Volume V: Appendices M-O

United States Department of the Interior
Bureau of Land Management

Desert Sunlight Solar Farm Project
California Desert Conservation Area Plan Amendment and Final Environmental Impact Statement

For the
Palm Springs – South Coast Field Office
Palm Springs, California

April 2011
CACA #48649

BLM

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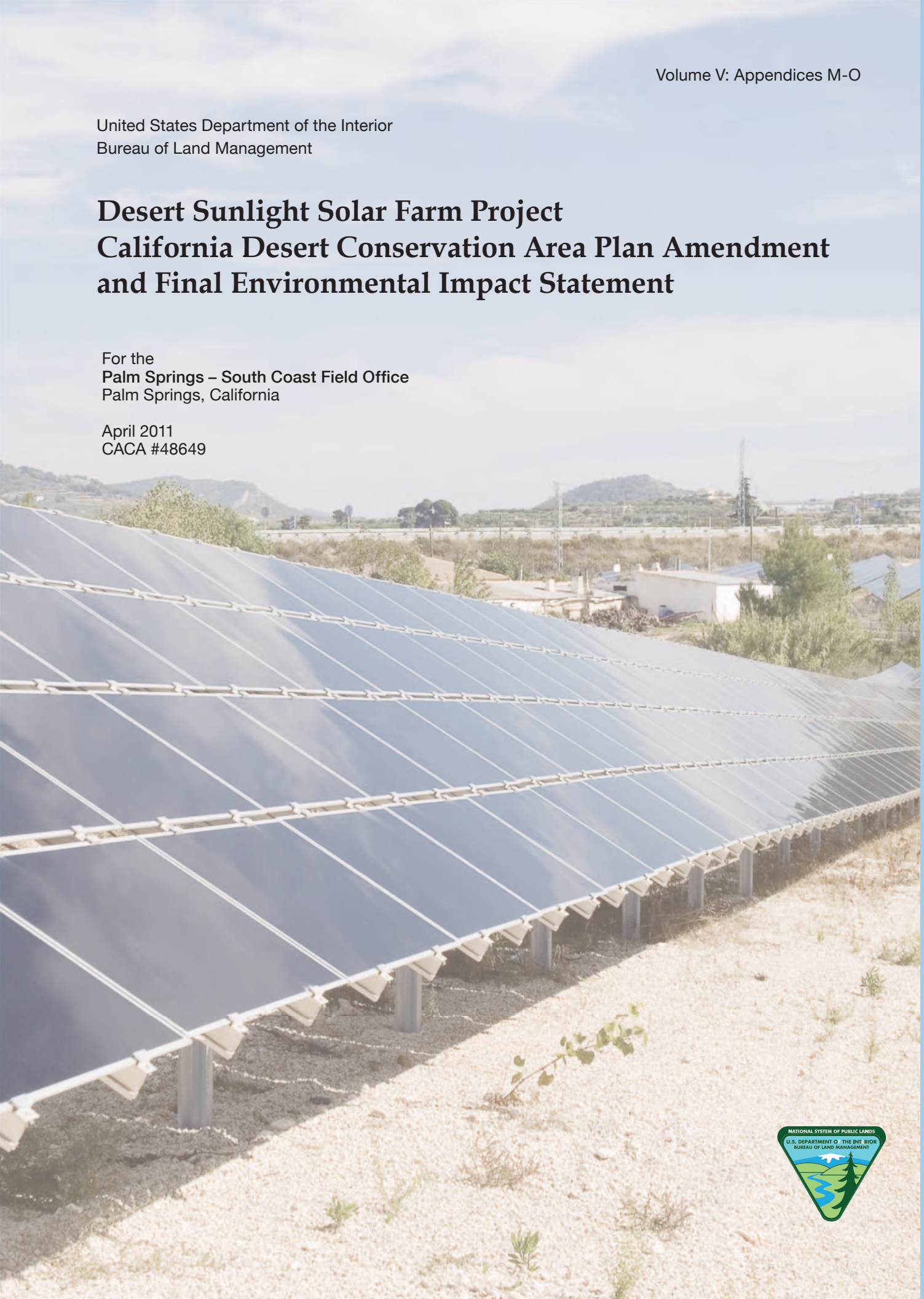

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Appendix M

Comment Letters

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Commenter on the Desert Sunlight Solar Power Project Draft Environmental Impact Statement (continued)

Letter Number	Commenter	Letter Available in Appendix M, Page
50	Virgila Weeks Hawthorne, Individual	M-117
51	Alex Mintzer, Individual	M-118
52	Ernest Goiten, Individual	M-119
53	David Halligan, Individual	M-122
54	Karen Tracy, Individual	M-124
55	C.B Wolf, Individual	M-127
56	State of California, Public Utilities Commission	M-129
57	City of Indian Wells, California	M-237
58	College of the Desert	M-239
59	David Halligan, Individual	M-241
60	Cleona Jenneskens, Individual	M-243
61	Dale Jenneskens, Individual	M-244
62	Geo. Donaldson, Individual	M-245
63	John Beach, Individual	M-246
64	R&M Johnson, Individual	M-248
65	Rick Estes, Individual	M-252
66	Environmental Commons	M-253
67	John Beach, Individual	M-261
68	JoAnn Dean, Individual	M-262
69	Ron Brinkley, Individual	M-263
70	Walter Green, Individual	M-279
71	Michael Silvey, Individual	M-280
72	Bruce Ray, Individual	M-281
73	Celia Beauchamp, Individual	M-282
74	John Beach, Individual	M-283
75	National Parks Conservation Association	M-288
76	Shaun Gonzales, Individual	M-295
77	Karen Berry, Individual	M-303
78	Michele Mooney, Individual	M-307
79	William Eskin, Individual	M-308
80	B.E. Singer, Individual	M-310
81	Caltrans District 8	M-311
82	Individual (to remain anonymous)	M-314
83	JVIndividual	M-316
84	La Cuna de Aztlan Sacred Sites Protection Circle	M-317
85	Brendan Hughes, Individual	M-321
86	Diane Mossbager, Individual	M-322
87	Lorenzo Romero, Individual	M-323
88	Marian Livingood, Individual	M-324
89	Raymond Kelso, Individual	M-325
90	Suzanne Ragsdale, Individual	M-326
91	Tex Whitson, Individual	M-327
92	Dennis Morrison, Individual	M-328
93	Defenders of Wildlife, Natural Resources Defense Council, Sierra Club	M-329
94	Jerry Grey, Individual	M-341
95	Janell Harder, Individual	M-342
96	Cynthia Green, Individual	M-343
97	Warren Dean, Individual	M-345
98	Edith Arizmendi, Individual	M-346

Commenter on the Desert Sunlight Solar Power Project Draft Environmental Impact Statement (continued)

Letter Number	Commenter	Letter Available in Appendix M, Page
99	Gene Oliphant, Individual	M-347
100	Jonathan Levin, Individual	M-348
101	Ken and Pattie Stamp, Individual	M-349
102	Michael Rhoades, Individual	M-350
103	South Coast Air Quality Management District	M-351
104	Center for Biological Diversity	M-357
105	Citizens for the Chuckwalla Valley	M-392
106	U.S. Environmental Protection Agency	M-422
107	First Solar	M-440
108	U.S. Fish and Wildlife Service	M-473
109	Johnney/Timothy Coon/Anderson, Individual	M-479
110	Kevin Emmerich, Individual	M-480
111	Kaiser Ventures LLC	M-515
112	Laura Cunningham, Individual	M-520
113	Mary Zeiler, Individual	M-532
114	National Park Service	M-534
115	Patrick Poole, Individual	M-543
116	The Wilderness Society	M-545
117	Victor Stewart, Individual	M-557
118	Western Lands Project	M-558
119	Chris Clarke, Individual	M-562
120	enXco	M-566
121	Jared Fuller, Individual	M-568
122	Western Watersheds Project	M-569
123	Barbara Daddario, Individual	M-577
124	Claudia Sall, Individual	M-578
125	Riverside County Fire Department	M-581
126	Renee Castor, Individual	M-584
127	Southern California Edison	M-587
128	Southern California Edison	M-611
129	Metropolitan Water District of Southern California	M-614
130	Chris Crow, Individual	M-626
131	Paul Smith, Individual	M-627
132	Rebecca Unger, Individual	M-628
133	Southern California Desert Video Astronomers	M-629
134	Tammie Dye, Individual	M-633
135	Richard DeLashmit, Individual	M-634
136	Ken Statler, Individual	M-635
137	Requests to not publish, Individual	M-638
138	Riverside County Planning Department	M-640
139	Diana Millikan, Individual	M-689
140	Lois Donaldson, Individual	M-690
141	Ed and Carol Schlauch, Individual	M-691
142	"We Support Desert Sunlight" petition	M-692
143	Ron Brinkley, Individual	M-697
144	Claudia Sall, Individual	M-706
145	Stephen J Wright, individual	M-711
146	Colorado River Board of California	M-713
147	Department of the Navy	M-718

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1

Public Comment Card for Scoping Process

First Solar Desert Sunlight Solar Farm Project

Commentor Name: Jeff Randall Date: 10-20-10

Address:

Comment:

1-1

BuilD IT

By submitting a scoping comment you will receive a copy of the EIS. Please indicate the format you would prefer:

☐ Compact Disk (CD) or ☐ Hardcopy

October 20, 2010, Lake Tamarisk Community Center, 26251 Parkview Drive, Desert Center, CA 92239

2

Public Comment Card for Scoping Process

First Solar Desert Sunlight Solar Farm Project

Commentor Name: MARY E ZEILER Date: 10/20/10

Address: 25950 RICE ROAD DESERT CENTER CA 92239

Comment: I PREFER PLAN B FOR ROUTING TRANSMISSION LINES. 2-1

ALSO, THAT DESERT TORTOISE LOCATION IS NOT SATISFACTORY

By submitting a scoping comment you will receive a copy of the EIS. Please indicate the format you would prefer:

☐ Compact Disk (CD) or ☐ Hardcopy

October 20, 2010, Lake Tamarisk Community Center, 26251 Parkview Drive, Desert Center, CA 92239

RECEIVED 10/20/1[illegible] DURING DESERT CENTER PUBLIC MEETING

3

We Support Desert Sunlight

We, residents of and visitors to Desert Center, are pleased to be counted in support of First Solar's 550-megawatt Desert Sunlight Solar Farm to be built in this area. The project is expected to provide enough clean energy for about 160,000 California homes, and to be a major factor in California achieving one-third of its energy from renewable resources. Direct benefits will be approximately 435 construction jobs, more customers for local businesses, and increased sales and property tax revenues. As designed, the project will protect the environment of this area while at the same time utilizing one of our unique natural resources, abundant sunshine.

Name	Signature	City
Dawn Rettagliata	Dawn Rettagliata	Desert Center
John Tiffee	John Tiffee	Desert Center
Shirley Tiffee	Shirley Tiffee	Desert Center
DONNA STEVENS	Donna Stevens	DESERT CENTER
Tammie Dine	Tammie	Desert Center
Dan Rettagliata	[illegible]	Desert Center
Mary E Zeiler	MARY E ZEILER	DESERT CENTER
DAN HOEFS	Dan Hoefs	DESERT CENTER
TERRY MAYNARD	Terry Maynard	Desert Center
Vera Root	Vera Root	Desert Center
Susie Rodriguez	Susie Rodriguez	Desert Center
Christopher A. Steele	Christopher Steele	Desert Center.
CHERYL MAGSUM	Cheryl Magsum	DESERT CENTER
Mickey Castor	Mickey Castor	DESERT CENTER
Patty Bell	Patty Bell	Desert Center

Date Completed 10-2-10

We Support Desert Sunlight

We, residents of and visitors to Desert Center, are pleased to be counted in support of First Solar's 550-megawatt Desert Sunlight Solar Farm to be built in this area. The project is expected to provide enough clean energy for about 160,000 California homes, and to be a major factor in California achieving one-third of its energy from renewable resources. Direct benefits will be approximately 435 construction jobs, more customers for local businesses, and increased sales and property tax revenues. As designed, the project will protect the environment of this area while at the same time utilizing one of our unique natural resources, abundant sunshine.

Name	Signature	City
[illegible]	[illegible]	Desert Center
[illegible]	[illegible]	Desert Center
DENISE Carroll	Denise Carroll	Indio
LINDA HOEFS	Linda Hoefs	DESERT CENTER
Penny Scott	Penny Scott	Desert Center
Karen Wrensch	Karen Wrensch	Desert Center
Richard DeLashmit	Richard DeLashmit	Desert Center
Kevin Wrensch	Kevin Wrensch	Desert Center
Sally Stewart	Sally R. Stewart	Kingman, Az
Earl Martin	Earl D. Martin	Desert Center
Jeff Randall	[illegible]	Eagle Mt. / Desert Center
Jim McKernan	[illegible]	Peoria, AZ.
Zachery Stout	Zachery Stout	Desert Center CA
The Ken	[illegible]	Mayor
Hali Hanrahan	[illegible]	Havasu, AZ

Date Completed 10-3-10

We Support Desert Sunlight

We, residents of and visitors to Desert Center, are pleased to be counted in support of First Solar's 550-megawatt Desert Sunlight Solar Farm to be built in this area. The project is expected to provide enough clean energy for about 160,000 California homes, and to be a major factor in California achieving one-third of its energy from renewable resources. Direct benefits will be approximately 435 construction jobs, more customers for local businesses, and increased sales and property tax revenues. As designed, the project will protect the environment of this area while at the same time utilizing one of our unique natural resources, abundant sunshine.

Name	Signature	City
Harold Foster	H Foster	Desert Center
Geri Giafis	[illegible]	Desert Center
Jeff Ragsdale	Jeff Ragsdale	Desert Center
Niki Castor	Niki Castor	Desert Center
* Bryon Castor	[illegible]	Desert Center
Joy Eakenhart	[illegible]	Desert Center
Larry Eakenhart	[illegible]	Desert Center
Cynthia Lodgers	Cynthia Lodgers	Desert Center
Elizabeth Kepner	Elizabeth Kepner	Desert Center
Terry Kepner	[illegible]	Desert Center
Pat House	Pat House	Desert Center
Grover Furlow	[illegible]	Desert Center
Steve Ordaz	Steve Ordaz	Desert Center
Josefina Ordaz	[illegible]	Desert Center
Jerrod Ragsdale	Jerrod H Ragsdale	Desert Center

Date Completed 10-3-2010

We Support Desert Sunlight

We, residents of and visitors to Desert Center, are pleased to be counted in support of First Solar's 550-megawatt Desert Sunlight Solar Farm to be built in this area. The project is expected to provide enough clean energy for about 160,000 California homes, and to be a major factor in California achieving one-third of its energy from renewable resources. Direct benefits will be approximately 435 construction jobs, more customers for local businesses, and increased sales and property tax revenues. As designed, the project will protect the environment of this area while at the same time utilizing one of our unique natural resources, abundant sunshine.

Name	Signature	City
Eileen Hanrahan	E. M. HANRAHAN	GLENDORA, CA
Mike Hanrahan	M Hanrahan	Glendora, CA
JIM FARBOOQUEE		IRVINE, CA
Donna Simmons		La Quinta CA
Adam Simmon		La Quinta. CA
Daniel Hofshi		Desert Center, CA
Travis Rye		Desert Center CA
Adrian Beltran	Adrian Beltran	Desert Center CA
Renee Castor		Desert Center CA
CURTIS CARNEY		DESERT CENTER CA
DENNIS HAMILTON		Blythe, Ca
Stacy Runyon	STACY RUNYON	Desert Center CA
RICHARD STEWART		CHIRIACO SUMMIT. CA.
MICKY GAANA		DESERT CENTER
HARRY SWANEY	Harry Swaney	Desert Center, Ca. 92239

Date Completed 10/5/10

We Support Desert Sunlight

We, residents of and visitors to Desert Center, are pleased to be counted in support of First Solar's 550-megawatt Desert Sunlight Solar Farm to be built in this area. The project is expected to provide enough clean energy for about 160,000 California homes, and to be a major factor in California achieving one-third of its energy from renewable resources. Direct benefits will be approximately 435 construction jobs, more customers for local businesses, and increased sales and property tax revenues. As designed, the project will protect the environment of this area while at the same time utilizing one of our unique natural resources, abundant sunshine.

Name	Signature	City
Lynne Capp	Lynne Capp	Desert Center
ANNA LINDBERGH-RIDDLE	Anna Lindbergh-Riddle	DESERT CENTER
Gregory Alvarez	Gregory Alvarez	Desert Center
ANDREW AVILA	Andrew Avila	LAKE HAVASU AZ
John Hawkins	JOHNNY Hawkins	DESERT CENTER
KEN STATLER		DESERT CENTER
Patti Aikin	Patti Aikin	Desert Center
Gerry Wolff	Gerry Wolff	Desert Center
Corey Vigoriz		DESERT CENTER
J R Chiriaco	J R Chiriaco	Chiriaco Summit
Margit F. Chiriaco	Margit F. Chiriaco	Rushe CHIRIACO SUMMIT
Anthony Whitehead RUSHE	Anthony Whitehead	Desert Center Ca 92201
MICHAEL BARTON	Michael Barton	L.H.C.
DOLORES COE	Dolores Coe	Desert Center
Brian Nielsen		Desert Center

Date Completed 10-06-2010

DC
cde

We Support Desert Sunlight

We, residents of and visitors to Desert Center, are pleased to be counted in support of First Solar's 550-megawatt Desert Sunlight Solar Farm to be built in this area. The project is expected to provide enough clean energy for about 160,000 California homes, and to be a major factor in California achieving one-third of its energy from renewable resources. Direct benefits will be approximately 435 construction jobs, more customers for local businesses, and increased sales and property tax revenues. As designed, the project will protect the environment of this area while at the same time utilizing one of our unique natural resources, abundant sunshine.

Print Name	Signature	City
JOHN BEACH		DESERT CENTER
Brittney Roette		Desert Center
Stephen Wright		Desert Center
		Blythe, Ca.
Lonnie Clouse		Desert Center,
Jerry Mossberger		Desert Center
Laura HERNANDEZ		Blythe
Joe Naranjo		Desert Center
DAN EDMONDSON		LOCKHARTE TX
FRANK ARRIETA		INDIO CA.
ALFONSO GUZMAN		SAN JACINTO CA.
JOHN SHEFFLER		ALTA LOMA, CA.
mike HARVILL		Phoenix AZ.
Robert Taylor		Beaumont, CA
Ed JONES		RIVERSIDE, CA

Date Completed _____

DC
CA

We Support Desert Sunlight

We, residents of and visitors to Desert Center, are pleased to be counted in support of First Solar's 550-megawatt Desert Sunlight Solar Farm to be built in this area. The project is expected to provide enough clean energy for about 160,000 California homes, and to be a major factor in California achieving one-third of its energy from renewable resources. Direct benefits will be approximately 435 construction jobs, more customers for local businesses, and increased sales and property tax revenues. As designed, the project will protect the environment of this area while at the same time utilizing one of our unique natural resources, abundant sunshine.

Name	Signature	City
Thomas E. Smith	Thomas E Smith	Youngtown AZ 85363
[illegible]	[illegible]	HEMET, CA
Dannia Vann	Dannia Vann	Desert Center
John Vann	John Vann	Desert Center
Robert Miller	Rob Miller	Hinkley ca.
Michael Walker	[illegible] Walker	Desert Center
[illegible]	[illegible]	Chino, CA
Lucille Shepard	L. Shepard	[redacted] Chino, CA
Steve Orduz	Steve Orduz	Desert Center, Ca.
Omar Torresano	Omar Torresano	Desert Center, Ca
* Bryon Castor	[illegible]	Desert Center
Mike Vaghela	M. V. Vaghela	Batesville, MS
Kim Prestley	[illegible]	Redlands, CA 92374
Suzanne Ragsdale	SRagsdale	Desert Center
Ofelia Beltrán	Ofelia Beltran	Desert Center

Date Completed 10-9-10

We Support Desert Sunlight

We, residents of and visitors to Desert Center, are pleased to be counted in support of First Solar's 550-megawatt Desert Sunlight Solar Farm to be built in this area. The project is expected to provide enough clean energy for about 160,000 California homes, and to be a major factor in California achieving one-third of its energy from renewable resources. Direct benefits will be approximately 435 construction jobs, more customers for local businesses, and increased sales and property tax revenues. As designed, the project will protect the environment of this area while at the same time utilizing one of our unique natural resources, abundant sunshine.

Name	Signature	City
LaDonna Thorsen	LaDonna Thorsen	Desert Center
Jennifer Randall	[illegible]	Desert Center
Camryn Randall	[illegible]	Desert Center
Mackenzie Randall	Mackenzie Randall	Desert Center
PEGGY CASTOR	Peggy Castor	" "
Stacy Green	Stacy Green	Desert Center
Keith Rogers	Keith Rogers	Desert Center
Mimi Rogers	Mimi Rogers	Desert Center.
Sheri Saens	Sheri Saens	Desert CA
Gary Earnhart	Gary Earnhart	Desert CA
ALEX TORRES	Alexandre Torres	DESERT CENTER
Andrea Wilmoth	A. Wilmoth	29 Palms
Maria Ramos	Maria Ramos	Eagle Mountain
Eliana Ramos	Eliana Ramos	Eagle Mountain
Ivan Ramos	Ivan Ramos	Eagle Mountain

Date Completed 10-10-10

We Support Desert Sunlight

We, residents of and visitors to Desert Center, are pleased to be counted in support of First Solar's 550-megawatt Desert Sunlight Solar Farm to be built in this area. The project is expected to provide enough clean energy for about 160,000 California homes, and to be a major factor in California achieving one-third of its energy from renewable resources. Direct benefits will be approximately 435 construction jobs, more customers for local businesses, and increased sales and property tax revenues. As designed, the project will protect the environment of this area while at the same time utilizing one of our unique natural resources, abundant sunshine.

Name	Signature	City
ERIC CASHMAN		SCOTTSDALE, AZ
RON HANADA		TORRANCE, CA
Al TATE		L.A. CA
Robyn BERMAN		Lake Hughes, CA.
TERRY PORCAWOW		Big River CA
Scott Ottinger	Scott Ottinger	DC
April Bagsdale	April Bagsdale	DC
DALE Roberts		Los Angeles Co.
Connie Ottinger	Connie Ottinger	Desert Center, CA
BRUCE LEARNED		PEORIA AZ
CRAIG PINCEL		LA CA.
RUTH ANDERSON	Ruth Anderson	Desert Center, Ca.
Paul Smith	PAUL SMITH	LAKE HAVASU, AZ
PAUL DIETRICH		Chino CA
Diane Mossbarger	Diane M. Mossbarger	Desert Center, CA

Date Completed 10-16-10

We Support Desert Sunlight

We, residents of and visitors to Desert Center, are pleased to be counted in support of First Solar's 550-megawatt Desert Sunlight Solar Farm to be built in this area. The project is expected to provide enough clean energy for about 160,000 California homes, and to be a major factor in California achieving one-third of its energy from renewable resources. Direct benefits will be approximately 435 construction jobs, more customers for local businesses, and increased sales and property tax revenues. As designed, the project will protect the environment of this area while at the same time utilizing one of our unique natural resources, abundant sunshine.

Name	Signature	City
Kyle Kiang	[illegible]	Earp, CA
Lindamendoza	Lindamendoza	Ehrenberg AZ
Juan Mendoza	Juan Mendoza	Ehrenberg AZ
BOB AMACHER	R Amacher	DESERT CENTER
Charlie Tyerina	Charlie Tyerina	Desert Center

Date Completed _____

SIGN-IN SHEET

4

10/20/2010 Desert Sunlight Solar Farm Public Meeting, Desert Center

Name	Representing	Organization	Address	Phone	Email
J. Hildebrand			SAN JACINTO 672 HEWITT		
Jan Roberts		Kaiser Eagle Mtn	PO Box 37 Desert Center	760.408.4357	Jreagle mtn @ Aol.com
Suzanne & Arthur Ruda		N/A	PO BOX 409 Desert Center	760-227-3218	N/A
George & Lois Donaldson		Desert Center CC	PO Box 1111 Desert Center	760-227-3290	
Dale & Toni Jennakens		~~Desert Center~~	Box 215 Desert Center	509-220-9123	
Harold Forster			Lake Tamarisk	760-567-0037	yes
Ben & Eleanor Rogowski		Lake Tamarisk	#62		
MARY E ZEILER		DESERT CENTER	25950 RICE ROAD DESERT CENTER	(760) 227-3109	no
Steve Jones	CSA51	Desert Center	PO Box 246 92239 Desert Center, CA	760-227-3245	SHJones@rivcoeda.org
Joyce Jones			P.O. Box 365 Desert Center CA		

SIGN-IN SHEET

10/20/2010 Desert Sunlight Solar Farm Public Meeting, Desert Center

Name	Representing	Organization	Address	Phone	Email
JOHN BEACH			Box 91 92239 DESERT CENTER	650-327-4893	desertcenter@hughes.net
TIM LEFORCE					TIM@FAIRWEATHER.COM
Jim & June Capp			POB 343 Desert Center		
Patty Bell			PO BOX 459 Desert Center	760 567-1107	Pattybell desertHomes@gmail.com
Corey Mitchell					coreyirene@gmail.com
JAKE MOHLMANN					mohlmann2@yahoo.com
MARYEL GREEN			P.O. Box 306 Desert Center	760 227-3215	
WALTER A. GREEN			//	//	
Jeff Randall			P.O. Box 242 Desert Center, CA 92239	760-392-4940	
STEVE LOWE			74-199 EL PASEO PALM DESERT		

SIGN-IN SHEET

10/20/2010 Desert Sunlight Solar Farm Public Meeting, Desert Center

Name	Representing	Organization	Address	Phone	Email
Steve Wright			PO Box 276	253-653 7324	
Christine Hersey	WEDBUSH →		1000 Wilshire Blvd Los Angeles CA 90066	213-688-4311	Christine.hersey @wedbush.com
Bob Amacher			PO Box 455 Desert Center		
Renee Castor	Desert Center Chamber of Commerce Chairman		PO Box 373 Desert Center CA 92239	760 485-8060	dcareachamber@gmail.com
Matt Green			P.O. Box 305 Desert Center CA		
Scott White	Aspen Envir. Grp		201 N First Av #102 Upland CA 91786	(909) 949-3686	swhite@aspen-eg.com
Timothy W Anderson	Desert Center Grape Farm		Box 436 Desert Center CA 92239	760 227 3188	
Dawn Rettagliata	First Solar		P.O. Box 605 Desert Center CA	760 218-0122	
Larry Charpied			P.O. Box 321	760-392-4722	

SIGN-IN SHEET

10/20/2010 Desert Sunlight Solar Farm Public Meeting, Desert Center

Name	Representing	Organization	Address	Phone	Email
Richard Delashmit	Richard's Service		PO Box 231 Desert Center	760 397-1073	
Alfredo A. Figueroa	Fe Cuna de Azteca	Sacred Site protection Circle	924 N Carlton Blythe Ca.	760-922-6422	
Ernie Funicula	SCKT		po Box 480 DC Ca	530 906 4840	
Steve Kevish	First Solar			908-255 2249	
MATT MERFERT	FIRST SOLAR			908-255-2248	
Margit Chiriaco Ruche	Chiriaco Summit		62450 Chiriaco Rd Chiriaco Summit 92201	760 485 1576	
Heather Garcia	CSWD.		62450 Chiriaco Rd #C Chiriaco Smt Ct.	760-227-3227 X207.	CSwater district@gmail.com
RC Chiriaco	CS		"	760 831 1813	RC BOB @ Yahoo.com
Ronny Underwood		Local 12	1362 West Barbour Banning CA 92220		

SIGN-IN SHEET

10/20/2010 Desert Sunlight Solar Farm Public Meeting, Desert Center

Name	Representing	Organization	Address	Phone	Email
Glen Eastman	MWD	Eagle Mtn	15500 Kaiser Rd 33104	800-225 5693	geastman@mwdh2o
Glenn Castor	Desert Center Chamber of Commerce		43591 Tamarisk Dr Desert Center CA 92239	760 861-0437	stormtaker@HughesNet
Kevin Emmerich	BASIN + RANGE WATCH		P.O. Box 70 BEATTY, NV 89003	775-553 2806	
George Hepker	International Pipe Builders	Contractor	2520 Auibidoux Blvd 951 Riverside CA 92819	682 2982	donm@ilbinc.com
Donna Altarepred	CCV	CCV	PO Box 397 Desert Center	(760) 392-4722	laronnao@earthlink.net

SIGN-IN SHEET

10/20/2010 Desert Sunlight Solar Farm Public Meeting, Desert Center

Name	Representing	Organization	Address	Phone	Email
Ann Ollivier					

5

Public Comment Card for Scoping Process

First Solar Desert Sunlight Solar Farm Project

Commentor Name: ALIBABA FARZANEH Date: 760-272703

Address: 127 SANTO TOMAS R.M. CA 92270

Comment:

it is time to see dream come Thru.
make more toward tomarrow.
I am 100 for it 5-1

By submitting a scoping comment you will receive a copy of the EIS. Please indicate the format you would prefer:

☐ Compact Disk (CD) or ☐ Hardcopy

October 21, 2010, University of California- Riverside, Palm Desert Campus, 75080 Frank Sinatra Drive, Palm Desert, CA 92211

6

Public Comment Card for Scoping Process

First Solar Desert Sunlight Solar Farm Project

Commentor Name: Bob Hargreaves Date: 10/22/10

Address: 68835 Minaria Rd Cathedral City CA 92234

Comment:

6-1

We need this project for our economy and environment.

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☐ Compact Disk (CD) or ☐ Hardcopy

October 21, 2010, University of California- Riverside, Palm Desert Campus, 75080 Frank Sinatra Drive, Palm Desert, CA 92211

7

COACHELLA VALLEY ECONOMIC PARTNERSHIP

October 21, 2010

Allison Shaffer, Project Manager
Palm Springs South Coast Field Office
Bureau of Land Management
1201 Bird Center Drive
Palm Springs, CA 92262

re: Desert Sunlight Solar Farm Project

Dear Ms. Shaffer:

On behalf of the Coachella Valley Economic Partnership, I am writing to lend our support to the proposed Desert Sunlight Solar Farm project in Palm Desert.

The Coachella Valley Economic Partnership (CVEP) serves its investors — including the nine cities of the Coachella Valley, the County of Riverside and over 100 private businesses — by working to attract businesses to the region as well as to assist existing businesses with expansion. The Coachella Valley has collaborated to create a comprehensive regional strategy known as the *Coachella Valley Economic Blueprint*, which provides regional stakeholders the opportunity to unite behind an aggressive and proactive plan for the future economic sustainability of our region.

7-1

We are supportive of the direct, indirect and induced impact of this exciting renewable energy project. We are also eager to realize both the short term and long term jobs that this project will help generate for our region.

A project like this will help to set the standard for an industry that we look forward to supporting. The opportunities are tremendous and we feel that by bringing projects like these to our region, it will help to spur our economic recovery.

Please feel free to contact our office with any questions or concerns.

Sincerely,

Wesley Ahlgren
Chief Operating Officer

CLIMATE FOR SUCCESS

73-710 FRED WARING DRIVE, SUITE 106 • PALM DESERT, CALIFORNIA 92260 • PH: 760.340.1575 • FX: 760.340.9212 • WWW.CVEP.COM

8

Public Comment Card for Scoping Process

First Solar Desert Sunlight Solar Farm Project

Commentor Name: DENNIS LARNEY Date: 10/21/10

Address: 42 SUTTON PL PALM DESERT, CA 92211

Comment:

I strongly support the efforts of FIRST SOLAR in the installation of solar farm in the Coachella Valley, Riverside + San Bernardino counties. 8-1

CUAW (COACHELLA VALLEY ANGEL NWORK) - BOARD MEMBER

CSUSB - PALM DESERT - COORDINATOR CAREER + TECH TRNG PROGRAM

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☐ Compact Disk (CD) or ☐ Hardcopy

October 21, 2010, University of California- Riverside, Palm Desert Campus, 75080 Frank Sinatra Drive, Palm Desert, CA 92211

9

Public Comment Card for Scoping Process

First Solar Desert Sunlight Solar Farm Project

Commentor Name: Gerald M. Budlong Date: 10/21/2010

Address: 24821 Metric Drive, Moreno Valley, CA 92557

Comment: The project meets the Congression intent of FLMPA and is consistant with the California Desert Conservation Plan. The project site is located in a disturbed inclave surrounded by the National Park on lands designated class M (Moderate). The site is ringed on three sides by the MWD Colorado Aqueduct. The Eagle Mountain Mine, company town, airport and prison while inactive are located to the north west of the project site. Agriculture use and the two near by communities are located near by.

The project will provide long term economic stimulus to the local area while providing renewable energy to California residents, commerce and industry. It saves the use of coal & petroleum resources from being used for energy production.

The project is an environmental superior proposal and I can forsee only a win-win solution. I hope all the other solar & wind projects are as well planned.

9-1

Gerald M. Budlong

By submitting a scoping comment you will receive a copy of the EIS. Please indicate the format you would prefer:

☒ Compact Disk (CD) or ☒ Hardcopy

October 21, 2010, University of California- Riverside, Palm Desert Campus, 75080 Frank Sinatra Drive, Palm Desert, CA 92211

10

Public Comment Card for Scoping Process

First Solar Desert Sunlight Solar Farm Project

Commentor Name: Graeme R. Donaldson Date: 10.21.10.

Address: 62-300 Gene Welmas Drive, Mecca CA 92254-0758.

Email Address => Graeme.Donaldson@Colmac-Energy.com

Comment:

What is the type of technology to be utilized thin film or flat plate. 10-1

Static / Single Tracking / Dual Tracking.

By submitting a scoping comment you will receive a copy of the EIS. Please indicate the format you would prefer:

☑ Compact Disk (CD) or ☐ Hardcopy

October 21, 2010, University of California- Riverside, Palm Desert Campus, 75080 Frank Sinatra Drive, Palm Desert, CA 92211

11

Public Comment Card for Scoping Process

First Solar Desert Sunlight Solar Farm Project

Commentor Name: Kathy Gottberg Date: 10/21/10

Address: 78-290 Desert Fall Way

Comment:

I support solar because it is renewable + clean energy. 11-1

By submitting a scoping comment you will receive a copy of the EIS. Please indicate the format you would prefer:

☐ Compact Disk (CD) or ☐ Hardcopy by email: kathy@gottgreen.com

October 21, 2010, University of California- Riverside, Palm Desert Campus, 75080 Frank Sinatra Drive, Palm Desert, CA 92211

12

Public Comment Card for Scoping Process

First Solar Desert Sunlight Solar Farm Project

Commentor Name: Larry McLaughlin Date: 10-21-10

Address: 43-500 Monterey Ave., Palm Desert 92260

Comment: The Desert Sunlight solar project will bring needed jobs to east Riverside County. The project will be built in an area that will benefit a great deal from the positive economic impact. In addition, the large-scale solar projects in this region will make a significant contribution to our supply of electricity, generated in a very clean way. Projects such as the First Solar Desert Sunlight Solar Farm represent the type of bold action needed to reduce greenhouse gases and our nation's dependence on fossil fuels. 12-1

Larry McLaughlin
College of the Desert

By submitting a scoping comment you will receive a copy of the EIS. Please indicate the format you would prefer:

☑ Compact Disk (CD) or ☐ Hardcopy

October 21, 2010, University of California- Riverside, Palm Desert Campus, 75080 Frank Sinatra Drive, Palm Desert, CA 92211

13

Public Comment Card for Scoping Process

First Solar Desert Sunlight Solar Farm Project

Commentor Name: LR Sanders Date: 10/21/10

Address: 1850 Smoke Tree Ranch, Palm Springs

13-1

Comment: I'm all in favor of the project Try to speed the permitting process and approval along so First Solar can get the project underway as soon as possible. It will be a benefit to all in the Coachella Valley.

LR Sanders 714-939-6013
Grubb + Ellis
500 N. State College Blvd. #100 Orange ca 92868

By submitting a scoping comment you will receive a copy of the EIS. Please indicate the format you would prefer:

☐ Compact Disk (CD) or ☑ Hardcopy

14

Public Comment Card for Scoping Process

First Solar Desert Sunlight Solar Farm Project

Commentor Name: Office of Asm. V. Manuel Perez Date: Oct 21, 2010

Address: 45-677 Oasis Street, Indio, Ca. 92201

Comment: See attached letter.

By submitting a scoping comment you will receive a copy of the EIS. Please indicate the format you would prefer:

☐ Compact Disk (CD) or ☒ Hardcopy

October 21, 2010, University of California- Riverside, Palm Desert Campus, 75080 Frank Sinatra Drive, Palm Desert, CA 92211

STATE CAPITOL
P.O. BOX 942849
SACRAMENTO, CA 94249-0080
(916) 319-2080
FAX (916) 319-2180

DISTRICT OFFICE
45-677 OASIS STREET
INDIO, CA 92201
(760) 342-8047
FAX (760) 347-8704

Assembly
California Legislature

V. MANUEL PÉREZ
ASSEMBLYMEMBER, EIGHTIETH DISTRICT

COMMITTEES
CHAIR, ECONOMIC DEVELOPMENT, AND THE ECONOMY
ACCOUNTABILITY AND ADMINISTRATIVE REVIEW
HEALTH
VETERANS AFFAIRS

October 21, 2010

Allison Shaffer, Project Manager
U.S. Bureau of Land Management
Palm Springs South Coast Field Office
1201 Bird Center Drive
Palm Springs, California 92262.

RE: SUPPORT FOR FIRST SOLAR'S DESERT SUNLIGHT SOLAR PROJECT

Dear Ms. Shaffer:

Thank you for conducting a public meeting in the Coachella Valley in order to gather appropriate information regarding issues which should be addressed in the Environmental Impact Statement for the proposed Desert Sunlight Solar Farm Project near Desert Center in Riverside County.

14-1

I represent many of the communities in the greater Riverside County as their representative in the State Legislature. As the Assembly Member for the 80th District, which includes Desert Center, I want to express my firm support in the EIS process for First Solar's Desert Sunlight Solar Project. Southern California's desert region has been a pioneer for renewable energy, leading the way in wind, geo-thermal, and now solar energy production. The project is a perfect fit for our area.

Desert Sunlight will provide clean, affordable and sustainable energy for an average of 160,000 California homes. At the same time, the project will displace over 300,000 metric tons of CO_2 greenhouse gas emissions annually, the equivalent of taking almost 60,000 cars off the road. It will also generate hundreds of much needed jobs over the next few years, while generating approximately $27 million in sales and property taxes to the local region.

We know First Solar has been sensitive to minimizing impacts in the design of the project and hope the Bureau of Land Management will ensure proper and reasonable mitigation. California's commitment to increasing its dependence on renewable energy is critically important and can only be accomplished with forward-thinking projects.

Thank you for allowing me to issue my support in writing, please feel free to contact my state offices if I can be of further assistance to your department related to this important project.

