand source on the west end of their regional sand corridors (pathways) and minor amounts of eolian sand added along their path. Hence, that sand grains originate in the west and migrate tens of kilometers toward the east. However, many studies conducted since the Zimbelman et al. (1995) paper and some published prior to and around the time provide evidence that **local** eolian sand sources are significant and in numerous cases the dominant source. In fact, Zimbelman was the primary author of a publication providing strong evidence for local eolian sand sources for Mojave dune systems (Zimbelman and Williams, 2002). Publications identifying the importance of locally derived eolian sand sources include:

- *Blackwelder (1909)* observed that erosion of **local playa lake surfaces** resulted in significant production of eolian sands. Most proposed eolian sand migration corridors exhibit playa lakes along their mapped lengths.
- *Metzger (1973)* identified that the erosion of **local older alluvial** units was the source of eolian sands for local dune systems east of the Colorado River in Arizona. Most of the lengths of the proposed regional sand migration corridors are bounded by alluvial fan deposits.
- *Muhs and Holliday (1995)* evaluating dunes in the Great Basin indicate that **braided channels**, which are common throughout the Mojave Desert, are the primary source for eolian sands. Hence, that a **local source** is the primary source for eolian sands. The DQSP Sand Report provides evidence that braided channels with low bar and swale relief in the area of the DQSP are a very important eolian sand source.



- *Ramsey et al. (1999)* indicate that the Kelso Dunes receive eolian sand from both a relatively far field upwind source (Mojave Wash located ~30 miles from Kelso Dunes) and local washes associated with the erosion of granitic rocks.
- Zimbelman and Williams (2002) found that eolian sands in the Mojave dune systems are immature suggesting an eolian sand source derived from weathering of local mountains and that sands had not migrated tens of kilometers which causes eolian sands to become quartz rich. It is interesting to point out that a portion of their detailed study focused on Palen Dry Lake and surrounding mountains. These results are consistent with the DQSP Sand Report.
- *Muhs et al. (2003)* indicate that **locally derived alluvium** is a more important source of dune fields in the Mojave Desert of California as compared to a dominant single large source such as the Colorado River supplying eolian sand east of the Colorado River. This finding is consistent with the DQSP Sand Report; however, the DQSP Sand Report provides findings evaluating various parameters of washes relative to their contribution of eolian sand.
- *Pease and Tchakerian (2003)* indicate that **local** eolian sand sources were the dominant sand source for some of the sand ramps in the Mojave and that sand deposits (areas) are not integrated and thus the "corridor" does not act as a coherent sand transport pathway.
- Lancaster and McCarley-Holder (2012) identified the local Owens River delta region extending into northern Owens Lake (playa) as the primary source for the shoreline Keeler Dunes.
- Lancaster et al. (2014) identified numerous local eolian sand sources for various dune systems bounding Owens Lake most of which are associated with **local wash systems** flowing onto the lake bed.

It is unreasonable to present the hypothesis of Zimbelman et al. (1995) as a prevailing theory, because this body of work presumes regional sand corridors (pathways) extending for tens of kilometers in which local eolian sand sources along the pathway are essentially insignificant, and that the vast majority of dune sands are derived in the far upwind portion of the proposed sand corridors. If this were true, then there would need to be a source of remarkably abundant eolian sands. This source has never been identified because it does not exist. The only relatively large source of eolian sand along one of the proposed sand migration corridors is the Mojave River feeding sand into the Kelso Dune sand corridor. However, this sand corridor is strongly stabilized since the mid Holocene and the Kelso Dunes receive a significant amount of eolian sands from local sources (Ramsey et al., 1999).

No published dune study, peer reviewed or not, has supported the Zimbelman et al. (1995) regional sand corridor hypothesis. Zimbelman (1995) furthermore did not provide any direct evidence of eolian sands traveling tens of kilometers along the proposed sand corridors. It was a reasonable hypothesis at the time and worthy of testing by future studies, but all studies since 1995 support the importance of local sand sources such as washes and playa lakes as sources of sand. In fact, as indicated earlier, work conducted by Zimbelman himself in 2002 provides strong evidence that local eolian sand sources are likely the dominant source of eolian sand in the proposed sand corridors. These findings provide strong evidence for the importance of conducting site specific studies like the DQSP Sand Report involving the identification of the local eolian sand sources.



The most robust dune system along the proposed Dale Lake to eastern Chuckwalla Valley sand corridor is the Palen Dunes residing on the Palen Dry Lake bed. While this area has been well studied, the area from Dale Lake to eastern Chuckwalla Valley has not previously been mapped in detail until now. The mapping I conducted identified new dune systems along the proposed Dale Lake-Eastern Chuckwalla Valley sand corridor (i.e. eastern Pinto Valley), as well as portions of the BLM-proposed sand corridor system that likely never experienced significant sand migration (i.e. eastern Pinto Valley between Clarks Pass to Eagle-Coxcomb Pass). There is no scientific data that contradicts these findings and the methods employed to generate them were sound.

The DQSP Sand Report identified the importance of local eolian sand sources along the proposed regional sand corridors, but also the evaluation of when the dune systems were relatively more active verses more stabilized. As pointed out by Lancaster (1995 and 1997), dune systems in the Mojave Desert and around the world were more active during the early to mid-Holocene, and have become more stable since that time. As the DQSP Sand Report indicates, numerous publications evaluating Mojave dunes systems found that they were considerably more robust during the early to possibly mid Holocene than they have been since that time (Tchakerian, 1991; Rendell and Sheffer, 1996; Lancaster and Tchakerian, 1996; Lancaster and Tchakerian, 2003; Bateman et al., 2012). These findings are also consistent with the dune development history based on soil stratigraphy near the Project (DQSP Sand Report). Some short time-scale dune re-activation events occurs since the early mid-Holocene associated with a dryer climate (Lancaster, 1997) but to the authors knowledge, there is no documentation of a dune system expanding in aerial extent since the mid Holocene during a re-activation event.

BLM ultimately recognizes that the Project footprint will not obstruct eolian sand migration. The sand within the Project footprint, mapped as Zone A, AB, and B, is not very mobile today and has stabilized. But BLM also ponders whether the dune systems might change in the future by becoming more active. Variations in climate can affect dune systems (Lancaster, 1997). If the climate locally becomes drier then soil moisture will decrease and the dunes could be "re-activated." However, the conclusion in the Draft PA/EIS/EIR report that dunes "will eventually re-activate, and stable deposits will eventually expand to cover a larger area than they do at present" is not supported by any evidence. To the contrary, the findings in the DQSP Sand Report, as discussed with BLM during several field visits, indicate that if climate changed such that dune activity increased over the course of many decades to hundreds of years, the more active dune areas would most likely occupy current areas mapped as dune systems and not expand. "[E]xpansion to cover a larger area" would require that areas dominated by dune deposits and processes would migrate over areas currently dominated by fluvial geomorphic systems (i.e. washes and But this is very unlikely to occur in the future even if soil moistures decrease due to climate fans). change because even at the height of dune aggradational in the early Holocene, which was at least one, if not multiple orders of magnitude more robust than general dune activity since the early to mid Holocene (i.e. past 5 to 8 kya), we would see historic evidence of such activity across a larger area. It is unlikely that a dune aggradational event would surpass the very favorable conditions of the early Holocene and even less likely that this might occur in the foreseeable future, and especially not during the geologically short lifetime of the Project.



The Draft PA/EIS/EIR further unreasonably argumes that because studies of the Palen Lake dune system have shown it to be dynamic and expanding in recent years, other dune systems, like those in and around the Project, may also expand. In the Palen Lake dune system, many of the dune areas exhibit transverse migrating dunes directly on top of a playa lake surface. Hence, the dunes simply migrate across the playa lake, which causes a single area of the playa lake to alternate from a dune deposit, to a playa lake surface over time. But there is a difference between dunes migrating along a "dune highway" and dune area expansion. Dunes have been migrating across the same surface and area for thousands of years, but still not expanding. The Palen Dry Lake is furthermore a very active geomorphic environment not only for dune systems, but also in terms of flooding and relatively strong input of eolian sands from washes emanating from the Eagle-CoxComb Pass and local mountains onto Palen Dry Lake (DQSP Sand Report). The wash system flowing from the Eastern Pinto Valley dune system in particular is recognized in the DQSP Sand Report as having the potential to carry a much larger magnitude of eolian recycled sands than most other desert washes since it flows through the Eastern Pinto Valley dune system. Flooding of Palen Dry Lake also inundates many areas within the dune system which leads to variations in moisture in the dunes for stability and vegetation growth. Due to numerous factors (i.e. large sand input, playa lake surface, and flooding), the Palen Dry Lake dune systems are naturally dynamic, more so than other dune systems, and consequently predictions about how other dunes might behave in the future cannot be based on what has been observed in the Palen area.

As a final matter, BLM's emphasis on peer reviewed work, and suggestion that scientific work conducted by Professional Geologists registered with the State of California can be dismissed because it has not been peer reviewed, is concerning. Peer review publications it should be pointed out, do not provide a guarantee that the results (findings) are correct and only very rarely specific enough to address all environmental issues associated with dunes for a particular project. The DQSP Sand Report is a site and project specific study that contains the best scientific data regarding the project area.

Thank you for your consideration of these comments.

Muh D/E

Miles D. Kenney PhD, PG Kenney GeoScience State of California Professional Geologist No.8246





Eolian Dune Systems – RE Crimson Solar Project – Eastern Chuckwalla Valley



Office of the General Manager

November 8, 2018

# VIA EMAIL AND USPS

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22-2

Bureau of Land Management Desert Solar Quartzite Project Palm Springs South Coast Field Office 1201 Bird Center Drive Palm Springs, California 92234 blm ca desert quartzite solar project@blm.gov

Russell Brady Project Planner Riverside County Planning Department 4080 Lemon St., 12th Floor Riverside, CA 92501 RBrady@rivco.org

To Whom It May Concern:

Draft Plan Amendment/Environmental Impact Statement/ Environmental Impact Report Desert Quartzite Solar Project, NEPA Tracking # DOI-BLM-CA-D060-2017-0002, CA State Clearinghouse No. 2015031066

The Metropolitan Water District of Southern California (Metropolitan) has reviewed the Bureau of Land Management (BLM) and Riverside County (County) Draft Plan Amendment/Environmental Impact Statement/Environmental Impact Report (DEIS/DEIR) for the Desert Quartzite Solar Project (Project). Metropolitan submitted comments on the Notice of Preparation of a Draft Environmental Impact Report for the Desert Quartzite Solar Project and the Notice of Intent to prepare an Environmental Impact Statement for the Desert Quartzite Solar Project and a Possible Amendment to the California Desert Conservation Area Plan, Riverside County, California (Fed. Reg., Vol. 80, No. 144, 12195 (March 6, 2015)) on April 6, 2015. In sum, as a contractor receiving delivery of Colorado River supplies, Metropolitan remains concerned about the Project's potential direct and cumulative impacts on water supplies, specifically potential impacts on Colorado River and local groundwater supplies.

# Background

Metropolitan is a public agency and regional water wholesaler. It is comprised of 26 member public agencies, whose retail members serve approximately 19 million people in six counties in

Bureau of Land Management and Riverside County Planning Department Paget2 November 8, 2018

southern California. One of Metropolitan's major water supplies is the Colorado River via Metropolitan's Colorado River Aqueduct (CRA). Metropolitan holds an entitlement to water from the Colorado River. The CRA consists of tunnels, open canals, and buried pipelines. CRA-related facilities also include above and below ground reservoirs and aquifers, access and patrol roads, communication facilities, and residential housing sites. The CRA, which can deliver up to 1.2 million acre-feet of water annually, extends 242 miles from the Colorado River, through the Mojave Desert and into Lake Mathews. Metropolitan has five pumping plants located along the CRA, which consume approximately 2,400 gigawatt hours of energy when the CRA is operating at full capacity.

Concurrent with its construction of the CRA, in the mid-1930s, Metropolitan constructed 305 miles of 230 kV transmission lines that run from the Mead Substation in southern Nevada, head south, then branch east to Parker, California, and then west along Metropolitan's CRA. Metropolitan's CRA transmission line easements lie on federally-owned land, managed by the BLM. The transmission lines were built for the sole and exclusive purpose of supplying power from the Hoover and Parker projects to the five pumping plants along the CRA.

### **Project Understanding**

The Desert Quartzite Solar Project (Project) proposes to construct, operate, maintain, and decommission a 450 MW solar PV energy generating facility and related infrastructure in unincorporated Riverside County, California.

If approved, the Project would be located approximately 2.75 miles southwest of the city of Blythe, just south of the Interstate 10 (I-10) freeway, and 1.5 miles southwest of Blythe Airport in Riverside County, California. The Project area would be 3,770 acres, including a portion of the solar facility on BLM land, a portion of the solar facility on private land, a gen-tie corridor on BLM land, and an offsite portion of a buried telecommunications line and possible above-ground electrical service line on BLM land. Within the 3,770 acre site, construction and operation would disturb approximately 3,714 acres for the solar plant site, 54 acres for the gen-tie line corridor with a width of 160 feet, and 2 acres for the offsite portion of a buried telecommunications line and possible above-ground electrical service line on BLM land. In addition, temporary construction areas totaling 61 acres would be disturbed.

Arrays of solar PV modules (or panels) would collect radiant energy from the sun and convert it directly into DC electrical energy. The exact placement of the arrays within the Project area

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Bureau of Land Management and Riverside County Planning Department Page 3 November 8, 2018

would be based on topography and geotechnical conditions, and may be modified to avoid biological or other resources.

### Water Resources: Potential Impacts on Colorado River and Local Water Supplies

Metropolitan is aware that the current position of BLM and the County is that groundwater pumping associated with the Project would neither result in direct impacts to the Palo Verde Mesa Groundwater Basin (PVMGB) nor would induce flow from the Colorado River and therefore no significant impact to Colorado River water resources would occur. Metropolitan appreciates that BLM and the County recognize the uncertainty of this conclusion as indicated in the discussion of Groundwater Supply and Recharge in Section 4.20. Metropolitan commends BLM and the County for highlighting the concerns that project-related groundwater use could affect the PVMGB by inducing flows from the Colorado River into that basin and that any resulting use of Colorado River water without an entitlement would be illegal.

As a result of these concerns, BLM proposes to mitigate potential effects on Colorado River water resources through implementation of mitigation measure WATER-4 Groundwater Monitoring and Mitigation Plan.

This mitigation measure requires that the Project Owner submit to the BLM and the County for review and approval: a Groundwater Monitoring and Mitigation Plan if the applicant chooses to install groundwater production wells, in advance of construction activities and prior to the operation of onsite groundwater supply wells. The proposed mitigation shall include installation of one or more monitoring wells to monitor the effect of groundwater withdrawal on groundwater levels and will include monitoring prior to construction to establish preconstruction groundwater level and water quality that can be used as a baseline against which later measurements can be compared, and to establish trigger points that would be used to determine the need for additional monitoring, investigation, and/or mitigation.

Metropolitan requests that BLM ensure that the water resource mitigation measures for this Project are consistent with those of a similar project, specifically the Desert Harvest Solar Project. BLM published a Record of Decision for the "Desert Harvest Solar Project and Amendment to the California Desert Conservation Area Land Use Management Plan" in March 2013. (Palen Solar Electric Generating System and Draft California Desert Conservation Area Draft Supplemental EIS, page 4.1-21) Appendix 3 to that Record of Decision contains the "Full Text of Mitigation Measures and Applicant Measures".

(http://www.blm.gov/pgdata/etc/medialib/blm/ca/pdf/palmsprings/desert\_harvest\_solar.Par.7152 <u>8.File.dat/Appendix3\_DesertHarvest\_ROD.pdf</u>) The Desert Harvest Solar Project is to be located northwest of the Desert Quartzite Solar Project, and is further away from the Colorado River and the Palo Verde Mesa Groundwater Basin. Appendix 3 to that Record of Decision includes the following mitigation measure, MM WAT-7, for the Desert Harvest Solar Project: 22-3

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> "Colorado River Water Supply Plan" Prior to the onset of water-consuming construction activities, the project owner shall prepare a Colorado River Water Supply Plan (Plan) and submit this Plan to the BLM and the Colorado River Basin Regional Water Quality Control Board (RWQCB) for review and approval, and to the Metropolitan Water District of Southern California (MWD) for review and comment. The Plan shall identify measures that will be taken to replace water on an acre-foot to acrefoot basis, if the project results in consumption of any water from below the Colorado River Accounting Surface, towards the purpose of ensuring that no allocated water from the Colorado River is consumed without entitlement to that water.

The Plan shall describe that groundwater monitoring activities and quarterly data reports required in compliance with MM WAT-3 (Groundwater Drawdown Monitoring and Reporting Plan) will be closely reviewed for depth to groundwater information, and proximity of the depth of project-related groundwater pumping to the Colorado River Accounting Surface of 234 feet amsl. The Plan shall further describe that if project-related groundwater pumping draws water from below 234 feet amsl, the following shall occur:

- 1) All groundwater pumping shall immediately cease,
- 2) Based on groundwater monitoring data, the quantity of groundwater pumped from below 234 feet amsl shall be recorded, and
- 3) The project owner shall implement water conservation/offset activities to replace Colorado River water on an acre-foot by acre-foot basis.

In order to effectively implement item (3) above, the Plan shall include the following information:

- Identification of water conservation / offset activities to "replace" the quantity of water diverted from the Colorado River;
- Identification of any required permits or approvals and compliance of conservation / offset activities with CEQA and NEPA;
- An estimated schedule of completion for each identified activity;
- Performance measures that would be used to evaluate the amount of water replaced by each identified activity; and
- Monitoring and reporting protocol to ensure that water conservation / offset activities are effectively implemented and achieve the intended purpose of replacing Colorado River water diversions.

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> The project owner shall collaborate with the BLM, the Colorado River RWQCB, and/or the MWD, as appropriate, in order to identify acceptable water conservation / offset activities for the purposes of the Plan, with "acceptable" activities being those that are considered environmentally, physically, and economically feasible, while also effectively resulting in the replacement of Colorado River water. A number of water conservation / offset activities that have been considered and determined to not be viable and therefore may not be identified in the Plan include the following:

- Irrigation improvements in the Palo Verde Irrigation District (water unused by the PVID becomes available to MWD per the 2003 Colorado River Water Delivery Agreement executed by MWD, the Secretary of the Interior, Imperial Irrigation District, Coachella Valley Water District, and San Diego County Water Authority);
- Purchase of water allotments allocated by the Department of the Interior (all Colorado River water available to California in shortage, normal, or Intentionally Created Surplus conditions is already allocated and its use is limited to each entity's service area under executed water delivery contracts);
- Implementation of conservation programs in floodplain communities (all water unused by holders of higher priorities becomes available to MWD per the water delivery contracts which have been executed by the Department of the Interior); and
- Participation in the BLM's Tamarisk Removal Program (use of Colorado River water by phreatophytes such as tamarisk is not charged as a use of water for U.S. Supreme Court Decree accounting purposes by the U.S. Bureau of Reclamation).

If the project owner has filed an application to the U.S. Bureau of Reclamation (USBR) to obtain an allocation of water from the Colorado River and such allocation is granted, it may be used to satisfy some or all of the water conservation offsets on an acre-foot per acre-foot basis. However, the filing of an application for allocation of Colorado River water does not guarantee that such an allocation will be issued. In addition, all of California's apportionment to use of Colorado River water during shortage, normal, and Intentionally Created Surplus conditions has already been allocated by the Department of the Interior. Therefore, unless the project owner currently holds entitlement to the use of Colorado River water, it shall not be assumed that an allocation will be granted.

If the project does not result in diversion of Colorado River water (via pumping from near (within +/-0.84 feet at the 95-percent confidence level), equal to, or below 234 feet amsl) it will not be necessary to implement the water conservation/offset activities identified in the Colorado River Water Supply Plan. However, the Plan must be approved

Bureau of Land Management and Riverside County Planning Department Page 6 November 8, 2018

by the BLM prior to project-related groundwater pumping is initiated so that if at any time during the project it is determined that groundwater is being produced from below the Colorado River Accounting Surface of 234 feet amsl, the requirements described in this measure shall be immediately implemented, starting with the cessation of groundwater pumping.

The Colorado River Water Supply Plan is separate from the Groundwater Drawdown Monitoring and Reporting Plan required per MM WAT-3 and the Drought Water Management and Water Conservation Education Programs required per MM WAT-6. Therefore, this Plan must be developed, reviewed, approved of, and implemented as a separate, stand-alone document. Compliance with this measure shall be verified by the Environmental Monitor."

Metropolitan requests that BLM and the County of Riverside include all of the provisions of MM-WAT 7 from Appendix 3 of the Desert Harvest Solar Project Record of Decision, revised as necessary to reflect the provisions of WATER-4 Groundwater Monitoring and Mitigation Plan in Appendix G of the Desert Quartzite Solar Project Draft Plan Amendment/Environmental Impact Statement/Environmental Impact Report and the elevation of the Colorado River Accounting Surface at the Desert Quartzite Solar Project onsite groundwater wells, as a mitigation measure to address the issue of whether or not Project-related groundwater use could induce flows from the Colorado River into the Palo Verde Mesa Groundwater Basin. It is inappropriate that BLM would have inconsistent opinions and mitigation measures for the two similar projects.

Metropolitan requests to be included, along with the Colorado River Board of California, in the \_\_\_\_\_\_ process of reviewing all groundwater and hydrogeological monitoring and reporting provided by the Project Owner related to local groundwater and Colorado River resources prior to approval of the reports. These reports would include the various documents listed above, as well as any additional pertinent groundwater monitoring data submitted by the Project Owner to BLM and the County.