Sincerely,

V. Manuel Pérez

V. Manuel Pérez, Assembly Member
Eightieth District
VMP:gc

Printed on Recycled Paper

SIGN-IN SHEET

10/21/2010 Desert Sunlight Solar Farm Public Meeting, UCR Palm Desert

Name	Representing	Organization	Address	Phone	Email
Terry Cook	Kaiser / Mine Reclamation		3633 Inland Empire Blvd Suite 488 Ontario, CA 91764	(909)483-8511	Terry@Kaiserventures.com
Erin Gilhully	First Solar				
Matt Merfert	First Solar				
Wayne Hoffman	" "				
Brian Kunz	" "		353 Sacramento St. Suite 2100 San Francisco, CA		
Ken Waxlax	PMA Real Estate				Ken.waxlax@verizon.net
Daniel Brennan	Laborers 1184		PO Box 155 Thousand Palms CA		
Dennis Larney	CSUSB + CUAN		42 Sutton Pl Palm Desert, CA 92211		dlarney@csusb.edu
John Light	Laborers 1184		72732 Ramon Rd TP CA		
Ronny Underwood	Local 12		Palm Desert		

SIGN-IN SHEET

10/21/2010 Desert Sunlight Solar Farm Public Meeting, UCR Palm Desert

Name	Representing	Organization	Address	Phone	Email
James Graff-Radford		Law offices	73-700 El Paseo	(760) 779-5650	jamesgr@graffradfordlaw.com
Michelle DeArmond	Riv. Co. Supv. Benoit, 4th District	Riverside County	73710 Fred Waring Drive, Steed Palm Desert, CA	760-409 4493	mdearmond@rcbos.org
JASON NEUMAN	CAL FIRE	Riv. co.	210 W. San Jacinto Perris, CA 92570	(951) 940-6900	Jason.Neuman@fire.ca.gov.
Bob Hargreaves	~~BBK~~	B.B.K	74-760 Hwy 111 #200 Indian Well CA 92210	760-568 2611	robert.hargreaves@bbklaw.com
Ty Schieber	TAIC		150 Riverside Pkwy Ste 205 22406 Fredericksburg, VA	540.220.1099	ty.schieber@taic.net
Christina Schaefer	TAIC	TAIC	9089 Clairemont Mesa Ste 200 San Diego, CA 92123	858-300-2346	Christina.Schaefer@taic.net
Weslex Anson	CVEP	CVEP		619 890 7178	wes@cvep.com
Gerald Buckly	SCF	IVA	24821 Metric Drive	951 924-3241	
Jim Turney	LEGAL COUNSEL	"	PO Box 6905 LA QUINTA	760 360 4765	JAMES.TURNEY@JT-LEX.COM
George Puddephatt	Riverside Co. Workforce Dev.	"	44-199 Monroe St. #B Indio, CA. 92201	760-863-2515	gpuddephatt@rivcoeda.org

SIGN-IN SHEET

10/21/2010 Desert Sunlight Solar Farm Public Meeting, UCR Palm Desert

Name	Representing	Organization	Address	Phone	Email
ALAN PACÉ	PETRA GEOTECHNICAL		42240 GREEN WAY ST. E 92211 Palm Desert	760-250-9747	APACE@PETRA-INC.com
FRANK TRAINOR				951-323 3489.	
Meilani MacDonald					Meilani Mac-1@yahoo.com
Janet Malachowsky	~~Nuffan St~~ Self		68070 Vista del Valle Cathedral City, CA	760-779-8456	janet.malachowsky@gmail.com
ROBERT. MEHRING	DESERT. RECYCLING		27-105 Sierra Del Sol, Cathedral CA. 92270	760-200-5169	BOBmehring@msn.com
LEE SHERWOOD	RECON ENVIRONMENTAL		1976 FIFTH AVE San Diego, CA 92101	619-308-9333	lsherwood@recon-us.com
Justin Westrum	AECOM		550 Spear St San Francisco, CA 94105		justin.westrum@gmail.com
Thomas Mull	USAF	95 ABW/CEV Environmental Management Edwards AFB	5 E. Popson Ave Edwards AFB, CA 93524	661 277-1488	thomas.mull@edwards.af.mil
Robert Pennington	Self				
Leroy Segundo					

SIGN-IN SHEET

10/21/2010 Desert Sunlight Solar Farm Public Meeting, UCR Palm Desert

Name	Representing	Organization	Address	Phone	Email
Silvia Paz	Asm. V. Manuel Perez	80TH Assembly		760-342-8047	silvia.paz@asm.ca.gov.
Amanda Beck		First Solar		510-886-7587	abeck@firstsolar.com
LR Sanders	Grubbs Ellis Clean Energy Group			714-939-6013	LR.Sanders@grubb-ellis.com
ALIBABA	ABF		127 VIA SANTO TOMAS R.M CA 92270	760 2727103	ALIBABAF14 @YAHOO.COM
REUEL YOUNG	INTERACTIVE DESIGN CORPORATION	ARCHITECT	199 SOUTH CIVIC DRIVE	760 323-4990	REUEL@ INTERACTIVEDESIGN CORP.COM
BILL WRIGHT	WEW CONSTRUCTION	DEVELOPER	28200 VIA LAS PALMAS 1000 PALMS.	760 275-3154	WEW BILL @VERIZON.NET
STEVE BEALS	CB COMM	REAL ESTATE	52 SAN SIMEON PL. RANCHO MIRAGE CA 92270	760-324-1537	STEPHEN.E.BEALS @GMAIL.COM
Alan Beattie	ISI Strategies			760-325-3330	abeattie@earthlink.net
Larry McLaughlin	College of the Desert		43-500 Monterey Ave. Palm Desert, CA 91505	760-773-2595	lmclaughlin@collegeofthedesert.edu
Lin Juniper	SCE	Local Public Affairs		760-202-4288	Lin.Juniper@sce.com

SIGN-IN SHEET

10/21/2010 Desert Sunlight Solar Farm Public Meeting, UCR Palm Desert

Name	Representing	Organization	Address	Phone	Email
Sean Milanovich	Self		68303 Madrid Rd Cathedral City, CA		
Brad Mielke	RBF		74-130 Country Club Palm Desert, CA 92260		bmielke@rbf.com
BRUCE SINGER	KW Commercial Real Estate		box 4040 Palm Desert 92261	760 272-0049	besinger@mac.com
Peggy Sue Lane	Fidelity National Title		40004 Cook St. Palm Desert 92211	760. 668.8400	Peggysue@fnf.com

16

"Anco Blazev"
<ablazev@cox.net>

08/27/2010 04:48 PM

Please respond to
"Anco Blazev"
<ablazev@cox.net>

To <Ysmael_Wariner@blm.gov>,
<CAPSSolarFirstSolarDesertSunlight@blm.gov>
cc "Mark Herbst" <mcherbst@gmail.com>,
<lkrueger@firstsolar.com>, <mgustafsson@firstsolar.com>
bcc
Subject Re: BLM releases Desert Sunlight Solar EIS

Ysmael and Allison,

Re: Desert Quartzsite, and Desert Sunlight CdTe Power Plants (1,150 MW untested and unproven CdTe TFPV)

16-1

As previously communicated, we are extremely concerned about the safety of CdTe PV modules in such large scale installations in the US deserts. The flimsy, frame-less modules contain significant amount of Cadmium--a proven toxic carcinogen heavy metal--which with time will disintegrate and decompose under the harsh desert elements. The open edge module design will not be able to protect the Cadmium compounds inside during 30 years of non stop exposure to the desert elements, and will allow the poisons to decompose and escape in solid, particulate, liquid or gaseous form, thus contaminating environment and life in it.

The combined 1,150MW CdTe fields will consist of approx. 15 million CdTe TFPV modules, containing over 275,000 lbs of Cadmium (in CdTe and CdS form) evenly spread over 10,000 acres desert land close to populated centers. This is untested, unproven and unregulated super-large scale experiment, which--my 35 years hands-on experience with solar (PV) and semiconductor (thin film) processes and products assure me--will sooner or later result in a great disaster; the size and severity of which we cannot even imagine at this point, and which might make BP oil spill look like a child's play.

The CdTe modules manufacturers have been UNABLE or UNWILLING to provide ANY information on the safety of their products under these particular desert conditions. See attached communication with them, which asks a very simple question about data and proof of the the safety of their CdTe modules under 30 years desert operation. They have not responded, and most likely don't plan to. And why should they? This is not important. Pushing these two major projects through is all that matters right now; while the money spigot and the regulator's gap are still wide open.

In our professional opinion, the present CdTe modules must be re-designed for desert use, before proceeding with such large scale undertaking close to population centers. Else the manufacturers, and those who issue the permits for the 1,150MW fields, will be held responsible in case of an environmental or health disasters in the future.

So in conclusion, we urge you to take a very close look at these untested, unproven and unregulated for such use CdTe modules, and evaluate the risks with the help of third party scientists and experts--focusing on the 30+ years exposure of these modules to the desert extremes. This is your duty and responsibility, and we count on you to take this serious matter very seriously. Thank you in advance.

Best regards,

Anco Blazev, Ch.E.
Ph. 480-381-7502

From: Ysmael_Wariner@blm.gov
Sent: Friday, August 27, 2010 3:32 PM
Subject: BLM releases Desert Sunlight Solar EIS

The Bureau of Land Management has released the draft environmental impact statement (EIS) for the proposed Desert Sunlight Solar Farm (DSSF) Project in eastern Riverside County, Calif.

The link to the news release and EIS is at:

http://www.blm.gov/ca/st/en/info/newsroom/2010/august/CDD_1099_DesertSunlightDEIS.html

Ysmael Wariner
Business Support Assistant
BLM Palm Springs / South Coast Field Office
1201 Bird Center Drive
Palm Springs, CA 92262
Phone: 760-833-7151

----- Message from "Anco Blazev" <ablazev@cox.net> on Tue, 17 Aug 2010 16:32:20 -0700 -----

To: <lkrueger@firstsolar.com>
cc: <mgustafsson@firstsolar.com>, "Mark Herbst" <mcherbst@gmail.com>
Subject: Response to Your Letters Dated August 10 and 17, 2010

Lisa,

See attached file in response to your letters. I sincerely hope that it clears the misunderstandings, and that we'll get some positive answers to the issues at hand.

PS. Hard copy follows.

Best regards,

Anco Blazev
480-381-7502

cc. M.C. Herbst First Solar Response, August 17, 2010.pdf

Anco S. Blazev

838 E. Drake Drive
Tempe, AZ 85283
Ph. 480-381-7502
ablazev@cox.net

August 16, 2010

Ms. Lisa Krueger
First Solar, Inc.
350 W. Washington Street #600
Tempe, AZ 85281

Dear Lisa,

Your letters of August 10 and 17, 2010, and all earlier responses by First Solar representatives, miss or evade the only question we would like to have addressed and answered, "Does First Solar have ANY scientifically valid data, which meets your burden of proof about the safety of your CdTe TFPV modules when subjected to extreme conditions, well beyond those of the "standard" tests and conditions to which you ubiquitously refer? If not, planning to install CdTe TFPV modules in large scale CdTe power fields in the SW US deserts and SE humid areas for 30+ year of continuous on sun operation is utterly unjustified and represents bad judgment, and serious moral, scientific, public and corporate breaches of duty."

Unsurprisingly, all references given by First Solar relate exclusively to "standard or normal" operating conditions, which we are not disputing. They are, however, irrelevant, since our sole concern is your hasty attempt to deploy your untested, unproven and unregulated for this purpose CdTe TFPV modules in the extreme environments of the US, where your CdTe/CdS thin films packed into flimsy, unframed modules will not be able to survive the elements. With time, some of the thin films will disintegrate mechanically and decompose chemically, thus contaminating the local environment and life in it with various combinations of solid, particulate, liquid and gaseous cadmium and cadmium compounds; all of which are toxic carcinogens; especially dangerous in huge amounts, as in the proposed large scale fields

Thus far we have not seen ANY information related to testing, or any third party scientific proof, about the behavior and longevity of your CdTe/CdS thin films in mega fields, exposed to the extreme conditions of the US deserts and humid areas during 30+ years operation. You seem to have ignored the laws of physics, chemistry and good citizenry in your haste, so we look forward to some reassuring answers.

Regards,

Anco Blazev

Anco Blazev
cc. Mr. Mark C. Herbst

Sept. 7, 2010

17

Ms. Allison Shaffer, Project Manager
BLM Palm Springs South Coast Field Office
1201 Bird Center Drive
Palm Springs, Ca. 92262

RECEIVED
AND MANAGEMENT
10 SEP 10 PM 12:43
PALM SPRINGS-SOUTH COAST
FIELD OFFICE AREA

Dear Ms. Shaffer,

17-1 As interested parties, we would like to submit the following comments on the proposed Desert Sunlight Solar Farm at Desert Center, Ca..

We support this project for the following reasons.

1. Clean energy sources should be encouraged and promoted.
2. The project will provide jobs during construction.
3. It will provide permanent jobs for operations after construction is completed.
4. The site will not be noticable to residents of the area.
5. There would be tax benifits to the county & state.
6. The effects on agriculture would be minimal as the land is rocky desert land.
7. Studies have been made of the area for three decades, so every living thing is counted and is to be reestablished to its original location.
8. Businesses in the area are minimal, therefore they will be stimulated by the project.
9. The demand for electric power is ever increasing and will be much needed in the future.

(continued)

17-1 cont

10. Solar power is readily available, clean, quiet, and non polutive.

Again, we support the development of this project.

Thank you for the opportunity to comment on the project.

Sincerely,

Dale Jennesheus
Leona B. Jennesheus
Box 215
Desert Center, Ca. 92239
509-220-9123 (Cellphone)

Dale A. Jenneskens
PO Box 215
Desert Center, CA 92239

SPOKANE WA 992
07 SEP 2010 PM 1 T

Ms. Allison Shaffer, Project Manager
B.L.M. Palm Springs - South Coast Field Office
1201 Bird Center Drive
Palm Springs, Ca. 92262

92262+8001

18

Ysmael Wariner/CASO/CA/BLM/DOI
09/20/2010 07:58 AM

To "CAPSSolarFirstSolarDesertSunlight@blm.gov" <CAPSSolarFirstSolarDesertSunlight@blm.gov>
cc
bcc
Subject Fw: BLM releases Desert Sunlight Solar EIS

----- Forwarded by Ysmael Wariner/CASO/CA/BLM/DOI on 09/20/2010 07:57 AM -----

"peacock" <peacock@shaw.ca>
09/19/2010 09:27 PM

To <Ysmael_Wariner@blm.gov>
cc
Subject Re: BLM releases Desert Sunlight Solar EIS

I own property on Kaiser Road and am very impressed with a proposed Solar Energy Visitor Center. In addition to the Solar Energy Visitor Center perhaps it would be in good taste to have the BLM to open a desert tortoise visitor center across the street or before this project. This would be another wonderful addition to
allow tourists to show them how wildlife and renewable energy can coexist side by side. 18-1

Since the Govenor Arnold is retiring in January 2011 I think he said that. Perhaps a dedication to his wonderful wife would be in order. The Maria Schriver Wildlife Center and have some giant brass/bronze desert
turtles in the front of the Center. This would be my suggestion.

Sincerely,

Dan Allan
----- Original Message -----
From: Ysmael_Wariner@blm.gov
Sent: Friday, August 27, 2010 3:32 PM
Subject: BLM releases Desert Sunlight Solar EIS

The Bureau of Land Management has released the draft environmental impact statement (EIS) for the proposed Desert Sunlight Solar Farm (DSSF) Project in eastern Riverside County, Calif.

The link to the news release and EIS is at:

http://www.blm.gov/ca/st/en/info/newsroom/2010/august/CDD_1099_DesertSunlightDEIS.html

Ysmael Wariner
Business Support Assistant
BLM Palm Springs / South Coast Field Office
1201 Bird Center Drive
Palm Springs, CA 92262
Phone: 760-833-7151

19

STATE OF CALIFORNIA Arnold Schwarzenegger, Governor

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
Web Site www.nahc.ca.gov
e-mail: ds_nahc@pacbell.net

10 SEP 23 PM 2:25

September 21, 2010

Ms. Allison Schaffer
UNITED STATES DEPARTMENT OF THE INTERIOR
Bureau of Land Management (BLM)
1201 Bird Center Drive
Palm Springs, CA 92264

Re: SCH#2010084009; NEPA Notice of Completion; **Draft Environmental Impact Statement (EIS) and CDCA Plan Amendment Proposed First Solar Desert Sunlight Solar Farm Project**;(A Right-of-Way grant to Desert Sunlight Holdings, LLC for a 550 MW, utility grade, photovoltaic project) located near Desert Center iin eastern Riverside County, California

Dear Ms. McGinnis:

The Native American Heritage Commission (NAHC) is the State of California 'trustee agency' pursuant to Public Resources Code §21070 designated to protect California's Native American Cultural Resources and Burial Grounds. The NAHC is also a 'reviewing agency' for environmental documents prepared under the National Environmental Policy Act (NEPA; 42 U.S.C 4321 *et seq*); Parts 1500 to 1508, that are subject to the Tribal and interested Native American consultation requirements of the National Historic Preservation Act, as amended (Section 106) (16 U.S.C. 470). The provision of the Native American Graves Protection and Repatriation Act (NAGPRA) (25 U.S.C. 3001-3013) apply to this project if Native American human remains are inadvertently discovered during 'ground-breaking' activity. 19-1

The NAHC is of the opinion that the federal standards, pursuant to the above-referenced Acts of the U.S. Congress and the President's Council on Environmental Quality (CSQ; 42 U.S.C. 4371 *et seq*) are similar to and in many cases more stringent with regard to the 'significance' of historic, including Native American items, and archaeological features, including those of Native American origin, than are the provisions of the California Environmental Quality Act (CEQA.) of 1970, as amended. In most cases, federal environmental policy require that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Statement (EIS). An Environmental Assessment, prepared under NEPA, defines a significant impact on the environment as "a substantial, or potentially substantial, adverse change in any of physical conditions within an area affected by the proposed project, including ...objects of historic or aesthetic significance." In order for either federal or state 'lead agencies' to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE)', and if the project is determined to have an adverse impact on a cultural resources; then, to mitigate that effect of the project. The State of California Native American Heritage Commission does prefer "avoidance, as defined in the California Code of Regulations §15370. To adequately assess the project-related impacts on historical resources, the Commission recommends the following action:

√ Contact the appropriate California Historic Resources Information Center (CHRIS), for the 'recorded sites . Contact information for the Eastern Information Center nearest you is available

from the State Office of Historic Preservation (It is listed with the NAHC as UC Riverside Center (951-827-5745))/ http://www.ohp.parks.ca.gov. The record search will determine: 19-1 cont

- If a part or the entire APE has been previously surveyed for cultural resources.
- If any known cultural resources have already been recorded in or adjacent to the APE.
- If the probability is low, moderate, or high that cultural resources are located in the APE.
- If a survey is required to determine whether previously unrecorded cultural resources are present.

√ If addition archaeological inventory surveys are required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.

- The final report, Environmental Impact Statement, if required, prepared under NEPA guidelines, containing site forms, site significance, and mitigation measurers should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for pubic disclosure.
- The final written report should be submitted within 3 months after work has been completed to the appropriate regional archaeological Information Center.

√ The Native American Heritage Commission (NAHC) performed:

* A Sacred Lands File (SLF) search of the project 'area of potential effect (APE)': The results: **No known Native American Cultural Resources were identified** within one-half mile of the 'area of potential effect' (APE)..;. However, there are Native American cultural resources in close proximity to the APE. This is considered a culturally sensitive area and local tribal contacts should be consulted from the attached list and they may know additional sites that are significant Native American cultural resources in close proximity..

- The NAHC also advises the use of Native American Monitors, also, when professional archaeologists or the equivalent are employed by project proponents, in order to ensure proper identification and care given cultural resources that may be discovered. The NAHC, FURTHER, recommends that contact be made with Native American Contacts on the attached list to get their input on potential IMPACT of the project (APE) on cultural resources.. In some cases, the existence of a Native American cultural resources may be known only to a local tribe(s) or Native American individuals or elders.
- √ Lack of surface evidence of archeological resources does not preclude their subsurface existence.
- Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) §15064.5 (f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities.
- Again, a culturally-affiliated Native American tribe may be the only source of information about a Sacred Site/Native American cultural resource.
- Lead agencies should include in their mitigation plan provisions for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans.

√ Lead agencies should include provisions for discovery of Native American human remains or unmarked cemeteries in their mitigation plans.

* The NAHC recommends that the lead agency to work with the Native Americans identified by this Commission if the Environmental Assessment identifies the presence or likely presence of Native American human remains within the APE. The NAHC recommends agreements with Native American Contacts, identified by the NAHC, to assure the appropriate and dignified treatment of Native American human remains and any associated grave liens.

√ Even though this is a federal project, we advise that the County Coroner be notified in the event of a discovery of human remains.. California Government Code §27460 requires that any find of human remains, even on federal property and/or on a federal project be reported to the County coroner. While it may not apply on federal land, California law That requires all construction to stop (CA Health & Safety Code Section 7050.5) in the event of a discovery of human remains. 19-1 cont

√ The Native American Heritage Commission, furthermore advises Lead agencies to consider **avoidance**, when significant cultural resources are discovered during the course of project planning and implementation

Please feel free to contact me at (916) 653-6251 if you have any questions.

Sincerely,

Dave Singleton
Program Analyst

Cc: State Clearinghouse

Attachment: List of culturally affiliated Native American Contacts

Native American Contacts
Riverside County
September 21, 2010

Ramona Band of Cahuilla Mission Indians
Joseph Hamilton, Chairman
P.O. Box 391670 Cahuilla
Anza , CA 92539
admin@ramonatribe.com
(951) 763-4105
(951) 763-4325 Fax

Fort Mojave Indian Tribe
Tim Williams, Chairperson
500 Merriman Ave Mojave
Needles , CA 92363
(760) 629-4591
(760) 629-5767 Fax

Twenty-Nine Palms Band of Mission Indians
Darrell Mike, Chairperson
46-200 Harrison Place Chemehuevi
Coachella , CA 92236
tribal-epa@worldnet.att.net
(760) 775-5566
(760) 775-4639 Fax

Colorado River Reservation
Ginger Scott, Acting Cultural Contact
26600 Mojave Road Mojave
Parker , AZ 85344 Chemehuevi
symi@rraz.net
(928) 669-9211
(928) 669-5675 Fax

Joseph R. Benitez (Mike)
P.O. Box 1829 Chemehuevi
Indio , CA 92201
(760) 347-0488
(760) 408-4089 - cell

Torres-Martinez Desert Cahuilla Indians
Ernest Morreo
PO Box 1160 Cahuilla
Thermal , CA 92274
maxtm@aol.com
(760) 397-0300
(760) 397-8146 Fax

Chemehuevi Reservation
Charles Wood, Chairperson
P.O. Box 1976 Chemehuevi
Chemehuevi Valley CA 92363
chair1cit@yahoo.com
(760) 858-4301
(760) 858-5400 Fax

AhaMaKav Cultural Society, Fort Mojave Indian
Linda Otero, Director
P.O. Box 5990 Mojave
Mohave Valley AZ 86440
lindaotero@fortmojave,
(928) 768-4475
(928) 768-7996 Fax

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code. Also, federal National Environmental Policy Act (NEPA), National Historic Preservation Act, Section 106 and fed eral NAGPRA. And 36 CFR Part 800.

This list is only applicable for contacting local Native Americans for consultation purposes with regard to cultural resources impact by the proposed SCH#2010084009; NEPA Notice of Completion; Draft EIS and CDCA Amendment Proposed First Solar Desert Sunlight Solar Farm Project; located in the Chuckalla Spring/Mountains near the Community of Desert Center; Eastern Riverside County, California.

Native American Contacts
Riverside County
September 21, 2010

Santa Rosa Band of Mission Indians
John Marcus, Chairman
P.O. Box 609 Cahuilla
Hemet , CA 92546
srtribaloffice@aol.com
(951) 658-5311
(951) 658-6733 Fax

Morongo Band of Mission Indians
Michael Contreras, Cultural Heritage Prog.
12700 Pumarra Road Cahuilla
Banning , CA 92220 Serrano
(951) 201-1866 - cell
mcontreras@morongo-nsn.
gov
(951) 922-0105 Fax

Torres-Martinez Desert Cahuilla Indians
Diana L. Chihuahua, Cultural Resources
P.O. Boxt 1160 Cahuilla
Thermal , CA 92274
dianac@torresmartinez.
760) 397-0300, Ext. 1209
(760) 272-9039 - cell (Lisa)
(760) 397-8146 Fax

Fort Mojave Indian Tribe
Nora McDowell, Cultural Resources Coordinator
500 Merriman Ave Mojave
Needles , CA 92363
g.goforth@fortmojave.com
(760) 629-4591
(760) 629-5767 Fax

Agua Caliente Band of Cahuilla Indians THPO
Patricia Tuck, Tribal Historic Perservation Officer
5401 Dinah Shore Drive Cahuilla
Palm Springs, CA 92264
ptuck@aguacaliente-nsn.

(760) 699-6907
(760) 699-6924- Fax

Augustine Band of Cahuilla Mission Indians
Karen Kupcha
P.O. Box 846 Cahuilla
Coachella , CA 92236
(760) 369-7171
916-369-7161

Cahuilla Band of Indians
Luther Salgado, Sr., , Chairperson
PO Box 391760 Cahuilla
Anza , CA 92539
tribalcouncil@cahuilla.net
915-763-5549

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code. Also, federal National Environmental Policy Act (NEPA), National Historic Preservation Act, Section 106 and fed eral NAGPRA. And 36 CFR Part 800.

This list is only applicable for contacting local Native Americans for consultation purposes with regard to cultural resources impact by the proposed SCH#2010084009; NEPA Notice of Completion; Draft EIS and CDCA Amendment Proposed First Solar Desert Sunlight Solar Farm Project; located in the Chuckalla Spring/Mountains near the Community of Desert Center; Eastern Riverside County, California.

20

"Anco Blazev"
<ablazev@cox.net>
10/05/2010 09:09 PM

To CAPSSolarFirstSolarDesertSunlight@blm.gov
cc
bcc
Subject Desaert Light

20-1

4500 acres covered with Cadmium poison. What is there to discuss? You allow it; you'll be held responsible for the damages.

Sent from my MOTOBLUR™ smartphone on AT &T

P.O. Box 3039
Riverside, Ca 92519-3039
Phone: (951) 682-2982
Fax: (951) 788-0686

International Land Builders, Inc.

21

Fax

B.L.M.

To: Allison Shaffer From: George Hepker

Fax: 760 833 7100 Pages: 1

Phone: 760 833 7199 Date: 10/19/10

Re: Desert Sunlight Solar CC:

☐ Urgent ☑ For Review ☐ Please Comment ☐ Please Reply ☐ Please Recycle

• Comments:

My name is George Hepker cell 951 3235539
850 River Drive Home 951 427 1301
Norco CA 92860

I am very much in favor of this project. I own 40 Acres at Palin Pass Road. 21-1

This is without a dought the best use of this land. Using Solar power will prevent America from going to war for energy sources.

Our crop will be Electrical Energy.

George Hepker
951 323 5539 cell

22

"Don McNair"
<dmcnair@ilbinc.com>
10/19/2010 07:55 AM

To <CAPSSolarFirstSolarDesertSunlight@blm.gov>
cc
bcc
Subject Desert Sunlight Solar Farm

My name is George Hepker, I am a property owner in Desert Center at Palin Pass Road. This project is probably the best thing to happen in our area in years.

I believe positive impact will be on the order of WW II Training Camp or Aqueduct Construction. Put me in favor of the project. 22-1

George Hepker 951-323 5539 cell *951-427 1301

Home

850 River Drive, Norco CA 92860

Don McNair
International Line Builders, Inc.

23

Alan Beattie
<awbeattie@earthlink.net>
10/21/2010 11:32 AM

To CAPSSolarFirstSolarDesertSunlight@blm.gov
cc
bcc
Subject First Solar Desert Sunlight Solar Farm Project

Comments attached below:

10.pdf

Public Comment Card for Scoping Process

First Solar Desert Sunlight Solar Farm Project

Commentor Name: Alan Beattie Date: 10/21/2010

Address: 41 Provence Way Rancho Mirage CA 92270

Comment: First Solar Desert Sunlight Solar Farm Project

I have to smile when asked to fill out this form, not because it's not 23-1
important, it's just that the extreme measures that California goes to to try to
mitigate environmental harm from clean energy projects are ludicrous compared
to the "efforts" of other states and countries. Clearly, the world needs energy,
lots of it, produced as cheaply and cleanly as possible.

So while California is worried about a handful of desert tortoises, West
Virginia is blowing the top off of mountains and throwing all the garbage
into the valleys and streams below.

While California is protecting the desert pup fish, massive earth movers
are scarring the landscape for countless miles in the Powder River Basin
of Montana and Wyoming.

While California frets about snail darters, Canadians destroy entire Boreal
forests in Alberta, rape the bitumen from the sand and create huge tailing
ponds that effectively poison migratory birds.

And let's not even talk about the Gulf of Mexico, or what might happen
when the deep Arctic is "developed."

So, yes, when the best, most experienced PV company in the world wants
to put up a bunch of spanking clean panels that no one will reallly see, that
won't use water, and which will most likely become a playground for
the handful of tortoises that happen to stroll by -- I say yes, and I applaud,
and I rue the fact that California is driving countless clean energy projects
out of state because a few folks have gotten too precious and have lost
sight of the Big Picture.

Godspeed First Solar

By submitting a scoping comment you will receive a copy of the EIS. Please indicate the format you would prefer:

☐ Compact Disk (CD) or ☐ Hardcopy

October 21, 2010, University of California- Riverside, Palm Desert Campus, 75080 Frank Sinatra Drive, Palm Desert, CA 92211

24

kim bauer
<gartrax@hotmail.com>
10/21/2010 11:55 AM

To <capssolarfirstsolardesertsunlight@blm.gov>
cc
bcc
Subject

24-1

my comment on this as well as the rest of the fast track solar projects in the southern calif. desert regions is negative towards approval of projects,negative towards construction for reasons that even the committees have admitted that the projects will cause environmental damage plus the projects could be built in the cities they are supposed to serve or the newer small nuclear power plants could be built for cheaper,etc.

25

Ysmael Wariner/CASO/CA/BLM/DOI
10/06/2010 08:06 AM

To CAPSSolarFirstSolarDesertSunlight@blm.gov
cc
bcc
Subject Fw: BLM Seeks Public Comments on Environmental Analysis for the Desert Sunlight Solar Farm Project

Ysmael Wariner
Business Support Assistant
BLM Palm Springs / South Coast Field Office
1201 Bird Center Drive
Palm Springs, CA 92262
Phone: 760-833-7151

----- Forwarded by Ysmael Wariner/CASO/CA/BLM/DOI on 10/06/2010 08:06 AM -----

"Anco Blazev" <ablazev@cox.net>
10/06/2010 07:58 AM

Please respond to
"Anco Blazev" <ablazev@cox.net>

To <Ysmael_Wariner@blm.gov>
cc
Subje Re: BLM Seeks Public Comments on Environmental Analysis for the Desert Sunlight Solar ct Farm Project

25-1

It is your responsibility to make sure that the millions, Cadmium containing, CdTe modules do not poison the environment and life in the area. The manufacturers have no prove of the safe long term performance of their CdTe modules in the US deserts. Letting them use US taxpayers land and resources without any safety prove enters the realm of the criminal ignorance and negligence.

You will be help responsible, together with the manufacturers, in case of a Cadmium poison disaster. You must be aware of this, and be ready to assume the responsibility?

Best regards,

Anco Blazev
480-381-7502

From: Ysmael_Wariner@blm.gov
Sent: Tuesday, October 05, 2010 4:56 PM
Subject: BLM Seeks Public Comments on Environmental Analysis for the Desert Sunlight Solar Farm Project

BLM Seeks Public Comments on Environmental Analysis for the Desert Sunlight Solar Farm Project

The Bureau of Land Management (BLM) will hold public meetings to gather input on issues that should be addressed in the Environmental Impact Statement for the proposed Desert Sunlight

Solar Farm Project near Desert Center in Riverside County.

Public meetings for the Environmental Impact Statement will be held Oct. 20 at the Lake Tamarisk Community Center, 26251 Parkview Drive, Desert Center, CA 92269 and Oct. 21 at the University of California- Riverside, Palm Desert Campus, 75080 Frank Sinatra Drive, Palm Desert, CA 92211. The meeting in Desert Center will run from 6 to 9 p.m. The meeting in Palm Desert will run from 9 a.m. to 12 p.m.

Desert Sunlight Holdings, LLC has applied for a right-of-way (ROW) authorization covering approximately 4,500 acres on public lands for a 550-megawatt solar photovoltaic (PV) project with an interconnection to the Devers to Palo-Verde I 500-kilovolt (kV) distribution system.

As proposed by the company, the solar project would include the solar farm site (consisting of the main generation area, operations and maintenance facility, solar energy visitor center, an on-site substation and fencing), a 220-kV generation tie line, access routes and a new 500/220 kV substation at Red Bluff.

Information on the status of the proposal is available at http://www.blm.gov/ca/st/en/fo/palmsprings/Solar_Projects.html

For further information and/or to have your name added to the mailing list, contact Allison Shaffer, Palm Springs-South Coast Field Office, 1201 Bird Center Drive, Palm Springs, California, 92262, phone (760)-833-7100, fax (760) 833-7199, or email CAPSSolarFirstSolarDesertSunlight@blm.gov.

Potential issues to be addressed in the analysis include social and economic impacts; ground and surface water quantity and quality impacts; plant and animal species impacts, including special status species; impacts to cultural resources; and visual resource impacts.

-BLM-

BLM Palm Springs / South Coast Field Office
1201 Bird Center Drive
Palm Springs, CA 92262
Phone: 760-833-7100

26

No Substantive Comment

"Anco Blazev"
<ablazev@cox.net>

10/21/2010 09:23 AM

Please respond to
"Anco Blazev"
<ablazev@cox.net>

To <capssolarfirstsolardesertsunlight@blm.gov>
cc
bcc
Subject Re: Desert Sunlight Joshua Tree Public Mtg Added

David,

We've said all that there is to be said on the matter, and it is now up to you guys to get all the facts and decide if this toxic Cadmium containing technology is suitable for 30+ years operation on large areas of public lands in the US deserts--keeping in mind that this particular application has no precedent, has not been tested nor is it proven safe for the duration. Good luck

Best regards,

Anco Blazev
480-381-7502

From: capssolarfirstsolardesertsunlight@blm.gov
Sent: Wednesday, October 20, 2010 11:28 AM
Subject: FW: Desert Sunlight Joshua Tree Public Mtg Added

The Bureau of Land Management (BLM) will add a public meeting in Joshua Tree to gather input on issues that should be addressed in the Environmental Impact Statement for the proposed Desert Sunlight Solar Farm Project near Desert Center in Riverside County.

David C. Briery,
External Affairs
BLM California Desert District
22835 Calle San Juan de Los Lagos
Moreno Valley, CA 92553
951.697.5220 (office)
dbriery@blm.gov

27

"James.Turney@jt-lex.com"
<James.Turney@jt-lex.com>
10/21/2010 10:52 AM

To "capssolarfirstsolardesertsunlight@blm.gov"
<capssolarfirstsolardesertsunlight@blm.gov>
cc
bcc
Subject First Solar Desert Sunlight Solar Farm Project

BLM:

Today I attended the scoping session at UCR-Palm Desert for the subject project. So far as I can see there is no reason to object to the project and every reason to support it, full speed ahead. I hope that the community will see the enormous net benefits as I do and give First Solar its unqualified support to proceed.

Jim Turney
760-360-4765 | 760-267-8878 cell
Law Offices of James C. Turney
PO Box 6905
La Quinta, CA 92248-6905

28

Master Form #1

Cynthia name
<cyntaur@hotmail.com>
10/25/2010 08:07 PM

To <capssolarfirstsolardesertsunlight@blm.gov>
cc
bcc
Subject Do not Destroy Our Lands with Solar

Allison Shaffer, Project Manager,
Palm Springs South
Coast Field Office, BLM
1201 Bird Center Drive
Palm Springs, CA
92262

Sent VIA EMAIL:CAPSSolarFirstSolarDesertSunlight@blm.gov

11/ /10

RE: First Solar Desert Sunlight Solar Farm Draft EIS and Possible PlanAmendment

Dear Ms. Shaffer,

Thank you for this opportunity for me to comment on the proposed First Solar Desert Sunlight project located in the community of Eagle Mountain/Desert Center.

I wish to go on record by saying I oppose this project and strongly urge the No Action Alternative be issued, for the following reasons:

Employment:

I understand and recognize the need for economic development in desert communities, but do not believe that projects that will result in an irretrievable commitment to the communitys and Joshua Tree National Parks (JoTr) natural resources are appropriate. Communities living next to national parks realize a booming tourism economy bringing in over $40 million dollars. This project will deprive a rural desert community of a sustainable economy. 28-1

Lighting:
The area currently boasts of dark night skies that will be obliterated by the project. 28-2

This area of Joshua Tree National Park is arguably the darkest at night of any part of the Park.

Air Quality:
Bulldozing the desert will result in a PM10 problem in a Class I airshed. 28-3
Removing desert pavement will release extra fine particulates that will impact the health of nearby residents. 28-4

Disturbing desert soil releases arsenic, a known carcinogen threatening human and wildlife health. 28-5

Desert Soils:
Deserts' alkaline soils have the capacity to absorb about the same amount of CO2 as some temperate forests. 28-6

Removal of old growth desert will result in loss of carbon sequestering creosote.

Desert Tortoise and Climate Change:
Climate change data indicates that tortoise habitat will become available on the slopes of Eagle Mountain. 28-7

The healthy population of desert tortoises in the Chuckwalla Valley is the reservoir for future immigration into Joshua Tree National Park from the southeast.

Environmental Justice:
Environmental issues are concerned with inequitable distribution of environmental burdens (pollution, industrial facilities, crime etc.). 28-8

The Chuckwalla Valley is targeted by the worlds largest garbage dump, a hydroelectric project, and the subject industrial solar field. An Environmental Justice trifecta!

Cumulative Impacts:
Together (and singularly) the above projects will result in turning a vibrant ecosystem into a dust bowl, Eutrophication will begin resulting in weedy non-native species introduction that will out-compete native wildlife, resulting in a significant impact to Joshua Tree National Park, and surrounding desert. 28-9

Disturbing desert soils will result in a bloom of Sahara Mustard, a problem weed not prevalent in the Upper Chuckwalla Valley, which will then pose a threat to Joshua Tree National Park and surrounding desert.

Distributed Generation:
Solar panels belong on rooftops, not Public Lands hundreds of miles from urban centers.
DG will create an economic engine manufacturing, installing, maintaining, and replacing solar panels.
Taxpayers will have control over energy production, not foreign interests. Desert Sunlight will be sold to the highest bidder after permits granted who? Spain? Britain? Saudi Arabia? Germany? 28-10

The United States will continue to be vulnerable to foreign energy control.

In closing, I support the No Action Alternative, and strongly urge you to render the same decision.

Sincerely,
Cynthia Cox
Name Cynthia Cox
Address 6063 Saddleback Road Joshua Tree CA 92252

Phone760-686-4479

29

"chekoya"
<chekoya@verizon.net>
10/25/2010 07:58 PM

To <CAPSSolarFirstSolarDesertSunlight@blm.gov>
cc
bcc
Subject Solar farms

Dear Ms. Shaffer,

I wish to go on record by saying I oppose this project and strongly urge the **No Action Alternative** be issued, for the following reasons:

While economic development is needed, this development should not be at the expense of a booming tourist economy that is primarily due to the Joshua Tree National Park, which a solar farm would hurt in numerous ways. 29-1

The desert night skies should stay as dark as possible without industry to cause pollution. 29-2

Bulldozing is the worst thing that has come to our desert!! It creates dust in the air and obliterates our natural growth and fosters the advancement of non-native growth!! 29-3

Our wildlife don't need any more loss of habitat! Stop proposing that moving the endangered desert tortoise is a good thing, it isn't good for the tortoise!! 29-4

I love the desert and all it's beauty. I visit the National park often and have a yearly pass. Disturbing desert soils will result in a bloom of Sahara Mustard, a problem weed not prevalent in the Upper Chuckwalla Valley, which will then pose a threat to Joshua Tree National Park and surrounding desert. The National park is already calling for volunteers to help eradicate this weed. Sure don't need more of this weed. 29-5

Why isn't there a development to help put solar panels where they belong, on rooftops?? Yes, there is a small tax break and small grant help, but it isn't enough. I want to see the growth of more rooftop solar!! There are companies that will lease this to homeowners up in northern California. I want to see this kind of business growth here in southern California!!! Help the people and help the environment! 29-6

I strongly urge you to render the NO ACTION ALTERNATIVE decision!

Sincerely,
carol gerratana
61638 La Jolla Drive
Joshua Tree, CA 92252
760 406 3411

30

Form #1 (see Letter #28)

"zacksfamily"
<zacksfamily@earthlink.net>
10/25/2010 09:04 PM

To <CAPSSolarFirstSolarDesertSunlight@blm.gov>
cc <stopthedump@yahoo.com>
bcc
Subject First Solar Desert Sunlight Solar Farm Draft EIS and Possible Plan

Allison Shaffer, Project Manager,
Palm Springs South
Coast Field Office, BLM
1201 Bird Center Drive
Palm Springs, CA
92262

Sent VIA EMAIL: CAPSSolarFirstSolarDesertSunlight@blm.gov

DATE

RE: First Solar Desert Sunlight Solar Farm Draft EIS and Possible Plan Amendment

Dear Ms. Shaffer,

Thank you for this opportunity for me to comment on the proposed First Solar Desert Sunlight project located in the community of Eagle Mountain/Desert Center.

I wish to go on record by saying I **oppose** this project and strongly urge the **No Action Alternative** be issued, for the following reasons:

Employment:

- I understand and recognize the need for economic development in desert communities, but do not believe that projects that will result in an irretrievable commitment to the community's and Joshua Tree National Park's ("JoTr") natural resources are appropriate. Communities living next to national parks realize a booming tourism economy bringing in over $40 million dollars. This project will deprive a rural desert community of a sustainable economy.

Lighting:

- The area currently boasts of dark night skies that will be obliterated by the project.
- This area of Joshua Tree National Park is arguably the darkest at night of any part of the Park.

Air Quality:

- Bulldozing the desert will result in a PM10 problem in a Class I airshed.
- Removing desert pavement will release extra fine particulates that will impact the health of nearby residents.
- Disturbing desert soil releases arsenic, a known carcinogen threatening human and wildlife health.

Desert Soils:

- Deserts' alkaline soils have the capacity to absorb about the same amount of CO_2 as some temperate forests.
- Removal of old growth desert will result in loss of carbon sequestering creosote.

Desert Tortoise and Climate Change:

- Climate change data indicates that tortoise habitat will become available on the slopes of Eagle Mountain.
- The healthy population of desert tortoises in the Chuckwalla Valley is the reservoir for future immigration into Joshua Tree National Park from the southeast.

Environmental Justice:

- Environmental issues are concerned with inequitable distribution of environmental burdens (pollution, industrial facilities, crime etc.).
- The Chuckwalla Valley is targeted by the world's largest garbage dump, a hydroelectric project, and the subject industrial solar field. An Environmental Justice trifecta!

Cumulative Impacts:

- Together (and singularly) the above projects will result in turning a vibrant ecosystem into a dust bowl,
- Eutrophication will begin resulting in "weedy" non-native species introduction that will outcompete native wildlife, resulting in a significant impact to Joshua Tree National Park, and surrounding desert.
- Disturbing desert soils will result in a bloom of Sahara Mustard, a problem weed not prevalent in the Upper Chuckwalla Valley, which will then pose a threat to Joshua Tree National Park, and surrounding desert.

Distributed Generation:

- Solar panels belong on rooftops, not Public Lands hundreds of miles from urban centers.
- DG will create an economic engine – manufacturing, installing, maintaining, and replacing solar panels.
- Taxpayers will have control over energy production, not foreign interests. Desert Sunlight will be sold to the highest bidder after permits granted – who? Spain? BRITAIN? Saudi Arabia? Germany?
- The United States will continue to be vulnerable to foreign energy control.

In closing, I support the No Action Alternative, and strongly urge you to render the same decision.

Sincerely,

Cindy Zacks
Yucca Valley High School Biology / Ecology teacher
Yucca Valley High School
7600 Sage Avenue
Yucca Valley, CA 92285

31

Form #1 (see Letter #28)

"ATT Yahoo Mail"
<mearlrose@sbcglobal.net>

10/25/2010 05:30 PM

Please respond to
"ATT Yahoo Mail"
<mearl@innocent.com>

To <CAPSSolarFirstSolarDesertSunlight@blm.gov>
cc
bcc
Subject Solar Desert Sunlight Solar Farm

RE: First Solar Desert Sunlight Solar Farm Draft EIS and Possible Plan Amendment

Dear Ms. Shaffer,

Thank you for this opportunity for me to comment on the proposed First Solar Desert Sunlight project located in the community of Eagle Mountain/Desert Center.

I wish to go on record by saying I oppose this project and strongly urge the No Action Alternative be issued, for the following reasons:

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Removing desert pavement will release extra fine particulates that will impact the health of nearby residents.
Disturbing desert soil releases arsenic, a known carcinogen threatening human and wildlife health.

Desert Soils:
Deserts' alkaline soils have the capacity to absorb about the same amount of CO_2 as some temperate forests.

Removal of old growth desert will result in loss of carbon sequestering creosote.

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Environmental Justice:
Environmental issues are concerned with inequitable distribution of environmental burdens (pollution, industrial facilities, crime etc.).
The Chuckwalla Valley is targeted by the world's largest garbage dump, a hydroelectric project, and the subject industrial solar field. An Environmental Justice trifecta!

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Taxpayers will have control over energy production, not foreign interests. Desert Sunlight will be sold to the highest bidder after permits granted – who? Spain? Britain? Saudi Arabia? Germany?
The United States will continue to be vulnerable to foreign energy control.

In closing, I support the No Action Alternative, and strongly urge you to render the same decision.

Sincerely,

Mearl A. Rose
3420 Deer Valley Road #132

Antioch, CA 94531-6692

32

Form #1 (see Letter #28)

Ramon Mendoza
<rloneeagle@earthlink.net>
10/25/2010 05:30 PM

To <CAPSSolarFirstSolarDesertSunlight@blm.gov>
cc
bcc
Subject Response to proposed Solar Project

Allison Shaffer, Project Manager,
Palm Springs South
Coast Field ffice, BLM
1201 Bird Center Drive
Palm Springs, CA 22 2

25 ctober 2010

RE: First Solar Desert Sunlight Solar Farm Draft EIS and Possible Plan

Amendment

Dear Ms. Shaffer,

Thank you for this opportunity for me to comment on the proposed First Solar Desert Sunlight project located in the community of Eagle Mountain Desert Center.

My comments are given to go on record that I oppose this project and strongly urge the No Action Alternative be issued, for the following reasons:

Employment:

- I understand and recognize the need for economic development in desert communities, but do not believe that projects that will result in an irretrievable commitment to the community s and oshua Tree National Park s (oTr) natural resources are appropriate. Communities living next to national parks realize a booming tourism economy bringing in over 40 million dollars. This project will deprive a rural desert community of a sustainable economy.

Lighting:

- The area currently boasts of dark night skies that will be obliterated by the project.
- This area of oshua Tree National Park is arguably the darkest at night of any part of the Park.

Air Quality:

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- The Chuckwalla Valley is targeted by the world s largest garbage dump, a hydroelectric project, and the subject industrial solar field. An Environmental ustice trifecta

Cumulative Impacts:

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- Eutrophication will begin resulting in weedy non-native species introduction that will out compete native wildlife, resulting in a significant impact to oshua Tree National Park, and surrounding desert.
- Disturbing desert soils will result in a bloom of Sahara Mustard, a problem weed not prevalent in the Upper Chuckwalla Valley, which will then pose a threat to oshua Tree National Park, and surrounding desert.

Distributed Generation:

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- DG will create an economic engine manufacturing, installing, maintaining, and replacing solar panels.
- Taxpayers will have control over energy production, not foreign interests. Desert Sunlight will be sold to the highest bidder after permits granted who? Spain? England? Saudi Arabia? Germany?
- The United States will continue to be vulnerable to foreign energy control.

In closing, I support the No Action Alternative, and strongly urge you to render the same decision.

Sincerely,

Ramon Alviso Mendoza
58 2 Los Coyotes Drive
Yucca Valley, CA 2284
7 0.228.27 2

33

Form #1+ (see Letter #28)

"roxann"
<riploss@gmail.com>
10/25/2010 05:04 PM

To <CAPSSolarFirstSolarDesertSunlight@blm.gov>
cc
bcc
Subject

Allison Shaffer, Project Manager,
Palm Springs South
Coast Field Office, BLM
1201 Bird Center Drive
Palm Springs, CA
92262

Sent VIA EMAIL: CAPSSolarFirstSolarDesertSunlight@blm.gov

10/25/10

RE: First Solar Desert Sunlight Solar Farm Draft EIS and Possible Plan Amendment

Dear Ms. Shaffer,

I appreciate being allowed to comment on the proposed First Solar Desert Sunlight project located in the community of Eagle Mountain/Desert Center.

I am a huge supporter of solar (particularly vis a vis wind-turbine generated) power but would like to go on record as opposing this project and strongly urging the **No Action Alternative** be issued, for the following reasons:

There's Another Way:
As we speak, test sites in Utah are using a new tarmac which acts as a miles-long solar collector. This need not even be relegated to brand new roads or to infrequently-travelled by ways. This material can be laid atop existing highways in the name of infrastructure repair. This should certainly be explored before paving over open lands which are needed as animal habitat as well as so many other things. Perhaps, our area could even be "volunteered" for experimental use of the product as opposed to destroying so many square miles for use by the cells. 33-1

Employment:
Our unemployment rate is amongst the highest in the nation, but I do not believe that projects resulting in an irretrievable commitment of the community's and Joshua Tree National Park's ("JoTr") natural resources are appropriate. Communities living next to national parks realize a booming tourism economy bringing in over $40 million dollars. This project will surely detract from a sustainable economy for this rural desert community.

Air Quality:
Bulldozing the desert will result in a PM10 problem in a Class I airshed. Given the "wind tunnel" effect caused by the San Gorgonio Pass, this will become an area-wide problem adding to an already-dangerously unhealthy air quality.l
Removing desert pavement will release extra fine particulates that will impact the health of nearby residents.
Mass disturbing of desert soil releases arsenic, a known carcinogen threatening human and wildlife health.

Desert Soils:
Deserts' alkaline soils have the capacity to absorb about the same amount of CO2 as some temperate forests.
Removal of old growth desert will result in loss of carbon sequestering creosote.

Desert Tortoise and Climate Change:
Climate change data indicates that tortoise habitat will become available on the slopes of Eagle Mountain.
The healthy population of desert tortoises in the Chuckwalla Valley is the reservoir for future immigration into Joshua Tree National Park from the southeast.

Environmental Justice:
Environmental issues are concerned with inequitable distribution of environmental burdens (pollution, industrial facilities, crime etc.).
The Chuckwalla Valley is targeted by the world's largest garbage dump, a hydroelectric project (from which the Valley receives NO power), and the subject industrial solar field. An Environmental Justice trifecta!

Cumulative Impacts:
Together (and singularly) the above projects will result in turning a vibrant ecosystem into a dust bowl,
Eutrophication will begin resulting in "weedy" non-native species introduction that will out-compete native wildlife, resulting in a significant impact to Joshua Tree National Park, and surrounding desert.
Disturbing desert soils will result in a bloom of Sahara Mustard, a problem weed not prevalent in the Upper Chuckwalla Valley, which will then pose a threat to Joshua Tree National Park and surrounding desert.

Distributed Generation:
Solar panels belong on rooftops, not Public Lands hundreds of miles from urban centers.
DG will create an economic engine – manufacturing, installing, maintaining, and replacing solar panels.
Taxpayers will have control over energy production, not foreign interests. Desert Sunlight will be sold to the highest bidder after permits granted – who? Spain? Britain? Saudi Arabia? Germany?
The United States will continue to be vulnerable to foreign energy control.

In closing, I support the **No Action Alternative** while investigating a more viable, less destructive TRUE alternative (suggested above), and strongly urge you to render the same decision.

Sincerely,

Name R. Ploss
Address 930 E. Chia, Palm Springs, Ca. 92262
E-mail: ripploss@gmail.com

FREE Animations for your email - by IncrediMail!
Click Here!
grad.gif

34

Public Comment Card for Scoping Process

First Solar Desert Sunlight Solar Farm Project

Commentor Name: Steve Beals Date: 12/21/10

Address: 52 San Simeon Pl, Rancho Mirage, CA 92270

Comment: I attended this BLM public forum by accident (I was upstairs at the CVEP Renewable Energy Roundtable meeting), but found it very informative. I'm a technologist and spent the last 10 years in the Data Center Practice of Sun Microsystems. I'm well aware of the growing need for power to service that industry and am, therefore, much in favor of the Desert Sunlight Project. If we could deliver wholesale energy to the Coachella Valley at blended rates below 7¢/KWHR, LA companies would locate data center and call centers here instead of in Phoenix and Las Vegas. I must also commend you (BLM) and First Solar for your extensive environmental studies – they covered all relevant resource areas and seem to have led to effective mitigating measures in the project design. I'm amazed that the initial 19000 ac proposal was reduced to 4,500 ac of solar panels – evidently we're still innovating in this country! Kudos to First Solar for the rapid development of the technology.

34-1

34-2

34-3

My Best Regards Steve

By submitting a scoping comment you will receive a copy of the EIS. Please indicate the format you would prefer:

☐ Compact Disk (CD) or ☐ Hardcopy

How to Comment:

Hardcopy: Use the form on the other side of this sheet. Please fold and staple this form and mail to the address below

Email: CAPSSolarFirstSolarDesertSunlight@blm.gov Make sure subject line reads "First Solar Desert Sunlight Solar Farm Project"

Comments must be postmarked/emailed by November 26, 2010

☐ Public comments, including names and street addresses of respondents, will be available for public review at Bureau of Land Management, 1201 Bird Center Drive, Palm Springs, CA 92262, during regular business hours (8:00 a.m. to 4:30 p.m.), Monday through Friday, except holidays. Individual respondents may request confidentiality. **If you wish to withhold your name or street address from public review or from disclosure under the Freedom of Information Act, you MUST check this box.** Such requests will be honored to the extent allowed by law. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public inspection in their entirety.

FIRST CLASS

neopost 045J83051274 $0.44 10/21/2010 Mailed From 92211 US POSTAGE

c/o Allison Shaffer, Project Manager
1201 Bird Center Drive
Palm Springs, CA 92262

First Solar Desert Sunlight Solar Farm Project
9226288001

RECEIVED BUREAU OF LAND MANAGEMENT 10 OCT 25 AM 7:54 PALM SPRINGS-SOUTH COAST AREA

35

Form #1 (see Letter #28)

Betsy Foran
<bforan@chemistry.ohio-state.edu>
10/26/2010 06:44 AM

To CAPSSolarFirstSolarDesertSunlight@blm.gov
cc laronna@earthlink.net
bcc
Subject Desert Sunlight project

Allison Shaffer, Project Manager,
Palm Springs South
Coast Field Office, BLM
1201 Bird Center Drive
Palm Springs, CA 92262

10/26/2010

RE: First Solar Desert Sunlight Solar Farm Draft EIS and Possible Plan Amendment

Dear Ms. Shaffer,

Thank you for this opportunity to comment on the proposed First Solar Desert Sunlight project in the community of Eagle Mountain/Desert Center.

I wish to go on record by saying I oppose this project and strongly urge the **No Action Alternative** be issued.

Employment:
I understand and recognize the need for economic development in desert communities, but do not believe that projects that will result in an irretrievable commitment to the community's and Joshua Tree National Park's ("JoTr") natural resources are appropriate. Communities living next to national parks realize a booming tourism economy bringing in over $40 million dollars. This project will deprive a rural desert community of a sustainable economy.

Lighting:
The area currently boasts of dark night skies that will be obliterated by the project. This area of Joshua Tree National Park is the darkest part of the Park at night.

Air Quality:
Bulldozing the desert will result in a PM10 problem in a Class I airshed.
Removing desert pavement will release extra fine particulates that will impact the health of nearby residents.
Disturbing desert soil releases arsenic, a known carcinogen threatening human and wildlife health.

Desert Soils:
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Taxpayers will have control over energy production, not foreign interests. Desert Sunlight will be sold to the highest bidder after permits granted – who? Spain? Britain? Saudi Arabia? Germany?
The United States will continue to be vulnerable to foreign energy control.

In closing, I support the **No Action Alternative**, and strongly urge you to render the same decision.

Sincerely,

Betsy Foran
205 E. Cooke Road
Columbus, OH 43214
614-499-2401

36

Form #1 (see Letter #28)

DABurgett@aol.com
10/26/2010 06:46 PM

To CAPSSolarFirstSolarDesertSunlight@blm.gov
cc
bcc
Subject Letter in opposition to Solar First Project

Please accept my opposition letter, attached.

Solar power equipment belongs on existing buildings and residential homes where it is used.
This focus will create jobs in urban areas, reduce the need for long commutes to work out in the desert, and involve the public in their own conservation rather than leaving it up to a corporation to provide energy that is possible to create on their own roof tops. We, as a society, destroy enough of our wild lands when there are reasonable alternatives.

Sincerely,

Debbie Burgett
1118 Crestsprings Lane
Riverside, CA 92506

Debs FinalPublicCommentltr BLM.doc

Allison Shaffer, Project Manager,
Palm Springs South
Coast Field Office, BLM
1201 Bird Center Drive
Palm Springs, CA
92262

Sent VIA EMAIL: CAPSSolarFirstSolarDesertSunlight@blm.gov

October 26, 2010

RE: First Solar Desert Sunlight Solar Farm Draft EIS and Possible Plan Amendment

Dear Ms. Shaffer,

Thank you for this opportunity for to comment on the proposed First Solar Desert Sunlight project located in the community of Eagle Mountain/Desert Center.

I wish to go on record by saying I **oppose** this project and strongly urge the **No Action Alternative** be issued, for the following reasons:

Employment:

- I understand and recognize the need for economic development in desert communities, but do not believe that projects that will result in an irretrievable commitment to the community's and Joshua Tree National Park's ("JoTr") natural resources are appropriate. Communities living next to national parks realize a booming tourism economy bringing in over $40 million dollars. This project will deprive a rural desert community of a sustainable economy.

Lighting:

- The area currently boasts of dark night skies that will be obliterated by the project.
- This area of Joshua Tree National Park is arguably the darkest at night of any part of the Park.

Air Quality:

- Bulldozing the desert will result in a PM10 problem in a Class I airshed.
- Removing desert pavement will release extra fine particulates that will impact the health of nearby residents.
- Disturbing desert soil releases arsenic, a known carcinogen threatening human and wildlife health.

Desert Soils:

- Deserts' alkaline soils have the capacity to absorb about the same amount of CO2 as some temperate forests.
- Removal of old growth desert will result in loss of carbon sequestering creosote.

Desert Tortoise and Climate Change:

- Climate change data indicates that tortoise habitat will become available on the slopes of Eagle Mountain.
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- The Chuckwalla Valley is targeted by the world's largest garbage dump, a hydroelectric project, and the subject industrial solar field. An Environmental Justice trifecta!

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- Disturbing desert soils will result in a bloom of Sahara Mustard, a problem weed not prevalent in the Upper Chuckwalla Valley, which will then pose a threat to Joshua Tree National Park, and surrounding desert.

Distributed Generation:

- Solar panels belong on rooftops, not Public Lands hundreds of miles from urban centers.
- DG will create an economic engine – manufacturing, installing, maintaining, and replacing solar panels.
- Taxpayers will have control over energy production, not foreign interests. Desert Sunlight will be sold to the highest bidder after permits granted – who? Spain? BRITAIN? Saudi Arabia? Germany?
- The United States will continue to be vulnerable to foreign energy control.

In closing, I support the **No Action Alternative**, and strongly urge you to render the same decision.

Sincerely,

Debbie Burgett
1118 Crestsprings Lane
Riverside, CA 92506
(951) 640-8114

37

Form #1+ (see Letter #28)

<eric@muellerturner.com>
10/26/2010 10:37 AM

To <CAPSSolarFirstSolarDesertSunlight@blm.gov>
cc
bcc
Subject Final Public Comment

Dear Ms. Shaffer,

Please accept my public comment letter as attached. You will note that I have copied the basic arguement letter against this proposed project however I want to direct you to the comments that I have added at the letters conclusion. Thank you for taking my comments seriously.

Sincerely,
Eric Mueller

FinalPublicCommentltr.doc

Eric Mueller
President Mueller Turner Company
54465 29 Palms Hwy.
Yucca Valley, Ca. 92284

Allison Shaffer, Project Manager,
Palm Springs South
Coast Field Office, BLM
1201 Bird Center Drive
Palm Springs, CA
92262

Sent VIA EMAIL: CAPSSolarFirstSolarDesertSunlight@blm.gov

DATE

RE: First Solar Desert Sunlight Solar Farm Draft EIS and Possible Plan Amendment

Dear Ms. Shaffer,

Thank you for this opportunity for me to comment on the proposed First Solar Desert Sunlight project located in the community of Eagle Mountain/Desert Center.

I wish to go on record by saying I **oppose** this project and strongly urge the **No Action Alternative** be issued, for the following reasons:

Employment:

- I understand and recognize the need for economic development in desert communities, but do not believe that projects that will result in an irretrievable commitment to the community's and Joshua Tree National Park's ("JoTr") natural resources are appropriate. Communities living next to national parks realize a booming tourism economy bringing in over $40 million dollars. This project will deprive a rural desert community of a sustainable economy.

Lighting:

- The area currently boasts of dark night skies that will be obliterated by the project.
- This area of Joshua Tree National Park is arguably the darkest at night of any part of the Park.

Air Quality:

- Bulldozing the desert will result in a PM10 problem in a Class I airshed.
- Removing desert pavement will release extra fine particulates that will impact the health of nearby residents.
- Disturbing desert soil releases arsenic, a known carcinogen threatening human and wildlife health.

Desert Soils:

- Deserts' alkaline soils have the capacity to absorb about the same amount of CO2 as some temperate forests.
- Removal of old growth desert will result in loss of carbon sequestering creosote.

Desert Tortoise and Climate Change:

- Climate change data indicates that tortoise habitat will become available on the slopes of Eagle Mountain.
- The healthy population of desert tortoises in the Chuckwalla Valley is the reservoir for future immigration into Joshua Tree National Park from the southeast.

Environmental Justice:

- Environmental issues are concerned with inequitable distribution of environmental burdens (pollution, industrial facilities, crime etc.).
- The Chuckwalla Valley is targeted by the world's largest garbage dump, a hydroelectric project, and the subject industrial solar field. An Environmental Justice trifecta!

Cumulative Impacts:

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Distributed Generation:

- Solar panels belong on rooftops, not Public Lands hundreds of miles from urban centers.
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- Taxpayers will have control over energy production, not foreign interests. Desert Sunlight will be sold to the highest bidder after permits granted – who? Spain? BRITAIN? Saudi Arabia? Germany?
- The United States will continue to be vulnerable to foreign energy control.

In closing, I support the No Action Alternative, and strongly urge you to render the same decision.

I know that you recognize this letter has been copied and sent to you multiple times. It is a well stated and argued opposition and I endorse every word. I also want to add a couple comments of my own.

I recognize the need to not only democratize energy by creating public policy that makes every roof top in California a part of the energy grid but also create some level of energy mass production via mass farming as your applicant is proposing. The issue is simply about the intelligence of where these farms are to be located. Because BLM land in the Eastern Mojave is deemed “cheep” in the business plans of these energy companies this is an invalid and unfair burden to put on pristine desert lands. There exist in the California deserts thousands of acres of already degraded land due to old school exploitation of the desert. Much of this land is privately owned and is in areas that proximate Adelanto, Lancaster and Barstow. Not only are these lands degraded by industrial venture they are also in proximity to the existing transportation grid. Good energy policy coupled with good environmental policy should recognize the balance and responsible stewardship of all desert resources and should always be in balance. We have become a more enlightened society through hard learned lessons from an earlier age when these balances were not considered at all. We are able to do better in this time. 37-1

Sincerely,

Eric Mueller
54465 29 Palms Hwy. Yucca Valley, Ca. 92284
760-369-3690

38

Form #1 (see Letter #28)

Garry E Hunt
<garryehunt@gmail.com>
10/26/2010 04:29 AM

To CAPSSolarFirstSolarDesertSunlight@blm.gov
cc
bcc
Subject First Solar Desert Sunlight Solar Farm Draft EIS and Possible Plan Amendment

Allison Shaffer, Project Manager,
Palm Springs South
Coast Field Office, BLM
1201 Bird Center Drive
Palm Springs, CA
92262

26 October 2010

Dear Ms. Shaffer,

Thank you for this opportunity for me to comment on the proposed First Solar Desert Sunlight project located in the community of Eagle Mountain/Desert Center.

I **oppose** this project and strongly urge the **No Action Alternative** be issued, for the following reasons:

Employment:

- I understand and recognize the need for economic development in desert communities, but do not believe that projects that will result in an irretrievable commitment to the community's and Joshua Tree National Park's ("JoTr") natural resources are appropriate. Communities living next to national parks realize a booming tourism economy bringing in over $40 million dollars. This project will deprive a rural desert community of a sustainable economy.

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- Removal of old growth desert will result in loss of carbon sequestering creosote.

Desert Tortoise and Climate Change:

- Climate change data indicates that tortoise habitat will become available on the slopes of Eagle

Mountain.

- The healthy population of desert tortoises in the Chuckwalla Valley is the reservoir for future immigration into Joshua Tree National Park from the southeast.

Environmental Justice:

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- The United States will continue to be vulnerable to foreign energy control.

In closing, I support the No Action Alternative, and strongly urge you to render the same decision.

Yours Sincerely,

(Dr) Garry E Hunt
74-895 Highway 111, Palm Desert, Ca 92260 tel 760 340 4441
and
Elbury Hiuse, 37 Blenheim Road, West Wimbledon, London SW20 9BA UK tel 07836 611964

Professor Garry E Hunt
garryehunt@gmail.com
Businessman, Space Scientist, Broadcaster, Writer
tel +44-20-8542-2374
mobile +44-7836-611964
MSN messenger: garryehunt@gmail.com
Skype: garryehunt
web: www.elburyenterprises.com
LinkedIn http://www.linkedin.com/in/garryehunt
http://mmp.planetary.org/scien/huntg/huntg70.htm

Please consider the environment before printing this e-mail

39

Form #1 (see Letter #28)

Orders
<orders@cesarmillaninc.com>

10/26/2010 04:10 PM

To <CAPSSolarFirstSolarDesertSunlight@blm.gov>
cc <vjburnham@hotmail.com>
bcc
Subject First Solar Desert Sunlight Solar Farm

Allison Shaffer, Project Manager,

Palm Springs South

Coast Field Office, BLM

1201 Bird Center Drive

Palm Springs, CA

92262

Sent VIA EMAIL: CAPSSolarFirstSolarDesertSunlight@blm.gov <
mailto:CAPSSolarFirstSolarDesertSunlight@blm.gov>

10/26/2010

RE: First Solar Desert Sunlight Solar Farm Draft EIS and Possible Plan

Amendment

Dear Ms. Shaffer,

Thank you for this opportunity for me to comment on the proposed First Solar Desert Sunlight project located in the community of Eagle Mountain/Desert Center.

I wish to go on record by saying I **oppose** this project and strongly urge the **No Action Alternative** be

issued, for the following reasons:

Employment:

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- The United States will continue to be vulnerable to foreign energy control.

In closing, I support the No Action Alternative, and strongly urge you to render the same decision.

Sincerely,

Jason Burnham

27857 Pinecrest Pl Castaic CA 91384

818 326 3134

TVGDefender Message Security: Check Authenticity

40

Form #1 (see Letter #28)

SNOWCREEKPRES@aol.com
10/26/2010 06:56 AM

To CAPSSolarFirstSolarDesertSunlight@blm.gov
cc
bcc
Subject RE: First Solar Desert Sunlight Solar Farm Draft EIS and Possible Plan Amendment

Allison Shaffer, Project Manager,
Palm Springs South
Coast Field Office, BLM
1201 Bird Center Drive
Palm Springs, CA
92262

Oct. 26, 2010

RE: First Solar Desert Sunlight Solar Farm Draft EIS and Possible Plan Amendment

Dear Ms. Shaffer,

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I wish to go on record by saying I/we oppose this project and strongly urge the **No Action Alternative** be issued, for the following reasons:

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Environmental issues are concerned with inequitable distribution of environmental burdens (pollution, industrial facilities, crime etc.).
The Chuckwalla Valley is targeted by the world's largest garbage dump, a hydroelectric project, and the subject industrial solar field. An Environmental Justice trifecta! Please don't turn this beautiful land into another Whitewater or West Garnet!

Cumulative Impacts:
Together (and singularly) the above projects will result in turning a vibrant ecosystem into a dust bowl,
Eutrophication will begin resulting in "weedy" non-native species introduction that will out-compete native wildlife, resulting in a significant impact to Joshua Tree National Park, and surrounding desert.
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The United States will continue to be vulnerable to foreign energy control.

In closing, I support the **No Action Alternative**, and strongly urge you to render the same decision.

Sincerely,

Les Starks
54-745 Oak Hill
La Quinta, 92253
(760) 285-2970

41

Form #1 (see Letter #28)

Richard Worthington
<RKW14747@pomona.edu>
10/26/2010 07:42 AM

To "CAPSSolarFirstSolarDesertSunlight@blm.gov" <CAPSSolarFirstSolarDesertSunlight@blm.gov>
cc
bcc
Subject comments

Allison Shaffer, Project Manager,
Palm Springs South
Coast Field Office, BLM
1201 Bird Center Drive
Palm Springs, CA
92262

Sent VIA EMAIL: CAPSSolarFirstSolarDesertSunlight@blm.gov

October 26, 2010

RE: First Solar Desert Sunlight Solar Farm Draft EIS and Possible Plan Amendment

Dear Ms. Shaffer,

Thank you for this opportunity to comment on the proposed First Solar Desert Sunlight project located in the community of Eagle Mountain/Desert Center.

I **oppose** this project and strongly urge the **No Action Alternative** be issued, for the following reasons:

Employment:

- I understand and recognize the need for economic development in desert communities, but First Solar comes at the expense of natural assets in JTree and nearby desert communities that generate $40 million in economic activity annually. This project will deprive a rural desert community of a sustainable economy.

Lighting:

- The area currently boasts of dark night skies that will be obliterated by the project.
- This area of Joshua Tree National Park is arguably the darkest at night of any part of the Park.

Air Quality:

- Bulldozing the desert will result in a PM10 problem in a Class I airshed.
- Removing desert pavement will release extra fine particulates that will impact the health of nearby residents.
- Disturbing desert soil releases arsenic, a known carcinogen threatening human and wildlife health.

Desert Soils:

- Deserts' alkaline soils have the capacity to absorb about the same amount of CO2 as some temperate forests.
- Removal of old growth desert will result in loss of carbon sequestering creosote.

Desert Tortoise and Climate Change:

- Climate change data indicates that tortoise habitat will become available on the slopes of Eagle

Mountain.

- The healthy population of desert tortoises in the Chuckwalla Valley is the reservoir for future immigration into Joshua Tree National Park from the southeast.

Environmental Justice:

- Environmental issues are concerned with inequitable distribution of environmental burdens (pollution, industrial facilities, crime etc.).
- The Chuckwalla Valley is targeted by the world's largest garbage dump, a hydroelectric project, and the subject industrial solar field. An Environmental Justice trifecta!

Cumulative Impacts:

- Together (and singularly) the above projects will result in turning a vibrant ecosystem into a dust bowl,
- Eutrophication will begin resulting in "weedy" non-native species introduction that will outcompete native wildlife, resulting in a significant impact to Joshua Tree National Park, and surrounding desert.
- Disturbing desert soils will result in a bloom of Sahara Mustard, a problem weed not prevalent in the Upper Chuckwalla Valley, which will then pose a threat to Joshua Tree National Park, and surrounding desert.

Distributed Generation:

- Solar panels belong on rooftops, not Public Lands hundreds of miles from urban centers.
- DG will create an economic engine – manufacturing, installing, maintaining, and replacing solar panels.
- Taxpayers will have control over energy production, not foreign interests. Desert Sunlight will be sold to the highest bidder after permits granted – who? Spain? Britain? Saudi Arabia? Germany?
- The United States will continue to be vulnerable to foreign energy control.

In closing, I support the No Action Alternative, and strongly urge you to render the same decision.

Sincerely,

Richard Worthington
736 Bonita Dr.
South Pasadena, CA 91030
(818) 370-5488

This message has been scanned by Postini anti-virus software.

42

Form #1 (see Letter #28)

Garry E Hunt
<garryehunt@gmail.com>
10/26/2010 04:32 AM

To CAPSSolarFirstSolarDesertSunlight@blm.gov
cc
bcc
Subject First Solar Desert Sunlight Solar Farm Draft EIS and Possible Plan Amendment

Allison Shaffer, Project Manager,
Palm Springs South
Coast Field Office, BLM
1201 Bird Center Drive
Palm Springs, CA
92262

26 October 2010

Dear Ms. Shaffer,

Thank you for this opportunity for me to comment on the proposed First Solar Desert Sunlight project located in the community of Eagle Mountain/Desert Center.

I **oppose** this project and strongly urge the **No Action Alternative** be issued, for the following reasons:

Employment:

- I understand and recognize the need for economic development in desert communities, but do not believe that projects that will result in an irretrievable commitment to the community's and Joshua Tree National Park's ("JoTr") natural resources are appropriate. Communities living next to national parks realize a booming tourism economy bringing in over $40 million dollars. This project will deprive a rural desert community of a sustainable economy.

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Environmental Justice:

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- The Chuckwalla Valley is targeted by the world's largest garbage dump, a hydroelectric project, and the subject industrial solar field. An Environmental Justice trifecta!

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- The United States will continue to be vulnerable to foreign energy control.

In closing, I support the No Action Alternative, and strongly urge you to render the same decision.

Yours Sincerely,

Mrs Wendy Hunt

74-895 Highway 111, Palm Desert, Ca 92260 tel 760 340 4441
and
Elbury Hiuse, 37 Blenheim Road, West Wimbledon, London SW20 9BA UK tel 07836 611964

43

Form #1 (see Letter #28)

JILL GIEGERICH
<jgiegerich@verizon.net>
10/27/2010 10:15 AM

To CAPSSolarFirstSolarDesertSunlight@blm.gov
cc
bcc
Subject No Action Alternative

Allison Shaffer, Project Manager,
Palm Springs South
Coast Field Office, BLM
1201 Bird Center Drive
Palm Springs, CA
92262

Sent VIA EMAIL: CAPSSolarFirstSolarDesertSunlight@blm.gov

10/27 /10

RE: First Solar Desert Sunlight Solar Farm Draft EIS and Possible Plan Amendment

Dear Ms. Shaffer,

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I wish to go on record by saying I oppose this project and strongly urge the **No Action Alternative** be issued, for the following reasons:

Employment:
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The United States will continue to be vulnerable to foreign energy control.

In closing, I support the **No Action Alternative**, and strongly urge you to render the same decision.

Sincerely,

Jill Giegerich
6390 Veteran's Way
Joshua Tree, CA. 92252
310 795 6991

44

Form #1 (see Letter #28)

Penny Kemp
<kemp_penny@hotmail.com>
10/27/2010 12:24 PM

To <capssolarfirstsolardesertsunlight@blm.gov>
cc
bcc
Subject First Solar...

10/27/10

RE: First Solar Desert Sunlight Solar Farm Draft EIS and Possible Plan Amendment

Dear Ms. Shaffer,

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In closing, I support the No Action Alternative, and strongly urge you to render the same decision.

Sincerely,

Penny Kemp
P.O. Box 411 Yucca Valley CA 92286

45

Form #1 (see Letter #28)

Rebecca Bueller
<rebecca.jtrc@yahoo.com>
10/27/2010 10:48 AM

To CAPSSolarFirstSolarDesertSunlight@blm.gov
cc stopthedump@yahoo.com
bcc
Subject First Solar Desert Sunlight Solar Farm Draft EIS and Possible Plan Amendment

Allison Shaffer, Project Manager,
Palm Springs South
Coast Field Office, BLM
1201 Bird Center Drive
Palm Springs, CA
92262

Sent VIA EMAIL: CAPSSolarFirstSolarDesertSunlight@blm.gov

10/27/10

RE: First Solar Desert Sunlight Solar Farm Draft EIS and Possible Plan Amendment

Dear Ms. Shaffer,

Thank you for this opportunity for **me** to comment on the proposed First Solar Desert Sunlight project located in the community of Eagle Mountain/Desert Center.

I wish to go on record by saying **I** oppose this project and strongly urge the **No Action Alternative** be issued, for the following reasons:

Employment:
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The United States will continue to be vulnerable to foreign energy control.

In closing, **I** support the **No Action Alternative**, and strongly urge you to render the same decision.

Sincerely,

Rebecca Bueller

Joshua Tree Retreat Center
59700 Twentynine Palms Hwy
Joshua Tree, CA 92252
Tel. (760) 365-8371
www.jtrcc.org

46

Form #1 (see Letter #28)

"Vicki Perizzolo"
<Vicki_Perizzolo@shww.com
>

10/27/2010 09:55 AM

To <CAPSSolarFirstSolarDesertSunlight@blm.gov>
cc
bcc
Subject RE: First Solar Desert Sunlight Solar Farm Draft EIS and Possible Plan

Allison Shaffer, Project Manager,

Palm Springs South

Coast Field Office, BLM

1201 Bird Center Drive

Palm Springs, CA

92262

Sent VIA EMAIL: CAPSSolarFirstSolarDesertSunlight@blm.gov

DATE

RE: First Solar Desert Sunlight Solar Farm Draft EIS and Possible Plan

Amendment

Dear Ms. Shaffer,

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I wish to go on record by saying I **oppose** this project and strongly urge the **No Action Alternative** be issued, for the following reasons:

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Desert Tortoise and Climate Change:

- Climate change data indicates that tortoise habitat will become available on the slopes of Eagle Mountain.

- The healthy population of desert tortoises in the Chuckwalla Valley is the reservoir for future immigration into Joshua Tree National Park from the southeast.

- In addition, moving the tortoises subjects them to new environment where they do not have safe hiding places, have no burrows dug, unknown food sources and new predators. Additionally, moving them causes them a great deal of stress, they lose their moisture and are brought to a new area that they don't know where water is.

Environmental Justice:

- Environmental issues are concerned with inequitable distribution of environmental burdens (pollution, industrial facilities, crime etc.).

- The Chuckwalla Valley is targeted by the world's largest garbage dump, a hydroelectric project, and the subject industrial solar field. An Environmental Justice trifecta!

Cumulative Impacts:

- Together (and singularly) the above projects will result in turning a vibrant ecosystem into a dust bowl,

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- The United States will continue to be vulnerable to foreign energy control.

In closing, I support the No Action Alternative, and strongly urge you to render the same decision.

Sincerely,

Vicki Perizzolo

Riverside, CA 92507

STOCKWELL
HARRIS
WOOLVERTON
MUEHL

E-MAIL CONFIDENTIALITY NOTICE:
The contents of this e-mail message and any attachments are intended solely for the addressee(s) and may contain confidential and/or legally privileged information. If you are not the intended recipient of this message or if this message has been addressed to you in error, please immediately alert the sender by reply e-mail and then delete this message and any attachments. If you are not the intended recipient, you are notified that any use, dissemination, distribution, copying or storage of this message or any attachment is strictly prohibited.

47

Form #1 (see Letter #28)

Barbara Buckland
<barbarabuckland@live.com>
10/28/2010 11:58 PM

To <capssolarfirstsolardesertsunlight@blm.gov>
cc
bcc
Subject First Solar Desert Sunlight Solar Farm Draft EIS and Possible Plan Amendment

Allison Shaffer, Project Manager,
Palm Springs South
Coast Field Office, BLM
1201 Bird Center Drive
Palm Springs, CA 92262

Sent VIA EMAIL: CAPSSolarFirstSolarDesertSunlight@blm.gov

October 29, 2010

RE: First Solar Desert Sunlight Solar Farm Draft EIS and Possible Plan

Amendment

Dear Ms. Shaffer,

Thank you for this opportunity for me to comment on the proposed First Solar Desert Sunlight project located in the community of Eagle Mountain/Desert Center.