### **Additional Comments**

Additionally, Metropolitan requests that BLM and the County revise the sentences at Page 3.5-29 to read as follows:

Long after Blythe had incorporated and residents began to farm the productive Palo Verde Valley with Colorado River water, the Metropolitan Water District of Southern <u>California was organized in 1928 ereated in the 1930s to supply the area within its</u> <u>boundaries with water for domestic, industrial and other beneficial uses. Its first</u> <u>objective was the construction of the Colorado River Aqueduct to</u> transport water from

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Bureau of Land Management and Riverside County Planning Department Page 7 November 8, 2018

> the Colorado River to the Southern California coastal plain Los Angeles basin. The Metropolitan Aqueduct was constructed from Lake Havasu Parker Dam, north of the Project, through the mountains east of Indio to a reservoir near Riverside and <u>a</u> distribution system was constructed to serve member cities in then to Los Angeles and Orange Counties. The diversion of water to the Southern California coastal plain Los Angeles basin, though, was of little import to the farming communities of Blythe and the greater Palo Verde Valley, as they retained their water rights originally granted to the quixotic town founder, Thomas Blythe.

At Page 3.18-1, with respect to the sentence which reads: "Rather, their water rights are for irrigation and potable water needed to serve a total of 131,298 acres in the Palo Verde Valley, 26,798 of which are on the Palo Verde Mesa (PVID 2012);" please note that PVID's contract with the Secretary of the Interior limits use of Colorado River water to 16,000 acres on the Lower Palo Verde Mesa for irrigation and potable purposes. *See* United States and Palo Verde Irrigation District Contract for Delivery of Water, dated February 7, 1933, a copy of which is enclosed for reference. The Final Plan Amendment EIS/EIR should reference PVID's contract limitations.

At Page 4.1-11, Table 4.1-2, ID#6, Project Description column, please revise the sentence to read as follows: 144 438 ft. lift pumping plant that is part of the Metropolitan Water District of Southern California's facilities.

We appreciate the opportunity to provide input to your planning process and we look forward to receiving future environmental and related documentation on this project. If we can be of further assistance, please contact Malinda Stalvey at (213) 217-5545.

Very truly yours,

Gennif Hang

Jennifer Harriger Team Manager, Environmental Planning Section

JAH:mks SharePoint\Bureau of Land Management & Riverside County\_Desert Quartzite Solar Project Draft EIS EIR 22-7

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Bureau of Land Management and Riverside County Planning Department Page 8 November 8, 2018

Enclosures (3):

- (1) Comment Letter on Notice of Preparation on Draft EIS/EIR Desert Quartzite Solar Project dated April 6, 2015
- (2) Comment Letter on Palen Solar Electric Generating System DSEIS dated October 24, 2013
- (3) Copy of United States and Palo Verde Irrigation District Contract for Delivery of Water, dated February 7, 1933

cc w/enclosures:

Mr. Christopher S. Harris Executive Director Colorado River Board of California 770 Fairmont Avenue, Suite 100 Glendale, California 91203-1068



Office of the General Manager

April 6, 2015

# Via Electronic & U.S. Mail

Mr. Larry Ross, Principal PlannerMr. Cedric C. Perry, PrCounty of RiversideU.S. Bureau of Land MRiverside County Planning Department22835 Calle San Juan I4080 Lemon Street, 12<sup>th</sup> FloorMoreno Valley, CA 92Riverside, CA 92501-3634Email: blm\_ca\_desert\_

Mr. Cedric C. Perry, Project Manager U.S. Bureau of Land Management 22835 Calle San Juan De Los Lagos Moreno Valley, CA 92553-9046 Email: blm\_ca\_desert\_quartzite\_solar\_project@blm.gov

# Re: Notice of Preparation of Draft Environmental Impact Statement/ Environmental Impact Report Desert Quartzite Solar Project Riverside County Conditional Use Permit No. 03721 BLM Project Number: CACA # 049397

To Whom It May Concern:

The Metropolitan Water District of Southern California (Metropolitan) reviewed the Notice of Preparation of a Draft Environmental Impact Report for the Desert Quartzite Solar Project (Project) and the Notice of Intent to Prepare an Environmental Impact Statement for the Desert Quartzite Solar Project and a Possible Amendment to the California Desert Conservation Area Plan, Riverside County, California (Feg. Reg., Vol. 80, No. 44, 12195 (March 6, 2015)). Metropolitan is pleased to submit comments for consideration by the County of Riverside (County) and the U.S. Bureau of Land Management (BLtM) in the preparation of the Draft Environmental Impact Statement/Environmental Impact Report (DEIS/DEIR). In sum, Metropolitan provides these comments to ensure that any potential impacts on its facilities in the vicinity of the Project and on Colorado River water resources are adequately addressed.

# Background

Metropolitan is a public agency and regional water wholesaler. It is comprised oft26 member public agencies serving approximately 19 million people in six counties in Southern California. One oftMetropolitan's major water supplies is the Colorado River via Metropolitan's Colorado River Aqueduct (CRA). Metropolitan holds an entitlement to water from the Colorado River. The CRA consists of tunnels, open canals and buried pipelines. CRA-related facilities also include above and below ground reservoirs and aquifers, access and patrol roads, communication facilities, and residential housing sites. The CRA, which can deliver up to 1.2 million acre-feet

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Mr. Larry Ross Mr. Cedric C. Perry April 6, 2015 Paget2

of water annually, extends 242 miles from the Colorado River, through the Mojave Desert and into Lake Mathews. Metropolitan has five pumping plants located along the CRA, which consume approximately 2,400 gigawatt-hours of energy when the CRA is operating at full capacity.

Concurrent with its construction of the CRA in the mid-1930s, Metropolitan constructed 305 miles of 230 kV transmission lines that run from the Mead Substation in Southern Nevada, head south, then branch east to Parker, California, and then west along Metropolitan's CRA. Metropolitan's CRA transmission line easements lie on federally-owned land, managed by BLM. The transmission lines were built for the sole and exclusive purpose of supplying power from the Hoover and Parker projects to the five pumping plants along the CRA.

Metropolitan's ownership and operation of the CRA and its 230 kV transmission system is vital to its mission to provide Metropolitan's 5,200 square mile service area with adequate and reliable supplies of high-quality water to meet present and future needs in an environmentally and economically responsible way.

# **Project Understanding**

Pursuant to the Project Description in the Notice of Preparation, the Project involves the construction and operation of a 300 megawatt solar photovoltaic (PV) electrical generation facility on a total of approximately 5,003 acres of public and private land (4,843 acrest of BLM-managed land and 160 acres of private land). The facility would include a solar array field utilizing single axis solar PV and fixed-tilt arrays, a system of interior collection power lines, and associated infrastructure which includes substations, maintenance facilities, site access and a 230 kilovolt transmission line that will interconnect the generation facility to the statewide electrical transmission grid through the Colorado River Substation.

The Project site is located approximately 2.8 miles west of the City of Blythe in an unincorporated area of Riverside County, California.

# Land Use Issues: Potential Impacts on Metropolitan Facilities

Although Metropolitan has not yet identified any direct impacts, the Project is in the general vicinity of Metropolitan owned agricultural lands in the Palo Verde Valley, perhaps as close as 3 miles, a portion of which Metropolitan fallows to increase its water supply. As described above, Metropolitan currently has a significant number of facilities, real estate interests, and fee-owned rights-of-way, easements, and other properties (Facilities) located on or near BLM-managed land in southern California that are part of our water supply and distribution system. Metropolitan is concerned with potential direct or indirect impacts that may result from the construction and

<sup>&</sup>lt;sup>1</sup> Metropolitan used the acreage numbers from the County's notice. There were discrepancies between the numbers listed in the various notices, for example, the Federal Register notes this is 4,845 acres of public land.

Mr. Larry Ross Mr. Cedric C. Perry April 6, 2015 Page 3

operation of any proposed solar energy project on or near our Facilities. In order to avoid potential impacts, Metropolitan requests that the DEIS/DEIR include an assessment of potential impacts to Metropolitan's Facilities with proposed measures to avoid or mitigate significant adverse effects.

Metropolitan is also concerned that locating solar projects near or across its electrical transmission system could have an adverse impact on Metropolitan's electric transmission-related operations and Facilities. From a reliability and safety aspect, Metropolitan is concerned with development of any proposed projects and supporting transmission systems that would cross or come in close proximity with Metropolitan's transmission system. Metropolitan requests that the DEIS/DEIR analyze and assess any potential impacts to Metropolitan's transmission system.

### Water Resources: Potential Impacts on Colorado River and Local Water Supplies

Metropolitan is also concerned about the Project's potential direct and cumulative impacts on water supplies, specifically potential impacts on Colorado River and local groundwater supplies. As noted above, Metropolitan holds an entitlement to imported water supplies from the Colorado River. Water from the Colorado River is allocated pursuant to federal law and is managed by the Department of the Interior, Bureau of Reclamation (USBR). In order to lawfully use Colorado River water, a party must have an entitlement to do so. *See* Boulder Canyon Project Act of 1928, 43 U.S.C. §§ 617, et seq.; *Arizona v. California*, 547 U.S. 150 (2006).

The BLM Notice of Intent and the County NOP do not provide any information regarding a source of non-potable water to be used during construction and operation. If the Project proposes to utilize groundwater from on-site wells, Metropolitan is concerned that the wells would draw water from a groundwater basin that is hydro-geologically connected to the Colorado River, within an area referred to as the "accounting surface." The extent of accounting surface area for the Colorado River was determined by the U.S. Geological Survey (USGS) and USBR as part of a proposed rule-making process. *See* Notice of Proposed Rule Regulating the Use of the Lower Colorado River Without an Entitlement, 73 Fed. Reg. 40916 (July 16, 2008); USGS Scientific Investigation Report No. 2008-5113. To the extent the Project uses Colorado River water, it must have a documented right to do so. A map of the proposed Project in the relation to Metropolitan's Facilities and the Colorado River accounting surface area is enclosed for reference.

Entities in California are using California's full apportionment of Colorado River water, meaning that all water is already contracted and no new water entitlements are available in California. Thus, Proponents would have to obtain water from the existing junior priority holder, Metropolitan, which has the authority to sell water for power plant use. Metropolitan is willing to discuss the exchange of a portion of its water entitlement, subject to any required approvals by Metropolitan's Board of Directors, through an agreement with Metropolitan.

Mr. Larry Ross Mr. Cedric C. Perry April 6, 2015 Page4

Metropolitan requests that BLtM and the County also assess the potential cumulative impacts of the use of the scarce Colorado River and local groundwater basin resources in light of other pending renewable energy projects within the Colorado River Basin and the local groundwater basins. Metropolitan requests that the DEIS/DEIR and possible amendment to the California Desert Conservation Area Plan address the Proponent's water supply and any potential direct or cumulative impacts from this use.

We appreciate the opportunity to provide input to your planning process and we look forward to receiving and reviewing the DEIS/DEIR on the Desert Quartzite Solar Project. If twe can be of further assistance, please contact Mr. Michael Melanson at (916) 650-2648.