I wish to go on record by saying I **oppose** this project and strongly urge the **No Action Alternative** be issued, for the following reasons:

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- The United States will continue to be vulnerable to foreign energy control.

In closing, I support the No Action Alternative, and strongly urge you to render the same decision.

Sincerely,

Barbara Buckland
61824 Dennis Avenue
Joshua Tree, CA 92252

(760) 808-3828

48

Form #1 (see Letter #28)

Joanne Flory
<joanne.jtrc@yahoo.com>
10/28/2010 04:37 PM

To CAPSSolarFirstSolarDesertSunlight@blm.gov
cc
bcc
Subject Desert Sunlight Project

Allison Shaffer, Project Manager,
Palm Springs South
Coast Field Office, BLM
1201 Bird Center Drive
Palm Springs, CA
92262

Sent VIA EMAIL: CAPSSolarFirstSolarDesertSunlight@blm.gov

October 28, 2010

RE: First Solar Desert Sunlight Solar Farm Draft EIS and Possible Plan Amendment

Dear Ms. Shaffer,

Thank you for this opportunity for me to comment on the proposed First Solar Desert Sunlight project located in the community of Eagle Mountain/Desert Center.

I wish to go on record by saying I oppose this project and strongly urge the No Action Alternative be issued, for the following reasons:

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In closing, I support the No Action Alternative, and strongly urge you to render the same decision.

Sincerely,

Joanne L. Flory
PO Box 415
Joshua Tree, CA 92252-0415

49

Form #1 (see Letter #28)

"Cynthia Anderson"
<cynthialouiseanderson@gmail.com>
10/31/2010 09:11 AM

To <CAPSSolarFirstSolarDesertSunlight@blm.gov>
cc
bcc
Subject First Solar Desert Sunlight Solar Farm Draft EIS and Possible Plan Amendment

Allison Shaffer, Project Manager
Palm Springs South Coast Field Office, BLM
1201 Bird Center Drive
Palm Springs, CA 92262

Sent VIA EMAIL: CAPSSolarFirstSolarDesertSunlight@blm.gov

RE: First Solar Desert Sunlight Solar Farm Draft EIS and Possible Plan Amendment

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Distributed Generation:

- Solar panels belong on rooftops, not Public Lands hundreds of miles from urban centers.

- DG will create an economic engine – manufacturing, installing, maintaining, and replacing solar panels.
- Taxpayers will have control over energy production, not foreign interests. Desert Sunlight will be sold to the highest bidder after permits granted – who? Spain? Britain? Saudi Arabia? Germany?
- The United States will continue to be vulnerable to foreign energy control.

In closing, I support the **No Action Alternative**, and strongly urge you to render the same decision.

Sincerely,

Cynthia Anderson
5524 Grand Ave.
Yucca Valley, CA 92284
760-228-9062

50

Vee Hawthorne
<virgila_m@yahoo.com>
10/31/2010 02:22 PM

To CAPSSolarFirstSolarDesertSunlight@blm.gov
cc
bcc
Subject Cancel Project!

50-1

Please don't destroy such valuable desert. I am generally in favor of alternate
energy sources, but

I was born and raised at the pumping station next to where your solar array will
be built - it's home to me, and I hate to see it trampled.

Virgila Weeks Hawthorne
559 HCR 3258
Mount Calm, TX 76673

254-993-2424

51

Form #1+ (see Letter #28)

Allison Shaffer, Project Manager,
Palm Springs South
Coast Field Office, BLM
1201 Bird Center Drive
Palm Springs, CA 92262

Sent VIA EMAIL: CAPSSolarFirstSolarDesertSunlight@blm.gov

Oct. 28, 2010

RE: First Solar Desert Sunlight Draft EIS and Possible Plan Amendment

Dear Ms. Shaffer,

Thank you for this opportunity to comment on the proposed First Solar Desert Sunlight project located in the community of Eagle Mountain/Desert Center. **Please note the first item below is unique to this statement.**

I wish to go on record as **opposed** to this project and strongly urge the **No Action Alternative** be adopted, for the following reasons:

Desert Leafcutting Ant (*Acromyrmex versicolor*) Habitat Loss: 51-1

- Project is in or near critical habitat for California's only native leaf cutting, fungus-growing ant. Ants rely on Creosote Bush, Desert Ironwood, and Palo Verde as source of leaves. *Acromyrmex versicolor* ant populations are rare and occur in very limited areas in the "Colorado desert". Some populations occur just to the west of Desert Center. Blading this desert will destroy their habitat.
- Want to see these rare ants? On a mild/cool day, take I-10 exit N to South Entrance of JOTR. From first cattle grid to Desert Nature Trail pullout, nests (neat symmetrical craters 6-12" across) may be found near and under scattered Ironwood trees (*Olneya tesota*). Ants are dark red, 3-7 mm long, with several pairs of spines on head and dorsal thorax (use handlens to see this diagnostic feature.) While not as spectacular as leafcutting ants in Latin American forests, the natural history of California's ant is essentially the same.

Lighting:

- The area currently boasts of dark night skies that will be obliterated by the project.
- This area of Joshua Tree National Park is arguably the darkest at night of any part of the Park.

Air Quality:

- Bulldozing the desert will result in a PM10 problem in a Class I airshed.
- Removing desert pavement will release extra fine particulates that will impact the health of nearby residents.
- Disturbing desert soil *releases* arsenic, a known carcinogen threatening human and wildlife health.
- Together (and singularly) the above projects will result in turning a vibrant ecosystem into a dust bowl

Distributed Generation:

- Solar panels belong on rooftops, not Public Lands hundreds of miles from urban centers.
- DG will create an economic engine – manufacturing, installing, maintaining, and replacing solar panels.
- Taxpayers will have control over energy production, not foreign interests. The United States will continue to be vulnerable to foreign energy control.

In closing, I support the No Action Alternative, and strongly urge you to render the same decision.

Sincerely,

/s/Alex Mintzer, Ph.D.
Professor of Biology
Cypress College
9200 Valley View St.
Cypress, CA 90630

52

Form #1+ (see Letter #28)

Ernest Goitein
167 Almendral Ave, Atherton, California 94027, (650-369-6690)

10 NOV -1 PM 2: October 29, 2010

Allison Shaffer, Project manager
Palm Springs South
Coast Field office, BLM
1201 Bird Center Drive
Palm Springs, CA 92262

RE: First Solar Desert Sunlight Solar Farm
Draft EIS and Possible Plan Amendment

Dear Ms. Shaffer,

I wish to go on record by saying that I oppose First Solar Desert Sunlight project located in the community of Eagle Mountain/Desert Center and urge that the **No Action Alternative** be issued, for the following reasons:

Employment:
The location of this project adjacent to Joshua Tree National Park will negatively impact the tourism that the Park generates. The economy of the community depends on tourism and will result in loss of local jobs if this project is built.

Lighting:
The area currently boasts of dark night skies that will be obliterated by this project. This adjacent area of Joshua Tree National Park is arguably the darkest at night of any part of the Park.

Air Quality:
Removing desert pavement will release extra fine particulates that will impact the health of nearby residents and cause particles of less than 10 or even 2.5 micrometers to be released. This would result in respiratory problems for local residents.
Furthermore disturbing the desert soil would release arsenic, a known carcinogen threatening human and wildlife health.

Desert Soils:
Deserts' alkaline soils have the capacity to absorb about the same amount of CO2 as some temperate forests.
Removal of old growth desert will result in loss of carbon sequestering creosote.

Desert Tortoise and Climate Change:
Climate change data indicates that tortoise habitat will become available on the slopes of Eagle Mountain.
The healthy population of desert tortoises in the Chuckwalla Valley is the reservoir for

future immigration into Joshua Tree National Park from the southeast.

Environmental Justice:
Environmental issues are concerned with inequitable distribution of environmental burdens (pollution, industrial facilities, crime etc.).
The Chuckwalla Valley is targeted by the world's largest garbage dump, a hydroelectric project. Adding the Solar Desert Sunlight Solar Farm would further aggravate the environmental injustice.

Cumulative Impacts:
Together (and singularly) the above projects will result in turning a vibrant ecosystem into a dust bowl. As a result "weedy" non-native species introduction will out-compete native wildlife, resulting in a significant impact to Joshua Tree National Park, and surrounding desert. This concern is not adequately addressed in the DEIS.
Disturbing desert soils will result in a bloom of Sahara Mustard, a problem weed not prevalent in the Upper Chuckwalla Valley, which will then pose a threat to Joshua Tree National Park and surrounding desert.

Distributed Generation:
Distributed generation such as placing solar panels near the centers of electric consumption makes more sense than the Solar Desert Sunlight Solar Farm. No expensive transmission lines would be required. The transmission and distribution losses from the Chuckwalla Valley area to the centers of electric consumption amount to 20% and can be avoided with distributed generation. Solar panels belong on rooftops, not Public Lands hundreds of miles from urban centers. Solar panel installation will create jobs - manufacturing, installing, and maintaining solar panels.

Mitigation:
Mitigation for the concerns raised here have not been adequately addressed in this DEIS and must be provided to comply with NEPA and CEQA. 52-1

In closing, I support the **No Action Alternative**.

Cordially,

Ernest Goldstein

Ernest Goitein
167 Almendral Ave
Atherton, CA 94027

SAN FRANCISCO CA 941
29 OCT 2010 PM 2 L

Allison Shaffer, Project manager
Palm Springs South
Coast Field office, BLM
1201 Bird Center Drive
Palm Springs, CA 92262

92262+8001

53

October 27, 2010

2043 Berryman Street
Berkeley, CA 94709

Allison Shaffer
Project Manager,
Palm Springs South
Coast Field Office,
Bureau of Land Management
1201 Bird Center Drive
Palm Springs, CA 92262

RE: Desert Sunlight Solar Farm Draft EIS and Possible Plan Amendment

Dear Ms. Shaffer,

I strongly urge the BLM to adopt the **No Action Alternative** for the Desert Sunlight Solar Farm. 53-1

Solar panels belong on rooftops in towns and cities or on already highly degraded desert lands. The BLM land proposed for this project is currently natural and undisturbed. To the greatest extent possible, our remaining natural and undisturbed public lands should stay that way. There are plenty of highly disturbed desert lands (public and private) that would serve the purpose of this project. It is on those kinds of lands that these kinds of project belong, not where it is currently proposed. 53-2

In other words, the EIR does not consider the full range of possible sites to mitigate (or eliminate!) negative environmental impacts.

This proposed solar facility represents yet another inappropriately sited industrial development that, cumulatively, are turning the California desert into an ecological disaster. 53-3

Development near and around Joshua Tree National Park should take into account the potential negative impacts to the Park, including, but not limited to, the impacts to wildlife, air quality, and water quality. The current EIR does not adequately do this. 53-4

In summary, I support the **No Action Alternative**, and I strongly urge the BLM make the same decision.

Thank you for considering my views.

Sincerely,

David W Halligan

10 NOV 1 AM 11:31

David Halligan
Simone Hoelck
2043 Berryman Street
Berkeley, CA 94709-1957

SAN FRANCISCO CA 941

28 OCT 2010 PM 5 L

Allison Shaffer
Project Manager,
Palm Springs South
Coast Field Office,
Bureau of Land Management
1201 Bird Center Drive
Palm Springs, CA 92262

92262+8001

54

Form #1 (see Letter #28)

"Dr. Karen Tracy"
<dr_karentracy@me.com>
11/01/2010 01:12 PM

To CAPSSolarFirstSolarDesertSunlight@blm.gov
cc laronna@earthlink.net
bcc
Subject proposed solar project

Allison Shaffer, Project Manager,
Palm Springs South
Coast Field Office, BLM
1201 Bird Center Drive
Palm Springs, CA
92262

11/1/10

Dear Ms. Shaffer,

Thank you for this opportunity for me to comment on the proposed First Solar Desert Sunlight project located in the community of Eagle Mountain/Desert Center.

I wish to go on record by saying I oppose this project and strongly urge the No Action Alternative be issued, for the following reasons:

Employment:
I understand and recognize the need for economic development in desert communities, but do not believe that projects that will result in an irretrievable commitment to the community's and Joshua Tree National Park's ("JoTr") natural resources are appropriate. Communities living next to national parks realize a booming tourism economy bringing in over $40 million dollars. This project will deprive a rural desert community of a sustainable economy.

Lighting:
The area currently boasts of dark night skies that will be obliterated by the project.
This area of Joshua Tree National Park is arguably the darkest at night of any part of the Park.

Air Quality:
Bulldozing the desert will result in a PM10 problem in a Class I air-shed.
Removing desert pavement will release extra fine particulates that will impact the health of nearby residents.
Disturbing desert soil releases arsenic, a known carcinogen threatening human and wildlife health.

Desert Soils:
Deserts' alkaline soils have the capacity to absorb about the same amount of CO2 as some temperate forests.
Removal of old growth desert will result in loss of carbon sequestering creosote.

Desert Tortoise and Climate Change:
Climate change data indicates that tortoise habitat will become available on the slopes of Eagle Mountain.
The healthy population of desert tortoises in the Chuckwalla Valley is the reservoir for future immigration into Joshua Tree National Park from the southeast.

Environmental Justice:
Environmental issues are concerned with inequitable distribution of environmental burdens (pollution, industrial facilities, crime etc.).
The Chuckwalla Valley is targeted by the world's largest garbage dump, a hydroelectric project, and the subject industrial solar field. An Environmental Justice trifecta!

Cumulative Impacts:
Together (and singularly) the above projects will result in turning a vibrant ecosystem into a dust bowl,
Eutrophication will begin resulting in "weedy" non-native species introduction that will out-compete native wildlife, resulting in a significant impact to Joshua Tree National Park, and surrounding desert.
Disturbing desert soils will result in a bloom of Sahara Mustard, a problem weed not prevalent in the Upper Chuckwalla Valley, which will then pose a threat to Joshua Tree National Park and surrounding desert.

Distributed Generation:
Solar panels belong on rooftops, not Public Lands hundreds of miles from urban centers.
DG will create an economic engine – manufacturing, installing, maintaining, and replacing solar panels.
Taxpayers will have control over energy production, not foreign interests. Desert Sunlight will be sold to the highest bidder after permits granted – who? Spain? Britain? Saudi Arabia? Germany?
The United States will continue to be vulnerable to foreign energy control.

In closing, I support the No Action Alternative, and strongly urge you to render the same decision.

Sincerely,

Dr. Karen Tracy

62350 Cummins Way
Joshua Tree, CA 92252

55

Form #1 (see Letter #28)

"C.B. Wolf"
<obrian@earthlink.net>

11/01/2010 09:28 PM

Please respond to
"C.B. Wolf"
<obrian@earthlink.net>

To CAPSSolarFirstSolarDesertSunlight@blm.gov
cc
bcc
Subject First Solar Desert Sunlight Solar Farm Draft EIS and Possible

Allison Shaffer, Project Manager,
Palm Springs South
Coast Field Office, BLM
1201 Bird Center Drive
Palm Springs, CA
92262

Sent VIA EMAIL: CAPSSolarFirstSolarDesertSunlight@blm.gov

11/01/10

RE: First Solar Desert Sunlight Solar Farm Draft EIS and Possible Plan Amendment

Dear Ms. Shaffer,

Thank you for this opportunity for me to comment on the proposed First Solar Desert Sunlight project located in the community of Eagle Mountain/Desert Center.

I wish to go on record by saying I oppose this project and strongly urge the No Action Alternative be issued, for the following reasons:

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The United States will continue to be vulnerable to foreign energy control.

In closing, I support the No Action Alternative, and strongly urge you to render the same decision.

Sincerely,

C.B. Wolf
PO Box 1822, Tustin, CA 92781-1822
949-244-7840

56

STATE OF CALIFORNIA ARNOLD SCHWARZENEGGER, *Governor*

PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

November 3, 2010

Allison Shaffer, Project Manager
Palm Springs South Coast Field Office
Bureau of Land Management
1201 Bird Center Drive
Palm Springs, California 92262

Dear Ms. Shaffer,

As a cooperating agency in preparation of the *Desert Sunlight Solar Farm Project Draft Environmental Impact Statement* (EIS), and as lead agency under the California Environmental Quality Act (CEQA) for Southern California Edison's (SCE) proposed Red Bluff Substation, the California Public Utilities Commission (CPUC) submits these comments on the August, 2010 Draft EIS.

As a necessary component of Desert Sunlight Holdings' proposed Desert Sunlight Solar Farm, the environmental impacts of the proposed Red Bluff Substation and an associated proposed 220 kilovolt (kV) generation interconnection (gen-tie) transmission line are evaluated in the Draft EIS. The Desert Sunlight EIS may satisfy CEQA requirements for project components that require entitlements from state and local agencies.

The CPUC regulates investor-owned utilities, including SCE, which are required to obtain a permit from the CPUC for construction of certain specified infrastructure listed under Public Utilities Code Section 1001, including electrical substations like the proposed Red Bluff Substation. CEQA Guidelines, Section 15221, states:

> (a) When a project will require compliance with both CEQA and NEPA, state or local agencies should use the EIS or Finding of No Significant Impact rather than preparing an EIR or Negative Declaration if the following two conditions occur:
>
> > (1) An EIS or Finding of No Significant Impact will be prepared before an EIR or Negative Declaration would otherwise be completed for the project

As a cooperating agency, the CPUC and its consultants reviewed and commented on several administrative drafts of the EIS for CEQA compliance. The CPUC has now reviewed the entire Draft EIS, and has determined that elements of the document still do not satisfy the requirements of CEQA. The attached comments, organized by EIS Chapter and Section, relate to how the contents and clarity of the Draft EIS may be supplemented or improved to achieve CEQA adequacy and compliance in the Final EIS. 56-1

I look forward to working with you to ensure that the Final EIS is fully CEQA compliant.

Regards,

Billie C. Blanchard

Billie Blanchard, CPUC Project Manager
Energy Division CEQA Unit
California Public Utilities Commission
505 Van Ness Avenue
San Francisco CA 94102
Tel. (415) 703-2068
Fax (415) 703-2200
Email: bcb@cpuc.ca.gov

Cc: Ken Lewis, CPUC
Mary Jo Borak, CPUC
John Kalish, BLM
Holly Roberts, BLM
Milissa Marona, SCE
Doug Cover, ESA
Susan Lee, Aspen
Amanda Beck, First Solar

Attached: 1. Cumulative Impact Analyses as Revised by CPUC

California Public Utilities Commission Comments on the Draft Environmental Impact Statement for the Desert Sunlight Solar Project

Chapter 2—Description of the Proposed Action and Alternatives

Although it is described in Chapter 4 (Environmental Consequences) that Applicant Measures (AM) are considered to be part of the project description, these measures are not listed in Chapter 2 (Description of the Proposed Action and Alternatives). To clarify all of the elements considered to be part of the Proposed Project, AMs should be listed in Chapter 2. 56-2

Chapter 3—Affected Environment

3.3 Vegetation

The following comments on the Affected Environment section for Vegetation were provided to BLM previously during administrative draft EIS review. They are repeated here with additional detail.

Section 3.3.3. Vegetation Communities. We note that Section 3.3.5 (Sensitive Natural Communities) discusses active desert dunes and we understand the Draft EIS's conclusion on that special status community. However, there is no discussion of other types of fine sand habitat that could be suitable as habitat for several special status plant or wildlife species. We cannot evaluate from the Draft EIS whether this habitat is present or absent within the study area or within the any of the alternative footprints analyzed. 56-3

CEQA analysis of potential impacts to several special status species necessitates an adequate description of potential habitat. The Final EIS should provide descriptions of soil texture in all vegetation communities and a detailed discussion of any active or stabilized aeolian sand or fine-textured alluvial sandy wash habitat, even if these are only scattered patches or linear features (e.g., washes or road berms). Alternately, the Final EIS should make an unequivocal statement in this section that no aeolian sand patches or linear features are present in the study area or in the footprints of projects analyzed.

Table 3.3-2: Please provide a definition of "NECO: covered" status in footnotes to the table. 56-4

Harwood's milk vetch: The conclusion contradicts the discussion of active desert dunes (3.3.5). Active desert dunes occur within the study area east of Pinto Wash. Further, the discussion of vegetation communities does not support the conclusion that no habitat is present within the project footprint area. See comments above regarding other fine sandy habitats of washes and stabilized sand flats. We recommend either revising the conclusion to indicate "potential," within the study area and within project footprints, or deleting any discussion of habitat in support of the present conclusion and relying exclusively on the results of field surveys as support for "unlikely to occur." 56-5

3.4 Wildlife

The following comments on the Affected Environment section for Wildlife were provided to BLM previously during administrative draft EIS review. They are repeated here with additional detail.

Section 3.4.4, Special status wildlife. The Draft EIS dismisses potential occurrence of Mojave fringe-toed lizard (MFTL; page 3.4-19). We recognize the geomorphology work addressing sand transport and agree 56-6

that this analysis is needed to address potential impacts to off-site MFTL habitat. But the descriptions of soils and potential habitat on-site do not justify the Draft EIS's conclusion. MFTL is not "restricted to fine, loose, windblown sand deposits associated with dunes, dry lakebeds, washes, and sparse shrublands" as stated in the Draft EIS (p. 3.4-19), though it does require fine sandy substrates within its home range "where it can burrow in the sand to hide from predators." MFTL can and does occur in desert shrubland habitats where scattered patches of fine sand (e.g., along railroad berms, in washes, or small windblown patches alongside shrubs) provide this escape habitat. The Draft EIS describes "very coarse sand sheets or small, highly disturbed, relict coppice dunes (i.e., mounds at the base of plants)…."; and "moderately active coppice dunes within some of the active alluvial washes" and concludes that "they are not considered suitable habitat for the Mojave fringe-toed lizard." To the contrary, these passages describe habitats where MFTL occur in other parts of its range and the text does not support the Draft EIS's conclusion. 56-6 cont

The Final EIS should further review potential occurrence of MFTL on the project site and provide a stronger explanation. If the further analysis concludes that MFTL could occur on the site, the Final EIS should delineate suitable habitat; examine potential project impacts; and provide mitigation as appropriate. Numerous published MFTL habitat descriptions are available to support this habitat description and refute the narrow interpretation adopted in the Draft EIS. We provide three examples, below. In addition, we have discussed this species' habitat with Dr. Cameron Barrows and Mr. Robert Black (both of UC Riverside), who are recognized MFTL experts.

Bureau of Land Management, County of San Bernardino, and City of Barstow. 2005. Final Environmental Impact Report and Statement for the West Mojave Plan, A Habitat Conservation Plan and California Desert Conservation Area Plan Amendment. BLM California Desert District.

Murphy, R. W., T. L. Trepanier, and D. J. Morafka. 2006. Conservation genetics, evolution and distinct population segments of the Mojave fringe-toed lizard, Uma scoparia. Journal of Arid Environments 67 (Supplement S), pp. 226 247.

Cablk, M. E. and J. S. Heaton. 2002. 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.

Nelson's bighorn sheep. The Draft EIS acknowledges that valley floors "could" serve as important linkages between neighboring mountainous regions but largely dismisses the potential that bighorn sheep may use the project area for intermountain movement (p. 3.4-23). The last sentence of paragraph 5 of page 3.4-23 should be revised to read: 56-7

> Valley floor areas, including the Project Study Area, would serve as important linkages between neighboring mountainous regions and allow gene flow to occur between subpopulations (USFWS 2000).

The Draft EIS emphasizes washes as likely movement corridors for bighorn sheep (p. 3.4-24). However, bighorn sheep generally use open habitat, allowing them to see predators from a long distance. We strongly suggest deletion of the third full sentence of the first partial paragraph on page 3.4-24 discussing wash areas as the primary movement corridor for this species. The use of the project area by bighorn sheep should not be discounted, as Nelson's bighorn sheep has the potential to occur on the site.

Palm Springs round-tailed ground squirrel. The discussion of conservation status downplays the fact that this animal is priority-3 candidate for federal listing as threatened or endangered. While it is true that the USFWS intends to review its status upon availability of genetic analysis (USFWS 2009), that review is still pending and we are not aware of published data on genetics or morphology that would support a revision to its current conservation status. The Final EIS should revise the text to clarify that no change to its conservation status has been recommended. 56-8

3.17 Water Resources

The following comments on the Affected Environment section for Water Resources were provided to BLM previously during administrative draft EIS review. They are repeated here with additional detail.

CEQA Significance Criteria. The CEQA Significance Criteria presented in Section 4.17.2 are sufficient, but the impacts discussed in Sections 4.17.3 through 4.17.8 are not clearly tied to these criteria, as discussed below. Criterion WR-1 (Violate any water quality standards or waste discharge requirements) is not discussed in Section 4.17 at all, even though water quality standards and waste discharge requirements are introduced in Section 3.17. Page 4.17-27, line 6, states "…the same reasons discussed under Alternative 1 … no water quality standards or waste discharge requirements would be violated…" – however, the discussion under Alternative 1 does *not* specifically discuss the project's potential to violate water quality standards or waste discharge requirements. Even if no impact would occur under this CEQA Criterion it needs to be discussed in the impact analysis. 56-9

Perennial Yield. Page 3.17-12, line 6 states, "The perennial yield of the basin is between approximately 10,000 and 20,000 acre-feet per year (AFY) (BLM and CEC, 2010)." This statement is not accurately referenced; the references section does not include any BLM and CEC documents from 2010. There is one reference to a 2009 BLM and CEC document, but it is for the "Draft Environmental Impact Statement and Draft California Desert Conservation Area Plan Amendment, Ivanpah Solar Electric Generating System," which does not provide an estimate for perennial yield of the Chuckwalla GW Basin. In addition, this statement is highly contradictory to the data presented in Table 4.17-1 (Groundwater Budgets for Chuckwalla Valley Groundwater Basin), which shows that the perennial yield/ net inflow estimated for two different projects in the basin is 2,608 – 3,346 acre-feet per year. It is possible that the term "perennial yield" was incorrectly used in reference to the 10,000 – 20,000 figure. It is suggested that this reference be removed throughout the analysis, and that only those figures presented in Table 4.17-1 be used. 56-10

Chapter4—Environmental Consequences

In the majority of the Draft EIS resource analyses, the cumulative impact discussion provided has not been conducted correctly to comply with CEQA. Under CEQA, the following steps must be taken for cumulative impact analysis: 56-11

1. Cumulative analysis should first conclude whether past, current, and reasonably foreseeable future projects would combine to have a significant cumulative impact on the environment. The analysis should not consider the Proposed Project plus existing projects separately from consideration of the combination of the Proposed Project and future projects (e.g., noise analysis).

2. If there would be a significant cumulative impact under any criterion, the analysis should then discuss and conclude whether the Proposed Project would make a cumulatively considerable

contribution to that significant impact and propose any feasible mitigation to reduce the project's contribution to less than cumulatively considerable. 56-11 cont

The above steps should be followed for every resource area. As presented in the Draft EIS, most of the cumulative impact analyses are not adequate for purposes of CEQA. In addition, it should be noted that the less than significant impacts of individual projects may combine to create a significant cumulative impact. The explanation of why a cumulative impact is not significant should take this into account.

Attached as Appendix 1 to this comment letter is a CEQA-compliant cumulative analysis for each issue area that should be included either within each resource section in the Final EIS, or separately as an appropriately referenced appendix to the document, at BLM's discretion.

4.2 Air Resources

The following comments on the Environmental Consequences section for Air Resources were provided to BLM previously during administrative Draft EIS review. They are repeated here with additional detail.

Applicant Measure AM-AIR-7, Transportation Plan. Page 4.2-39 (Applicant Measures and Mitigation Measures AM-AIR-7 is insufficient, and should be superseded by a mitigation measure that stipulates that bidders for the construction contract shall submit a transportation plan describing how adherence to AM-AIR-5 would be achieved, thus minimizing daily construction worker trips to the maximum extent feasible. 56-12

Mitigation Measure MM-AIR-1, Low-Emission Equipment. Page 4.2-39 (Applicant Measures and Mitigation Measures): MM-AIR-1 is insufficient to reduce air quality impacts. Rather than "give preference to construction contractors who have newer equipment or who have retrofitted their equipment with supplemental emission control devices" MM-AIR-1 needs to be revised as follows: 56-13

MM-AIR-1, Low-Emission Equipment: All construction diesel engines with a rating of 50 hp or higher shall meet, at a minimum, the Tier 3 California Emission Standards for Off-Road Compression-Ignition Engines, as specified in California Code of Regulations, Title 13, section 2423(b)(1), unless a good faith effort demonstrates that such engine is not available for a particular item of equipment. In the event that a Tier 3 engine is not available for any offroad equipment larger than 100 hp, that equipment shall be equipped with a Tier 2 engine, or an engine that is equipped with retrofit controls to reduce exhaust emissions of nitrogen oxides (NOx) and diesel particulate matter (DPM) to no more than Tier 2 levels unless certified by engine manufacturers that the use of such devices is not practical for specific engine types. For purposes of this condition, the use of such devices is "not practical" for the following, as well as other, reasons.

- There is no available retrofit control device that has been verified by either the California Air Resources Board or U.S. Environmental Protection Agency to control the engine in question to Tier 2 equivalent emission levels and the highest level of available control using retrofit or Tier 1 engines is being used for the engine in question; or
- The construction equipment is intended to be on site for 5 days or less.

All heavy earth-moving equipment and heavy duty construction-related trucks with engines meeting the requirements of (b) above shall be properly maintained and the engines tuned to the engine manufacturer's specifications.

All diesel heavy construction equipment shall not idle for more than five minutes. Vehicles that need to idle as part of their normal operation (such as concrete trucks) are exempted from this requirement. 56-13 cont

Construction equipment will employ electric motors when feasible.

4.3 Vegetation

The following comments on the Environmental Consequences section for Vegetation were provided to BLM previously during administrative draft EIS review. They are repeated here with additional detail.

AM-BIO-1, Habitat Compensation Plan. The Draft EIS does not state habitat criteria for compensation lands. Thus, the Draft EIS lacks performance standards and provides no explanation that the habitat compensation would mitigate for the impacted resources. This measure is cited repeatedly throughout the analyses and significance conclusions, but lacks any specific requirement that the compensation land would be suitable for any of the resources or species. This Applicant Measure is insufficient to mitigate impacts, and should be superseded by the following mitigation measure, identified in the California Energy Commission's Calico Solar Project Final Staff Assessment. 56-14

MM-BIO-2, Off-site Compensation: The compensation land acquired in AM-BIO-1, Habitat Compensation Plan, must contain the following resources in appropriate acreages:

- creosote bush scrub,
- desert dry wash woodland,
- state-jurisdictional streambeds,
- occupied foxtail cactus habitat,
- undisturbed habitat for most wildlife species (i.e., away from sources of noise or other disturbance such as highways, wind farms, etc.),
- occupied desert tortoise habitat,
- occupied chuckwalla and rosy boa habitat,
- suitable/occupied upland shrubland nesting habitat for migratory birds,
- suitable or occupied roosting habitat for special status bats, and
- suitable or occupied habitat for Palm Springs round-tailed ground squirrel, Colorado Valley woodrat, or American badger.

The compensation lands must provide wildlife movement value equal to that on the project site.

The requirements for the acquisition, initial protection and habitat improvement, and long-term maintenance and management of special-status plant compensation lands include all of the following:

- Selection Criteria for Acquisition Lands. The compensation lands selected for acquisition may include any of the following categories:

  1. Occupied Habitat, No Habitat Threats: The compensation lands selected for acquisition shall be occupied by the target plant population and shall be characterized by site integrity and habitat quality that are required to support the target species, and shall be of equal or

better habitat quality than that of the affected occurrence. The occurrence of the target special-status plant on the proposed acquisition lands should be viable, stable or increasing (in size and reproduction). 56-14 cont

2. Unoccupied but Adjacent. The Project owner may also acquire habitat for which occupancy by the target species has not been documented, if the proposed acquisition lands are adjacent to occupied habitat. The Project owner shall provide evidence that acquisitions of such unoccupied lands would improve the defensibility and long-term sustainability of the occupied habitat by providing a protective buffer around the occurrence and by enhancing connectivity with undisturbed habitat.

- Review and Approval of Compensation Lands Prior to Acquisition. The Project owner shall submit a formal acquisition proposal to the BLM and CPUC describing the parcel(s) intended for purchase. This acquisition proposal shall discuss the suitability of the proposed parcel(s) as compensation lands for special-status plants in relation to the criteria listed above, and must be approved by the BLM and CPUC.
- Management Plan. The Project owner or approved third party shall prepare a management plan for the compensation lands in consultation with the entity that will be managing the lands. The goal of the management plan shall be to support and enhance the long-term viability of the target special-status plant occurrences. The Management Plan shall be submitted for review and approval to the BLM and CPUC.
- Integrating Special-Status Plant Mitigation with Other Mitigation lands. If all or any portion of the acquired Desert Tortoise, Waters of the State, or other required compensation lands meets the criteria above for special-status plant compensation lands, the portion of the other species' or habitat compensation lands that meets any of the criteria above may be used to fulfill that portion of the obligation for special-status plant mitigation.
- Compensation Lands Acquisition Requirements. The Project owner shall comply with the following requirements relating to acquisition of the compensation lands after the CPM, has approved the proposed compensation lands:

  a. Preliminary Report. The Project owner, or an approved third party, shall provide a recent preliminary title report, initial hazardous materials survey report, biological analysis, and other necessary or requested documents for the proposed compensation land to the BLM and CPUC. All documents conveying or conserving compensation lands and all conditions of title are subject to review and approval by the BLM and CPUC. For conveyances to the State, approval may also be required from the California Department of General Services, the Fish and Game Commission and the Wildlife Conservation Board.

  b. Title/Conveyance. The Project owner shall acquire and transfer fee title to the compensation lands, a conservation easement over the lands, or both fee title and conservation easement, as required by the BLM and CPUC. Any transfer of a conservation easement or fee title must be to CDFG, a non-profit organization qualified to hold title to and manage compensation lands (pursuant to California Government Code section 65965), or to BLM or other public agency approved by the BLM and CPUC. If an approved non-profit organization holds fee title to the compensation lands, a conservation easement shall be recorded in favor of CDFG or another entity approved by the CPM. If an entity other than CDFG holds a conservation easement over the compensation lands, the BLM and CPUC may require that CDFG or another entity approved by the BLM and CPUC, in consultation with

CDFG, be named a third party beneficiary of the conservation easement. The Project owner shall obtain approval of the BLM and CPUC of the terms of any transfer of fee title or conservation easement to the compensation lands. 56-14 cont

c. Initial Protection and Habitat Improvement. The Project owner shall fund activities that the BLM and CPUC require for the initial protection and habitat improvement of the compensation lands. These activities will vary depending on the condition and location of the land acquired, but may include trash removal, construction and repair of fences, invasive plant removal, and similar measures to protect habitat and improve habitat quality on the compensation lands. The costs of these activities are estimated to be $750 per acre ($250 per acre, using the estimated cost per acre for Desert Tortoise mitigation as a best available proxy, at a 3:1 ratio, but actual costs will vary depending on the measures that are required for the compensation lands). A non-profit organization, CDFG or another public agency may hold and expend the habitat improvement funds if it is qualified to manage the compensation lands (pursuant to California Government Code section 65965), if it meets the approval of the BLM and CPUC in consultation with CDFG, and if it is authorized to participate in implementing the required activities on the compensation lands. If CDFG takes fee title to the compensation lands, the habitat improvement fund must be paid to CDFG or its designee.

d. Property Analysis Record. Upon identification of the compensation lands, the Project owner shall conduct a Property Analysis Record (PAR) or PAR-like analysis to establish the appropriate amount of the long-term maintenance and management fund to pay the in-perpetuity management of the compensation lands. The PAR or PAR-like analysis must be approved by the BLM and CPUC before it can be used to establish funding levels or management activities for the compensation lands.

e. Long-term Maintenance and Management Funding. The Project owner shall provide money to establish an account with non-wasting capital that will be used to fund the long-term maintenance and management of the compensation lands. The amount of money to be paid will be determined through an approved PAR or PAR-like analysis conducted for the compensation lands. Until an approved PAR or PAR-like analysis is conducted for the compensation lands, the amount of required funding is initially estimated to be $4,350 for every acre of compensation lands, using as the best available proxy the estimated cost of $1,450 per acre for Desert Tortoise compensatory mitigation, at a 3:1 ratio. If compensation lands will not be identified and a PAR or PAR-like analysis completed within the time period specified for this payment (see the verification section at the end of this condition), the Project owner shall either: (i) provide initial payment equal to the amount of $4,350 multiplied by the number of acres the Project owner proposes to acquire for compensatory mitigation; or (ii) provide security to the BLM and CPUC under subsection (g), "Mitigation Security," below, in an amount equal to $4,350 multiplied by the number of acres the Project owner proposes to acquire for compensatory mitigation. The amount of the required initial payment or security for this item shall be adjusted for any change in the Project Disturbance Area as described above. If an initial payment is made based on the estimated per-acre costs, the Project owner shall deposit additional money as may be needed to provide the full amount of long-term maintenance and management funding indicated by a PAR or PAR-like analysis, once the analysis is completed and approved. If the approved analysis indicates less than $4,350 per acquired acre (at a 3:1 ratio) will be required for long-term maintenance and management, the excess paid will be returned to

56-14 cont

the Project owner. The Project owner must obtain the BLM and CPUC's approval of the entity that will receive and hold the long-term maintenance and management fund for the compensation lands. The BLM and CPUC will consult with CDFG before deciding whether to approve an entity to hold the Project's long-term maintenance and management funds.

The Project owner shall ensure that an agreement is in place with the long-term maintenance and management fund holder/manager to ensure the following requirements are met:

i. Interest. Interest generated from the initial capital long-term maintenance and management fund shall be available for reinvestment into the principal and for the long-term operation, management, and protection of the approved compensation lands, including reasonable administrative overhead, biological monitoring, improvements to carrying capacity, law enforcement measures, and any other action that is approved by the BLM and CPUC and is designed to protect or improve the habitat values of the compensation lands.

ii. Withdrawal of Principal. The long-term maintenance and management fund principal shall not be drawn upon unless such withdrawal is deemed necessary by the BLM and CPUC or by the approved third-party long-term maintenance and management fund manager, to ensure the continued viability of the species on the compensation lands.

iii. Pooling Long-Term Maintenance and Management Funds. An entity approved to hold long-term maintenance and management funds for the Project may pool those funds with similar non-wasting funds that it holds from other projects for long-term maintenance and management of compensation lands for special-status plants. However, for reporting purposes, the long-term maintenance and management funds for this Project must be tracked and reported individually to the BLM and CPUC.

f. Other Expenses. In addition to the costs listed above, the Project owner shall be responsible for all other costs related to acquisition of compensation lands and conservation easements, including but not limited to the title and document review costs incurred from other state agency reviews, overhead related to providing compensation lands to CDFG or an approved third party, escrow fees or costs, environmental contaminants clearance, and other site cleanup measures.

g. Mitigation Security. The Project owner shall provide financial assurances to the BLM and CPUC to guarantee that an adequate level of funding is available to implement any of the mitigation measures required by this condition that are not completed prior to the start of ground-disturbing Project activities. Financial assurances shall be provided to the BLM and CPUC in the form of an irrevocable letter of credit, a pledged savings account or another form of security ("Security") approved by the BLM and CPUC. The amount of the Security shall be $10,503 per acre ($3,501 per acre, using the estimated cost per acre for Desert Tortoise mitigation as a best available proxy, at a 3:1 ratio) for every acre of habitat supporting the target special-status plant species which is significantly impacted by the project. The actual costs to comply with this condition will vary depending on the actual costs of acquiring compensation habitat, the costs of initially improving the habitat, and the actual costs of long-term management as determined by a PAR report. Prior to submitting the Security to the BLM and CPUC, the Project owner shall obtain the BLM and CPUC's approval of the form of the Security. The BLM and CPUC may draw on the Security if the

BLM and CPUC determine the Project owner has failed to comply with the requirements specified in this condition. The BLM and CPUC may use money from the Security solely for implementation of the requirements of this condition. The BLM and CPUC's use of the Security to implement measures in this condition may not fully satisfy the Project owner's obligations under this condition, and the Project owner remains responsible for satisfying the obligations under this condition if the Security is insufficient. The unused Security shall be returned to the Project owner in whole or in part upon successful completion of the associated requirements in this condition. 56-14 cont

h. The Project owner may elect to comply with the requirements in this condition for acquisition of compensation lands, initial protection and habitat improvement on the compensation lands, or long-term maintenance and management of the compensation lands by funding, or any combination of these three requirements, by providing funds to implement those measures into the Renewable Energy Action Team (REAT) Account established with the National Fish and Wildlife Foundation (NFWF). To use this option, the Project owner must make an initial deposit to the REAT Account in an amount equal to the estimated costs (as set forth in the Security section of this condition) of implementing the requirement. If the actual cost of the acquisition, initial protection and habitat improvements, or long-term funding is more than the estimated amount initially paid by the Project owner, the Project owner shall make an additional deposit into the REAT Account sufficient to cover the actual acquisition costs, the actual costs of initial protection and habitat improvement on the compensation lands, and the long-term funding requirements as established in an approved PAR or PAR-like analysis. If those actual costs or PAR projections are less than the amount initially transferred by the applicant, the remaining balance shall be returned to the Project owner.

i. The responsibility for acquisition of compensation lands may be delegated to a third party other than NFWF, such as a non-governmental organization supportive of desert habitat conservation, by written agreement of the Energy Commission. Such delegation shall be subject to approval by the BLM and CPUC, in consultation with CDFG and USFWS, prior to land acquisition, enhancement or management activities. Agreements to delegate land acquisition to an approved third party, or to manage compensation lands, shall be executed and implemented within 18 months of the BLM and CPUC's certification of the Project.