Very truly yours, Jona Dre

for Deirdre West Manager, Environmental Planning Team

Enclosure (map)

cc: Ms. Tanya Trujillo Executive Director Colorado River Board of California 770 Fairmont Avenue, Suite 100 Glendale, California 91203-1068





Office of the General Manager

October 24, 2013

Via Electronic & U.S. Mail

Mr. Frank McMenimen Project Manager BLM Palm Springs-South Coast Field Office 1201 Bird Center Drive Palm Springs, CA 92262

To Whom it May Concern:

Notice of Availability of the Draft Supplemental Environmental Impact Statement for the Palen Solar Electric Generating System and Draft California Desert Conservation Area Plan Amendment, EIS No. 2013/023+1793, BLM Docket No. CACA 048810

The Metropolitan Water District of Southern California (Metropolitan) has previously reviewed the Bureau of Land Management's (BLM) Draft and Final Environmental Impact Statements (EIS) for the Palen Solar I, LLC's Palen Solar Power Project (Project). Metropolitan submitted comments on the Draft EIS on June 15, 2010 and on the Final EIS on June 9, 2010 that are attached hereto and incorporated by reference. Although the Palen Solar Power Project Final EIS recognizes that the project site overlies the Colorado River Accounting Surface (page 4.19-6, as a contractor receiving delivery of Colorado River supplies, Metropolitan remains concerned about the Palen Solar Electric Generating System's potential direct and cumulative impacts on water supplies, specifically potential impacts on Colorado River and local groundwater supplies. Applicant Proposed Measure, "Soil&Water-14, Mitigation of Impacts to the Palo Verde Mesa Groundwater Basin" states:

"To mitigate the impact from Project pumping, the Project owner shall identify and implement offset measures to mitigate the increase in discharge from surface water to groundwater that affects recharge in the Palo Verde Valley Groundwater Basin....The activities shall include the following water conservation projects: payment for irrigation improvements in Palo Verde Irrigation District, payment for irrigation improvements in Imperial Irrigation District, purchase of water rights within the Colorado River Basin that will be held in reserve, and/or BLM's Tamarisk Removal Program or other proposed mitigation activities acceptable to the CPM." (Draft Supplemental EIS, page C-111)

The Bureau of Land Management published a Record of Decision for the "Desert Harvest Solar Project and Amendment to the California Desert Conservation Area Land Use Management Plan" in March 2013. (Draft Supplemental EIS, page 4.1-21) Appendix 3 to that Record of Decision contains the "Full Text of Mitigation Measures and Applicant Measures".

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Mr. Frank McMenimen October 24, 2013 Page 2

(http://www.blm.gov/pgdata/etc/medialib/blm/ca/pdf/palmsprings/desert\_harvest\_solar\_Par.7152 <u>8.File.dat/Appendix3\_DesertHarvest\_ROD.pdf</u>) The Desert Harvest Solar Project is to be located northwest of the Palen Solar Electric Generating System, and is further away from the Colorado River. Appendix 3 to that Record of Decision includes the following mitigation measure, MM WAT-7, for the Desert Harvest Solar Project:

"Colorado River Water Supply Plan" Prior to the onset of water-consuming construction activities, the project owner shall prepare a Colorado River Water Supply Plan (Plan) and submit this Plan to the BLM and the Colorado River Basin Regional Water Quality Control Board (RWQCB) for review and approval, and to the Metropolitan Water District of Southern California (MWD) for review and comment. The Plan shall identify measures that will be taken to replace water on an acre-foot to acre-foot basis, if the project results in consumption of any water from below the Colorado River Accounting Surface, towards the purpose of ensuring that no allocated water from the Colorado River is consumed without entitlement to that water.

The Plan shall describe that groundwater monitoring activities and quarterly data reports required in compliance with MM WAT-3 (Groundwater Drawdown Monitoring and Reporting Plan) will be closely reviewed for depth to groundwater information, and proximity of the depth of project-related groundwater pumping to the Colorado River Accounting Surface of 234 feet amsl. The Plan shall further describe that if project-related groundwater pumping draws water from below 234 feet amsl, the following shall occur:

- 1) All groundwater pumping shall immediately cease,
- 2) Based on groundwater monitoring data, the quantity of groundwater pumped from below 234 feet amsl shall be recorded, and
- 3) The project owner shall implement water conservation/offset activities to replace Colorado River water on an acre-foot by acre-foot basis.

In order to effectively implement item (3) above, the Plan shall include the following information:

- Identification of water conservation / offset activities to "replace" the quantity of water diverted from the Colorado River;
- Identification of any required permits or approvals and compliance of conservation / offset activities with CEQA and NEPA;
- An estimated schedule of completion for each identified activity;
- Performance measures that would be used to evaluate the amount of water replaced by each identified activity; and
- Monitoring and reporting protocol to ensure that water conservation / offset activities are effectively implemented and achieve the intended purpose of replacing Colorado River water diversions.

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Mr. Frank McMenimen October 24, 2013 Page 3

The project owner shall collaborate with the BLM, the Colorado River RWQCB, and/or the MWD, as appropriate, in order to identify acceptable water conservation / offset activities for the purposes of the Plan, with "acceptable" activities being those that are considered environmentally, physically, and economically feasible, while also effectively resulting in the replacement of Colorado River water. A number of water conservation / offset activities that have been considered and determined to not be viable and therefore may not be identified in the Plan include the following:

- Irrigation improvements in the Palo Verde Irrigation District (water unused by the PVID becomes available to MWD per the 2003 Colorado River Water Delivery Agreement executed by MWD, the Secretary of the Interior, Imperial Irrigation District, Coachella Valley Water District, and San Diego County Water Authority);
- Purchase of water allotments allocated by the Department of the Interior (all Colorado River water available to California in shortage, normal, or Intentionally Created Surplus conditions is already allocated and its use is limited to each entity's service area under executed water delivery contracts);
- Implementation of conservation programs in floodplain communities (all water unused by holders of higher priorities becomes available to MWD per the water delivery contracts which have been executed by the Department of the Interior); and
- Participation in the BLM's Tamarisk Removal Program (use of Colorado River water by phreatophytes such as tamarisk is not charged as a use of water for U.S. Supreme Court Decree accounting purposes by the U.S. Bureau of Reclamation).

If the project owner has filed an application to the U.S. Bureau of Reclamation (USBR) to obtain an allocation of water from the Colorado River and such allocation is granted, it may be used to satisfy some or all of the water conservation offsets on an acre-foot per acre-foot basis. However, the filing of an application for allocation of Colorado River water does not guarantee that such an allocation will be issued. In addition, all of California's apportionment to use of Colorado River water during shortage, normal, and Intentionally Created Surplus conditions has already been allocated by the Department of the Interior. Therefore, unless the project owner currently holds entitlement to the use of Colorado River water, it shall not be assumed that an allocation will be granted.

If the project does not result in diversion of Colorado River water (via pumping from near (within +/-0.84 feet at the 95-percent confidence level), equal to, or below 234 feet amsl) it will not be necessary to implement the water conservation/offset activities identified in the Colorado River Water Supply Plan. However, the Plan must be approved by the BLM prior to project-related groundwater pumping is initiated so that if at any time during the project it is determined that groundwater is being produced from below the Colorado River Accounting Surface of 234 feet amsl, the requirements described in this measure shall be immediately implemented, starting with the cessation of groundwater pumping.

The Colorado River Water Supply Plan is separate from the Groundwater Drawdown Monitoring and Reporting Plan required per MM WAT-3 and the Drought Water Management and Water Conservation Education Programs required per MM WAT-6.

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Therefore, this Plan must be developed, reviewed, approved of, and implemented as a separate, stand-alone document. Compliance with this measure shall be verified by the Environmental Monitor."

Metropolitan requests that BLM substitute all of the provisions of MM-WAT 7 from Appendix 3 of the Desert Harvest Solar Project Record of Decision for Applicant's Proposed Measure, "Soil&Water-14, Mitigation of Impacts to the Palo Verde Mesa Groundwater Basin".

We appreciate the opportunity to provide input to your planning process and we look forward to receiving future environmental and related documentation on this Project. If we can be of further assistance, please contact Mr. Michael Melanson at (916) 650-2648.

Very truly yours,

Deirdre West Manager, Environmental Planning Team

MM:rdl (J:Environmental Planning Team:Completed Folders/June 2011/Job No. 2011060901)

Attachments: Comment Letter on Palen Solar Power Plant DEIS dated June 15, 2010 Comment Letter on Palen Solar Power Plant FEIS dated June 9, 2011

cc: Ms. Tanya Trujillo Executive Director Colorado River Board of California 770 Fairmont Avenue, Suite 100 Glendale, California 91203-1068

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#### Appendix 1006

# WATER: CALIFORNIA PALO VERDE IRRIGATION DISTRICT, FEBRUARY 7, 1933

### UNITED STATES DEPARTMENT OF THE INTERIOR BURBAU OF RECLAMATION

#### BOULDER CANYON PROJECT

#### UNITED STATES AND PALO VERDE IRRIGATION DISTRICT CONTRACT FOR DELIVERY OF WATER

(1) THIS CONTRACT, made this 7th day of February nineteen hundred thirty-three, pursuant to the Act of Congress approved June 17, 1902 (32 Stat. 388), and acts amondatory thereof or supplementary thereto, all of which acts are commonly known and referred to as the reclamation law, and particularly pursuant to the Act of Congress approved December 21, 1928 (45 Stat. 1057), designated the Boulder Canyon Project Act, between THE UNITED STATES OF AMERICA, hereinafter referred to as the United States, acting for this purpose by Rurold L. Ickes, Secretary of the Interior, heroinafter styled the Secretary, and PALO VERDE IRRIGATION DISTRICT, an irrigation district created, organized, and existing under and by virtue of an act of the Legislature of the State of California approved June 21, 1923 (Chapter 452, Statutes of California, 1923), as amended, known as and designated "Palo Verde irrigation district act", with its principal office at Blythe, Riverside County, California, hereinafter reforred to as the District;

EXPLANATORY RECITALS

Witnessoth:

(2) Whereas, for the purpose of controlling the floods, improving navigation and regulating the flow of the Colorado River, providing for storage and for the delivery of the stored waters for reclamation of public lands and other beneficial uses exclusively within the United States, the Secretary, subject to the terms of the Colorado River Compact, is authorized to construct, operate and maintain a dam and incidental works in the main stream of the Colorado River at Black Canyon or Boulder Canyon, adequate to create a storage reservoir of a capacity of not less than twenty million acre-feet of water; and

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#### APPENDIX 1006

(3) Whereas, after full consideration of the advantages of both the Black Canyon and Boulder Canyon dam sites, the Secretary has determined upon Black Canyon as the site of the aforesaid dam, hereinafter styled the Hoover Dam, creating thereby a reservoir to be hereinafter styled the Boulder Canyon Reservoir; and

(4) Whereas, the District is desirous of entoring into a contract for the delivery to it of water from Boulder Canyon Reservoir, and it is to the mutual interest of the parties hereto that such contract be executed and the rights of the District in and to waters of the river be hereby defined.