AM-BIO-3, Pre-Construction Surveys for Special Status Plant Species and Cacti. On page 4.3-20, the Draft EIS states that cacti and special status plants will be "flagged for transplantation" but there is no requirement to implement the transplantation. The following mitigation measure is recommended to supersede this AM in the Final EIS. 56-15

MM-BIO-3, Implement Transplantation: Cacti flagged for transplantation per AM-BIO-3 shall be transplanted per the *Vegetation Salvage Plan* described in AM-BIO-5.

While implementation of the transplantation of cacti according to the salvage plan would be a feasible means for reducing impacts, the transplantation for other special status plants is considered infeasible.

AM-BIO-5, Salvage plan. On page 4.3-21, the Draft EIS includes no clear statement that the plan will be implemented, and includes no success criteria (i.e. survivorship over the proposed 3-year maintenance/monitoring period), no requirement for survivorship beyond the maintenance period, and no remedial measures to be implemented if success criteria are not met. As written, the measure allows for transplantation and follow-up irrigation, then cessation of irrigation and subsequent mortality of all 56-16

plants. The measure as worded in the Draft EIS lacks performance standards as required under CEQA and defers those criteria to a later document. Also, absent post-maintenance success criteria, it does not indicate that its implementation would feasibly mitigate the impacts. The Final EIS should provide the following mitigation measure, from the California Energy Commission's Calico Solar Final Staff Assessment, to supersede this AM, which sets forth performance criteria and additional details to ensure that the mitigation would be effective and feasible. 56-16 cont

> **MM-BIO-4, Salvage and Restoration Plan Performance Standards**: Post-seeding and planting monitoring shall be yearly and shall continue for a period of no less than 10 years or until the defined performance standards are achieved (whichever is later). Remediation activities (e.g., additional planting, removal of non-native invasive species, or erosion control) shall be taken during the 10-year period if necessary to ensure the success of the restoration effort. If the mitigation fails to meet the established performance standards after the 10-year maintenance and monitoring period, monitoring and remedial activities shall extend beyond the 10-year period until the performance standards are met, unless otherwise specified by the BLM and CPUC. As needed to achieve performance standards, the project owner shall be responsible for replacement planting or other remedial action as agreed to by BLM and CPUC. Replacement plants shall be monitored with the same survival and growth requirements as required for original revegetation plantings. The following performance standards must be met by the end of the monitoring period: (a) at least 80% of the species and vegetative cover observed within the temporarily disturbed areas shall be native species that naturally occur in desert scrub habitats; (b) absolute cover and density of native plant species within the revegetated areas shall equal at least 60% of the pre-disturbance or reference vegetation cover; and (c) the site shall have gone without irrigation or remedial planting for a minimum of three years prior to completion of monitoring.
>
> If a fire or flood damages a revegetation area within the 10-year monitoring period, the owner shall be responsible for a one-time replacement. If a second fire or flood occurs, no replanting is required, unless the event is caused by the owner's activity (e.g., as determined by BLM or other firefighting agency investigation).

AM-BIO-5, Restoration Plan. On page 4.3-24, the Draft EIS stats that the restoration plan shall include success criteria, but does not state the criteria. The Draft EIS also requires monitoring but there is no requirement that the revegetation sites meet the success criteria and no requirement for alternate means of mitigating the impacts if revegetation does not succeed. 56-17

The Draft EIS lacks performance standards as required under CEQA and instead defers those standards to a future document (i.e., the Restoration Plan). For CEQA compliance, the performance standards should be stated in the mitigation measure. There also should be a clear discussion of remedial measures or alternate mitigation to be implemented in the event that the restoration does not meet its success criteria within the proposed monitoring period (for example, replanting and further maintenance work; extending the monitoring period; off-site habitat protection or compensation; or other means). Inclusion of MM-BIO-4, Salvage and Restoration Plan Performance Standards would serve to bring AM-BIO-5, Restoration Plan into compliance with CEQA.

Impact BIO-2, Direct and Indirect Impacts to Special Status Plant Species. On page 4.3-24, the statement that "Applicant Measure BIO-1 would ensure that equivalent habitat for these species is preserved elsewhere which is expected to benefit the overall populations of these species" is not supported by the wording of AM-BIO-1. There is no requirement in AM-BIO-1 that compensation lands 56-18

must provide habitat (occupied or suitable) for special status plants. See comments above regarding AM-BIO-1. 56-18 cont

The statement that "Applicant Measures BIO-3 and BIO-5 would ensure that any special status plant species found within the Project locations would be salvaged and transplanted if feasible" is misleading. See comments above regarding AM-BIO-3 and AM-BIO-5. Cactus transplantation is feasible but transplantation of other special status plants is not. This should be clarified in the conclusion.

The Final EIS should provide clear support for any conclusion that impacts would be mitigated below a level of significance by providing "selection criteria" for the compensation lands. Alternately, the Final EIS should make a conclusion that the impacts to special status plants would not be mitigated below a level of significance.

Impact BIO-3, Direct and Indirect Impacts to Sensitive Natural Communities. Page 4.3-24—see comments above regarding Habitat Compensation. Without implementation of MM-BIO-2, Off-Site Compensation, to supersede AM-BIO-1 as recommended above, the conclusion that this impact would be mitigated below a level of significance is unsupported. 56-19

Impact BIO-4, Direct and Indirect Impacts to Jurisdictional Resources. On page 4.3-25, there is a typo in line 3, which should cite AM-BIO-1. See comments above regarding Habitat Compensation. Without implementation of MM-BIO-2, Off-Site Compensation, to supersede AM-BIO-1 as recommended above, the conclusion that this impact would be mitigated below a level of significance is unsupported. 56-20

Impact BIO-5, Local Policies or Ordinances Protecting Biological Resources. On page 4.3-26, Local Policies or Ordinances, the statement that "there would be no construction, operation and maintenance, or decommissioning impacts under significance criterion BIO-5" is ambiguous. This should be revised to clearly state that the project would or would not be in compliance with local policies and ordinances. 56-21

Additional CEQA determinations. On page 4.3-26 and following, the remaining CEQA determinations generally repeat language from the sections above; all determinations need revision as described above. 56-22

4.4 Wildlife

The following comments on the Environmental Consequences section for Wildlife were provided to BLM previously during administrative draft EIS review. They are repeated here with additional detail.

General discussions of wildlife habitat impacts, wildlife movement impacts, and impacts to each special status wildlife species are cursory throughout Section 4.4 of the Draft EIS. 56-23

There is little or no analysis of potential project impacts to MFTL, Nelson's bighorn sheep, Palm Springs round tailed ground squirrel, or American badger. All of these are special status species that would meet significance criteria listed in the Draft EIS. The absence of any analysis of project impacts to these species is a CEQA deficiency. The Final EIS should describe potential impacts to each species, provide CEQA significance conclusions, and recommend mitigation as appropriate.

There is no discussion of potential impacts of the solar field with regard to glare, reflection, or possible "mirage" effect to wildlife, particularly migratory birds. Contrary to the Draft EIS, the absence of mirrors does not justify dismissal of this potential impact to wildlife and habitat. Many surfaces, including solar panels, reflect light and could have the effects listed above. The Final EIS should incorporate this

potential impact into the section, and the Avian and Bat Protection Plan measure should include mitigation to address this potential effect. 56-23 cont

The discussion of wildlife movement requires further development. Wildlife movement is not limited to washes. Many of the species in the project area are likely to move across the landscape and are not restricted or even prone to only using the washes for movement. Note that the solar field and generator tie-line would have much different effects on wildlife movement. Text in both sections needs to clarify the nature of these impacts for different project components.

Desert tortoise. The Final EIS should discuss project impacts to critical habitat. 56-24

Applicant Measure AM-WIL-1, Desert Tortoise Translocation Plan. The Final EIS should cite 2010 USFWS translocation guidelines and state that the final translocation plan will conform to those guidelines. 56-25

USFWS. 2010. Translocation of Desert Tortoises (Mojave Population) From Project Sites: Plan Development Guidance. Unpublished Report, August 2010, Ventura Fish and Wildlife Office, Ventura, California. 11 pp.

<http://www.fws.gov/ventura/speciesinfo/protocols_guidelines/>USFWS

Applicant Measure AM-WIL-2, Raven Management Plan. Note typo- the measure should be separated from the last paragraph within the previous measure. The Final EIS should include the following mitigation measure to ensure the adequacy of AM-WIL-2. 56-26

MM-WIL-1, Contribute to USFWS Regional Raven Management Program. The project owner shall contribute to the USFWS Regional Raven Management Program by making a one-time payment of $105 per acre of project disturbance to the national Fish and Wildlife Federation Renewable Energy Action Team raven control account.

Applicant Measure AM-WIL-3, Avian and Bat Protection Plan. The Final EIS should cite 2010 USFWS guidelines and state that the final plan will conform to those guidelines. 56-27

USFWS, 2010. Considerations for Avian and Bat Protection Plans U.S. Fish and Wildlife Service White Paper. USDI Fish and Wildlife Service, Washington, DC. 11 pp.

Impact WIL-1, Direct and Indirect Impacts to Wildlife Habitat. The statement that "Applicant Measure BIO-1 … would ensure that the loss of this habitat is adequately compensated for and equivalent habitat would be protected offsite" is not consistent with text in AM-BIO-1. See MM-BIO-2, Off-Site Compensation, above. As stated in the Draft EIS, the conclusion that impacts would be "reduced to less than significant" is not supported. The Final EIS should provide further explanation in this significance conclusion. 56-28

Impact WIL-2, Direct and Indirect Impacts to Special Status Wildlife Species. As above, the significance conclusion is not consistent with text in AM-BIO-1. See recommended MM-BIO-2, Off-site Compensation, above. As stated in the Draft EIS, the conclusion that impacts would be "reduced to less than significant" is not supported. The Final EIS should provide further explanation in this significance conclusion. 56-29

Impact WIL-3, Direct and Indirect Impacts to Wildlife Movement or Nursery Sites. As above, the wash habitat is not necessarily the most important wildlife movement habitat on the site. As above, the significance conclusion is not consistent with text in AM-BIO-1. See recommended MM-BIO-2, Off-site 56-30

Compensation, above. As stated in the Draft EIS, the conclusion that impacts would be "reduced to less than significant" is not supported. The Final EIS should provide further explanation in this significance conclusion. 56-30 cont

Impact WIL-4, Local Policies or Ordinances Protecting Biological Resources. See remarks regarding Impact BIO-5, above. 56-31

Additional CEQA determinations. (p. 4.4-33 and following): These generally repeat language from the sections above; all these determinations need revision as described above. 56-32

Polarized Light from Photovoltaic Panels. The analysis of the solar field does not present nor evaluate any potential impacts from polarized light. This is a concern with solar photovoltaic projects, and must be addressed in the Final EIS. of the Final EIS should include the following discussion of impacts on wildlife of solar panels from polarized light pollution and the following mitigation measure to reduce impacts: 56-33

The proposed project's solar panels will produce polarized light pollution that could confuse insects and potentially birds. Polarized light is utilized by many animals. Unpolarized light becomes strongly polarized, or aligned in a single, often horizontal plane, by reflection. The primary natural source of polarized light in the environment is water. Polarized light is used by at least 300 species of insects to recognize the surface of water bodies as a suitable place to lay their eggs, and many waterbird species may also utilize polarized light to locate water bodies (Horvath et al., 2009). It has also been documented that for a variety of birds, reptiles, fish, etc. that polarized-light pollution can affect their ability to detect natural polarized light patterns in the sky which can lead to effects on their navigation ability and ultimately effects on dispersal and reproduction (Horvath et al., 2009).

Light that has been highly and horizontally polarized by artificial surfaces such as smooth, dark buildings or solar panels alters the natural patterns of polarized light within the environment resulting in polarized light pollution (Horvath et al., 2009). The smoother and darker a surface, the more polarized light pollution it produces. Glass buildings, asphalt roads, and dark paint, and dark, conventional solar cells produce polarized light pollution. The degree of polarization for light reflected from solar panels approaches 100 percent, far above the typical polarization for water, which is typically 30 to 70 percent (Horvath et al., 2010).

Potential direct effects due to polarized-light pollution resulting from the development of the Panoche Valley Solar Farm include the following:

- The highly polarizing nature of solar panels may negatively affect the ability of animals to judge suitable habitats and egg laying sites, especially for organisms normally associated with water; artificial polarizing surfaces can be more attractive than water due to a stronger polarization signature. This can result in the attraction of insects which either waste resources (time and energy) on the surfaces, lay eggs on them resulting in reproductive failure, become easy targets for predators, or dehydrate and die (Horvath et al., 2009). Horvath et al. (2010) documented that many insect taxa, including mayflies (Ephemeroptera), stoneflies (Trichoptera), dolichopodid dipterans, and tabanid flies (Tabanidae) are very attracted to the polarized light reflected by solar panels (polarotactic) and will lay eggs above solar panels more often than above water.
- Polarized-light pollution can create unfavorable environments that result in mutualistic species necessary for native plant life cycles, such as seed dispersers and pollinators, to be extirpated from an affected area. Many animals including potential pollinators such as bees, desert ants, and beetles also utilize polarized light patterns for orientation and navigation (von Frisch, 1967; Labhart and

Meyer, 2002; Dacke et al., 2003). Therefore, polarized light produced by solar panels may be confused for natural polarized light and attract or confuse dispersing and migrating individuals, and may reduce successful plant reproduction on the proposed project site by confusing and disorienting pollinators. This could affect not only the three special-status plants species detected on the proposed project site; gypsum loving larkspur, recurved larkspur, and serpentine linanthus, but also the more common plant species. 56-33 cont

- The large scale of the solar site could attract migrating waterbirds, resulting in lost migration time and energy, or potentially to injury, stranding, and death. However, the role of polarized light for water detection is not well understood for migrating waterbirds (Horvath et al., 2009).

Potential indirect effects due to polarized-light pollution from the development of the proposed project are as follows:

- Solar power production facilities can function as an ecological trap, resulting in mortality or reproductive failure, and could lead to population declines in affected species. Local population collapse could be a result, with cascading impacts on predators and other species up the food chain.

According to Horvath et al. (2010), the most recent study available, "the potential effects of polarized light pollution associated with solar panels on populations of aquatic insects remains unclear, but they are predicted to cause rapid and potentially large population declines." Large-scale solar facilities present a new and relatively un-researched risk for bird collisions.

Fragmenting the solar-active surface of solar panels lessens their attractiveness to polarotactic insects. Horvath et al. (2010) found that breaking up the polarizing black surface of solar panels utilizing non-polarizing white borders and white grids produced a 10 to 26 fold reduction in the likelihood of aquatic insects mistaking the panels for water and depositing eggs on them. Horvath et al. (2010) estimated that, depending on the amount of space the white strips cover, the effectiveness of the solar cells may be reduced by approximately 1.8 percent.

Construction of the project will produce polarized-light pollution that could confuse insects and likely birds, resulting in a significant impact. Mitigation Measure MM-BIO-X, Bird Monitoring and Avoidance Plan, would require the Applicant to conduct long term avian mortality studies on the project site, including the solar arrays. The study would document the level of bird mortality and if the County and regulatory agencies deem the mortality excessive, would require the Applicant to take corrective actions including the installation of non-polarizing white borders or white grids that break up the polarizing black surface of solar panels. With implementation of this mitigation measure, impacts from polarized light pollution would be less than significant.

MM-BIO-X Prepare and Implement a Bird Monitoring and Avoidance Plan. Prior to the issuance of a ROW grant, the Applicant shall retain a BLM-approved, qualified biologist to prepare a Bird Monitoring and Avoidance Plan in consultation with California Department of Fish and Game (CDFG) and U.S. Fish and Wildlife Service (USFWS). This plan shall follow the Avian Protection Plan guidelines outlined by USFWS and Avian Power Line Interaction Committee (APLIC).

The plan will require monitoring of (1) the death and injury of birds from collisions with facility features such feeder/distribution lines and solar panels, and (2) impacts to aquatic insects from polarized light from solar panels that may affect insectivorous (insect-eating) birds. The study design shall be approved by BLM in consultation with the California Department of Fish and Game and the U.S. Fish and Wildlife Service.

56-33 cont

Bird mortality study. The bird mortality component of the Bird Monitoring Study shall include at a minimum: detailed specifications on data, a carcass collection protocol, and a rationale justifying the proposed schedule of carcass searches. The study shall also include seasonal trials to assess bias from carcass removal by scavengers as well as searcher bias.

Polarized light and insectivorous birds study. The study of polarized light impacts on insectivorous birds shall include at a minimum: detailed specifications regarding data requirements, including protocols for collection and identification of insect eggs found on solar panels, and a rationale for a data collection schedule.

During construction and for one year following the beginning of the solar farm operation the biologist shall submit annual reports to BLM describing the dates, durations, and results of monitoring and data collection. The annual reports shall provide a detailed description of any project-related bird or wildlife deaths or injuries detected during the monitoring study or at any other time and data collected for the study of polarized light impacts on insectivorous birds. The report shall analyze any project-related bird fatalities or injuries detected, and provides recommendations (in consultation with the County) for future monitoring and any adaptive management actions needed.

Thresholds. Thresholds will be determined by BLM in consultation with CDFG and USFWS. If BLM determines that either (1) bird mortality caused by solar facilities is substantial and is having potentially adverse impacts on special-status bird populations, or that (2) the attraction of polarized light from solar panels is causing reproductive failure of aquatic insect populations at high enough levels to adversely affect insectivorous special-status birds, the Applicant shall be required to implement some or all of the mitigation measures below.

Implementation Measures. To minimize bird mortality caused by solar facilities, the Applicant may be required to install additional bird flight diverters alterations to project components that have been identified as key mortality features, or implement other appropriate actions approved by BLM and regulatory agencies based on the findings of the Bird Monitoring and Avoidance Plan. To minimize indirect impacts of polarized light on insectivorous birds, the Applicant may be required to install non-polarizing white borders and grids on or around solar panels, which Horvath et al. (2010) found to dramatically reduce the attractiveness of solar panels to aquatic insects, or other measures that are shown to be effective.

If mitigation actions are required, the annual reporting shall continue until LBM, in consultation with CDFG and USFWS, determines whether more years of monitoring are needed, and whether additional mitigation and adaptive management measures are necessary. After the Bird Monitoring Study is determined by BLM to be complete, the Applicant shall prepare papers that describe the design and monitoring results of the two studies to be submitted to peer-reviewed scientific journals. Proof of submittal shall be provided to BLM, CDFG and USFWS within one year of concluding the monitoring studies.

Citations:

Dacke, M., E. D. Nilsson, C. H. Scholtz, M. Byrne, and E. J. Warrant. 2003. Insect orientation to polarized moonlight. Nature 424:33.

56-33 cont

Horváth, G., Kriska, G., Malik, P. & B. A. Robertson. 2009. Polarized light pollution: A new kind of ecological photopollution. Frontiers in Ecology and the Environment.

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4.9 Lands and Realty

The following comment on the Environmental Consequences section for Lands and Realty was not previously provided to BLM during administrative draft EIS review. This comment has been newly identified after review of the Draft EIS.

56-34

Impacts to Agriculture. Page 4.9-19 (Alternative 3): Based on the construction impact analysis under Agriculture, the transmission line corridor (Gen-Tie Line A-2) would traverse active agricultural land. The impact discussion fails to include discussion of whether or not the land is considered Important Farmland. Additionally, discussion of GT-B-2 would cross approximately 1.5 miles of private agricultural land, though fails to conclude whether or not the GT-B-2 result in a significant conversion of Farmland.

4.10 Noise and Vibration

The following comments on the Environmental Consequences section for Noise were not previously provided to BLM during administrative draft EIS review. These comments have been newly identified after review of the Draft EIS.

56-35

Noise Significance Criteria. Page 4.10-3 (CEQA Significance Criteria): It is unclear why CEQA Significance Criterion NZ-4 utilizes a 10 dBA CNEL increase for assessing long-term source impacts. There is no reference as to the use of this performance standard and metric in lieu of the applicable Riverside County General Plan thresholds for land use types as in CEQA Significance Criteria NZ-2 and NZ-3.

56-36

Consistency with Local Ordinance. Page 4.10-4 (Noise From On-site Construction Activity): The author frequently mentions that the project would be consistent with the Riverside County Noise Ordinance by meeting the restricted construction hours. While the beginning time for these noise restrictions is often mentioned, the end time of daily construction and specifications of seasonal restrictions are not specified. AM-NZ-1 should be superseded by the following mitigation measure:

> "MM-NZ-1, Construction Hours: The Project Owner shall limit construction located within a quarter mile of an inhabited dwelling to 6:00 AM to 6:00 PM during the months of June through September and 7:00 AM to 6:00 PM during the months of October through May. Certain electrical connection activities at the solar farm site would occur at night for safety reasons, but would not require any heavy equipment operations."

4.11 Public Health and Safety/Hazardous Materials

The following comments on the Environmental Consequences section for Public Health and Safety/Hazardous Materials were provided to BLM previously during administrative draft EIS review. They are repeated here with additional detail.

Cadmium Telluride. Page 4.11-5 (Hazardous Materials/Hazardous Waste): The author's determination that CdTe would not be leached out under landfill conditions based on the Golder Associates, 2010 paper misrepresents the finding of the study. The Golder Associates study concludes that CdTe dissolves into leachate which would likely exceed the limit for ordinary landfills. The analysis should be updated accordingly. 56-37

Applicant Measure AM-HAZ-5, Emergency Response Plan. Page 4.11-19 (Intentionally Destructive Acts): Under CEQA, mitigation measures that require the applicant to prepare a plan, without defining the plan's minimum contents, oversight, and performance standards, are inadequate. AM-HAZ-5 fails to provide the minimum contents and performance standards for an emergency response plan and site security plan. As such, this mitigation is inadequate under CEQA. While these plans may contain information of a sensitive nature, the AM should be superseded by the following mitigation measure that outlines the minimum contents and performance standards in a way that does not compromise the sensitive information. 56-38

> MM-HAZ-1, Emergency Response Plan: An emergency response plan and site security plan shall be completed for the Project facilities. These plans shall be developed in accordance with the BLM and DOE requirements and shall include the following:
>
> - Identification of a range of potential emergency incidents and associated emergency response agencies affected.
> - Criteria for short-term response and long-term protective actions.
> - Clear hierarchy for coordination with emergency response agencies.
> - A communication plan to provide a rapid flow of information to all responders including State and local emergency agencies. The communication plan shall also include redundant methods of communication should primary systems fail during an emergency.
> - Detailed medical response plans and procedures, with necessary medical equipment in place prior to operation.
> - Procedures for facility drills and emergency responder training. Identify and implement specialized training needs and requirements associated with PV panel handling.

Applicant Measure AM-HAZ-10, Fire Prevention Plan. Page 4.11-23 (Intentionally Destructive Acts): AM-HAZ-10 fails to provide the minimum contents and performance standards for a fire prevention plan. As such, this mitigation is inadequate under CEQA. The AM should be superseded by the following mitigation measure that provides minimum content requirements and performance standards. 56-39

> **Develop and implement a fire prevention plan**. Prior to issuance of the construction permit, the Applicant shall develop and implement a fire protection plan for use during construction and operation. The Applicant shall submit the fire plan, along with maps of the project site and access roads, to CAL FIRE/Riverside County Fire Department for review and approval prior to the start of construction. The fire protection plan shall contain notification procedures and emergency fire precautions including, but not limited to, the following:

56-39 cont

- All internal combustion engines, stationary and mobile, shall be equipped with spark arresters. Spark arresters shall be in good working order.
- Light trucks and cars with factory-installed (type) mufflers shall be used only on roads where the roadway is cleared of vegetation. Said vehicle types shall maintain their factory-installed (type) muffler in good condition.
- Fire rules shall be posted on the project bulletin board at the contractor's field office and areas visible to employees.
- Equipment parking areas and small stationary engine sites shall be cleared of all extraneous flammable materials.
- Personnel shall be trained in the practices of the fire safety plan relevant to their duties. Construction and maintenance personnel shall be trained and equipped to extinguish small fires in order to prevent them from growing into more serious threats.
- Applicant shall make an effort to restrict use of chainsaws, chippers, vegetation masticators, grinders, drill rigs, tractors, torches, and explosives to outside of the official fire season. When the above tools are used, water tanks equipped with hoses, fire rakes, and axes shall be easily accessible to personnel.
- Smoking shall be prohibited in wildland areas and shall be limited to paved areas or areas cleared of all vegetation. Smoking shall be prohibited within 30 feet of any combustible material storage area (including fuels, gases, and solvents). Smoking shall be prohibited during a Red Flag Warning issued for the project area.

Cease work during Red Flag Warnings. During construction and operation, when a Red Flag Warning is issued by the National Weather Service for the project area, all non-emergency construction and maintenance activities shall cease. This provision shall be clearly stated in the fire prevention plan. An Emergency Response Liaison shall ensure implementation of a system that allows for immediate receipt of Red Flag Warning information from the National Weather Service.

Install electrical safety signage. Prior to energization or final inspection, whichever occurs first, the Applicant shall install electrical safety signage on all solar arrays in the immediate vicinity of all wiring and on all electrical conduit using weather-resistant and fade-proof materials. The purpose of this measure is to reduce the risk of electric shock and fire. Warning signs shall be designed to be evident to any person tampering with, working on, or dismantling project photovoltaic panels. Signs shall read: "CAUTION: Solar PV Wiring May Remain Energized After Disconnection During Daylight Hours. Tampering With Wiring May Result in ELECTRIC SHOCK or FIRE. Death or Serious Injury May Result. Do Not Expose Wires to Vegetation or Other Flammable Materials." This requirement shall be clearly stated in the fire prevention plan.

4.12 Recreation

The following comment on the Environmental Consequences section for Recreation was not previously provided to BLM during administrative draft EIS review. This new comment has arisen as a result of changes made to the Draft EIS since CPUC's last review of the document.

56-40

Evaluation of Recreation Impacts. Page 4.12-5 (CEQA Significance Determination – Solar Farm Layout B): The author states that impacts to recreation would be beneficial "because the three routes used for OHV and vehicular recreational travel would be reopened." This analysis, however, is comparing the

conditions after decommissioning with the conditions occurring during operation of the project and not the baseline conditions. While decommissioning may return the three routes used for OHV and vehicular recreational travel to their original condition, it would be erroneous to describe this as a beneficial impact as there is no net change from the baseline conditions. 56-40 cont

4.15 Transportation and Public Access

The following comment on the Environmental Consequences section for Transportation and Public Access was provided to BLM previously during administrative draft EIS review. It is repeated here with additional detail.

Assumption of best-case scenario for traffic. For the Red Bluff Substation and the Gen-Tie line, it is stated that "Traffic associated with these activities could occur at anytime; therefore, these trips have been assumed to occur outside of peak traffic hours." However, it would also be logical to assume that these trips would occur during peak traffic hours, which would represent a worst-case-scenario of impacts. As it stands, the analysis may underestimate traffic impacts, and without specific information on the timing of operational traffic, it is recommended that a worst-case-scenario be assumed. 56-41

The following comment was not previously provided to BLM during administrative draft EIS review. This new comment has arisen as a result of further review of the Draft EIS.

Air Traffic Impacts. Page 4.15-10 (Air Traffic Impacts): On July 21, 2010, the FAA issued a final rule that amends 14 CFR Part 77. The changes include stronger protections for private airports. The amendments to Part 77 go into effect on January 18, 2011. To ensure potential aviation impacts from the 185-foot tall tower, it is recommended that the following mitigation measure be included in the Final EIR: 56-42

> MM-TRANS-3, Compliance with FAA Requirements: The Project Owner shall submit FAA Form 7460 and receive a Determination of No Hazard to Navigable Airspace and comply with any AC 70/7460-1K (Obstruction Marking and Lighting) requirements from the FAA. Furthermore, in the event cranes in excess of 200-feet are utilized during construction, FAA AC 70/7460-1K (Obstruction Marking and Lighting) requirements must be met.

4.16 Visual Resources

The comments initially provided by the CPUC resulted in a re-organization of the section. This revised section results in the following new comments on the Environmental Consequences section for Visual Resources that were not previously provided to BLM during administrative Draft EIS review. These comments have arisen after a review of the revised Draft EIS.

Section 4.16.3 Alternative 1 – Proposed Action. The subheading *"Interim Visual Management Class"* that appears on pages 4.16-12, 4.16-14, 4.16-15, 4.16-16, 4.16-18, and 4.16-19, does not appear to be appropriate because the discussion under those headings is about visual contrast and not about the Interim VRM Class. Additionally, while these subsections typically arrive at some conclusion(s) regarding the degree of visual contrast that will be caused, there is no assessment as to the consistency of those contrast conclusions with the applicable Interim VRM objectives or what the applicable VRM objectives are. These conclusions should be added to the individual subsections and not just left to the Summary section. 56-43

CEQA Significance Determination and visual impact methodology, Solar Farm Layout B. Page 4.16-25 states that CEQA significance criteria are not addressed in the EIS because SF-B is on BLM land. The location of SF-B (on BLM land) is not relevant to its necessity of evaluation under CEQA, only to the 56-44

methodology used to evaluate impacts. A determination must be made under CEQA as to the significance of impacts of SF-B, despite its location on BLM land. The way the section reads now is that SF-B has no visual impacts under CEQA. This is not accurate. It does not matter if the project is on land owned by BLM if it will be visible to off-site public vantage points (i.e., KOP 1 on State Route 177, KOP 2 in Joshua Tree Wilderness, KOP 3 on Kaiser Road, and KOP 4 in Lake Tamarisk). The same comment holds true for Solar Farm Layout C (SF-C; page 4.16-38). 56-44 cont

It is recommended that the methodology used for determining the significance of impacts under CEQA for project components located on BLM land be based on consistency with the established Interim VRM Class II and III management objectives for each project component. It is further recommended that the following revised text and analysis be included in the CEQA Significance Determination Section of the Final EIR for SF-B. A similar analysis should be included for SF-C. 56-45

Draft EIS page 4.16-25:

CEQA Significance Determination

Impacts pertaining to CEQA significance criteria VR-1, VR-2, and VR-3 are described below. KOPs 1, 2, 3, 4, and 6 provide general scenic vistas across the landscape. KOPs 3, 4, 5, and 6 provide views of the visual character/quality (local setting), depending on the project component. ~~CEQA significance determination is applicable to non-BLM land.~~

Solar Farm Layout B

~~CEQA significance criteria are not addressed because SF-B is on BLM land.~~

Impacts VR-1: General Scenic Vistas

56-46

General scenic vistas involving SF-B are available from KOPs 1, 2, 3, and 4. SF-B would be located in an area with an Interim VRM classification of Class III, which aims to "partially retain existing landscape character. The level of change to the characteristic landscape should be moderate. Management activities may attract attention, but should not dominate a casual observer's view. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape." Project construction, operation, and decommissioning would be considered to result in significant visual impacts if the project would be inconsistent with these Interim VRM Class III management objectives.

Construction. As described above, for KOP 3, the degree of contrast of SF-B construction activities and equipment would be strong, involving vegetation changes and the installation of structures, due to the foreground and middleground proximity of KOP 3 to SF-B and the lack of screening elements to block direct views of the project. Due to middleground and background distance, with a corresponding low contrast in vegetation changes and erection of structures, the degree of contrast would be weak to moderate for KOPs 1, 2, and 4.

The level of visual contrast of SF-B construction as viewed from KOPs 1, 2, and 4 would be consistent with the Interim VRM objective of the SF-B area. Therefore, impacts to scenic vistas of SF-B construction from KOPs 1, 2, and 4 would be less than significant. However, the level of visual contrast of SF-B construction as viewed from KOP 3 would be inconsistent with the Interim VRM Class III management objectives of the SF-B area. Therefore, impacts to scenic vistas of SF-B from KOP 3 would be significant. MM-VR-1 (Revegetation), MM VR-4 (Light Control), MM-VR-5 (Surface

Treatment of Project Structures/ Buildings), and MM-VR-6 (Project Design) would reduce long-term visual impacts of SF-B from KOP 3, but not to a level that is less than significant. 56-46 cont

Operation and Maintenance. As described above, for KOP 3, the degree of contrast of SF-B operation and maintenance would be strong, involving vegetation changes and structures from construction, due to the proximity of KOP 3 to SF-B and the lack of screening elements to block direct views of the Project. Due to distance, however, the degree of contrast would be weak to moderate for KOPs 1, 2, and 4 because there would be less of a contrast involving vegetation changes and structures from operation and maintenance.

The level of visual contrast of SF-B operation and maintenance as viewed from KOPs 1, 2, and 4 would be consistent with the Interim VRM objective of the SF-B area. Therefore, impacts to scenic vistas of SF-B operation and maintenance from KOPs 1, 2, and 4 would be less than significant. However, the level of visual contrast of SF-B operation and maintenance as viewed from KOP 3 would be inconsistent with the Interim VRM Class III management objectives of the SF-B area. Therefore, impacts to scenic vistas of SF-B from KOP 3 would be significant. MM-VR-1 (Revegetation), MM VR-4 (Light Control), MM-VR-5 (Surface Treatment of Project Structures/ Buildings), and MM-VR-6 (Project Design) would reduce long-term visual impacts of SF-B from KOP 3, but not to a level that is less than significant.

Decommissioning. Short-term impacts to scenic vistas would occur during decommissioning, which is expected to result in the mobilization of personnel and equipment similar to project construction. Decommissioning is expected to be less intense and last for a shorter duration than project construction. In the long term, decommissioning is expected to restore the landscape to pre-disturbance conditions. Therefore, the overall impacts to scenic vistas of decommissioning would be less than significant.

Impact VR-2: Local Setting 56-47

Views of the local setting involving SF-B are available from KOPs 3, and 4. SF-B would be located in an area with an Interim VRM classification of Class III, which aims to "partially retain existing landscape character. The level of change to the characteristic landscape should be moderate. Management activities may attract attention, but should not dominate a casual observer's view. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape." Project construction, operation, and decommissioning would be considered to result in significant visual impacts if the project would be inconsistent with these Interim VRM Class III management objectives.

Construction. As described above, for KOP 3, the degree of contrast of SF-B construction activities and equipment would be strong, involving foreground and middleground vegetation changes and installation of structures, due to the proximity of KOP 3 to SF-B and the lack of screening elements to block direct views of the Project. Due to middleground and background distance, with a corresponding low contrast in vegetation changes and erection of structures, the degree of contrast would be weak to moderate for KOPs 1, 2, and 4.

The level of visual contrast of SF-B construction as viewed from KOP 4 would be consistent with the Interim VRM objective of the SF-B area. Therefore, impacts to the local setting of SF-B construction from KOP 4 would be less than significant. However, the level of visual contrast of SF-B construction as viewed from KOP 3 would be inconsistent with the Interim VRM Class III management objectives of the SF-B area. Therefore, impacts to the local setting of SF-B from KOP 3 would be significant.

MM-VR-1 (Revegetation), MM VR-4 (Light Control), MM-VR-5 (Surface Treatment of Project Structures/ Buildings), and MM-VR-6 (Project Design) would reduce long-term visual impacts of SF-B from KOP 3, but not to a level that is less than significant. 56-47 cont

Operation and Maintenance. As described above, for KOP 3, the degree of contrast of SF-B operation and maintenance would be strong, involving vegetation changes and structures from construction, due to the proximity of KOP 3 to SF-B and the lack of screening elements to block direct views of the Project. Due to distance, however, the degree of contrast would be weak to moderate for KOP 4 because there would be less of a contrast involving vegetation changes and structures from operation and maintenance.

The level of visual contrast of SF-B operation and maintenance as viewed from KOP 4 would be consistent with the Interim VRM objective of the SF-B area. Therefore, impacts to the local setting of SF-B operation and maintenance from KOP 4 would be less than significant. However, the level of visual contrast of SF-B operation and maintenance as viewed from KOP 3 would be inconsistent with the Interim VRM Class III management objectives of the SF-B area. Therefore, impacts to the local setting of SF-B from KOP 3 would be significant. MM-VR-1 (Revegetation), MM VR-4 (Light Control), MM-VR-5 (Surface Treatment of Project Structures/ Buildings), and MM-VR-6 (Project Design) would reduce long-term visual impacts of SF-B from KOP 3, but not to a level that is less than significant.

Decommissioning. Short-term impacts to the local setting would occur during decommissioning, which is expected to result in the mobilization of personnel and equipment similar to project construction. Decommissioning is expected to be less intense and last for a shorter duration than project construction. In the long term, decommissioning is expected to restore the landscape to pre-disturbance conditions. Therefore, the overall impacts to the local setting of decommissioning would be less than significant.

Impact VR-3: Light and Glare 56-48

Light and glare from SF-B would be visible from KOPs 1, 2, 3, and 4. SF-B would be located in an area with an Interim VRM classification of Class III, which aims to "partially retain existing landscape character. The level of change to the characteristic landscape should be moderate. Management activities may attract attention, but should not dominate a casual observer's view. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape." Project construction, operation, and decommissioning would be considered to result in significant visual impacts if the project would be inconsistent with these Interim VRM Class III management objectives.

Construction. Construction activities would use lights for safety and illuminating work areas. This would affect visual resources, because construction lights would add light to areas absent of light sources. Because of the presence of construction equipment and vehicles, there would be glare from reflective surfaces. The intensity and amount of glare would vary throughout the day and would also depend on atmospheric conditions. For example, there would likely be less glare during overcast days than sunny days. The intensity and amount of glare would also vary during the construction cycle. For example, the potential for glare would vary depending on the amount of construction equipment and vehicles present.

As described above, the degree of contrast of SF-B construction would be strong for KOP 3 and weak to moderate for KOPs 1, 2, and 4. Because SF-B construction lighting and glare would attract attention but would not dominate a casual observer's view from KOPs 1, 2, and 4, SF-B construction

lighting and glare would be consistent with Interim VRM Class III management objectives, resulting in a less than significant impact. However, because SF-B construction lighting and glare would likely dominate a casual observer's view from KOP 3, SF-B construction lighting and glare would be inconsistent with Interim VRM Class III management objectives, resulting in a significant impact. MM VR-4 (Light Control) would reduce light and glare impacts of SF-B, but not to a level that is less than significant. 56-48 cont

Operation and Maintenance. Even though night lighting at SF-B would be limited, artificial lighting would be introduced to the area, thereby decreasing nighttime darkness. Based on local recreation activities and public concern, this area is highly valued for its nighttime darkness. New sources of nighttime light would be noticed. Exterior lights on the site would be shielded and focused downward and toward the interior of the site to minimize lighting and glare impacts on the night sky and on surrounding areas. SF-B would also introduce a new source of daytime glare during certain times of the day from certain vantage points.

As described above, the degree of contrast of SF-B operation and maintenance would be strong for KOP 3 and weak to moderate for KOPs 1, 2, and 4. Because SF-B operation and maintenance lighting and glare would attract attention but would not dominate a casual observer's view from KOPs 1, 2, and 4, SF-B operation and maintenance lighting and glare would be consistent with Interim VRM Class III management objectives, resulting in a less than significant impact. However, because SF-B operation and maintenance lighting and glare would likely dominate a casual observer's view from KOP 3, SF-B operation and maintenance lighting and glare would be inconsistent with Interim VRM Class III management objectives, resulting in a significant impact. MM VR-4 (Light Control) would reduce light and glare impacts of SF-B, but not to a level that is less than significant.

Decommissioning. Short-term light and glare impacts would occur during decommissioning, which is expected to result in the mobilization of personnel and equipment similar to project construction. Decommissioning is expected to be less intense and last for a shorter duration than project construction, and is not expected to occur at night. In the long term, decommissioning is expected to restore the landscape to pre-disturbance conditions and would remove all sources of light and glare. Therefore, the overall light and glare impacts of decommissioning would be less than significant.

CEQA Significance Determination, land ownership, and visual impact methodology, GT-A-1. The analysis presented under *Impact VR-1: General Scenic Vistas* for the Gen-Tie Line A-1 (starting on Page 4.16-25) seems to suggest that the significant and unavoidable impacts that would be experienced at KOPs 3, 4, and 6 (top of page 4.16-25) are based on the strong visual contrast that would be caused by the Proposed Project (which sounds like a VRM analysis). There is also reference to foreground-middleground distance zone, which also appears to be VRM terminology. However, there is no discussion of a methodology that leads to that conclusion under CEQA (i.e., it seems reasonable that strong visual contrast would result in a significant and unavoidable impact, but what is the method the reader can follow to see how that conclusion is reached within the context of the CEQA significance criteria and terminology?). This comment applies to all of the CEQA impact discussions in Section 4.16. 56-49

The analysis presented under *Impact VR-1: General Scenic Vistas* for the Gen-Tie Line A-1 (starting on Page 4.16-25 and continuing to Page 4.16-26) for KOPs 1 and 2 states that the intensity of adverse long-term operation and maintenance impacts would be reduced to less than significant with mitigation because GT-A-1 would occur on approximately 0.6 mile of land owned in fee by MWD. This is not understandable as written. Land ownership *per se* is not a basis for visual impact significance. It doesn't 56-50

matter if the project is on land owned by MWD if the project will be visible to off-site public vantage points. Also, the 0.6-mile distance is not necessarily relevant. If a significant impact occurs along that 0.6-mile stretch of project, then the impact is significant. This approach needs to be reworked for all locations where it is presented (i.e., pages 4.16-25, -26, and -27). 56-50 cont

It is recommended that the methodology used for determining the significance of impacts under CEQA for project components located on BLM land be based on inconsistency with the established Interim VRM Class II and III management objectives for each project component, respectively. It is recommended that the Visual Sensitivity—Visual Change methodology be employed for the CEQA significance determination sections in the Final EIS for project components located on private land. This methodology is described here, and an example of how this methodology may be applied to GT-A-1 follows. 56-51

Under the Visual Sensitivity–Visual Change (VS-VC) method, field (or photo) analysis at each KVP includes developing an overall assessment of the existing landscape character, including visual quality, viewer concern, and viewer exposure. A simulation of the project is applied to each photograph. Then, at each KVP, an assessment of visual contrast, project dominance, and view blockage is made. Subsequently, a conclusion may be made regarding the extent of overall visual change, and taken together with the existing landscape's visual sensitivity, the level of visual impact significance may be determined. If a determination is made that the resulting impact would be significant, the impact should be further evaluated against the application of feasible mitigation measures in an effort to reduce the visual impact to a level of less than significant if, possible. A final conclusion on impact significance may then be reached.

Each of the key factors considered in the evaluation of visual sensitivity is generally expressed as low, low-to-moderate, moderate, moderate-to-high, or high and is discussed below.

Visual Quality is a measure of the overall impression or appeal of an area as determined by the particular landscape characteristics such as landforms, rockforms, water features, and vegetation patterns, as well as associated public values. The attributes of variety, vividness, coherence, uniqueness, harmony, and pattern contribute to visual quality classifications of indistinctive (low), common (moderate), and distinctive (high). Visual quality is studied as a point of reference to assess whether a given project would appear compatible with the established features of the setting or would contrast noticeably and unfavorably with them. The visual quality ratings (low to high) are substantially based on the BLM's Scenic Quality Rating scale shown in Table D.3-2 above. Additional guidance for determining the scenic quality rating is also presented in Table D.3-8.

Viewer Concern addresses the level of interest or concern of viewers regarding an area's visual resources and is closely associated with viewers' expectations for the area. Viewer concern reflects the importance placed on a given landscape based on the human perceptions of the intrinsic beauty of the existing landforms, rockforms, water features, vegetation patterns, and even cultural features.

Viewer Exposure describes the degree to which viewers are exposed to views of the landscape. Viewer exposure considers landscape visibility (the ability to see the landscape), distance zones (proximity of viewers to the subject landscape), number of viewers, and the duration of view. Landscape visibility can be a function of several interconnected considerations including proximity to viewing point, degree of discernible detail, seasonal variations (snow, fog, and haze can obscure landscapes), time of day, and/or absence of screening features such as landforms, vegetation, and/or built structures. Even though a landscape may have highly scenic qualities, it may be remote, receiving relatively few visitors and, thus, have

a lower degree of viewer exposure. Conversely, a subject landscape or project may be situated in relatively close proximity to a major road or highway utilized by a substantial number of motorists and yet still result in relatively low viewer exposure if the rate of travel speed on the roadway is high and viewing times are brief, or if the landscape is partially screened by vegetation or other features. Frequently, it is the subject area's proximity to viewers or distance zone that is of particular importance in determining viewer exposure. Landscapes are generally subdivided into three or four distance zones based on relative visibility from travel routes or observation points. Distance zones typically include foreground, middleground, and background. The actual number of zones and distance assigned to each zone is dependent on the existing terrain characteristics and public policy and is often determined on a project-by-project basis. 56-51 cont

Overall Visual Sensitivity is a concluding assessment as to an existing landscape's susceptibility to an adverse visual outcome. A landscape with a high degree of visual sensitivity is able to accommodate only a lower degree of adverse visual change without resulting in a significant visual impact. A landscape with a low degree of visual sensitivity is able to accommodate a higher degree of adverse visual change before exhibiting a significant visual impact. Overall visual sensitivity is derived from a comparison of existing visual quality, viewer concern, and viewer exposure.

Each of the key factors considered in the evaluation of visual change is generally expressed as low, low-to-moderate, moderate, moderate-to-high, or high and is discussed below.

Visual Contrast describes the degree to which a project's visual characteristics or elements (consisting of form, line, color, and texture) differ from the same visual elements established in the existing landscape. The degree of contrast can range from low to high. The presence of forms, lines, colors, and textures in the landscape similar to those of a Proposed Project indicates a landscape more capable of accepting those project characteristics than a landscape where those elements are absent. This ability to accept alteration is often referred to as visual absorption capability and typically is inversely proportional to visual contrast.

Project Dominance is a measure of a feature's apparent size relative to other visible landscape features and the total field of view. A feature's dominance is affected by its relative location in the field of view and the distance between the viewer and the feature. The level of dominance can range from subordinate to dominant.

View Blockage *or* ***Impairment*** describes the extent to which any previously visible landscape features are blocked from view as a result of the project's scale and/or position. Blockage of higher quality landscape features by lower quality project features causes adverse visual impacts. The degree of view blockage can range from none to high.

Overall Visual Change is a concluding assessment as to the degree of change that would be caused by a project. Overall visual change is derived by combining the three equally weighted factors of visual contrast, project dominance, and view blockage. Overall visual change can range from low to high.

The following revised text illustrates inclusion of this method of analysis for GT-A-1 into the text of the Draft EIS for BLM's inclusion in the Final EIR. 56-52

Draft EIS pages 4.16-25 through 4.16-27:

Gen-Tie Line A-1

<u>Impacts VR-1: General Scenic Vistas</u>

56-52 cont

General scenic vistas involving GT-A-1 on BLM land are available from KOPs 1, 2, 3, 4, and 6. GT-A-A would be located in an area with an Interim VRM classification of Class III, which aims to "partially retain existing landscape character. The level of change to the characteristic landscape should be moderate. Management activities may attract attention, but should not dominate a casual observer's view. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape." Project construction, operation, and decommissioning would be considered to result in significant visual impacts if the project would be inconsistent with these Interim VRM Class III management objectives. General scenic vistas involving GT-A-1 on private land are similar to those available from KOP 4, and KOP 4 is therefore used as a proxy for views of GT-A-1 on private land.

Construction. General scenic vistas involving GT-A-1 construction on BLM land are available from KOPs 1, 2, 3, 4, and 6. Impacts from construction, equipment, and vehicles would be visible from these KOPs. Impacts are similar to those described above under Interim Visual Management Class for construction of SF-B. However, GT-A-1 would disturb a substantially smaller area (see Table 4.16-1) and would be constructed in less time. Furthermore, substantially less equipment and personnel would be required at any given place and time for construction of GT-A-1. ~~The degree of contrast would result in less than significant impacts to less than significant impacts with mitigation incorporated. The intensity of adverse impacts would not be significant and unavoidable because GT-A-1 would occur on approximately 0.6 mile of land owned in fee by MWD.~~ The intensity of adverse short-term construction impacts on BLM land would be reduced ~~to less than significant~~ with the implementation of Mitigation MM-VR-1 through MM-VR-3, described above under Applicant Measures and Mitigation Measures. With implementation of these measures, construction of GT-A-1 would not be inconsistent with Interim VRM Class III management objectives, resulting in a less than significant impact to scenic vistas on BLM land.

The view from KOP 4 in Lake Tamarisk (Figure 4.16-5) is a natural landscape with no discernible built features. The landscape exhibits high degrees of variety, vividness, intactness, and harmony. Visual quality at KOP 4 is considered moderate-to-high. Viewer expectations of this area of public land adjacent to Joshua Tree National Park are of a natural landscape, and viewer concern is considered high. Viewers from KOP 4 include drivers and passengers in vehicles on Shasta Drive in Lake Tamarisk experiencing views from moving vehicles for a short duration while traveling on the roadway, and nearby residents in Lake Tamarisk experiencing long-term views. Viewer exposure is considered moderate-to-high. Overall visual sensitivity of KOP 4 is considered moderate-to-high.

As seen on private land from KOP 4 in Lake Tamarisk (Figure 4.16-5), construction vehicles and equipment would present a visual contrast with the existing natural landscape resulting in a low-to-moderate visual contrast overall. Construction of GT-A-1 would be moderately dominant in the middleground peripheral view from this vantage point relative to other features on the landscape, including the mountains in the background and shrubs in the foreground; dominance is considered low-to-moderate from KOP 4. Construction equipment would not block or impair views from KOP 4, resulting in a low degree of view blockage. Therefore, the overall visual change of GT-A-1 from KOP 4 is low-to-moderate. In the context of KOP 4's moderate-to-high visual sensitivity, and in consideration of the short-term nature of construction, the overall visual change of GT-A-1 from KOP 4 is moderate, resulting in a less-than-significant impact to scenic vistas on private land.

Operation and Maintenance. General scenic vistas involving GT-A-1 operation and maintenance on BLM land are available from KOPs 1, 2, 3, 4, and 6. Impacts from operation and maintenance would be visible from these KOPs. Impacts are described above under Interim Visual Management Class for

56-52 cont

operation and maintenance of GT-A-1. Although GT-A-1 is in the foreground-middle ground distance zone for these KOPs, the KOPs are not all the same distance from GT-A-1. Therefore, the degree of contrast varies, depending on the exact location of the KOP. For KOPs 3, 4, and 6, the degree of contrast would ~~result~~ be inconsistent with Interim VRM Class III management objectives, resulting in significant and unavoidable impacts. Due to distance, however, the degree of contrast would result in ~~less than significant impacts to~~ less than significant impacts with mitigation incorporated for KOPs 1 and 2. The intensity of adverse long-term operation and maintenance impacts would be reduced to less than significant for KOPs 1 and 2 with the implementation of Mitigation MM-VR-5 and MM-VR-6, described above under Applicant Measures and Mitigation Measures for KOPs 1 and 2. ~~This is because GT-A-1 would occur on approximately 0.6 mile of land owned in fee by MWD.~~

The view from KOP 4 in Lake Tamarisk (Figure 4.16-5) is a natural landscape with no discernible built features. The landscape exhibits high degrees of variety, vividness, intactness, and harmony. Visual quality at KOP 4 is considered moderate-to-high. Viewer expectations of this area of public land adjacent to Joshua Tree National Park are of a natural landscape, and viewer concern is considered high. Viewers from KOP 4 include drivers and passengers in vehicles on Shasta Drive in Lake Tamarisk experiencing views from moving vehicles for a short duration while traveling on the roadway, and nearby residents in Lake Tamarisk experiencing long-term views. Viewer exposure is considered moderate-to-high. Overall visual sensitivity of KOP 4 is considered moderate-to-high.

As seen on private land from KOP 4 in Lake Tamarisk (Figure 4.16-5), the distant vertical light gray shape of GT-A-1 support poles would present a moderate visual contrast with the existing muted greens, tans, and blues and rounded shapes of the natural landscape. GT-A-1 would be co-dominant in the peripheral view from this vantage point relative to other features on the landscape, including the mountains in the background and shrubs in the foreground. GT-A-1 would not block or impair views from KOP 4, resulting in a low degree of view blockage. Therefore, the overall visual change of GT-A-1 from KOP 4 is low-to-moderate. In the context of KOP 4's moderate-to-high visual sensitivity, the overall visual change of SF-B from KOP 4 is moderate. In the context of the long-term nature of GT-A-1, this moderate overall visual change is considered a significant impact to scenic vistas on private land. MM-VR-1 (Revegetation), MM VR-4 (Light Control), MM-VR-5 (Surface Treatment of Project Structures/Buildings), and MM-VR-6 (Project Design) would reduce long-term visual impacts on private land of GT-A-1 from KOP 4, but not to a level that is less than significant.

Decommissioning. ~~The intensity of adverse long-term decommissioning impacts would be less than significant. At a minimum~~ Short-term impacts to scenic vistas would occur during decommissioning, which is expected to result in the mobilization of personnel and equipment similar to project construction. Decommissioning is expected to be less intense and last for a shorter duration than project construction. In the long term, decommissioning is expected to restore the landscape to pre-disturbance conditions. Therefore, the overall impacts to scenic vistas of decommissioning would be less than significant.

Impact VR-2: Local Setting

56-53

Views of the local setting involving GT-A-1 on BLM land are available from KOPs 3, 4, 5, and 6. GT-A-1 would be located in an area with an Interim VRM classification of Class III, which aims to "partially retain existing landscape character. The level of change to the characteristic landscape should be moderate. Management activities may attract attention, but should not dominate a casual observer's view. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape." Project construction, operation, and decommissioning

would be considered to result in significant visual impacts if the project would be inconsistent with these Interim VRM Class III management objectives. Views of the local setting involving GT-A-1 on private land are similar to those available from KOP 4, and KOP 4 is therefore used as a proxy for views of GT-A-1 on private land. 56-53 cont

Construction. Views of the local setting involving GT-A-1 construction on BLM land are available from KOPs 3, 4, 5 and 6. Impacts from construction activities, equipment, and vehicles would be visible from these KOPs. Impacts are similar to those described above under Interim Visual Management Class for construction of SF-B. However, GT-A-1 would disturb a substantially smaller area (see Table 4.16-1) and would be constructed in less time. Furthermore, substantially less equipment and personnel would be required at any given place and time for construction of GT-A-1. ~~The degree of contrast would result in less than significant impacts to less than significant impacts with mitigation incorporated. The intensity of adverse impacts would not be significant and unavoidable because GT-A-1 would occur on approximately 0.6 mile of land owned in fee by MWD.~~ The intensity of adverse short-term construction impacts on BLM land would be reduced ~~to less than significant~~ with the implementation of Mitigation MM-VR-1 through MM-VR-3, described above under Applicant Measures and Mitigation Measures. With implementation of these measures, construction of GT-A-1 would not be inconsistent with Interim VRM Class III management objectives, resulting in a less than significant impact to the local setting on BLM land.

The view from KOP 4 in Lake Tamarisk (Figure 4.16-5) is a natural landscape with no discernible built features. The landscape exhibits high degrees of variety, vividness, intactness, and harmony. Visual quality at KOP 4 is considered moderate-to-high. Viewer expectations of this area of public land adjacent to Joshua Tree National Park are of a natural landscape, and viewer concern is considered high. Viewers from KOP 4 include drivers and passengers in vehicles on Shasta Drive in Lake Tamarisk experiencing views from moving vehicles for a short duration while traveling on the roadway, and nearby residents in Lake Tamarisk experiencing long-term views. Viewer exposure is considered moderate-to-high. Overall visual sensitivity of KOP 4 is considered moderate-to-high.

As seen on private land from KOP 4 in Lake Tamarisk (Figure 4.16-5), construction vehicles and equipment would present a visual contrast with the existing natural landscape resulting in a low-to-moderate visual contrast overall. Construction of GT-A-1 would be moderately dominant in the middleground peripheral view from this vantage point relative to other features on the landscape, including the mountains in the background and shrubs in the foreground; dominance is considered low-to-moderate from KOP 4. Construction equipment would not block or impair views from KOP 4, resulting in a low degree of view blockage. Therefore, the overall visual change of GT-A-1 from KOP 4 is low-to-moderate. In the context of KOP 4's moderate-to-high visual sensitivity, and in consideration of the short-term nature of construction, the overall visual change of GT-A-1 from KOP 4 is moderate, resulting in a less-than-significant impact to the local setting on private land.

Operation and Maintenance. Views of the local setting involving GT-A-1 operation and maintenance are available from KOPs 3, 4, 5 and 6. Impacts from operation and maintenance would be visible from these KOPs. Impacts are described above under Interim Visual Management Class for operation and maintenance of GT-A-1. Although GT-A-1 is in the foreground-middle ground distance zone for these KOPs, the KOPs are not all the same distance from GT-A-1. Therefore, the degree of contrast varies, depending on the exact location of the KOP. For KOPs 3 and 6, the degree of contrast would ~~result~~ be inconsistent with Interim VRM Class III management objectives, resulting in significant and unavoidable impacts. However, due to distance and the presence of similar linear elements (such as roads and transmission lines), the degree of contrast would result in ~~less than~~

~~significant impacts to~~ less than significant impacts with mitigation incorporated for KOPs 4 and 5. The intensity of adverse long-term operation and maintenance impacts would be reduced to less than significant with the implementation of Mitigation MM-VR-5 and MM-VR-6, described above under Applicant Measures and Mitigation Measures for KOPs 4 and 5. 56-53 cont

The view from KOP 4 in Lake Tamarisk (Figure 4.16-5) is a natural landscape with no discernible built features. The landscape exhibits high degrees of variety, vividness, intactness, and harmony. Visual quality at KOP 4 is considered moderate-to-high. Viewer expectations of this area of public land adjacent to Joshua Tree National Park are of a natural landscape, and viewer concern is considered high. Viewers from KOP 4 include drivers and passengers in vehicles on Shasta Drive in Lake Tamarisk experiencing views from moving vehicles for a short duration while traveling on the roadway, and nearby residents in Lake Tamarisk experiencing long-term views. Viewer exposure is considered moderate-to-high. Overall visual sensitivity of KOP 4 is considered moderate-to-high.

As seen on private land from KOP 4 in Lake Tamarisk (Figure 4.16-5), the distant vertical light gray shape of GT-A-1 support poles would present a moderate visual contrast with the existing muted greens, tans, and blues and rounded shapes of the natural landscape. GT-A-1 would be co-dominant in the peripheral view from this vantage point relative to other features on the landscape, including the mountains in the background and shrubs in the foreground. GT-A-1 would not block or impair views from KOP 4, resulting in a low degree of view blockage. Therefore, the overall visual change of GT-A-1 from KOP 4 is low-to-moderate. In the context of KOP 4's moderate-to-high visual sensitivity, the overall visual change of SF-B from KOP 4 is moderate. In the context of the long-term nature of GT-A-1, this moderate overall visual change is considered a significant impact to the local setting on private land. MM-VR-1 (Revegetation), MM VR-4 (Light Control), MM-VR-5 (Surface Treatment of Project Structures/Buildings), and MM-VR-6 (Project Design) would reduce long-term visual impacts on private land of GT-A-1 from KOP 4, but not to a level that is less than significant.

Decommissioning. ~~The intensity of adverse long-term decommissioning impacts would be less than significant. At a minimum,~~ Short-term impacts to the local setting would occur during decommissioning, which is expected to result in the mobilization of personnel and equipment similar to project construction. Decommissioning is expected to be less intense and last for a shorter duration than project construction. In the long term, decommissioning is expected to restore the landscape to predisturbance conditions. Therefore, the overall impacts to the local setting of decommissioning would be less than significant.

Impact VR-3: Light and Glare 56-54

Construction. Views of light and glare involving GT-A-1 construction are available from KOPs 1, 2, 3, 4, 5, and 6. Impacts from construction activities, equipment, and vehicles would be visible from these KOPs. Impacts are similar to those described above under Interim Visual Management Class for construction of SF-B. However, GT-A-1 would disturb a substantially smaller area (see Table 4.16-1) and would be constructed in less time. The degree of contrast would not be inconsistent with the Interim VRM Class III management objectives resulting in less than significant impacts. ~~The intensity of adverse impacts would not be significant and unavoidable because GT-A-1 would occur on approximately 0.6 mile of land owned in fee by MWD.~~

Operation and Maintenance. The intensity of adverse long-term operation and maintenance impacts would be less than significant at KOPs 1, 2, 3, 4, 5, and 6. GT-A-1 would not contain sources of light. Also, the monopoles would be composed of self-weathering steel, thereby reducing glare.

Decommissioning. ~~The intensity of adverse long-term decommissioning impacts would be less than significant. At a minimum~~ Short-term impacts of light and glare would occur during decommissioning, which is expected to result in the mobilization of personnel and equipment similar to project construction. Decommissioning is expected to be less intense and last for a shorter duration than project construction. In the long term, decommissioning is expected to restore the landscape to predisturbance conditions. Therefore, the overall impacts of light and glare from decommissioning would be less than significant. 56-54 cont

Red Bluff Substation A, Impact VR-1: General Scenic Vistas. Page 4.16-27: Similar to comments above – under the heading of Construction, it is stated, *"…The degree of contrast would be significant and unavoidable."* It is then stated "*The intensity of adverse short-term construction impacts would be reduced to less than significant with the implementation of Mitigation MM-VR-1 through MM-VR-3, described above under Applicant Measures and Mitigation Measures."* There are three problems with this passage. 56-55

First, if the impact is unavoidable, then it cannot be mitigated to less than significant. Second, if the impact is significant but mitigable, an explanation of how Mitigation Measures MM-VR-1 through MM-VR-3 will mitigate the significant impact to less than significant is required. Third, there appears to be a mixing of terminology in that "contrast" is being described as significant and unavoidable, as opposed to an "impact" being significant and unavoidable. There is no bridge between contrast and impact significance.

Also, under the heading of Operation and Maintenance, on Page 4.16-27, a statement is again made that, *"From KOP 6, the degree of contrast would be significant and unavoidable…"* This passage seems to again be mixing contrast terminology with impact significance terminology as previously discussed. The same comment holds true for Impact VR-2 (Page 4.16-28) and VR-3 (Pages 4.16-28 and 29). 56-56

It is recommended that the following revisions be made for the CEQA Significance Determination Sections for the Red Bluff Substations A and B, respectively. 56-57

Draft EIS pages 4.16-27 through 4.16-29:

Red Bluff Substation A

Impact VR-1: General Scenic Vistas

General scenic vistas involving Red Bluff Substation A on BLM land are available from KOP 6. Red Bluff Substation A would be located in an area with an Interim VRM classification of Class II, which aims to "Retain existing landscape character. The level of change to the characteristic landscape should be low. Management activities may be seen but should not attract a casual observer's attention. Any changes must repeat the basic elements of line, form, color, and texture found in the predominant natural features of the characteristic landscape." Project construction, operation, and decommissioning would be considered to result in significant visual impacts if the project would be inconsistent with these Interim VRM Class II management objectives.

Construction. General scenic vistas involving Red Bluff Substation A construction are available from KOP 6. Impacts from construction activities, equipment, and vehicles would be visible from this KOP. ~~Impacts are similar to those described above under Interim Visual Management Class for construction of SF-B. However, Red Bluff Substation A would disturb a substantially smaller area (see Table 4.16-1) and would be constructed in less time. Due to the KOP proximity, the lack of screening elements to block direct views of the Project and the height and number of artificial structures, the~~

~~degree of contrast would be significant and unavoidable. Although viewers typically expect artificial elements next to highways, they also expect the elements to be clustered instead of spread across the landscape. The intensity of adverse short-term construction impacts would be reduced to less than significant with the implementation of Mitigation MM-VR-1 through MM-VR-3, described above under Applicant Measures and Mitigation Measures.~~ The degree of contrast of Red Bluff Substation A construction activities and equipment would be strong, involving vegetation changes and structures from construction with no screening elements to block direct views of construction activities. The substation construction would also block views of the mountains. The level of visual contrast of Red Bluff Substation A construction as viewed from KOP 6 would be inconsistent with the Interim VRM Class II management objectives of the area. Therefore, impacts to scenic vistas of Red Bluff Substation A from KOP 6 would be significant. MM-VR-1 (Revegetation), MM-VR-3 (Dust Control), and MM VR-4 (Light Control) would reduce visual impacts of Red Bluff Substation A construction from KOP 6, but not to a level that is less than significant. 56-57 cont

Operation and Maintenance. General scenic vistas involving Red Bluff Substation A operation and maintenance are available from KOP 6. Impacts from operation and maintenance would be visible from this KOP. ~~Impacts are described above under Interim Visual Management Class for operation and maintenance of Red Bluff Substation A.~~ Red Bluff Substation A and telecommunication facilities are in the foreground-middle ground distance zone for KOP 6. From KOP 6, the degree of contrast would be ~~significant and unavoidable~~ strong because of the lack of screening elements to block direct views of the site, the height and number of artificial structures, and the proximity of KOP 6 to the Project. Although viewers typically expect artificial elements next to highways, they also expect elements to be clustered instead of spread across the landscape. Activity on I-10, however, partially distracts views from KOP 6 away from the site. Also, because of the curving nature of I-10 and travelers moving at highway speed, the site would be visible in the foreground distance zone for a limited amount of time. Nonetheless, the high visual contrast of the substation would be inconsistent with the Interim VRM Class II management objectives of the area. Long-term impacts to scenic vistas from the operation and maintenance of Red Bluff Substation A would therefore be significant. The intensity of adverse long-term operation and maintenance impacts would be reduced (but not to less than significant levels) with the implementation of Mitigation MM-VR-4 through MM-VR-6, described above under Applicant Measures and Mitigation Measures.

Decommissioning. Short-term impacts to scenic vistas would occur during decommissioning, which is expected to result in the mobilization of personnel and equipment similar to project construction. Decommissioning is expected to be less intense and last for a shorter duration than project construction. In the long term, decommissioning is expected to restore the landscape to predisturbance conditions. Therefore, the overall impacts to scenic vistas of decommissioning would be less than significant.

Impact VR-2: Local Setting

Views of the local setting involving Red Bluff Substation A on BLM land are available from KOP 6. Red Bluff Substation A would be located in an area with an Interim VRM classification of Class II, which aims to "Retain existing landscape character. The level of change to the characteristic landscape should be low. Management activities may be seen but should not attract a casual observer's attention. Any changes must repeat the basic elements of line, form, color, and texture found in the predominant natural features of the characteristic landscape." Project construction, operation, and decommissioning would be considered to result in significant visual impacts if the project would be inconsistent with these Interim VRM Class II management objectives. 56-58

56-58 cont

Construction. Views of the local setting involving Red Bluff Substation A construction are available from KOP 6. Impacts from construction activities, equipment, and vehicles would be visible from this KOP. ~~Impacts would be similar to those described above under Interim Visual Management Class for construction of SF-B. However, Red Bluff Substation A would disturb a substantially smaller area (see Table 4.16-1) and would be constructed in less time. Due to the KOP proximity and the lack of screening elements to block direct views of the Project, the degree of contrast would be significant and unavoidable. Although viewers typically expect artificial elements next to highways, they expect the elements to be clustered instead of spread across the landscape. The intensity of adverse short-term construction impacts would be reduced to less than significant with the implementation of Mitigation MM-VR-1 through MM-VR-3, described above under Applicant Measures and Mitigation Measures.~~ The degree of contrast of Red Bluff Substation A would be strong, with the presence of vertical structures with industrial character. The level of visual contrast of Red Bluff Substation A as viewed from KOP 6 would be inconsistent with the Interim VRM Class II management objectives of the area. Therefore, impacts to the local setting of Red Bluff Substation A from KOP 6 would be significant. MM-VR-1 (Revegetation), MM-VR-3 (Dust Control), and MM VR-4 (Light Control) would reduce visual impacts of Red Bluff Substation A from KOP 6, but not to a level that is less than significant.

Operation and Maintenance. Views of the local setting involving Red Bluff Substation A operation and maintenance are available from KOP 6. Impacts from operation and maintenance would be visible from this KOP. ~~Impacts are described above under Interim Visual Management Class for operation and maintenance of Red Bluff Substation A.~~ Red Bluff Substation A and telecommunication facilities are in the foreground-middle ground distance zone for KOP 6. From KOP 6, the degree of contrast would be ~~significant and unavoidable~~ strong because of the lack of screening elements to block direct views of the site, the height and number of artificial structures, and the proximity of KOP 6 to the Project. Although viewers typically expect artificial elements next to highways, they expect the elements to be clustered instead of spread across the landscape. Activity on I-10, however, partially distracts views from KOP 6 away from the site. Also, because of the curving nature of I-10 and travelers moving at highway speed, the site would be visible in the foreground distance zone for a limited amount of time. Nonetheless, the high visual contrast of the substation would be inconsistent with the Interim VRM Class II management objectives of the area. Long-term impacts to the local setting from the operation and maintenance of Red Bluff Substation A would therefore be significant. The intensity of adverse long-term operation and maintenance impacts would be reduced (but not to less than significant levels) with the implementation of Mitigation MM-VR-4 through MM-VR-6, described above under Applicant Measures and Mitigation Measures.

Decommissioning. ~~The intensity of adverse long-term decommissioning impacts would be less than significant. At a minimum~~ Short-term impacts to the local setting would occur during decommissioning, which is expected to result in the mobilization of personnel and equipment similar to project construction. Decommissioning is expected to be less intense and last for a shorter duration than project construction. In the long term, decommissioning is expected to restore the landscape to predisturbance conditions. Therefore, the overall impacts to the local setting of decommissioning would be less than significant.

Impact VR-3: Light and Glare

56-59

Views of light and glare involving Red Bluff Substation A on BLM land are available from KOP 6. Red Bluff Substation A would be located in an area with an Interim VRM classification of Class II, which

aims to "Retain existing landscape character. The level of change to the characteristic landscape should be low. Management activities may be seen but should not attract a casual observer's attention. Any changes must repeat the basic elements of line, form, color, and texture found in the predominant natural features of the characteristic landscape." Project construction, operation, and decommissioning would be considered to result in significant visual impacts if the project would be inconsistent with these Interim VRM Class II management objectives. 56-59 cont

Construction. Views of light and glare involving Red Bluff Substation A construction are available from KOP 6. Impacts from construction activities, equipment, and vehicles would be visible from this KOP. ~~Impacts are similar to those described above under Interim Visual Management Class for construction of SF-B. However, Red Bluff Substation A would disturb a substantially smaller area (see Table 4.16-1) and would be constructed in less time. The degree of contrast would result in less than significant impacts. The intensity of adverse impacts would not be significant and unavoidable because a~~Adverse impacts would be short-term and limited to the duration of construction activities. Also, certain construction activity impacts, such as material deliveries, are not expected to occur for the duration of the work week or at all on weekends. Furthermore, the work day would be during daylight, typically consisting of one shift beginning at 7:00 am and ending at 3:30 pm. Light and glare impacts of construction would be seen, but would not dominate the casual observer's attention, and would therefore be consistent with the Interim VRM Class II management objectives of the area. Impacts of light and glare from construction of Red Bluff Substation A would therefore be less than significant.

Operation and Maintenance. Views of light and glare involving Red Bluff Substation A operation and maintenance are available from KOP 6. Impacts from operation and maintenance would be visible from this KOP. Impacts are described above under Interim Visual Management Class for operation and maintenance of Red Bluff Substation A. Red Bluff Substation A and telecommunication facilities are in the foreground-middle ground distance zone for KOP 6. From KOP 6, the degree of contrast would be ~~significant and unavoidable~~ high because of the lack of screening elements to block direct views of the site, the height and number of artificial structures, and the proximity of KOP 6 to the Project. Although viewers typically expect artificial elements next to highways, they expect the elements to be clustered instead of spread across the landscape. Activity on I-10, however, partially distracts views from KOP 6 away from the site. Also, because of the curving nature of I-10 and travelers moving at highway speed, the site would be visible in the foreground distance zone for a limited amount of time. Nonetheless, the long-term use of lights at the substation would dominate the casual observer's attention and the level of change to the existing landscape would be high, resulting in an inconsistency with the Interim Class II management objectives of the area. Impacts from light and glare would therefore be significant. The intensity of adverse long-term operation and maintenance impacts would be reduced (but not to less than significant levels) with the implementation of Mitigation MM-VR-4, described above under Applicant Measures and Mitigation Measures.

Decommissioning. Short-term light and glare impacts would occur during decommissioning, which is expected to result in the mobilization of personnel and equipment similar to project construction. Decommissioning is expected to be less intense and last for a shorter duration than project construction. In the long term, ~~The intensity of adverse long-term decommissioning impacts would be less than significant. At a minimum,~~ decommissioning is expected to restore the landscape to predisturbance conditions. Therefore, the overall light and glare impacts of decommissioning would be less than significant.

Draft EIS Page 4.16-33:

Red Bluff Substation B 56-60

~~The CEQA significance determination for Red Bluff Substation B is the same as that discussed under Alternative 1.~~

Impacts VR-1: General Scenic Vistas

General scenic vistas involving Red Bluff Substation B on private land are similar to those available from KOP 6, and KOP 6 is therefore used as a proxy for views of Red Bluff Substation B on private land.

Construction. The view from KOP 6 (Figure 4.16-7) is a predominantly natural landscape with roads visible in the foreground and faint utility towers in the middleground, and with views of the Chuckwalla Mountains Wilderness Area and Alligator Rock ACEC in the background. The landscape exhibits moderate-to-high high degrees of variety, vividness, intactness, and harmony. Visual quality at KOP 4 is considered moderate-to-high. Viewer expectations of this area of public land adjacent to Joshua Tree National Park and the Chuckwalla Mountains and Alligator Rock ACEC are of a natural landscape, and viewer concern is considered high. Viewers from KOP 6 include drivers and numerous passengers in vehicles on Interstate 10 experiencing views from moving vehicles for a short duration while traveling on the roadway. Viewer exposure is considered moderate. Overall visual sensitivity of KOP 6 is considered moderate-to-high.

As seen on private land from KOP 6 (Figure 4.16-7), construction vehicles and equipment in the foreground view would present a visual contrast with the existing natural landscape resulting in a moderate-to-high visual contrast overall. Construction of Red Bluff Substation B would be dominant in the foreground view from this vantage point relative to other features on the landscape, including the mountains in the background and shrubs and transmission towers in the middleground; dominance is considered high from KOP 6. Construction equipment would block or impair views from KOP 6, resulting in a high degree of view blockage. Therefore, the overall visual change of Red Bluff Substation B from KOP 6 is moderate-to-high. In the context of KOP 6's moderate-to-high visual sensitivity, even considering the short-term nature of construction, the overall visual change of Red Bluff Substation B construction is moderate-to-high, resulting in a significant impact on scenic vistas. MM-VR-1 (Revegetation), MM-VR-3 (Dust Control), and MM VR-4 (Light Control) would reduce visual impacts of Red Bluff Substation B from KOP 6, but not to a level that is less than significant.

Operation and Maintenance. The view from KOP 6 (Figure 4.16-7) is a predominantly natural landscape with roads visible in the foreground and faint utility towers in the middleground, and with views of the Chuckwalla Mountains Wilderness Area and Alligator Rock ACEC in the background. The landscape exhibits moderate-to-high high degrees of variety, vividness, intactness, and harmony. Visual quality at KOP 4 is considered moderate-to-high. Viewer expectations of this area of public land adjacent to Joshua Tree National Park and the Chuckwalla Mountains and Alligator Rock ACEC are of a natural landscape, and viewer concern is considered high. Viewers from KOP 6 include drivers and numerous passengers in vehicles on Interstate 10 experiencing views from moving vehicles for a short duration while traveling on the roadway. Viewer exposure is considered moderate. Overall visual sensitivity of KOP 6 is considered moderate-to-high.

As seen on private land from KOP 6 (Figure 4.16-7), the presence of substation equipment and transmission towers in the foreground view would present a visual contrast with the existing natural

landscape resulting in a moderate-to-high visual contrast overall. Red Bluff Substation B would be dominant in the foreground view from this vantage point relative to other features on the landscape, including the mountains in the background and shrubs and transmission towers in the middleground; dominance is considered high from KOP 6. The substation equipment would block or impair views from KOP 6, resulting in a high degree of view blockage. Therefore, the overall visual change of Red Bluff Substation B from KOP 6 is moderate-to-high. In the context of KOP 6's moderate-to-high visual sensitivity, the overall visual change of Red Bluff Substation B is moderate-to-high, resulting in a significant impact on scenic vistas. Mitigation MM-VR-4 through MM-VR-6 would reduce visual impacts of Red Bluff Substation B, but not to a level that is less than significant. 56-60 cont

Decommissioning. Short-term impacts to scenic vistas would occur during decommissioning, which is expected to result in the mobilization of personnel and equipment similar to project construction. Decommissioning is expected to be less intense and last for a shorter duration than project construction. In the long term, decommissioning is expected to restore the landscape to predisturbance conditions. Therefore, the overall impacts to scenic vistas of decommissioning would be less than significant.

Impact VR-2: Local Setting

Views of the local setting involving Red Bluff Substation B on private land are similar to those available from KOP 6, and KOP 6 is therefore used as a proxy for views of Red Bluff Substation B on private land. 56-61

Construction. The view from KOP 6 (Figure 4.16-7) is a predominantly natural landscape with roads visible in the foreground and faint utility towers in the middleground, and with views of the Chuckwalla Mountains Wilderness Area and Alligator Rock ACEC in the background. The landscape exhibits moderate-to-high high degrees of variety, vividness, intactness, and harmony. Visual quality at KOP 4 is considered moderate-to-high. Viewer expectations of this area of public land adjacent to Joshua Tree National Park and the Chuckwalla Mountains and Alligator Rock ACEC are of a natural landscape, and viewer concern is considered high. Viewers from KOP 6 include drivers and numerous passengers in vehicles on Interstate 10 experiencing views from moving vehicles for a short duration while traveling on the roadway and dispersed recreationists on the valley floor. Viewer exposure is considered moderate. Overall visual sensitivity of KOP 6 is considered moderate-to-high.