(5) Now, therefore, in consideration of the mutual covenants herein contained, the parties hereto agree as follows, to wit:

#### DELIVERY OF WATER BY THE UNITED STATES

(6) The United States shall, from storage available in the Boulder Canyon Reservoir, deliver to the District each year at a point in the Colorado River immediately above the District's point of diversion known as Blythe Intake (or as relocated within two miles of the present intake) so much water as may be necessary to supply the District a total quantity, including all other waters diverted for use of the District from the Colorado River, in the amounts and with priorities in accordance with the recommendation of the Chief of the Division of Water Resources of the State of California, as follows (subject to availability thereof for use in California under the Colorado River Compact and the Boulder Canyon Project Act.):

"The waters of the Colorado River available for use within the State of California under the Colorado River Compact and the Boulder Canyon Project Act shall be apportioned to the respective interests below named and in amounts and with priorities therein named and set forth, as follows:

"SECTION 1. A first priority to Palo Verde Irrigation District for beneficial use exclusively upon lands in said District as it now exists and upon lands between said District and the Colorado River, aggregating (within and without said District) a gross area of 104,500 acres, such waters as may be required by said hands. "SEC. 2. A second priority to Yuma'l roject of the United States

"SEC. 2. A second priority to Yuma'l roject of the United Status Burean of Reclamation for beneficial use upon not exceeding a gross area of 25,000 acres of land located in said project in California, such waters as may he required by said lands.

"SEC. 3. A third priority (a) to Imperial Irrigation District and other lands under or that will he served from the All-American Canal in Imperial and Coachella Valleys, and (b) to Palo Verde Irrigation District for use exclusively on 16,000 acres in that area known as the 'Lower Palo Verde Mesa,' adjacent to Palo Verde Irrigation District, for beneficial consumptive use, 3,850,000 acre-feet of water per annum less the beneficial consumptive use under the priorities designated in Sections 1 and 2 above. The rights designated (a) and (b) in this section are equal in priority. The total beneficial consumptive

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#### WATER: CALIFORNIA-PALO VERDE

use under priorities stated in Sections 1, 2, and 3 of this article shall

not exceed 3,850,000 acre-fect of water per annum. "SEC. 4. A fourth priority to the Metropolitan Water District of Southern California and/or the City of Los Angeles, for beneficial consumptive user by themselves and/or others, on the Coast

of Southern California and/or the City of Los Angeles, for beneficial consumptive use by themselves and/or others, on the Coastal Plain

(1) לפנאלישת לאישוישה לא אווישה לא אישרים איצאים איבור אישרים אישוישה לא אישרים אישוישה לא אישוישה אישוישה אישו

consumptive use, 112,000 acre-fect of water per annum. The right designated (a) and (b) in this section are equal in priority. "SEC. 6. A sixth priority (a) to Imperial Irrigation District and other lands under or that will be served from the All-American Cana in Imperial and Coachella Valleys, and (b) to Palo Verde Irrigation District for use exclusively on 16,000 acres in that area known as the Lower Palo Verde Mesa,' adjacent to Palo Verde Irrigation District for henchcial consumptive use, 300,000 acre-feet of water per annum. The rights designated (a) and (b) in this section are equal in priority. "SEC. 7. A seventh priority of all remaining water available for use within California, for agricultural uso in the Colorado River Basin. in Culifornia, as said basin is designated on Map No. 23000 of the Department of the Interior, Bureau of Reclamation.

"SEC. 8. So far us the rights of the allottees named above are concerned, the Metropolitan Water District of Southern California. with-draw and divert into its aqueduct any water in Boulder Canyon Reservoir accumulated to the individual credit of said District and/or said City (not exceeding at any one time 4,750,000 acce-feet

in the aggregate) by reason of reducing diversions by said District and/or said City; provided, that accumulations shall be subject to such con-ditions as to accumulation, retention, release and withdrawal as the Secretary of the Interior muy from time to time prescribe in his dis- cretion, and his determination thereof shall be final; provided further, that the United States of America reserves the right to make similar arrangements with users in other States without distinction in pri-ority, and to determine the correlative relations between said District and/or said City and such users resulting therefrom. "SEC. 9. In addition sp far as the rights of the allottees named

above are concerned, the City of San Diego and/or County of San Diego shall have the exclusive right to withdraw and divert into an aqueduct any water in Boulder Canyon Reservoir accumulated to the individual credit of said City and/or said County (not exceeding at any one time 250600 acrefect in the aggregate) by reason of reduced

diversions by said City and/or suid County; provided, that accumula-tions shall be subject to such conditions as to accumulations, reten-tion, release and withdrawal as the Scoretary of the Interior may from time to time prescribe in his discretion, and his determination thereof shall be final; provided further that the United States of America reserves the right to make similar arrangements with users in other States without distinction in priority, and to determine the correla-tive relations between the snid City and/or snid County and such users resulting therefrom.

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"SEC. 10. In no event shall the amounts allotted in this agreement to the Metropolitan Water District of Southern California and/or the City of Los Angeles be increased on account of inclusion of a supply for both said District. and said City, and either or both may use said apportionments as may be agreed by and between said District and said City.

"SEC. 11. In no event shall the amounts allotted in this agreement to the City of San Diego and/or to the County of San Diego be in-oreased on accaunt of inclusion of a supply for both said City and said County, and either or both may use said apportionments as may be agreed by and between said City and said County.

may be agreed by and between said City and said County. "Sec. 12. The priorities hareinbefore set forth shall be in no wise affected by the relative dates of water contracts executed by the Secretary of the Interior with the various parties."

The Secretary reserves the right to, and the District agrees that he may, contract with any of the allottees above named in accordance with the above stated recommendation. The District reserves the right to establish, at any time, by judicial determination, its rights to divert and/or use water from the Colorado River. In the event the above stated recommendation as to the District is superseded by an agreement between all the above allottees or by a final judicial determination, the parties hereto reserve the right to further contract in accordance with such agreement or such judicial determination; *Provided*, that priorities numbered fourth and fifth shall not thereby bo disturbed.

As far as reasonable diligence will permit said water shall be delivered as ordered by the District, and as reasonably required for potable and irrigation purposes within the areas for which the District is allotted water as described in the above-stated recommendation. This contract is for permanent water service but is subject to the condition that Hoover Dam and Boulder Canyon Reservoir shall he used: First, for river regulation, improvement of navigation, and flood control; second, for irrigation and domestic uses and satisfaction of perfected rights in pursuance of Article VIII of the Colorado River Compact; and third, for power. This contract is made upon the express condition and with the express covenant that the District and the United States shall observe and be subject to, and controlled by, said Colorado River Compact in the construction, management, and operation of Hoover Dam, and other works and the storage, diversion, delivery, and use of water for the generation of power, irrigation, and other purposes. The United States reserves the right to tomporarily discontinue or reduce the amount of water to be delivered for the purpose of investigation, inspection, maintenance, repairs, replacements, or installation of equipment and/or machinery at Hoover Dam, but as far as feasible the United States will give the District reasonable notice in advance of such temporary discontinu-

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#### WATER: CALIFORNIA-PALO VERDE

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ance or reduction. The United States, its officers, agents, and employees shall not be liable for damages when, for any reason whatsoever, suspension or reductions in delivery of water occur. This contract neither prejudices nor admits any claim of the District on account of alleged changes in elevation of the river bed, howsoever caused, or the effect of such alleged changes on the District's diversion of water delivered hereunder. This contract is without projudice to any other or additional rights which the District may now have not inconsistent with the foregoing provisions of this article, or may hereafter acquire in or to the waters of the Colorado River.

#### RECEIPT OF WATER BY DISTRICT

(7) The District shall receive the water to be delivered to it by the United States under the terms hereof at the point of delivery above stated, and shall at its own expense convey such water to its distribution system, and shall perform all acts required by law or custom in order to maintain its control over such water and to secure and maintain its lawful and proper diversion from the Colorado River;

#### MEASUREMENT OF WATER

(8) The water to be delivered hereunder shall be measured at Blythe Intako by such measuring and controlling devices or such automatic gauges or both, as shall be satisfactory to the Secretary. Said measuring and controlling devices, or automatic gauges, shall be furnished, installed, and maintained by and at the exponse of the District, but they shall be and remain at all times under the complete control of the United States, whose authorized representatives may at all times have access to them over the lands and rights-of-way of the District.

#### RECORD OF WATER DIVERTED

(9) The District shall make full and complete written reports as directed by the Secretary, on forms to be supplied by the United States, of all water diverted from the Colorado River, and the disposition thereof. The records and data from which such reports aro made shall be accessible to the United States on demand of the Secretary.

### NO CHARGE FOR DELIVENY OF WATER

(10) The District shall not be required to pay to the United States any tolls, rates, or charges of any kind for or on account of the storage or delivery of water hercunder.

#### APPENDIX 1006

#### INSPECTION BY THE UNITED STATES

(11) The Secretary or his representatives, shall at all times have the right of ingress to and egress from all works of the District for the purpose of inspection, repairs and maintenance of works of the United States, and for all other proper purposes. The Secretary or his representatives shall also have free necess at all reasonable times to the books and records of the District relating to the diversion and distribution of water delivered to it herounder with the right at any time during office hours to make copies of or from the same.

#### DISPUTES OR DISAGREEMENTS

(12) Disputes or disagreements as todhe interpretation or perform-ance of the provisions of this contract shall be determined either by arbitration or court proceedings, the Secretary being authorized to act for the United States in such proceedings. Whenever a contro-versy arises out of this contract, and the parties hereto agree to submit the matter to arbitration, the District shall name one arbi-trator and the Secretary shall name one arbitrator, and the two arbitrators thus chosen shall elect three other arbitrators, but in the event of their failure to name all or any of the three arbitrators within thirty (30) days after their first meeting, such arbitators not so elected, shall be named by the Senior Judge of the United States Circuit Court of Appeals for the Ninth Circuit. The decision of any three of such arbitrators shall be a valid and binding award of the arbitrators.

### RULES AND REGULATIONS

(13) There is reserved to the Secretary the right to prescribe and enforce rules and regulations not inconsistent with this contract, governing the diversion and delivery of water hereinder to the District and to other contractors. Such rules and regulations may be modified, revised and/or extended from time to time after notice to the District and opportunity for it to be heard, as may be dedined proper, necessary of desirable by the Secretary to carry out the true intent and meaning of the law and of this contract, or amendments thereof, or to protect the interests of the United States. The District hereby agrees that in the operation and maintenance of its diversion works at Blythe Intake, all such rules and regulations will be fully adhered to.

#### AGSEEMENT SUBJECT TO COLORADO RIVER COMPACT

(14) This contract is made upon the express condition and with the express understanding that all rights based upon this contract shall be subject to and controlled by the Colorado River Compact, being the

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### WATER: CALIFORNIA-PALO VERDE

compact or agreement signed at Santa Fo, Now Moxico, November 24, 1922, pursuant to Act of Congress approved August 19, 1921, entitled "An Act to permit a compact or agreement between the States of Arizona, California, Colorado, Novada, New Mexico, Utah, and Wyoming, respecting the disposition and apportionment of the waters of the Colorado River, and for other purposes", which compact was approved by the Boulder Canyon Project Act.