As seen on private land from KOP 6 (Figure 4.16-7), construction vehicles and equipment in the foreground view would present a visual contrast with the existing natural landscape resulting in a moderate-to-high visual contrast overall. Construction of Red Bluff Substation B would be dominant in the foreground view from this vantage point relative to other features on the landscape, including the mountains in the background and shrubs and transmission towers in the middleground; dominance is considered high from KOP 6. Construction equipment would block or impair views from KOP 6, resulting in a high degree of view blockage. Therefore, the overall visual change of Red Bluff Substation B from KOP 6 is moderate-to-high. In the context of KOP 4's moderate-to-high visual sensitivity, even considering the short-term nature of construction, the overall visual change of Red Bluff Substation B construction is moderate-to-high, resulting in a significant impact on the local setting. MM-VR-1 (Revegetation), MM-VR-3 (Dust Control), and MM VR-4 (Light Control) would reduce visual impacts of Red Bluff Substation B from KOP 6, but not to a level that is less than significant.

Operation and Maintenance. The view from KOP 6 (Figure 4.16-7) is a predominantly natural landscape with roads visible in the foreground and faint utility towers in the middleground, and with views of the Chuckwalla Mountains Wilderness Area and Alligator Rock ACEC in the background. The landscape exhibits moderate-to-high high degrees of variety, vividness, intactness, and harmony. Visual quality at KOP 4 is considered moderate-to-high. Viewer expectations of this area of public land adjacent to Joshua Tree National Park and the Chuckwalla Mountains and Alligator Rock ACEC are of a natural landscape, and viewer concern is considered high. Viewers from KOP 6 include drivers and numerous passengers in vehicles on Interstate 10 experiencing views from moving vehicles for a short duration while traveling on the roadway and dispersed recreationists on the valley floor. Viewer exposure is considered moderate. Overall visual sensitivity of KOP 6 is considered moderate-to-high. 56-61 cont

As seen on private land from KOP 6 (Figure 4.16-7), the presence of substation equipment and transmission towers in the foreground view would present a visual contrast with the existing natural landscape resulting in a moderate-to-high visual contrast overall. Red Bluff Substation B would be dominant in the foreground view from this vantage point relative to other features on the landscape, including the mountains in the background and shrubs and transmission towers in the middleground; dominance is considered high from KOP 6. The substation equipment would block or impair views from KOP 6, resulting in a high degree of view blockage. Therefore, the overall visual change of Red Bluff Substation B from KOP 6 is moderate-to-high. In the context of KOP 6's moderate-to-high visual sensitivity, the overall visual change of Red Bluff Substation B is moderate-to-high, resulting in a significant impact on the local setting. Mitigation MM-VR-4 through MM-VR-6 would reduce visual impacts of Red Bluff Substation B, but not to a level that is less than significant.

Decommissioning. Short-term impacts to the local setting would occur during decommissioning, which is expected to result in the mobilization of personnel and equipment similar to project construction. Decommissioning is expected to be less intense and last for a shorter duration than project construction. In the long term, decommissioning is expected to restore the landscape to predisturbance conditions. Therefore, the overall impacts to the local setting of decommissioning would be less than significant.

Impact VR-3: Light and Glare 56-62

Views of light and glare involving Red Bluff Substation B on private land are similar to those available from KOP 6, and KOP 6 is therefore used as a proxy for views of Red Bluff Substation B on private land.

Construction. Red Bluff Substation B construction would occur during the day and would not introduce sources of nighttime light. Glare would occur from vehicle windows and polished surfaces of equipment, but would be minimal. Visual sensitivity is high at KOP 6, however the degree of visual change as a result of glare is low. In the context of the short-term nature of construction, impacts from light and glare as a result of construction of Red Bluff Substation B would be less than significant.

Operation and Maintenance. The view from KOP 6 (Figure 4.16-7) is a predominantly natural landscape with roads visible in the foreground and faint utility towers in the middleground, and with views of the Chuckwalla Mountains Wilderness Area and Alligator Rock ACEC in the background. The landscape exhibits moderate-to-high high degrees of variety, vividness, intactness, and harmony. In addition, the area is highly valued for its nighttime darkness. Visual quality at KOP 4 is considered moderate-to-high. Viewer expectations of this area of public land adjacent to Joshua Tree National

Park and the Chuckwalla Mountains and Alligator Rock ACEC are of a natural landscape and a dark nighttime landscape, and viewer concern is considered high. Viewers from KOP 6 include drivers and numerous passengers in vehicles on Interstate 10 experiencing views from moving vehicles for a short duration while traveling on the roadway and dispersed recreationists on the valley floor. Viewer exposure is considered moderate. Overall visual sensitivity of KOP 6 is considered moderate-to-high. 56-62 cont

Even though night lighting at Red Bluff Substation B would be limited, artificial lighting would be introduced to the area, thereby decreasing nighttime darkness. Exterior lights at the substation would be shielded and focused downward and toward the interior of the site to minimize lighting and glare impacts on the night sky and on surrounding areas. Structures would be finished to reduce glare. Nonetheless, nighttime lighting would present a moderate-to-high visual contrast with the existing nighttime darkness of the landscape. The nighttime lighting of the substation would be highly dominant in the foreground view for passengers and recreationists nearby KOP 6. The overall visual change as a result of nighttime lighting at Red Bluff Substation B would be moderate-to-high. In the context of the moderate-to-high visual sensitivity at KOP 6, nighttime lighting impacts of Red Bluff Substation B would be significant. MM VR-4 (Light Control) would reduce visual impacts of Red Bluff Substation B from KOP 6, but not to a level that is less than significant.

Decommissioning. Short-term impacts of light and glare would occur during decommissioning, which is expected to result in the mobilization of personnel and equipment similar to project construction. Decommissioning is expected to be less intense and last for a shorter duration than project construction. In the long term, decommissioning is expected to restore the landscape to predisturbance conditions. Therefore, the overall impacts of light and glare from decommissioning would be less than significant.

56-62

4.17 Water Resources

The following comments on the Environmental Consequences section for Water Resources were provided to BLM previously during administrative draft EIS review. They are repeated here with additional detail.

Flooding (Criterion WR-4). Criterion WR-4 states "Substantially increase the potential for flooding or the amount of damage that could result from flooding" without specifying whether such flooding would occur on-site or off-site, but the impact discussion in Section 4.17 only addresses on-site flooding. Particularly for the Red Bluff Substation A site, which would require "alteration of three eroded channels" (page 4.17-11) to avoid flooding impacts at the substation site; potential for off-site flooding to occur as a result of redirecting and reconfiguring these channels needs to be addressed under Criterion WR-4. 56-63

Source of Potable Water. The section states on page 4.17-13, "If groundwater supplied by the well does not meet drinking water standards, then potable water will be supplied from alternative sources." The remainder of Section 4.17 provides no description or explanation of "alternative sources." The source of potable water needs to be identified**.** 56-64

Mitigation Measures. Page 4.17-21 states "Additional mitigation measures *could* include…" [emphasis added]. This language needs to be binding if the following discussion of mitigation is meant to minimize 56-65

project impacts. These mitigation measures are currently not binding and not enforceable, which is an inadequacy under CEQA. 56-65 cont

ATTACHMENT 1

CUMULATIVE IMPACT ANALYSES AS REVISED BY CPUC

4.2 AIR RESOURCES

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potential for significant cumulative air quality impacts in combination with the various project alternatives. Additional considerations regarding cumulative air quality impacts for the various project alternatives in combination with existing conditions are presented below.

Action Alternatives (Alternatives 1, 2, and 3)

Alternatives 1, 2, and 3 would have short term unavoidable adverse air quality impacts associated with facility construction. The air quality impacts from construction would not last long enough to alter current federal or state attainment status designations for the project area. The long-term change in wind erosion conditions at the Solar Farm site could be mitigated to a less than significant level. Existing air quality conditions in the project area meet all federal ambient air quality standards, but occasionally exceed state air quality standards for ozone and PM10. These conditions would not be changed by the emissions associated with project construction. Thus, there would be no significant cumulative air quality impacts from Alternatives 1, 2, or 3 in combination with existing cumulative air quality conditions.

No Action Alternatives (Alternatives 4, 5, and 6)

There would be no cumulative air quality impacts under Alternatives 4, 5 or 6 because there would be no right-of-way grant for development of the Solar Farm area and associated facilities. Any future proposals for use of the site would be subject to separate environmental analysis.

Past, Present, and Reasonably Foreseeable Future Projects

Future

Foreseeable Projects in the Project Area ¶

Most of the projects listed in Table 3.18-3 are too far from the proposed Solar Farm site to generate cumulative fugitive dust problems in combination with the Solar Farm alternatives, transmission line alternatives, or Red Bluff substation alternatives. The Eagle Mountain Pumped Storage Project and the Eagle Mountain Landfill Project are unlikely to start construction during the construction period for the various Solar Farm alternatives. GT-A-1 and GT-A-2 would pass through or near the Chuckwalla Solar I project site. In addition, the Eagle Mountain Soleil Project is close enough to the Desert Sunlight solar is adjacent to the south side of the Desert Sunlight Solar Farm site. Thus, only the Chuckwalla Solar I and Eagle Mountain Soleil projects have the potential for cumulative fugitive dust impacts in combination with the proposed Desert Sunlight project.

Cumulative Impact Analysis

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The region of interest for precursor emissions that can react to form ozone and secondary particulate matter extends for perhaps 30 to 40 miles from the Solar Farm area. Thus, most of the projects listed in Table 3.18-3 can be considered close enough to the proposed Project to have the potential for cumulative impacts related to ozone and secondary particulate matter. But many of the smaller projects listed in Table 3.18-3, especially urban development projects in the Blythe area, are unlikely to generate enough precursor emissions for ozone and secondary particulate matter to create actual cumulative impacts in combination with the Desert Sunlight project. The same consideration would hold true for most of the smaller renewable energy projects listed in Table 3.18-3. The proposed Desert Sunlight project would not be a meaningful source of precursor emissions for ozone or secondary particulate matter during its operational lifetime. Thus, the time frame for potential cumulative air quality impacts related to precursors of ozone and secondary particulate matter is restricted to the construction period for the Desert Sunlight project.

The timing for approval and construction of the Chuckwalla Solar I and Eagle Mountain Soleil projects is not known, but could potentially overlap with part of the construction period for the Desert Sunlight project. Consequently, there is the potential for short-term significant cumulative fugitive dust impacts from the Desert Sunlight project in combination with either or both of these other solar energy projects. Because the timing for construction of at least some of the projects listed in Table 3.18-3 would overlap with construction of the Desert Sunlight project, there also would be short term cumulative air quality impacts in terms of precursor emissions for ozone and secondary particulate matter.

The timing for construction of most projects listed in Table 3.18-3 is not known. The Genesis and Palen solar energy projects are planned with construction time frames that overlap that of the Desert Sunlight project. In addition, the transmission line projects (Devers-Palo Verde 2, Desert Southwest, and Green Energy transmission lines) might have construction periods that partially overlap with the Desert Sunlight project. It is unclear whether or not other projects listed in Table 3.18-3 would have construction periods that overlap with the Desert Sunlight project.

Additional considerations regarding cumulative air quality impacts for the various project alternatives in combination with future foreseeable projects are presented below.

Action Alternatives (Alternatives 1, 2, and 3). ¶

Alternatives 1, 2, and 3 would have short term unavoidable adverse air quality impacts associated with facility construction. The air quality impacts from construction would not last long enough to alter current federal or state attainment status designations for the project area. The timing for approval and construction of the Chuckwalla Solar I and Eagle Mountain Soleil projects is not known, but could potentially overlap with part of the construction period for the Desert Sunlight project. Consequently, there is the potential for short-term significant cumulative fugitive dust impacts from the Desert Sunlight project in combination with either or both of these other solar energy projects. Because the timing for construction of at least some of the projects listed in Table 3.18-3 would overlap with construction of the Desert Sunlight project, there also would be short term cumulative air quality impacts in terms of precursor emissions for ozone and secondary particulate matter. However, for there to be a risk of any cumulative effect, the proposed Project and the Chuckwalla Solar I and Eagle Mountain Soleil projects would have to be constructed simultaneously. All cumulative projects would also need to comply with local ordinances prohibiting nuisances or requiring dust control.

Operational emissions would not have the potential to significantly increase regional cumulative emissions, as they are the result of vehicle use for limited routine maintenance and inspection.

No Action Alternatives (Alternatives 4, 5, and 6). ¶
There would be no cumulative air quality impacts under Alternatives 4, 5 or 6 because there would be no right-of-way grant for development of the Solar Farm area and associated facilities. Any future proposals for use of the site would be subject to separate environmental analysis. ¶

Foreseeable Renewable Projects in the California Desert ¶

The foreseeable renewable projects in the California desert as listed in Table 3.18-1 would generally be too far from the Desert Sunlight project to have any cumulative air quality impacts in combination with the Desert Sunlight project from either short-term construction or operational emissions.

Overall Conclusions ¶

alternative Desert Sunlight

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of the Desert Sunlight project

Alternatives 1, 2, and 3 would have short term unavoidable adverse air quality impacts associated with facility construction. The air quality impacts from construction would not last long enough to alter current federal or state attainment status designations for the project area. The proposed Projects and Alternatives 2 and 3, in combination with past, present, and foreseeable future projects, would have adverse cumulative air quality impacts related to ozone and secondary particulate matter precursor emissions during the 26-month time frame for construction. The Applicant Measures for air quality and air quality mitigation measures recommended for the proposed Project and Alternatives 2 and 3 would reduce cumulative construction impacts, however the Project would

result in significant adverse short-term air quality impacts and have a cumulatively considerable contribution to air quality impacts under CEQA within the SCAQMD jurisdiction.

The proposed Project and Alternatives 2 and 3 would not contribute to adverse long-term cumulative air quality emissions. Because no substantial emission increases would result from the proposed Project, it would be consistent with the local air quality rules, regulations, and attainment plans, and have no cumulatively considerable contribution to air quality impacts under CEQA.

alternative Desert Sunlight

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impacts

There would be no cumulative air quality impacts under the No Action Alternatives (Alternatives 4, 5 or 6) because there would be no right-of-way grant for development of the Solar Farm area and associated facilities. Any future proposals for use of the site would be subject to separate environmental analysis.

The alternative Desert Sunlight projects represent a trade-off between direct short-term unavoidable adverse criteria pollutant emissions during facility construction and indirect long-term greenhouse gas emission reductions during project operations. Indirect climate change benefits would occur in terms of greenhouse gas emissions avoided by displacing alternative power generation sources (which include fossil fuel combustion sources) with solar energy sources. Cumulative climate change benefits would occur from combined solar and wind energy projects, each of which would provide indirect reductions in greenhouse gas emission by avoiding equivalent power generation from alternative sources that include fossil fuel combustion.

4.3 VEGETATION

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Existing Cumulative Conditions

Details of the vegetation resources within the cumulative study area are summarized here and provided more fully in Section 3.3, Vegetation . The NECO planning area is located mostly within the Sonoran Desert, which is composed of a diverse range of vegetation communities typical of those found in the Sonoran Desert. These habitat types include desert scrub, desert wash, and sand dunes. The cumulative impacts area also includes several dry lake beds, numerous drainages, and areas relatively devoid of native vegetation including developed areas, paved roads, highways, access roads, and other disturbed areas. Invasive and noxious weed species have been identified throughout the cumulative impacts area. The area supports habitat for, and populations of, numerous special status plant species, as described in Section 3.3.

Past, Present, and Reasonably Foreseeable Future Projects

Land use in the cumulative analysis area has been historically altered by human activities, resulting in conversion of undeveloped land and habitat loss, fragmentation, and degradation. Reasonably foreseeable future projects that could impact biological resources in the cumulative impacts area characterize overall development trends in the Chuckwalla Valley. Ongoing development in the area is dominated by renewable energy development. Major renewable projects require extensive access roads and new transmission lines to tie into the existing electrical grid system.

Other projects in the cumulative study area include several transmission line and non-renewable energy development, as well as residential and commercial development.

In addition to one-time construction impacts, the project would have ongoing operational impacts on biological resources. Therefore, all projects that might contribute impacts over time in the cumulative area are considered for this analysis. This would include non-renewable energy, transmission lines, wind power, and solar power projects.

Cumulative Impact Analysis

There would be no cumulative vegetation impacts under the No Action Alternatives (Alternatives 4, 5 or 6) because there would be no right-of-way grant for development of the Solar Farm area and associated facilities. Any future proposals for use of the site would be subject to separate environmental analysis.

Le e 4

Impact BIO-1– Direct and Indirect Impacts to Native Vegetation Communities

The development of numerous large-scale projects, such other wind and solar generation facilities, would result in a substantial permanent conversion of desert habitat to industrial/commercial uses. Table 4.3-18 presents the total acreage of vegetation communities within the NECO planning area the cumulative impacts on each community type from existing projects and foreseeable future projects. These acreages were compiled for the Blythe Solar Power Project Final EIS (BLM 2010a) using the NECO plant communities dataset which is based on the 1996 California Gap Analysis Project conducted by the Biogeography Lab at the University of California, Santa Barbara and coordinated through the USGS Biological Resources Division.

The total projected loss of 6.2 percent of the Sonoran creosote bush scrub and 7.5 percent of the desert dry wash woodland habitat in the NECO planning area from existing and foreseeable future projects would constitute a significant cumulative impact. As shown in Table 4.3-18,

However, implementation of the *Habitat Compensation Plan* included in Appendix H of this document and required in Applicant Measure BIO-1 would ensure that the loss of both of these vegetation communities is adequately compensated for and equivalent habitat would be protected offsite. Therefore, with implementation of this measure, the Project's contribution to the cumulative loss of native vegetation would be reduced to a level that is less than cumulatively considerable. This impact would be less than significant under CEQA.

to cumulative impacts would be reduced to less than significant levels.

Impact BIO-2 – Direct and Indirect Impacts to Special Status Plant Species

The Proposed Project is not anticipated to significantly impact any populations of special status species or cacti, although a number of individuals would be impacted by each Alternative (as described above and summarized in Table 4.3-3). However, as discussed under Impact BIO-1 above, the development of numerous large-scale projects, such other wind and solar generation facilities, would result in a substantial permanent conversion of desert habitat to industrial/commercial uses, which would remove habitat for many special status plant species and cacti. Therefore, the loss of this habitat is anticipated to result in significant cumulative impacts on populations of many special status plant species and cacti and as described in Impact BIO-1 above, the Proposed Project's contribution to these cumulative impacts would be considerable. However, implementation of the Habitat Compensation Plan included in Appendix H of this document and required in Applicant Measure BIO-1 would ensure that the loss of creosote bush scrub and desert dry wash woodland is adequately compensated for and equivalent habitat would be protected offsite. In addition, Applicant Measures BIO-3 and BIO-5 would ensure that special status species and cacti are transplanted if feasible. Therefore, with implementation of these measures, the Project's incremental direct and indirect effects to special status plants would be reduced to a level that is less than cumulatively considerable. This impact would be less than significant under CEQA.

contribution

to cumulative impacts on these species would be reduced to less than significant levels

Impact BIO-3 – Direct and Indirect Impacts to Sensitive Natural Communities

The Proposed Project affects desert dry wash woodland habitat within the Big Wash system which is part of the overall Palen Watershed (see Figure 7 of the BRTR contained in Appendix H). The development of numerous large-scale projects, such other wind and solar generation facilities, within the Palen Watershed would result in a substantial permanent conversion of desert habitat to industrial/commercial uses. Table 4.3-19 presents the total acreage of desert dry wash woodland within the Palen Watershed, as well as the acreages of disturbance associated with the existing and foreseeable future projects within the watershed calculated by Aspen Environmental for the Palen Solar Power Project EIS (BLM and CEC 2010). Aspen Environmental used the 2010 USGS National Hydrographic Dataset within the watershed boundary as defined by the California Interagency Watershed Map of 1999 to calculate these acreages.

Table 4.3-19
Summary of Cumulative Impacts on Desert Dry Wash Woodland within the Palen Watershed

Vegetation Community[a]	Total Vegetation Communities in the Palen Watershed[a]	Impacts to Vegetation Community from Existing Projects (percent of vegetation community in Palen Watershed)[b]	Impacts to Vegetation Community from Foreseeable Future Projects (percent of vegetation community in Palen Watershed)[c]	Contribution of Alternative 1 to Future Cumulative Impacts (percent of total impacts from future projects)	Contribution of Alternative 2 to Future Cumulative Impacts (percent of total impacts from future projects)	Contribution of Alternative 3 to Future Cumulative Impacts (percent of total impacts from future projects)
Desert Dry Wash Woodland	148,856 acres	4,566 acres (3.1%)	10,950 acres (7.4%)	101 acres (0.9%)	93 acres (0.8%)	102 acres (0.9%)

Source: Palen Solar Power Project Draft EIS (BLM and CEC 2010)
Notes:
[a]Based on the BLM NECO Plant Communities dataset (BLM CDD 2002) conducted by the Biogeography Lab at the University of California, Santa Barbara and coordinated through the USGS Biological Resources Division UC Santa Barbara GAP Analysis (1996), updated during the NECO planning effort (see Appendix H of the NECO Plan/EIS [BLM and CDD 2002]).
[b]Includes only those existing projects between Desert Center and the Colorado River for which GIS-based spatial data was available at the time of the analysis. Acreage presented here are likely an overestimate of the actual existing acreage given that this value is larger than the total acreage of desert dry wash woodland reported to be disturbed in the entire NECO planning area in the Blythe Solar Power Project EIS (Table 4.3-18) which was published in August 2010 (while the Palen Solar Power Project Draft EIS was published in March 2010).
[c]Includes only BLM Renewables that had submitted a Plan of Development (POD) at the time of the analysis and those additional future projects.

The total projected loss of 10.5 percent of the desert dry wash woodland habitat in the Palen Watershed from existing and foreseeable future projects would constitute a significant cumulative impact. As shown in Table 4.3-19, implementation of Alternatives 1, 2, and 3 would contribute between 0.8 and 0.9 percent to this cumulative impact. Due to the sensitivity of this vegetation community, Alternatives 1, 2, and 3 would have a considerable contribution to cumulative impacts on this resource. However, implementation of the *Habitat Compensation Plan* included in Appendix H of this document and required in Applicant Measure BIO-1 would ensure that the loss of desert dry wash woodland is adequately compensated for and equivalent habitat would be protected offsite. Therefore, with implementation of this measure, the Project's contribution to the cumulative loss of sensitive natural communities would be reduced to a level that is less than cumulatively considerable. This impact would be less than significant under CEQA.

to cumulative impacts would be reduced to less than significant levels

Impact BIO-4 – Direct and Indirect Impacts to Jurisdictional Resources

The extent of jurisdictional resources within the Palen Watershed is unknown, however, desert dry wash woodland habitat is a subset of these resources and can be used as a proxy to evaluate cumulative impacts on jurisdictional resources. As discussed in Impact BIO-3 above, the Proposed Project would have a considerable contribution to significant cumulative impacts on desert dry wash woodland in the Palen Watershed.

Implementation of Alternatives 1, 2, and 3 would directly affect approximately 354 acres, 312 acres, and 304 acres of jurisdictional resources, respectively (see Table 4.3-5 for a breakdown of temporary versus permanent effects). Therefore, the Proposed Project can also be expected to have a considerable contribution to cumulative impacts on jurisdictional resources. However, implementation of the *Habitat Compensation Plan* included in Appendix H of this document and required in Applicant Measure BIO-1 would ensure that the loss of jurisdictional resources is adequately compensated for and equivalent habitat would be protected offsite. Therefore, with implementation of this measure, the Project's contribution to the cumulative loss of jurisdictional resources would be reduced to a level that is less than cumulatively considerable. This impact would be less than significant under CEQA.

significant

cumulative impacts would be reduced to less than significant levels

Impact BIO-5 – Local Policies or Ordinances Protecting Biological Resources

Because the Proposed Project would be consistent with the local open space policies of the County of Riverside's General Plan, there would be no project-specific impacts or a contribution to cumulative impacts. No impact would occur under CEQA.

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4.4 WILDLIFE

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cumulative area are considered for this analysis. This would include non-renewable energy, transmission lines, wind power, and solar power projects.

Cumulative Impact Analysis

There would be no cumulative wildlife impacts under the No Action Alternatives (Alternatives 4, 5 or 6) because there would be no right-of-way grant for development of the Solar Farm area and associated facilities. Any future proposals for use of the site would be subject to separate environmental analysis.

Le e 4

Impact WIL-1 – Direct and Indirect Impacts to Wildlife Habitat

The development of numerous large-scale projects, such other wind and solar generation facilities, would result in a substantial permanent conversion of desert habitat to industrial/commercial uses. As discussed in detail in Section 4.3, Vegetation, existing and foreseeable future projects in the NECO planning area would result in the total projected loss of 6.2 percent of the Sonoran creosote bush scrub and 7.5 percent of the desert dry wash woodland habitat in the NECO planning area. This would not only constitute a significant cumulative impact on these vegetation communities, but also on wildlife habitat through direct habitat loss and habitat fragmentation. As shown in Table 4.3-18, implementation of Alternatives 1, 2, and 3 would contribute between 1.4 and 1.9 percent to this cumulative impact on Sonoran creosote bush scrub and between 0.20 to 0.21 percent to the cumulative impact on desert dry wash woodland. Due to the sensitivity of these vegetation communities as wildlife habitat, Alternatives 1, 2, and 3 would have a considerable contribution to cumulative impacts on wildlife habitat. However, implementation of the *Habitat Compensation Plan* included in Appendix H of this document and required in Applicant Measure BIO-1 would ensure that the loss of both of these vegetation communities is adequately compensated for and equivalent habitat would be protected offsite. Therefore, with implementation of this measure, the Project's contribution to the cumulative loss of wildlife habitat and resultant fragmentation would be reduced to a level that is less than cumulatively considerable. This impact would be less than significant under CEQA.

to cumulative impacts would be reduced to less than significant levels.

cumulative impacts on wildlife habitat would be reduced to less than significant levels.

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would be considered a significant project-specific impact, but would be mitigated to less than significant levels by

relocating

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ing them

. The health of the desert tortoises that are relocated will also be monitored for a five year period after construction pursuant to the *Desert Tortoise Relocation Plan* required in Applicant Measure WIL-1.

Impact WIL-2– Direct and Indirect Impacts to Special Status Wildlife Species

Similar to the cumulative impacts discussion on wildlife habitat above, the Project's contribution to cumulative impacts on habitat for special status wildlife species would be considerable. However, implementation of the *Habitat Compensation Plan* included in Appendix H of this document and required in Applicant Measure BIO-1 would ensure that the loss of creosote bush scrub and desert dry wash woodland is adequately compensated for and equivalent habitat would be protected offsite. Therefore, with implementation of this measure, the Project's contribution to the cumulative loss of special-status wildlife habitat and the resultant fragmentation would be reduced to a level that is less than cumulatively considerable. This impact would be less than significant under CEQA.

The Project would result in harm or harassment of the special status species in the Project locations, thereby contributing to cumulative direct and indirect impacts to special-status species. With implementation of Applicant Measures requiring relocation of individuals found in the Project locations, or protection, in place until they vacate the Project locations (such as nesting birds), the Project's incremental direct and indirect effects to special status wildlife would be reduced to a level that is less than cumulatively considerable. This impact would be less than significant under CEQA.

Given the numbers of individuals of special status species expected in the Project locations (summarized in Table 4.4-2), and the provisions that will be taken to protect these individuals, the Project is not anticipated to affect these special status species at the population level other than through habitat loss. Therefore, other than habitat loss, the Project is not anticipated to have a considerable contribution to cumulative impacts on populations of the special status species.

Impact WIL-3– Direct and Indirect Impacts to Wildlife Movement or Nursery Sites

As discussed above in the cumulative impacts discussion on wildlife habitat, the Project would have a considerable contribution to the cumulative loss of wildlife habitat in the NECO planning area. Therefore, the Project would have a considerable contribution to the cumulative loss of breeding habitat for wildlife in the NECO planning area as well. However, implementation of the *Habitat Compensation Plan* included in Appendix H of this document and required in Applicant Measure BIO-1 would ensure that the loss of creosote bush scrub and desert dry wash woodland, which provide breeding habitat, is adequately compensated for and equivalent habitat would be protected offsite. Therefore, with implementation of this measure, the Project's contribution to cumulative impacts on wildlife habitat would be reduced to less than significant levels.

Desert dry wash woodlands, are likely important areas for wildlife movement within Project locations and would be directly impacted by construction. Exclusion fencing surrounding the Solar Farm and Red Bluff Substation would also directly impact the movement of wildlife in the region, Finally, impacts of the Project on the Chuckwalla DWMA and Chuckwalla CHU could adversely impact important movement corridors for the desert tortoise and other wildlife species in these areas. However, in consideration of the existing and future development within DWMAs, CHUs, desert washes, and other regionally important movement corridors, the Project would contribute to cumulative impacts on wildlife movement in these areas. However, implementation of the *Habitat Compensation Plan* included in Appendix H of this document and required in Applicant Measure BIO-1 would ensure that loss of these areas is adequately compensated for and equivalent habitat would be protected offsite. Therefore, with implementation of this measure, the Project's incremental direct and indirect effects to wildlife movement corridors would be reduced to a level that is less than cumulatively considerable. This impact would be less than significant under CEQA.

in general

Therefore, the Project would have a considerable contribution

contribution to cumulative impacts on wildlife movement corridors would be reduced to less than significant levels.

Impact WIL-4– Local Policies or Ordinances Protecting Biological Resources

Because the Proposed Project would be consistent with the local open space policies of the County of Riverside's General Plan, there would be no project-specific impacts or a contribution to cumulative impacts. No impact would occur under CEQA.

or cumulative impacts.

Impact WIL-5– Wildlife Management Areas

As discussed above, the development of numerous large-scale projects, such other wind and solar generation facilities, would result in a substantial permanent conversion of desert habitat to industrial/commercial uses. This would result in significant cumulative impacts on wildlife management areas due to habitat loss from ground disturbance as described above. Implementation of Alternatives 1, 2, and 3 would temporarily disturb 65, 48.4, and 39.9 acres of the Chuckwalla DWMA and temporarily disturb 56, 23.9, and 41.6 acres of the Chuckwalla CHU, respectively. Implementation of Alternatives 1, 2, and 3 would permanently disturb 131.6, 7.5, and 129.4 acres of the Chuckwalla DWMA and permanently disturb 137.8, 96.5, and 131.6 acres of the Chuckwalla CHU, respectively (see Table 4.4-3). The NECO plan allows for development in one percent of the BLM-administered land within the DWMA, which is approximately 465,287 acres. Therefore, the permanent development of 131.6, 7.5, or 129.4 acres (under Alternatives 1, 2, and 3, respectively), would represent a small percentage of the allowable development within the DWMA (0.03%, 0.002%, and 0.03%). However, in consideration of the existing and future development within DWMAs and CHUs, the Project would contribute to the cumulative loss (development) within

these wildlife management areas. However, implementation of the *Habitat Compensation Plan* included in Appendix H of this document and required in Applicant Measure BIO-1 would ensure that the loss of habitat in these areas is adequately compensated for and equivalent habitat would be protected offsite. Therefore, with implementation of this measure, the Project's incremental direct and indirect effects to the Chuckwalla DWMA as well as the Chuckwalla CHU would be reduced to a level that is less than cumulatively considerable. This impact would be less than significant under CEQA.

Nevertheless, the Project would have a considerable contribution to cumulative impacts on the Chuckwalla DWMA as well as the Chuckwalla CHU given the sensitivity of these areas for the desert tortoise and wildlife movement.

contribution to cumulative impacts would be reduced to less than significant levels.

4.5 CLIMATE CHANGE

related increases in ozone levels for Orange County and Los Angeles County, little effect in the Riverside area, and decreased ozone levels for the Palm Springs area.

- A general decrease in annual precipitation levels for most of California, with a possible increase in precipitation amounts for the northern-most portion of the state.
- A shift in seasonal runoff conditions for the central and northern Sierra, with greater winter runoff volumes and lower spring and summer runoff volumes.
- Increased frequency, duration, and size of wildfires for forested areas, with less change from current conditions for many desert areas.
- Increased heat-related mortality in most areas of California.
- Variable effects on agricultural crop yields, but with many crop types experiencing reduced yields and greater vulnerability to extreme weather conditions.

Past, Present, and Reasonably Foreseeable Future Projects

Because the geographic extent and time frames associated with climate change are so large, all projects listed in Table 3.18-2 have the potential for some cumulative effect in combination with the various project alternatives. Additional considerations regarding cumulative climate change impacts for the various project alternatives in combination with existing conditions are presented below.

Cumulative Impact Analysis

Alternatives 1, 2, and 3 would have short-term greenhouse gas emissions associated with construction activities, and small on-going greenhouse gas associated with facility operations. These greenhouse gas emissions would be more than offset by avoided greenhouse gas emissions associated with alternative power generation sources. Alternatives 1, 2, and 3 would displace alternative power generation for SCE and PG&E, resulting in an indirect climate change benefit by avoiding future greenhouse gas emissions from alternative power generation facilities. In addition, other solar energy projects listed in Table 3.18-3 would also have net climate change benefits by avoiding future greenhouse gas emissions from alternative power generation facilities. The operation of the proposed Project and Alternatives 2 and 3 would result in minimal direct operational and maintenance emissions, and would result in indirect emission reduction from a reduction in power production forecast for power plants within California. Indirect climate change benefits would occur in terms of greenhouse gas emissions avoided by displacing alternative power generation sources (which include fossil fuel combustion sources) with solar energy sources. Cumulative climate change benefits would occur from combined solar and wind energy projects, each of which would provide indirect reductions in greenhouse gas emission by avoiding equivalent power generation from alternative sources that include fossil fuel combustion. Because Alternatives 1, 2, or 3 would each have a net beneficial impact in terms of climate change, there would be no adverse cumulative climate change impacts from Alternatives 1, 2, or 3 in combination with foreseeable projects in the project area and in the California Desert.

The alternative Desert Sunlight projects would have short-term direct greenhouse gas emissions during facility construction and long-term small levels of direct greenhouse gas emission during project operations. These small quantities of direct greenhouse gas emissions would be greatly offset by avoided greenhouse gas emissions associated with emission producing and non renewable power generation sources displaced by the power generation of Alternatives 1, 2, or 3. In addition, other

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Action Alternatives (Alternatives 1, 2, and 3) ¶
Alternatives 1, 2, and 3 would have short-term greenhouse gas emissions associated with construction activities, and small levels of on-going greenhouse gas emissions associated with facility operations. These greenhouse gas emissions would be more than offset by avoided greenhouse gas emissions associated with alternative power generation sources. Alternatives 1, 2, and 3 would displace alternative power generation for SCE and PG&E, resulting in an indirect climate change benefit by avoiding future greenhouse gas emissions from alternative power generation facilities. Because Alternatives 1, 2, or 3 would each have a net beneficial impact in terms of climate change, there would be no adverse cumulative climate change impacts from Alternatives 1, 2, or 3 in combination with existing cumulative climate change conditions. ¶
No Action Alternatives (Alternatives 4, 5, and 6)¶
There would be no cumulative climate change impacts under Alternatives 4, 5 or 6 because there would be no right-of-way grant for development of the solar farm area and associated facilities. Any future proposals for use of the site would be subject to separate environmental analysis. ¶
Future Foreseeable Projects¶
Foreseeable Projects in the Project Area¶
Due to the large geographic extent and time frame for cumulative climate change impacts, all of the projects listed in Table 3.18-3 would have the potential for cumulative impacts in combination with the action alternatives for Desert Sunlight. ¶
Action Alternatives (Alternatives 1, 2, and 3)¶

No Action Alternatives (Alternatives 4, 5, and 6)¶
There would be no cumulative greenhouse gas emission impacts under Alternatives 4, 5 or 6 because there would be no right-of-way grant for development of the solar farm area and associated facilities. Any future proposals for use of the site would be subject to separate environmental analysis. ¶
Foreseeable Renewable Projects in the California Desert¶
Due to the large geographic extent and time frame for cumulative climate change impacts, all of the projects listed in Table 3.18-1 would have the potential for cumulative impacts in combination

alternative

solar energy projects listed in Table 3.18-1 would also have net climate change benefits by avoiding future greenhouse gas emissions from alternative power generation facilities. Alternatives 1, 2, and 3 also would further the objectives of CARB's AB32 scoping plan. Because Alternatives 1, 2, or 3 would each have a net beneficial impact in terms of climate change, there would be no adverse cumulative climate change impacts from Alternatives 1, 2, or 3 in combination with past, present, or foreseeable future projects in the project area or elsewhere in the California Desert. Because no adverse cumulative climate change impacts would result from the proposed Project, it would be have no cumulatively considerable contribution to climate change impacts under CEQA.

There would be no cumulative greenhouse gas emission impacts under Alternatives 4, 5 or 6 because there would be no right-of-way grant for development of the solar farm area and associated facilities. Any future proposals for use of the site would be subject to separate environmental analysis.

No Action Alternatives (Alternatives 4, 5, and 6)

There would be no cumulative greenhouse gas emission impacts under Alternatives 4, 5 or 6 because there would be no right-of-way grant for development of the solar farm area and associated facilities. Any future proposals for use of the site would be subject to separate environmental analysis.

Foreseeable Renewable Projects in the California Desert

Due to the large geographic extent and time frame for cumulative climate change impacts, all of the projects listed in Table 3.18-1 would have the potential for cumulative impacts in combination with the action alternatives for Desert Sunlight.

Action Alternatives (Alternatives 1, 2, and 3)

Alternatives 1, 2, and 3 would have short-term greenhouse gas emissions associated with construction activities, and small on-going greenhouse gas associated with facility operations. These greenhouse gas emissions would be more than offset by avoided greenhouse gas emissions associated with alternative power generation sources. Alternatives 1, 2, and 3 would displace alternative power generation for SCE and PG&E, resulting in an indirect climate change benefit by avoiding future greenhouse gas emissions from alternative power generation facilities. In addition, other solar energy projects listed in Table 3..18-1 would also have net climate change benefits by avoiding future greenhouse gas emissions from alternative power generation facilities. Because Alternatives 1, 2, or 3 would each have a net beneficial impact in terms of climate change, there would be no adverse cumulative climate change impacts from Alternatives 1, 2, or 3 in combination with foreseeable projects in the California Desert.

No Action Alternatives (Alternatives 4, 5, and 6)

There would be no cumulative greenhouse gas emission impacts under Alternatives 4, 5 or 6 because there would be no right-of-way grant for development of the solar farm area and associated facilities. Any future proposals for use of the site would be subject to separate environmental analysis.

Overall Conclusions

4.6 CULTURAL RESOURCES

4.6.7 Alternative 5—No Issuance of a Right-of-Way Grant with Land Use Plan Amendment to Identify the Area as Unsuitable for Solar Energy Development (No Action with Plan Amendment)

Under this alternative, the proposed Project would not be approved by the BLM and the BLM would amend the CDCA Plan to make the proposed site unavailable for future solar energy development. As a result, no project would be constructed, and the BLM would continue to manage the site consistent with the existing land use designation and uses as set forth in the CDCA Land Use Plan of 1980, as amended.

Even though the CDCA Plan would be amended to make the area unavailable for future solar energy development, it is possible that the site could be developed for use by a different, non-solar renewable energy technology or allowable other use (e.g., mining). As a result, the land would remain available for other uses, which could affect cultural resources in the Project area. In addition, in the absence of the proposed Project, other renewable energy projects (e.g., mining, grazing, recreation, utilities and other energy development) may be constructed in other areas in order to meet state and federal mandates, and those projects would have similar impacts as in other locations. Project impacts from another non-solar renewable energy project would likely be similar to those that would result from the proposed Project.