### PRIORITY OF CLAIMS OF THE UNITED STATES

(15) Claims of the United States arising out of this contract shall have priority over all others, secured or unsecured.

### CONTINCIENT UPON APPROPRIATIONS

(16) This contract is subject to appropriations being made by Congress from year to year of moneys sufficient to do the work con templated hereby, and to there being sufficient moneys available in the Colorado River Dam fund to permit allotments to be made for the performance of such work. No hability shall accrue against the United States, its officers, agents, or employees, by reason of sufficient moneys not being so appropriated nor on account of there not heing sufficient moneys in the Colorado River Dam fund to permit of said allotments. This agreement is also subject to the condition that if for any reason construction of Hoover Dam in not prosecuted to completion with reasonable diligence, then and in such event either party hereto may terminate its obligations hereunder upon one (1) year's written notice to the other party hereto.

### RIGHTS RESERVED UNDER SECTION 3737, REVISED STATUTES

(17) All rights of action for brench of any of the provisions of this contract are reserved to the United States as provided in Section 3737, of the Revised Statutes of the United States.

### REMEDIES UNDER CONTRACT NOT EXCLUSIVE

(18) Nothing contained in this contract shall be construed as in any manner abridging, limiting or depriving the United States or the District of any means of caforcing any remody either at law or in equity for the breach of any of the provisions hereof which it would otherwise have. The waiver of a breach of any of the provisions of this contract shall not be deemed to be a waiver of any other provision hereof or of a subsequent breach of such provision.

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#### APPENDIX 1006

#### INTEREST IN CONTRACT NOT TRANSFERABLE

(19) No interest in this agreement is transforable, and no sublease shall be made, by the District without the written consent of the Secretary, and any such attempted transfer or sublease shall cause this contract to become subject to annulment, at the option of the United States.

### MEMBIN OF CONGRESS CLAUSE

(20) No Member of or Delegate to Congress or Resident Commissioner, shall be admitted to any share or part of this contract, or to any benefit that may arise therefrom. Nothing, however, herein contained shall be construed to extend to this contract if made with a corporation for its general benefit.

In witness whereof, the parties hereto have caused this contract to be executed the day and year first above written.

> THE UNITED STATES OF AMERICA, By RAY LYMAN WILBUN, Secretary of the Interior.

Atlest;

NONTHCUIT ELY. RICHAND J. COFFEY.

PALO VERDE IRRIGATION DISTRICT, By L. A. HAUSER, President.

Attest:

O. W. MALMGINEN, Assistant Scoretary.

Approved as to form, February 7, 1933:

(Sgd) RAX LYMAN WILDUR, Secretary of the Interior,

[Acknowledgments and resolution omitted.]

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### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION IX 75 Hawthorne Street San Francisco, CA 94105

NOV 8 2018

Brandon Anderson Bureau of Land Management Palm Springs – South Coast Field Office 1201 Bird Center Drive Palm Springs, CA 92262

Subject: Draft Environmental Impact Statement for the Desert Quartzite Solar Project, Riverside County, California (EIS No. 20180180)

Dear Mr. Anderson:

The U.S. Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement for the Desert Quartzite Solar Project (DQSP). Our review is provided pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality regulations (40 CFR Parts 1500-1508), and Section 309 of the Clean Air Act.

EPA served as a cooperating agency under NEPA and a participating agency under Title 41 of the Fixing America's Surface Transportation Act (FAST-41) during the development of the Draft EIS and provided scoping comments on April 6, 2015. We appreciate the responsiveness of the Bureau of Land Management to much of our input and feedback during development of the document, which resulted in the inclusion of air quality impact mitigation measures, identification of approved and available alternative water sources, incorporation of resource avoidance alternatives, and disclosure of air emission estimates and impacts to groundwater and various habitats. While several issues are yet to be resolved, the interagency process has been constructive, and we appreciated the opportunity that BLM provided for EPA staff and others to visit the project site.

Based on our review of the Draft EIS, EPA has concerns about the project's potential direct and indirect impacts to air quality, site hydrology, sensitive species and cultural resources, as well as cumulative impacts associated with the influx of a multitude of large-scale solar energy projects in the DQSP's vicinity. The enclosed detailed comments elaborate on these issues and provide recommendations regarding analyses and documentation needed to fully assess the potential adverse impacts from the action alternatives.

Recognizing that the DQSP predates the Desert Renewable Energy Conservation Plan (DRECP) and is not subject to its requirements, we commend BLM for analyzing whether each alternative would comply with the Conservation Management Actions (CMAs) identified in the DRECP. We continue to recommend that BLM utilize the latest science to inform the adoption of protective measures to avoid and minimize resource impacts from project construction and operations to the greatest extent feasible.

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Effective October 22, 2018, EPA no longer includes ratings in our comment letters. Information about this change and EPA's continued roles and responsibilities in the review of federal actions can be found on our website at: <u>https://www.epa.gov/nepa/epa-review-process-under-section-309-clean-air-act.</u>

EPA appreciates the opportunity to review this Draft EIS. When the Final EIS is released, please send one CD to the address above (mail code: ENF-4-2). If you have any questions, please contact me at (415) 972-3521, or contact Tom Plenys, the lead reviewer for this project, at 415-972-3238 or plenys.thomas@epa.gov.

Sincerely,

Kathleen Martyn Goforth, Manager Environmental Review Section (ENF-4-2)

# U.S. EPA DETAILED COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE DESERT QUARTZITE SOLAR PROJECT, RIVERSIDE COUNTY, CALIFORNIA, NOVEMBER 8, 2018

# Air Quality

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The Desert Quartzite Solar Project (DQSP) is located in the Mojave Desert Air Basin, which is currently out of attainment for California ozone and coarse particulate matter (PM<sub>10</sub>) standards (p. 3.2-4). The project would exceed the Mojave Desert Air Quality Management District's (MDAQMD) daily emission thresholds for PM<sub>10</sub> fine particulate matter (PM<sub>2.5</sub>), and nitrogen oxides (NO<sub>x</sub>), as well as *de minimis* thresholds for PM<sub>10</sub>, during the 25-month construction period. According to the Draft EIS, exceedances of state or federal air quality standards are possible despite a suite of Applicant-Proposed Measures and BLM proposed mitigation measures, including mitigation measure TRN-4, which would pave the 5.6-mile access road to minimize dust (p. 4.2-7 and 4.2-16).

Air quality impacts from the DQSP could be further exacerbated by the concurrent construction and operational emissions from nearby ongoing and reasonably foreseeable energy projects (e.g. Crimson, Palen, Modified Blythe, McCoy, SCG Blythe, etc.). Although the Draft EIS quantifies potential cumulative air emissions from a few of these projects, Tables 4.2-11 and 4.2-12 do not include estimates for the adjacent Crimson Solar project, which appears to be proceeding on a schedule similar to that of DQSP. Considering the potential cumulative air quality impacts that may result, EPA supports including additional mitigation strategies to reduce vehicular emissions; maximizing reduction of fugitive dust emissions; coordinating with local air agencies on mitigation measures and construction schedules; and incorporating air quality monitoring.

# **Recommendations:**

- Clarify, in Chapter 4.2 and Appendix G of the Final EIS, whether mitigation measure AQ-3 would ensure that nonroad vehicles and equipment used for this project would meet, or exceed, the US EPA Tier 4 exhaust emissions standards for heavy-duty nonroad compression-ignition engines to the maximum extent feasible (e.g., construction equipment, nonroad trucks, etc.).<sup>1</sup> Indicate the expected availability of Tier 3 and Tier 4 engines for the construction equipment expected to be used on site.
- In the Final EIS, provide, for each alternative, emissions estimates that include estimated emission reductions expected from AQ-1, 2 and 3 and TRN-4. Update Tables 4.2-7 through 4.2-10 to reflect these reductions and any remaining exceedances of local, state and federal air quality standards, as applicable.
- Update Tables 4.2-11 and 4.2-12 to include emission estimates for the Crimson Solar project and provide an estimate of future annual cumulative emissions, broken out by year, for the projects listed.
- In consultation with the MDAQMD and the South Coast AQMD, use these annual cumulative emissions data to develop a phased construction schedule, for DQSP and projects expected to undergo construction concurrently, that would not result in any violations of local, state or federal air quality regulations. Discuss, in the Final EIS, such a phased construction approach across multiple projects and consider whether this can be included as part of the "Applicant's Phased Site Preparation Plan".
- Based on the evaluation of cumulative emissions, if additional mitigation measures or reductions in acreages of soil disturbance would be needed, or if the project would affect the ability of other foreseeable projects to be permitted, discuss this in the Final EIS.

<sup>&</sup>lt;sup>1</sup> <u>http://www.epa.gov/otag/standards/nonroad/nonroadci.htm</u>

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• Consider requiring the installation of real-time PM<sub>10</sub> dust monitoring equipment, like that installed at nearby solar facilities (e.g. Desert Sunlight), to monitor during both the construction and operational phases of the project. If a decision is made not to install such equipment, discuss, in the Final EIS, what type of field monitoring would be conducted and clarify how BLM would ensure that performance standards are met.

# Site Hydrology, Ephemeral Drainages and Site Preparation

EPA remains concerned that grading, disk and roll, and disruption of natural flows on site could result in impacts to site drainage, vegetation and ephemeral washes without commensurate benefit to soil stability. According to the Draft EIS, during construction, the project would alter the soil's hydraulic characteristics within the solar arrays due to vegetation removal and grading. Of the 3,770-acre project area, approximately 3,304 acres, or 88 percent of the site, would be either be mowed or utilize the disk and roll method. A further breakdown between these two techniques is not provided. Grading, in the form of cut and fill, would be performed on approximately 466 acres, or the remaining 12 percent of the site (p. 4.3-5). Erosion and sedimentation control plans and stormwater pollution prevention plans are not included in the Draft EIS; therefore, we are unable to assess their likely effectiveness.

The Draft EIS indicates that "preservation of existing vegetation is one the most effective methods erosion control and storm water management"; however, it dismisses alternative construction methods that would maintain all on-site drainages and vegetation as infeasible, citing technical challenges and tolerance levels required for installation (p. 2-43). Our understanding is that BLM continues to explore alternative methods and designs for PV installation to minimize grading and disruption of microtopography at other project sites.

# **Recommendations:**

- Include, in the Final EIS, the latest drainage, grading, sedimentation and erosion, and stormwater pollution and prevention plans so that the additional information they would yield can inform any needed adjustments to the project alternatives, as appropriate. EPA recommends that these plans aim to minimize soil disturbance, erosion, local scour, and sedimentation and ensure adequate buffers around on-site drainages.
- Discuss in further detail where check dams, retention basins, fabrics, sediment basins and traps would be used to direct surface flow and how such features would affect upstream and downstream hydrological conditions. We note that onsite retention basins sized with at least 20 acre-feet of combined storm water storage capacity are proposed (p. 4.20-20).
- Estimate, in the Final EIS, acres to be mowed versus disk and rolled for each alternative and discuss the differences in how each technique would affect site hydrology, erosion and sedimentation. EPA recommends utilizing mowing to the greatest extent feasible to preserve site hydrology, minimize soil disruption and limit fugitive dust.
- Discuss, in the Final EIS, potential methods under consideration by other BLM projects (e.g. Crimson Solar), or previously implemented at other PV projects, that could be used to minimize grading and vegetation removal. For example, it is our understanding that dual axis panels would allow for pile driving, potentially helping to eliminate the need for grading and soil compaction. Discuss the feasibility of employing a dual axis panel or similar approach in the Final EIS.
- Consider, in consultation with the US Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW), a design to maximize unimpeded flows during anticipated storm events (e.g. break-away fencing) where existing, stable drainages are located.

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According to the Draft EIS, cut and fill would be used in areas to fill depressions to stop water from pooling, and to maintain a consistent grade through the project site (p. 2-14). The areas of cut and fill, identified in Figure 2-8, appear to overlap substantially with the one to five-foot-deep natural depressions that the 2011 Drainage Plan (Appendix V – Figure 4) indicates will be relied upon to manage site stormflows. The conclusions and site design approach outlined in the Drainage Plan, and included in Section 4.20, appear to contradict the site preparation and project designs described elsewhere in the Draft EIS.

# **Recommendations:**

- Clarify, in Chapters 4.3 and 4.20 of the Final EIS, the extent to which one to five-foot depressions would be relied upon to regulate storm water flows, as referenced in the 2011 Drainage Report in Appendix V (p. 13). Based on the latest site designs, update the analysis and conclusions in Sections 2, 4.3, 4.20 and Appendix V, as necessary.
- To address the potential impacts to on-site hydrology, other project proponents have proposed decompacting soils between solar panels as a primary mitigation measure after project construction to increase infiltration potential. This project has proposed compaction to reduce erosion. Discuss, in the Final EIS, the efficacy of decompaction versus compaction of soils based on experiences at neighboring solar sites in the Riverside East area. Clarify the rationale for selecting one approach over the other to minimize the disruption of natural flows, sedimentation, scour and fugitive dust.
- Consider the use of at-grade or Arizona crossings wherever possible, to maximize avoidance and minimization of impacts to the washes.
- Describe, in the Final EIS, how adaptive management would be used to manage erosion within the project area. Identify the criteria that would be used to evaluate the effectiveness of erosion and sedimentation control measures.

# **Impacts to Downstream Tributaries and Impaired Waters**

According to the Draft EIS, vegetation clearing, grading, and compaction associated with project construction could increase the rate, volume, and sediment load of storm water runoff traveling offsite. Changes in hydrology could indirectly impact surface-water-dependent plant species and could result in increased erosion and rates of scouring the desert habitats surrounding the project site (p. 4.3-7).

EPA is concerned about the indirect impacts to the tributaries downstream of the site leading to the Colorado River, as well as indirect impacts to the Colorado River itself. Indirect effects could include, but are not limited to: 1) changes in sediment transport downstream to the Colorado River; 2) increases in volume and velocity of polluted stormwater from impervious surfaces (e.g. soil compaction and placement of fill in natural depressions; 3) decrease in water quality from the impairment of ecosystem services such as water filtration, groundwater recharge, and attenuation of floods; 4) disruption of hydrological and ecological connectivity to the Colorado River; and 5) decreases in biodiversity and ecosystem stability.

# **Recommendation:**

• Confirm, in the Final EIS, based on updated drainage, sedimentation and stormwater plans, whether any indirect impacts to the Colorado River or to the tributaries downstream of the site leading to the Colorado River could occur.

As noted in the Draft EIS, based on the USEPA approved Section 303(d) List of Impaired Waters (as of June 2017), the Palo Verde Outfall Drain and Lagoon is approximately 5 miles downstream of the project site and is impaired by several pollutants (p. 3-20-12).

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### **Recommendations:**

- Assess, in the Final EIS, any potential indirect impacts to the Palo Verde Outfall Drain and Lagoon and identify any mitigation measures that could reduce potential discharges into waters and avoid further degradation of impaired waters.
- Identify, in the Final EIS, the monitoring protocols and the water quality thresholds to be used to ensure downstream tributaries are not further impaired due to the proposed project.

### Site Layout and Alternatives

The DQSP was initially proposed as a 300-megawatt (MW) photovoltaic (PV) project at the time of the Notice of Intent in 2015. Because of advances in PV technology, both the Proposed Action and the Resource Avoidance Alternative now propose to generate up to 450 MW using roughly the same project footprint. The Reduced Project Alternative, which is presented as a reasonable alternative, would support 285 MW on a smaller footprint. It is not clear from the Draft EIS whether the Applicant has a Power-Purchase Agreement or Generator Interconnection Agreement for this project, and, if so, whether such agreement provides sufficient flexibility regarding the generating capacity of the project to allow the selection of an alternative that would maximize resource avoidance on site.

### **Recommendations:**

- To inform the development of protective measures to avoid and minimize resource impacts from project construction and operations, consider the latest science that was used to develop the DRECP. Evaluate the feasibility of modifying the Reduced Project Alternative to incorporate all Conservation Management Actions (CMAs) prescribed by the DRECP that would further enhance protection of aquatic and biological resources. Disclose in the Final EIS, and highlight in the Executive Summary, the CMAs that would not be fully met by each of the alternatives evaluated.
- Require the Applicant to employ a phased approach to grading the site that utilizes the acreage within the Reduced Project Alternative footprint first, and require that soil disturbance be contingent upon, and proportional to, an existing Power Purchase Agreement or equivalent. Prematurely grading or disking and rolling portions of the site can result in excessive dust problems and unnecessary impacts to habitat, vegetation, soils and other resources in the event the project is not constructed in entirety.
- Require prompt reclamation of any graded areas that are not put into service as planned.

### **Battery Storage**

The Draft EIS indicates that the project would include "Energy Storage Systems (ESS)", which are battery storage modules that would allow the facility to continue supplying energy to the grid for up to four hours in the evening after sundown. The ESS would occupy 15 acres and include integrated heating, ventilation and air conditioning (HVAC) units (p. 2-8). We note that the batteries in the ESSs would be regulated as a hazardous waste and their disposal would be managed under a Hazardous Materials Business Plan (p. 2-24). An analysis of the potential environmental impacts and energy needs of the ESSs was not included in the Draft EIS.

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### **Recommendations:**

In the Final EIS:

- Clarify, for each alternative, the number of ESSs expected and the total number of acres required for those ESS.
- Include an analysis of the energy needs of the ESS (e.g. for HVAC), discuss to what extent such needs can be met by energy generated on site by the solar facility, and update air emission estimates for the DQSP, as needed.

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- Analyze the potential impacts to site hydrology that would result from the increase in impervious surfaces on site, as well as risks to groundwater due to accidental or unexpected releases.
- Discuss the extent to which solar panels could be installed on top of the ESS and whether this could decrease the ESS energy needs (e.g., by reducing the need for air conditioning) and/or the overall project footprint currently under consideration for each alternative.

# **Biological Resources**

Consultation with the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) is expected to play an important role in informing BLM's decision about which alternative to approve and what commitments, terms, and conditions must accompany that approval. We understand that the Biological Opinion for this project has not yet been finalized. While we defer to BLM's coordination with USFWS and CDFW on matters pertaining to species and habitat projection, we offer the following suggestions based on our experience with multiple solar projects and to help clarify potential impacts to biological resources.

### **Recommendations:**

- Provide, in the Final EIS, an update on the consultation process with USFWS and CDFW. Summarize and append any relevant documents associated with the ESA Section 7 consultation process, including the Biological Assessment and Biological Opinion. Include any additional mitigation and monitoring measures that result from consultation to protect sensitive biological resources, including desert tortoise, golden eagles and the Mohave fringe-toed lizard.
- Include, in the Final EIS, a tabular summary differentiating between impacts to acres of the "sand corridor", "stabilized sand dunes" and other "potential sand sources". We note that Tables 4.3-1 and 4.3-4 include impacts to "stabilized sand dunes" but did not include the other categories.
- Include, in the Final EIS and the technical Drainage Report (Appendix V), an analysis of the implications of siting the proposed project near a sand transport corridor and developing on up to 40 acres of stabilized dune acreage, as applicable.
- Incorporate, in the Final EIS, results of discussions with USFWS on whether adequate desert tortoise movement corridors between the project site and the Mule Mountains would result under each alternative. We note that a 1.5-mile corridor width for desert tortoise habitat connectivity was prescribed for the Silver State solar project (between the project boundary and the Lucy Gray Mountains) after a much narrower corridor was initially proposed. Discuss, in the Final EIS, the basis for any difference in the necessary corridor width for the proposed project.

# **Cultural Resources and Tribal Consultation**

Provide, in the Final EIS, any further updates on consultation between the BLM and the tribal governments contacted to date. Discuss issues that were raised, how those issues were addressed in relation to the proposed project, and how impacts to tribal or cultural resources will be avoided or mitigated, consistent with Executive Order 13175, *Consultation and Coordination with Indian Tribal Governments*, Section 106 of the National Historic Preservation Act, and Executive Order 13007, *Indian Sacred Sites*.

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# United States Department of the Interior

FISH AND WILDLIFE SERVICE Ecological Services Palm Springs Fish and Wildlife Office 777 East Tahquitz Canyon Way, Suite 208 Palm Springs, California 92262



In Reply Refer To: FWS-ERIV-12B0378-19CPA0042

# Memorandum

- To: Field Manager, Palm Springs South Coast Field Office, Bureau of Land Management, Palm Springs, California
- From: Assistant Field Supervisor, Palm Springs Fish and Wildlife Office, Palm Springs, California KENNON COREY Digitally signed by KENNON COREY Date: 2018.11.08 15:44:28 -08'00'
  Subject: Comments on the Draft Environmental Impact Statement for the Desert Quartzite
  - Solar Project, Riverside County, California (CACA-49397)

This memorandum is in response to the notice dated August 10, 2018, soliciting comments on the Draft Proposed Plan Amendment (PA) to the California Desert Conservation Area (CDCA) Plan/Environmental Impact Statement/Environmental Impact Report (EIS/EIR) being prepared by the Bureau of Land Management (BLM) and Riverside County (County) for the subject project. Desert Quartzite, LLC, a subsidiary of First Solar, proposes to develop and operate a 450 megawatt (MW) photovoltaic (PV) solar facility and associated infrastructure on approximately 3,616 acres of mostly undeveloped public lands administered by the BLM and 154 acres of private lands, for a total of 3,770 acres, 1.8 miles west of the City of Blythe and south of Interstate 10. The action area is adjacent to the proposed Blythe Mesa Solar Project, which will occupy 3,665 acres of public lands, and the proposed Crimson Solar Project, which will occupy 4,000 acres of public lands in the CDCA.

We offer the following comments on the draft EIS/EIR as they relate to potential impacts on public trust resources. The primary concern and mandate of the U.S. Fish and Wildlife Service (Service) is the conservation, protection, and enhancement of fish and wildlife resources and their habitats for the continuing benefit of the American people. The Service has legal responsibility for the welfare of migratory birds, anadromous fish, and threatened or endangered animals and plants listed under the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.*). The comments provided herein are based on the information provided in the draft EIS/EIR, our knowledge of sensitive and declining fish and wildlife resources, and our participation in regional renewable energy conservation planning efforts.

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We preface our comments by recognizing the need for development of renewable energy and the challenge of balancing solar energy development with conserving natural resources in the California deserts. We are working with the agencies involved in this effort and offer our assistance to ensure all proposed projects are evaluated consistent with the various State and Federal renewable energy and environmental goals and policies.

## Mojave Desert Tortoise (Gopherus agassizii, 'desert tortoise')

The Service received your recent request for formal consultation on the land use plan amendment for Desert Quartzite regarding the desert tortoise, listed as a threatened species under the Act. We look forward to working with you and the project applicant on developing avoidance and minimization measures for the forthcoming biological opinion.

Construction, operation, and maintenance of the Desert Quartzite project would result in permanent and long-term elimination or degradation of 3,770 acres of suitable desert tortoise habitat on the project site and adjacent areas. However, the measures listed in the draft EIS/EIR will help to reduce adverse effects to desert tortoise and minimize the impact of any potential incidental take. These include, but are not limited to, the following:

- Use of a designated biologist, authorized desert tortoise biologists, and biological monitors.
- Implementation of a worker environmental awareness program.
- Implementation of a variety of impact avoidance and minimization measures.
- Desert tortoise clearance surveys, permanent exclusion fencing, and translocation, if necessary.
- Strategies to offset the anticipated loss of desert tortoise habitat so recovery goals remain achievable.
- Common raven (*Corvus corax*) management and control, effectiveness monitoring, and contribution on a per-acre basis to a region-wide raven management strategy.

The draft EIS/EIR states the cumulative effects study area for the desert tortoise considered existing and future projects in the Colorado Desert Recovery Unit planning area, as defined in the Desert Tortoise Revised Recovery Plan (Service 2011). However, the figure provided that indicates which projects were considered (Figure 4.1-1) depicts an area much smaller than the Colorado Desert Recovery Unit. We recommend the final EIS/EIR include a figure depicting the Colorado Desert Recovery Unit and projects within that area that could contribute to a cumulative effect on desert tortoise. Also, based on Figure 4.1-1, it appears that if all the

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proposed utility-scale solar projects are built, desert tortoise linkages between the Mule Mountains and areas to the north would be severely constrained where suitable undercrossings exist across Interstate 10. The final EIS/EIR should provide a discussion regarding how the BLM is planning to maintain a desert tortoise or wildlife linkage north and south of I-10 in this general area. If BLM is not planning to maintain a linkage under I-10 in this area, then explain what the effects might be to desert tortoise.

### Migratory Birds

The Project site occurs in the Lower Colorado River Valley, which forms a major branch of the Pacific Flyway (Rosenberg *et al.* 1991). The diverse aquatic, wetland, riparian, agricultural, and desert habitat types in this area provide permanent and seasonal refuge to hundreds of resident and migratory birds (Shuford *et al.* 2002). Utility-scale PV, parabolic trough, and power tower projects that are currently under construction or in operation are reporting avian mortalities and injuries resulting from collisions and other accidents with various project features, including solar panels or heliostats, evaporation ponds, fencing, electrical distribution lines onsite, and gentie lines to regional substations on the grid.

As indicated in the draft EIS/EIR, post-construction avian mortality monitoring from nearby utility-scale solar facilities has documented bird fatalities. However, the avian mortality monitoring data described in the draft EIS/EIR only considers raw data that are not corrected for searcher efficiency and carcass persistence. These data are useful for considering which project features are associated with mortalities, but do not provide a good metric for evaluating the total impact to migratory bird species. For example, the raw data used in the draft EIS/EIR states that mortality monitoring at Desert Sunlight detected 432 total mortality events. However, to represent a more accurate estimate of mortalities, the numbers should reflect the searcher bias and carcass removal rates. For example, in Desert Sunlight's post-construction avian mortality monitoring annual report, the adjusted total bird fatality estimate was 1,610 (CI: 1,118 - 3,671) fatalities in year one and an estimated 1,594 (CI: 1,271 - 2,116) fatalities in year two (WEST 2018). Therefore we recommend the final EIS/EIR provide the corrected data to provide a more accurate cumulative evaluation of effects to migratory birds. Lastly, contrary to information in the draft EIS/EIR the avian mortality monitoring period for Desert Sunlight was conducted within a two-year period, not a five-year period. Therefore some calculations in Table 4.4-4 in the Draft EIS/EIR are incorrect and should be updated in the final EIS/EIR or an explanation should be provided on how the five-year timeframe was calculated.

Based on the avian monitoring data for other nearby solar energy facilities, the Desert Quartzite Project is likely to contribute to an increase in avian fatalities through collision with PV panels, fencing, and gen-tie lines. The draft EIS/EIR includes a requirement for development of a Bird and Bat Conservation Strategy (BBCS) but lacks details. To help reduce impacts to migratory birds we recommend the BBCS include, at a minimum, a nesting bird management plan that addresses all migratory birds and systematic post-construction mortality monitoring, including searcher efficiency and carcass persistence trials, and adaptive management measures as

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necessary to address avian impacts. See the enclosure for more information on developing a BBCS. To further avoid or reduce adverse effects to migratory birds, we ask BLM to consider the following measures: • Undergrounding of on-site distribution lines. 24-10 • The use of monopoles for any above-ground distribution lines and gen-tie lines. • Marking fences to reduce avian collisions with newly constructed fences. • Avoiding the use of lattice-type structures or placing external ladders and platforms on project infrastructure to minimize perching and nesting opportunities for birds on site. Avoiding the use of meteorological towers that require use of guy wires, or where this is • not feasible, placing markers on the guy wires to increase visibility of these hazards to birds. We appreciate the opportunity to provide comments on the draft EIS/EIR. Should you have any questions regarding these comments, please contact Felicia Sirchia of my staff at 24-11 felicia sirchia@fws.gov or 760-322-2070 extension 405.

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Attachment

### **Literature Cited**

- Rosenberg, K.V., R.D. Ohmart, W.C. Hunter, and B.W. Anderson. 1991. Birds of the Lower Colorado River Valley. University of Arizona Press. Tuscon, AZ, 416 p.
- Shuford W.D., N. Warnock, K.C. Molina, K.K. Sturm. 2002. The Salton Sea as critical habitat to migratory and resident waterbirds. Hydrobiologia, 473:255-274.
- [Service] U.S. Fish and Wildlife Service. 2011. Revised Recovery Plan for the Mojave Population of the Desert Tortoise (*Gopherus agassizii*). U.S. Fish and Wildlife Service, Pacific Southwest Region, Sacramento, California. 222 pp.
- [WEST] Western EcoSystems Technology, Inc. 2018. Post-Construction Monitoring at the Desert Sunlight Solar Farm Project Riverside County, California, Second Annual Report 2016 – 2017, dated July 16, 2018. Cheyenne, Wyoming

### Attachment

# U.S. Fish and Wildlife Service Avoidance and Minimization Recommendations on the Draft EIS/EIR for the Desert Quartzite Solar Project

### **Avian Recommendations**

- 1. Prepare and implement a Bird and Bat Conservation Strategy (BBCS) in consultation with the BLM, the County, California Department of Fish and Wildlife (CDFW), and the Service for review and comment. The BBCS will include the following:
  - A description and assessment of the existing habitat, risk characterization, and avian risk minimization measures.
  - A statistically robust, systematic avian and bat mortality and injury monitoring program to: include a statistically robust, systematic avian and bat mortality and injury monitoring program to achieve the following: (1) estimate annual mortality by taxa and season using appropriate methods [species composition, including rare and sensitive species using evidence of absence principles (Dalthorp, D., M. Huso, D. Dail, and J. Kenyon. 2014. Evidence of absence software user guide: U.S. Geological Survey Data Series 881, 34 pp. Available on the Internet at http://dx.doi.org/10.3133/ds881)]; (2) identify the extent of collision and other mortality during diurnal and nocturnal times of the day; (3) assess the spatial distribution and abundance of mortalities on the project site; and (4) provide resources to collect biological/morphometric data to help determine which regional populations of species with management priority are affected by the project. This monitoring should be of sufficient duration to account for year-to-year variation in mortality rates.
  - An adaptive management and decision-making framework for reviewing, characterizing, and responding to monitoring results.
  - Specific conservation measures and/or programs to minimize and reduce avian and bat injury or mortality over time, and evaluation of the applicability and effectiveness of those measures using results from the monitoring program.

The avian and bat mortality and injury monitoring program should include:

- Onsite monitoring to systematically survey representative locations within the facility, at a level that will produce statistically robust data. The monitoring effort will account and correct for potential spatial bias and allow for the extrapolation of survey results to non-surveyed areas within the solar plant site boundary and to tailor the survey interval seasonally based on carcass removal rates.
- Statistically robust carcass removal and searcher efficiency trials to document the

extent to which avian or bat carcasses remain over time (hours/days) and how well searchers can detect carcasses within the project area. There may be carcass removal and searcher efficiency data collected at nearby solar projects that can be utilized in developing mortality estimates at the Desert Quartzsite project. The Service is available to work with BLM and the applicant to evaluate available information. The results from these trials will be used to adjust the survey frequency and to improve mortality estimates to reflect bias from carcass removal rates and searcher efficiency.

- Accepted statistical methods from the peer-reviewed literature to generate facility estimates of potential post-construction avian and bat impacts based on the observed number of injury/fatality detections during standardized monitoring.
- Handling and reporting requirements according to applicable state or federal permits.
- Development of an injured bird response plan that delineates care and curation of all injured birds, and funding for rehabilitation centers for the care and treatment, and eventual release or permanent storage of injured birds.
- 2. Avoid using lattice-type structures and placing external ladders and platforms on towers to minimize perching and nesting.
- 3. Minimize use of outdoor lighting. If additional lighting is necessary, it should be focused downward to reduce skyward illumination. Lights should be equipped with motion detectors to reduce continuous illumination.
- 4. Where feasible, place electric power lines underground or on the surface as insulated, shielded wire to avoid electrocution of birds. Use the most recent recommendations of the Avian Power Line Interaction Committee (APLIC 2006, 2012) for any required above-ground lines, transformers, or conductors to reduce collisions and electrocutions. When transmission lines must be above-ground, avoid placing lines within wetlands and over canyons.
- 5. Install and replace flight diverters, as needed, on the proposed transmission line to render the line more visible to both resident listed and migratory birds, including night-migrating birds. Install fence markers or other devices on perimeter fences to render the fence more visible to both resident listed and migratory birds to reduce collision risk.