4.6.8 Alternative 6—No Issuance of a Right-of-Way Grant with Land Use Plan Amendment to Identify the Area as Suitable for Solar Development (No Action with Plan Amendment)

Under this alternative, the proposed Project would not be approved by the BLM and the BLM would amend the CDCA Plan to allow for other solar projects on the site. As a result, it is possible that another solar energy project could be constructed on the project area.

Because the CDCA Plan would be amended, it is possible that the site would be developed with the same or a different solar technology. Different solar technologies require different amounts of grading and maintenance; however, it is expected that all solar technologies require grading and ground disturbance, and this would likely result in a loss or degradation of cultural resources. As such, this No Action Alternative would result in impacts on cultural resources similar to the impacts under the proposed Project.

4.6.9 Cumulative Impacts

Cumulative impacts on cultural resources take into account the proposed Project's impacts as well as those likely to occur as a result of other past, present and reasonably foreseeable future projects. When analyzing cumulative impacts on cultural resources, an assessment is made of the impacts on individual resources as well as the inventory of cultural resources within the cumulative impact analysis area.

existing, proposed

Geographic Extent

The regulations implementing Section 106 of the NHPA contemplate close coordination between the NEPA and NHPA processes (36 CFR §800.8) and expressly integrate consideration of cumulative concerns within the analysis of a proposed action's potential direct and indirect effects by defining "adverse effect" to include "reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative" (36 CFR §800.5(a)(1)).

Consequently, the geographic scope of the cumulative effects analysis could be limited to the area defined above. However, the cumulative analysis impact area for cultural resources is broader to provide for a more conservative cumulative analysis and includes the Chuckwalla Valley, the cultural sites, traditional use areas, and cultural and historic landscapes on the project area, especially the potential DTC-CAMA Historic District and North Chuckwalla Petroglyph District. This larger area encompasses a cultural region, which is typically defined by geographic features such as the valley. Further, the overall impact on DTC-CAMA must be taken into consideration as most of the renewable energy projects proposed or under construction in southeast California are within the boundaries of this potential historic district. In addition, the cumulative impacts analysis for cultural resources takes into account the potential for alteration of the historic and cultural landscape of the analysis area as well as the area's archaeological inventory.

Existing Cumulative Conditions

A discussion of the prehistoric, ethnographic, and historic setting of the Chuckwalla Valley is included in Section 3.6, as are the results of the Class III survey that identified hundreds of cultural resources within the alternative Project and surrounding areas. There are also portions of the Solar Farm area that has heightened potential for unidentified subsurface resources. The overall project area can be characterized as highly sensitive for prehistoric and historic-era resources.

Past, Present, and Reasonably Foreseeable Future Projects

Land use in the cumulative analysis area has been historically altered by human activities that have both deposited and degraded cultural resources. ROW applications have been submitted for projects encompassing thousands of acres within the cumulative analysis area for cultural resources. Reasonably foreseeable future projects that could impact cultural resources in the cumulative impacts area characterize overall development trends in the Chuckwalla Valley. The past, present, and reasonably foreseeable projects considered cumulative projects for this EIS are described in Section 3.18.4 and their locations are shown in Figures 3.18-1and 3.18-2. These are primarily large-scale renewable energy projects that require extensive grading and development. Other projects in the cumulative study area include several transmission lines and non-renewable energy projects, as well as residential and commercial developments. Ground disturbances and modern construction associated with these types of projects would be on a smaller scale than the proposed Project and alternatives, given the smaller acreage generally involved with these cumulative projects. In addition to permanent construction impacts, such as direct disturbance and degradation of archaeological sites, these cumulative projects would have ongoing operational impacts on historic landscapes and districts, specifically the potential DTC-CAMA Historic District. Therefore, past, present, and reasonably foreseeable projects that include ground disturbing and large-scale construction are considered for this analysis as they are likely to impact cultural resources under impact criteria CR-1, CR-2, and CR-3 described above. This would include non-energy-related, non-renewable energy, transmission lines, wind power, and solar power projects. However, the projects themselves will likely affect considerably less acreage. Almost all of these projects are on BLM or other federal land and, for this reason, either are or would be subject to NEPA and the NHPA, which contain cultural resource-protective requirements related to investigations, impact assessment, avoidance and mitigation. Projects in the analysis area not located on federal land would be subject to CEQA; therefore, any related impacts on cultural resources would be subject to cultural-resource-protective requirements based on state law to avoid or minimize these impacts.

It is anticipated that p

Cumulative Impact Analysis

During construction, unknown, unrecorded cultural resources may be found at nearly any of the development sites of the projects listed in Section 3.18.4. The actual number and type of resources that might be adversely affected by the cumulative scenario projects is unknowable without a comprehensive inventory of the area within the geographic scope of the cumulative analysis. Development of such an inventory is beyond the reasonable scope of this analysis. Typically, cultural resources are identified as part of the permitting process for individual undertakings, and often are discovered only during ground disturbing activities.

The proposed action could result in significant, unmitigable impacts on cultural resources during the proposed construction period. Impacted resources would be permanently affected or destroyed, effectively removing them from the cultural resource base and cultural, historical, and archaeological landscape of the cumulative analysis area. In particular, it is expected that sites related to the DTC-CAMA will be greatly affected by the cumulative projects. Destruction or disturbance of DTC-related resources is of particular concern as a complete recordation of the area has not yet been completed, but likely present throughout the Chuckwalla Valley. While implementation of Applicant Measures and mitigation measures would serve to reduce the cumulative effects on cultural resources, the permanent removal of these resources as a result of the Project would impact the feeling and human and traditional experience of the area's prehistory and history, and would not satisfactorily reduce impacts to be less than significant. Given that the same laws and regulations apply to all development in the geographic area where cumulative projects are found and that impacts resulting from these projects would be similar in nature, the cumulative impacts of construction on cultural resources from past, present and reasonably foreseeable projects would be significant and unmitigable.Similarly, operations and maintenance of the proposed Project would indirectly impact cultural resources as project components would be incompatible land uses with existing cultural resources. In the case of both operations and maintenance and decommissioning, impacted resources would still be permanently affected or destroyed. As described above for construction impacts, while the implementation of Applicant Measures and mitigation measures would reduce the cumulative effects, the permanent removal of cultural resources would remain a significant impact and contribute to significant, unmitigable cumulative cultural resource impacts.

Even if Project-specific impacts on cultural resources can be avoided or minimized through implementation of the PA and other applicant and mitigation measures, historic properties on a substantial amount of land still would be affected. Cumulative impacts would vary by alternative only to the degree the direct and indirect impacts would vary by alternative. The action alternatives would directly impact numerous cultural resources of varying significance and type. These alternatives would contribute to the hundreds of thousands of acres of current and foreseeable development projects considered in this cumulative analysis and detailed in Section 3.18. Although these cumulative projects are in various stages of approval and environmental documentation, they are expected to impact cultural resources similar in nature to the proposed Project. The proposed Project's action alternatives would also contribute to the permanent loss of DTC-CAMA related resources and Chuckwalla Valley's cultural resources in general and would degrade the cultural, historical, and archaeological landscape of the area. Given that at this time, the action alternatives would have unavoidable significant impacts, as described above, the action alternatives would considerably contribute to significant, cumulative impacts on cultural resources under NEPA and CEQA. Even after compliance with the in-progress PA and completion of identified mitigation

cause

or as a result of operation and maintenance or closure and decommissioning

Cumulative impacts would vary by alternative only to the degree to which direct and indirect impacts would vary by alternative. The Action Alternatives (Alternatives 1–3) are expected to have a greater cumulative impact on cultural resources than the No Action Alternatives (Alternatives 4–6).

still

Although the in-progress PA will require each individual resource to be evaluated and significant resources documented to professional standards as well as cultural and historical landscapes and historic districts

will

which likely could not be satisfactorily mitigated

As such, the No Action Alternatives have the potential for significant cumulative impacts on cultural resources under NEPA and CEQA

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Conclusion¶

In particular, it is expected that sites related to the DTC-CAMA will be greatly affected by the cumulative projects.

are expected

have

measures, cumulative impacts under NEPA and CEQA as a result of the DSSF Project may remain significant.

Due to similarities in their components and construction requirements, the cultural resource cumulative impacts for Alternatives 2 and 3 would be the same as described for the proposed Project and would be cumulatively considerable. Under the No Action Alternatives (Alternatives 4, 5, and 6), as no construction is anticipated to occur, these alternatives would not contribute to any considerable cumulative impacts.

4.7 PALEONTOLOGICAL RESOURCES

Past, Present, and Reasonably Foreseeable Future Foreseeable Projects

Tables 3.18-2 and 3.18-3 list existing and reasonably foreseeable projects in the Project area. Only the electric transmission corridor project (DPV2) is in the same immediate area of the proposed Project.

Other projects within the California Desert have the potential to impact paleontological resources, where those resources are present. Completion of project footprint specific surveys and assessment is necessary to design mitigation measures to reduce the potential for impacts.

Cumulative Impact Analysis

Unknown, unrecorded paleontological resources may be found during construction at nearly any development site. As they are discovered, sites are recorded and information retrieved. If the nature of the resource requires it, the resource is protected. When discovered, paleontological resources are treated in accordance with applicable federal and State laws and regulations as well as the mitigation measures and permit requirements applicable to a project. Should resources be discovered they would be subject to legal requirements designed to protect them, therefore no cumulative impact to cultural or paleontology resources would occur in this geographic area of the proposed Project.

Implementation of Applicant Measures and mitigation measures would serve to reduce the cumulative effects on paleontological resources to a less than significant level. Given that the same laws and regulations apply to all development in the geographic area where cumulative projects are found, the contribution of the proposed Projects on paleontological resources from past, present, and reasonably foreseeable projects and proposed Projects would be less than cumulatively considerable.

While there is a low potential for the disturbance of paleontological resources during construction, operations and maintenance and decommissioning of the Alternatives would have an even lower potential for disturbance. Consequently, with the implementation of the Applicant Measures and mitigation measures, the cumulative impact, when combined with the projects in the immediate area of the DSSF, would not be cumulatively considerable.

Due to similarities in their components, the paleontological cumulative impacts for Alternatives 2 and 3 would be the same as described for the proposed Project and would not be cumulatively considerable. Under the No Action Alternatives (Alternatives 4, 5, and 6), as no construction is anticipated to occur, these alternatives would not contribute to any considerable cumulative impacts.

Foreseeable Projects in the Project Area ¶

Surface disturbance and excavation associated with the construction of any transmission facilities could damage or destroy any vertebrate fossils and other scientifically valuable paleontological resources where present. This would result in a potentially significant impact. Completion of mitigation measures similar to those discussed for the proposed Project would likely reduce impacts to less than significant.

Any future expansion of the DSSF or location other renewable energy facilities in the immediate area of the DSSF, would also have low potential for impacts on paleontological resources. Completion of mitigation measures similar to those discussed for the DSSF would further reduce the already low potential for impacts.¶

Foreseeable Renewable Projects in the California Desert ¶

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Overall Conclusion¶

Cumulative impacts on paleontological resources from current projects, the proposed Project and foreseeable projects in the immediate area of the DSSF are low due to the low potential for the presence of paleontological resources. The cumulative impacts from other projects in the California Desert could be greater depending on the presence of paleontological resources and the mitigations measures taken as part of the implementation of the projects.

4.8 GEOLOGY AND SOIL RESOURCES

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4.8.8 Alternative 6—No Issuance of a Right-of-Way Grant with Land Use Plan Amendment to Identify the Area as Suitable for Solar Development (No Action with Plan Amendment)

Under this alternative, the proposed Desert Sunlight Solar Farm Project would not be approved by the BLM and the BLM would amend the CDCA Plan to allow for other solar projects on the site. As a result, it is possible that another solar energy project could be constructed on the Project site.

Because the CDCA Plan would be amended, it is possible that the site would be developed with the same or a different solar technology. Construction and operation requirements for solar technologies vary; however, it is expected that all solar technologies require some grading and some infrastructure. The effects of strong ground shaking on the Project structures would need to be mitigated, to the extent practical, through structural designs required by appropriate building codes and standards as with the proposed Project. Because it is expected that all solar technologies would require ground disturbance, the impacts on potential geologic resources from the construction, operation, and closure of the alternative would likely be similar to under the proposed Project.

4.8.9 Cumulative Impacts

Geographic Scope

The geographic area considered for cumulative impacts to all three alternatives for geology consists of the seismically active Mojave Desert geomorphic province. Soils with the potential for Prime Farmland designation could occur within areas within the region with the potential for arable land, or lands that have qualities such as irrigation water and richness in nutrients.

The geographic area considered for cumulative impacts to all three alternatives for erosion of soils by wind consists of the Mojave Desert Air Basin. The geographic area for erosion of soils by water consists of the Chuckwalla hydrologic unit watershed as overland stormwater flow could erode soils from the proposed action and impact off-site areas.

Past, Present and Reasonably Foreseeable Projects

Tables 3.18-2 and 3.18-3 list existing and reasonably foreseeable projects in the Project area. Only the electric transmission corridor project (DPV2) is in the same immediate area of the proposed Project. Other projects within the California Desert have the potential to impact geological and soil resources. **Completion of project footprint specific surveys and assessment is necessary to design mitigation measures to reduce the potential for impacts. Cumulative Impact Analysis**

Past, present and future alternative energy projects in the Mojave Desert geomorphic province would all be susceptible to the same risk from seismic events. As such, appropriate state- and local-required engineering would be required to reduce the risks for those projects to be less than significant level. Consequently, no considerably cumulative impacts due to seismic events would occur.

The construction of the proposed Project, other past, present, and reasonably foreseeable projects proposed in the region have the potential for cumulative impacts on soil erosion from wind and water during construction and decommissioning. Wind and water erosion of soils impacts are less likely during operation and maintenance of any project found within the region. With mitigation, the

of Cumulative Impacts Analysis for Geology and Soils

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It is possible that other projects and other energy projects proposed in the region may seek to be sited on former agricultural lands that have been classified as prime farm lands. This could cause a cumulative impact to this resource. The proposed Project would not add to this potential cumulative impact.¶

and

and other alternative energy

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proposed Project has a less than significant impact to soil erosion from wind and water and would not contribute to any considerably cumulative impacts on soil erosion from incremental losses.

Due to similarities in their components, the geological and soil cumulative impacts for Alternatives 2 and 3 would be the same as described for the proposed Project and would not be cumulatively considerable. Under the No Action Alternatives (Alternatives 4, 5, and 6), as no construction is anticipated to occur, these alternatives would not contribute to any considerable cumulative impacts.

; it has the potential to

Less than significant impacts from other foreseeable future projects could incrementally contribute to loss of soils from wind and water erosion, causing a cumulative impact.

Overall Conclusion ¶

The potential for cumulative impacts on the proposed Project from geologic hazards is not significant due to the anticipated engineering that would include state and local requirements to reduce the impacts of such hazards. ¶

Construction and decommissioning of the proposed action could contribute to a incremental cumulative impact on soil resources. Operation and maintenance would not likely contribute to a cumulative impact on soil resources. Impacts on soils from wind erosion would be mitigated to a less than significant level.

4.9 LANDS AND REALTY

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No impacts would occur from this alternative as it pertains to the approval of the Applicant's proposed Project; however, this alternative does not prohibit nor preclude future solar or other development in the area that would likely have impacts similar to those described in the action alternatives (Alternatives 1 through 3) within the Project area.

4.9.9 Cumulative Impacts

Geographic Extent

The geographic extent for the consideration of cumulative impacts to land use, realty, and agricultural resources, is the California Desert District, as this is the area covered by the BLM's CDCA, the land use planning document that applies to the Project area.

In addition, an analysis of cumulative impacts to land use and agricultural resources should take into account a wide area because of the current plethora of applications for development of renewable energy facilities and other developments that would require the conversion of hundreds of thousands of acres of public and undeveloped land. Section 3.18 lists proposed energy projects in the California Desert District on BLM-administered land and includes 125 projects that would cover over 1,000,000 acres (BLM 2009).

The criteria by which land use and realty impacts would be cumulatively considered significant are the same as those identified in Section 4.9.2, Impact Criteria.

Existing Cumulative Conditions

Past development near the Project area includes those projects listed in Table 3.18-2. Three of the nine projects listed are energy development projects. The remaining projects are an extension to an interstate highway (I-10), two prisons, an iron ore mine, an MWD water pumping station, and various recreational opportunities, the majority of which have an industrial character. Other large tracts of land designated for specific and limited development purposes in the Project area include Joshua Tree National Park, the Chuckwalla DWMA and CHU, and the Alligator Rock ACEC.

Past, Present, and Reasonably Foreseeable Future Projects

Table 3.18-3 lists foreseeable projects in the Project area, which is the I-10 corridor in eastern Riverside County. As shown in the table, over 25 projects are proposed in the Project area, nearly half of which have been approved or are under construction and over 20 of which are renewable energy projects. At least fifteen of the proposed projects, including the proposed Project, would permanently disturb over 1,000 acres of land each.

Only one of the projects is a land conservation project. The proposed Mojave Trails National Monument, which would protect and provide recreational opportunities on approximately 941,000 acres of federal land, would protect approximately nine times the acreage that would be developed by implementation of all of the remaining projects.

Cumulative Impact Analysis

Past development has increased human use of land in the Project area. However, because of the limited availability of water, human development has been limited to small scattered towns and cities, and various isolated projects such as the mine and water pumping station, amongst large tracts

and realty

Past development has increased human use of land in the Project area. However, because of the limited availability of water, human development remains limited to small scattered towns and cities, and various isolated projects such as the mine and water pumping station, amongst large tracts of undeveloped land. It is possible that the I-10 extension conflicted with some existing or planned land uses (LU-1) because it is located nearer to developed areas; however, these conflicts were presumably resolved because the project was implemented. It is not likely that past development conflicted significantly with applicable land use plans and zoning designed to minimize environmental impacts (LU-2) because none of them are located in areas designated for environmental protection. It is not likely that past development conflicted with habitat conservation or natural community conservation plans (LU-3) because there are no such plans in affect for the Project area. It is not likely that past development impacted agricultural land or zoning (LU-4 and LU-5) as agriculture in the Project area is limited by limited water supplies. Therefore, the existing projects are not cumulatively considerable given the CEQA significance criteria. The proposed Project would not result in any significant or unavoidable impacts and therefore, when combined with past development, would not be cumulatively considerable. ¶

Foreseeable

Foreseeable Projects in the Project Area ¶

The foreseeable projects in the Project area would significantly increase developed human use of land in the area. These projects are typical of an area where human presence and use is growing and include industrial, commercial, and residential developments as well as energy and infrastructure projects. Impacts from these projects would be cumulatively considerable and significant adverse due to the amount of land that would be developed. Given the size and diversity of these projects and the substantial amount of undeveloped BLM-administered land currently in the Project area, it is likely that several of these projects would conflict with existing or planned land uses (LU-1) and/or applicable land use plans and zoning designed to minimize environmental impacts (LU-2). Therefore, the existing projects would be cumulatively considerable given the CEQA significance criteria. It is not likely that these projects would conflict with habitat conservation or natural community conservation plans (LU-3) because there are no such plans in affect for the Project area. It is not likely that these projects would impact agricultural land or zoning (LU-4 a

of undeveloped land. Therefore, construction of multiple projects within the same area could create a significant cumulative construction impact to surrounding land uses.

In particular, conflicts with existing or planned land uses, and conflicts with applicable land use plans and zoning designed to minimize environmental impacts would result in cumulative construction impacts. However, potentially significant cumulative impacts resulting from the construction of the proposed Project in conjunction with other projects would be mitigated to a less than significant level through the implementation of AM-LAND-1, which requires property owners within 300 feet of the Project shall be notified of all major Project construction milestones, and AM-LAND-2, which requires the Project to be designed to minimize disturbance or modification of existing uses such as transmission lines, pipelines, and underground cables.

It is not likely that cumulative construction and operation impacts would conflict with habitat conservation or natural community conservation plans because there are no such plans in affect for the Project area. Similarly, it is not likely that cumulative construction impacts would affect agricultural land or zoning as agriculture in the Project area is limited by limited water supplies. Therefore, the construction impacts are not cumulatively considerable.

Operation of the foreseeable projects in the Project area would significantly increase developed human use of land in the area. These projects are typical of an area where human presence and use is growing and include industrial, commercial, and residential developments as well as energy and infrastructure projects. Operation impacts from these projects would be cumulatively considerable and significant adverse due to the amount of land that would be developed. Given the size and diversity of these projects and the substantial amount of undeveloped BLM-administered land currently in the Project area, it is likely that several of these projects would conflict with existing or planned land uses and/or applicable land use plans and zoning designed to minimize environmental impacts. Table 3.18-1 lists foreseeable renewable energy projects on BLM-administered land in the California Desert District. Operation of these projects could collectively impact over 1,000,000 acres of land. Impacts from these projects would be cumulatively considerable and significant adverse due to the amount of land that would be developed. Therefore, the existing projects would be cumulatively considerable.

Therefore, operation impacts would be cumulatively considerable and significant due to the amount of land that would be permanently developed.

1

adverse

and likely for CEQA significance criteria LU-1 and LU-2

Due to similarities in their components and construction requirements, the lands and realty cumulative impacts for Alternatives 2 and 3 would be the same as described for the proposed Project and would be cumulatively considerable. There would be no cumulative lands and realty impacts under the No Action Alternatives (Alternatives 4, 5 or 6) because there would be no right-of-way grant for development of the Solar Farm area and associated facilities. Any future proposals for use of the site would be subject to separate environmental analysis.

The foreseeable projects in the Project area would significantly increase developed human use of land in the area. These projects are typical of an area where human presence and use is growing and include industrial, commercial, and residential developments as well as energy and infrastructure projects. Impacts from these projects would be cumulatively considerable and significant adverse due to the amount of land that would be developed. Given the size and diversity of these projects and the substantial amount of undeveloped BLM-administered land currently in the Project area, it is likely that several of these projects would conflict with existing or planned land uses (LU-1) and/or applicable land use plans and zoning designed to minimize environmental impacts (LU-2). Therefore, the existing projects would be cumulatively considerable given the CEQA significance criteria. It is not likely that these projects would conflict with habitat conservation or natural community conservation plans (LU-3) because there are no such plans in affect for the Project area. It is not likely that these projects would impact agricultural land or zoning (LU-4 and LU-5) as agriculture in the Project area is limited by limited water supplies.

The proposed Project would not result in any significant or unavoidable impacts and represents a small fraction of the total amount of lands affected by the foreseeable projects in the area. Therefore, when combined with these projects, the impacts of the proposed Project would not be cumulatively considerable.

Foreseeable Renewable Projects in the California Desert

Table 3.18-1 lists foreseeable renewable energy projects on BLM-administered land in the California Desert District. These projects could collectively impact over 1,000,000 acres of land. Impacts from these projects would be cumulatively considerable and significant adverse due to the amount of land that would be developed. Given the large amount of land affected by these projects, it is also likely that several of these projects would conflict with existing or planned land uses (LU-1) and/or applicable land use plans and zoning designed to minimize environmental impacts (LU-2). Therefore, the existing projects would be cumulatively considerable given the CEQA significance criteria. Impacts would not likely be cumulatively considerable with regards to the other CEQA significance criteria for the same reasons described for foreseeable projects in the Project area.

The proposed Project would not result in any significant or unavoidable impacts and represents a small fraction of the total amount of lands affected by the foreseeable projects renewable projects in the CDD. Therefore, when combined with these projects, the impacts of the proposed Project would not be cumulatively considerable.

Overall Conclusion

4.10 NOISE AND VIBRATION

Past, Present, and Reasonably Foreseeable Future Projects

Current ambient noise conditions represent the cumulative effect of noise generation on a local geographic scale. Except for the I-10 vicinity, existing noise levels in the project vicinity are generally low. There are no known existing ground vibration issues in the project study area. Existing projects and facilities listed in Table 3.18-2 are too far from the proposed solar farm area to create cumulative noise impacts in combination with any of the solar farm alternatives.

Most of the projects listed in Table 3.18-3 are too far from the proposed solar farm site to generate site-related cumulative noise issues in combination with the solar farm alternatives, transmission line alternatives, or Red Bluff substation alternatives. Only two projects listed in Table 3.18-3 have the potential for cumulative site-related noise effects in combination with the Desert Sunlight project. Transmission Line Alternatives A-1 and A-2 would pass through or near the Chuckwalla Solar I project site. In addition, the Eagle Mountain Soleil Project is adjacent to the south side of the Desert Sunlight solar farm site. Thus, only the Chuckwalla Solar I and Eagle Mountain Soleil projects have the potential for cumulative site-related noise impacts in combination with the proposed Desert Sunlight project.

Cumulative Impact Analysis

The alternative transmission line corridors all cross I-10, and the Red Bluff Substation alternatives are near I-10. Consequently, cumulative noise issues for the propose project in combination with existing conditions are limited to transmission line and Red Bluff Substation alternatives in combination with existing noise levels along I-10. The transmission line alternatives would cross I-10 near the Red Bluff Substation alternative locations. Because there are no noise-sensitive receptors located close to the Red Bluff substation alternatives, cumulative noise conditions from project construction activities in these areas in combination with existing I-10 traffic noise conditions would be a less than significant impact. There are no noise-sensitive land uses along any access road options for either of the Red Bluff Substation alternatives. In addition, combined construction-related traffic for the solar farm, Gen-Tie Line, and Red Bluff Substation would increase traffic volumes on I-10 by less than one percent, resulting in a cumulative CNEL increase of about 0.04 dBA. Thus, there would be no significant cumulative noise impacts from Alternatives 1, 2, or 3 in combination with existing cumulative noise conditions.

Most of the projects listed in Table 3.18-3 would contribute construction traffic to portions of I-10. Because the time frames for construction of the different projects in Table 3.18-3 generally are not known, it is unclear which of the projects might have construction periods that overlap with the construction time frame for the Desert Sunlight project. In addition, no estimates of construction-related traffic are available for most of the projects listed in Table 3.18-3. Notwithstanding such uncertainties, it is not plausible to assume that the cumulative construction traffic generated by concurrent projects would more than double the existing traffic volumes on I-10 (currently 21,000 to 23,000 vehicles per day with 40 percent truck traffic). Since traffic volumes on I-10 would need to be doubled to cause even a 3 dBA increase in noise levels along I-10, no significant noise impact is

Existing Cumulative Conditions: Noise ¶

Additional considerations regarding cumulative noise impacts for the various project alternatives in combination with existing conditions are presented below.

Action Alternatives (Alternatives 1, 2, and 3) ¶

Existing projects and facilities listed in Table 3.18-2 are too far from the proposed solar farm area to create cumulative noise impacts in combination with any of the solar farm alternatives. The alternative transmission line corridors all cross I-10, and the Red Bluff Substation alternatives are near I-10. Consequently, cumulative noise issues for the propose project in combination with existing conditions are limited to transmission line and Red Bluff Substation alternatives in combination with existing noise levels along I-10. The transmission line alternatives would cross I-10 near the Red Bluff Substation alternative locations. Because there are no noise-sensitive receptors located close to the Red Bluff substation alternatives, cumulative noise conditions from project construction activities in these areas in combination with existing I-10 traffic noise conditions would be a less than significant impact. There are no noise-sensitive land uses along any access road options for either of the Red Bluff Substation alternatives. In addition, combined construction-related traffic for the solar farm, Gen-Tie Line, and Red Bluff Substation would increase traffic volumes on I-10 by less than one percent, resulting in a cumulative CNEL increase of about 0.04 dBA. Thus, there would be no significant cumulative noise impacts from Alternatives 1, 2, or 3 in combination with existing cumulative noise conditions.

No Action Alternatives (Alternatives 4, 5, and 6) ¶

There would be no cumulative noise impacts under Alternatives 4, 5 or 6 because there would be no right-of-way grant for development of the solar farm area and associated facilities. Any future proposals for use of the site would be subject to separate environmental analysis.¶

Existing Cumulative Conditions: Vibration ¶

Future Foreseeable Projects: Noise

Foreseeable Projects in the Project Area ¶

Most of the projects listed in Table 3.18-3 are too far from the proposed solar farm site to generate site-related cumulative noise issues in combination with the solar farm alternatives, transmission line alternatives, or Red Bluff substation alternatives. Only two projects listed in Table 3.18-3 have the potential for cumulative site-related noise effects

plausible for the cumulative effects of construction-related traffic from projects listed in Table 3.18-3.

The timing for approval and construction of the Chuckwalla Solar I and Eagle Mountain Soleil projects is not known, but could potentially overlap with part of the construction period for the Desert Sunlight project. Consequently, there is the potential for temporary cumulative noise impacts from the Desert Sunlight project in combination with either or both of these other solar energy projects. But because the geographic extent of stationary construction-related noise issues is limited to distances of 1,000 feet or less and the geographic extent of potential ground vibration impact is limited to a distance of a few hundred feet from the source of the vibrations, and no noise- or vibration-sensitive land uses are within that distance from both the Desert Sunlight project and one or more of the other solar energy projects, no significant cumulative noise impacts from on-site construction activities would be expected from the Chuckwalla Solar I project or the Eagle Mountain Soleil project in combination with the Desert Sunlight project.

While construction-related traffic for the Chuckwalla Solar I project would share I-10 with construction-related traffic for the Desert Sunlight project, construction traffic for the Chuckwalla Solar I site would not use Kaiser Road. Construction traffic for the Eagle Mountain Soleil project, however, would be expected to use Kaiser Road. The Eagle Mountain Soleil project is much smaller than the Desert Sunlight project (100 MW capacity for Eagle Mountain Soleil versus 550 MW for Desert Sunlight), but may not have a construction worker shuttle bus system such as that proposed for the Desert Sunlight project. Assuming that cumulative construction-related traffic for Desert Sunlight plus Eagle Mountain Soleil would be 50 percent higher than the volume projected for Desert Sunlight alone, cumulative noise levels along Kaiser Road would increase by about 1.8 dBA above those projected for the Desert Sunlight project. Under those conditions, CNEL levels along Kaiser Road would remain within Riverside County's normally acceptable range for rural residential land uses at distances of more than 50 feet from the Kaiser Road centerline, and would be within Riverside County's conditionally acceptable range for rural residential land uses for locations within 50 feet of the Kaiser Road centerline. Consequently, cumulative construction-related traffic noise along Kaiser Road would be a less than significant impact.

The foreseeable renewable projects in the California desert as listed in Table 3.18-1 would generally be too far from the Desert Sunlight project to have any cumulative noise or groundborne vibration impacts in combination with the Desert Sunlight project. While these foreseeable renewable projects may share freeways used with proposed Project construction traffic, the cumulative use of these freeways would not result in significant increases to exisitng noise or vibration levels of those highways.

Due to the limited geographic extent of potential noise and ground vibration impacts (as discussed above), construction of the Desert Sunlight project would have no significant cumulative noise or ground vibration impacts in combination with any past, present, or foreseeable future projects and have a less than significant cumulatively considerable contribution to construction noise and vibration impacts. Similarly, operation of the proposed Project would not contribute to adverse long-term increases in noise or vibration levels in the area. Because no substantial noise or vibration increases would result from the proposed Project, it would be consistent with the local noise regulations and have no cumulatively considerable contribution to operational noise or vibration impacts.

Action Alternatives (Alternatives 1, 2, and 3). ¶

No Action Alternative (Alternatives 4, 5, and 6). ¶
There would be no cumulative air quality impacts under Alternatives 4, 5 or 6 because there would be no right-of-way grant for development of the solar farm area and associated facilities. Any future proposals for use of the site would be subject to separate environmental analysis. ¶
Foreseeable Renewable Projects in the California Desert ¶

Future Foreseeable Projects: Vibration ¶
Foreseeable Projects in the Project Area ¶
Most of the projects listed in Table 3.18-3 are too far from the proposed solar farm site to generate cumulative ground vibration issues in combination with the solar farm alternatives, transmission line alternatives, or Red Bluff substation alternatives. Only two projects listed in Table 3.18-3 have the potential for cumulative vibration effects in combination with the Desert Sunlight project. Transmission Line Alternatives A-1 and A-2 would pass through or near the Chuckwalla Solar I project site. In addition, the Eagle Mountain Soleil Project is adjacent to the south side of the Desert Sunlight solar farm site. Thus, only the Chuckwalla Solar I and Eagle Mountain Soleil projects have the potential for cumulative noise impacts in combination with the proposed Desert Sunlight project. The geographic extent of potential ground vibration impacts is limited to a distance of a few hundred feet from the source of the vibrations. There are no vibration-sensitive land uses within this distance range for the combination of Desert Sunlight project components and the Chuckwalla Solar I or Desert Soleil projects. Consequently, there would be no cumulative ground vibration impacts from the combination of the Desert Sunlight project and other foreseeable projects listed in Table 3.18-3. ¶
Foreseeable Renewable Projects in the California Desert ¶
The foreseeable renewable projects in the California desert as listed in Table 3.18-1 would generally be too far from the Desert Sunlight project to have any cumulative ground vibration impacts in combination with the Desert Sunlight project. ¶
Overall Conclusions ¶

There would be no cumulative noise and vibration impacts under the No Action Alternatives (Alternatives 4, 5 or 6) because there would be no right-of-way grant for development of the Solar Farm area and associated facilities. Any future proposals for use of the site would be subject to separate environmental analysis.

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No Action Alternatives (Alternatives 4, 5, and 6)

There would be no cumulative noise impacts under Alternatives 4, 5 or 6 because there would be no right-of-way grant for development of the solar farm area and associated facilities. Any future proposals for use of the site would be subject to separate environmental analysis.

Existing Cumulative Conditions: Vibration

There are no known existing ground vibration issues in the project study area. Because the project alternatives would not create any incrementally significant ground vibration issues, there would be no cumulative ground vibration impacts under any of the alternatives in combination with existing cumulative ground vibration conditions.

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Foreseeable Projects in the Project Area

Most of the projects listed in Table 3.18-3 are too far from the proposed solar farm site to generate site-related cumulative noise issues in combination with the solar farm alternatives, transmission line alternatives, or Red Bluff substation alternatives. Only two projects listed in Table 3.18-3 have the potential for cumulative site-related noise effects in combination with the Desert Sunlight project. Transmission Line Alternatives A-1 and A-2 would pass through or near the Chuckwalla Solar I project site. In addition, the Eagle Mountain Soleil Project is adjacent to the south side of the Desert Sunlight solar farm site. Thus, only the Chuckwalla Solar I and Eagle Mountain Soleil projects have the potential for cumulative site-related noise impacts in combination with the proposed Desert Sunlight project.

4.11 PUBLIC HEALTH AND SAFETY/HAZARDOUS MATERIALS

4.11.7 Alternative 5—No Issuance of a Right-of-Way Grant with Land Use Plan Amendment to Identify the Area as Unsuitable for Solar Energy Development (No Action with Plan Amendment)

Under this alternative, the proposed Desert Sunlight Solar Farm Project would not be approved by the BLM and the BLM would amend the CDCA Plan to make the proposed site unavailable for future solar energy development. As a result, no solar energy project would be constructed on the Project site and BLM would continue to manage the site consistent with the existing land use designation in the CDCA Land Use Plan of 1980, as amended.

Because the CDCA Plan would be amended so no solar energy projects can be approved for the site under this alternative, it is expected that the site would continue to remain in its existing condition, with no new structures or facilities constructed or operated on the site. Therefore, this No Action Alternative would not increase potential exposure to the public health and safety and the environment from hazards and hazardous materials from the construction, operation, and closure of the Proposed Project. However, in the absence of this Project, other solar energy projects may be constructed to meet state and federal mandates in other locations, and those projects would have similar impacts in other locations.

4.11.8 Alternative 6—No Issuance of a Right-of-Way Grant with Land Use Plan Amendment to Identify the Area as Suitable for Solar Development (No Action with Plan Amendment)

Under this alternative, the proposed Desert Sunlight Solar Farm Project would not be approved by the BLM and the BLM would amend the CDCA Plan to allow for other solar projects on the site. As a result, it is possible that another solar energy project could be constructed on the Project site.

Because the CDCA Plan would be amended, it is possible that the site would be developed with the same or a different solar technology. Construction and operation requirements for solar technologies vary; however, it is expected that all solar technologies require some grading and some infrastructure. The effects of the exposure of the public and environment to hazards and hazardous materials would need to be mitigated, to the extent practical, through mitigations proposed to reduce effects associated with hazards and hazardous materials as with the Proposed Project. Because it is expected that all solar technologies would use of hazardous materials and would introduce certain hazards to the public and environment, the impacts to public health and safety from the construction, operation, and closure of the alternative would likely be similar to under the proposed Project.

4.11.9 Cumulative Impacts

Geographic Scope

of Cumulative Impact Analysis for Public Health and Safety/Hazardous Materials

The geographic area considered for cumulative impacts on Public Health and Safety/Hazardous Materials is within the I-10 corridor from Indio to Blythe, California. A number of alternative energy projects are projected to be located within the region, primarily east of the Project Study Area, that could contribute to a cumulative effect on public health and safety from hazardous materials. A few projects within the region are primarily concentrated near Blythe, California that, with the proposed action or alternatives, could contribute to cumulative impacts to the region.

Past, Present and Reasonably Foreseeable Future Projects

Existing projects within the region that include an existing combined-cycle natural gas plant in Blythe, California, two prisons, and other facilities whose proximity to the proposed action are far enough from the Proposed Project and alternatives area that they would not contribute to a cumulative impact in the case of an accidental hazardous materials release.

Cumulative Impact Analysis

For hazardous materials spills during construction, in particular, but also during operation and maintenance, worker and public health and safety issues that involve fire and emergency response related to the Proposed Action could result in a cumulative effect when combined with the incremental impacts other projects, including proposed renewable energy projects in the geographic area considered. Work safety, emergency response, and fire protection impact could occur in the event of a simultaneous emergency response to multiple locations such that those resources could be overwhelmed and could not respond effectively. Although the chances that two or more alternative energy facilities would require emergency response simultaneously may be low, a response to one distant site could impede or preclude a simultaneous response to another facility, residential or commercial location, or other location in demand. With the implementation of Applicant Measures and mitigation measures, the proposed Project would not considerably contribute to a significant cumulative impact.

The potential for off-site impacts to public health and safety resulting from hazardous materials used during construction, operation and maintenance, and decommissioning at the proposed Desert Sunlight Project site is not significant based on the nature of the materials used and the engineering and administrative controls implemented to prevent and control accidental releases of hazardous materials related to the Project. The cumulative impacts would be the same for all three action alternatives. Implementation of emergency response plans and fire management plans in the event of an emergency would reduce impacts to a less than significant level. Because there are no past, existing or future foreseeable facilities in the immediate proximity of the site that would use large amounts of hazardous chemicals, the proposed Project and Alternatives 2 and 3 would not considerably contribute to a cumulative impact associated with the accidental release of hazardous materials.

Under the No Action Alternatives (Alternatives 4, 5, and 6), as no construction is anticipated to occur, these alternatives would not contribute to any cumulative impacts.

Existing Cumulative Projects¶
Existing projects within the region that include an existing combined-cycle natural gas plant in Blythe, California, two prisons, and other facilities whose proximity to the proposed action are far enough from the Proposed Project and alternatives area that they would not contribute to a cumulative impact in the case of an accidental hazardous materials release. These past projects are not expected to contribute incrementally to hazardous materials management-related impacts.¶

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The likelihood that all future projects in the geographic area, including the proposed action, would require emergency response services simultaneous is low. ¶
Cumulative impacts could occur despite the many safeguards implemented to both prevent and control fires, hazardous materials releases, and injuries andaccidents, because of the great distances required for a response. Although the chances that two or more alternative energy facilities would require emergency response simultaneously may be low, a response to one distant site could impede or preclude a simultaneous response to another facility, residential or commercial location, or other location in demand. Although cumulative impacts theoretically are possible, they are likely low given the existing levels of service within the region.

Overall Conclusions¶

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that would affect the region

4.12 RECREATION

As such, this No Action Alternative could result in impacts to recreation activities similar to the impacts under the proposed Project.

4.12.9 Cumulative Impacts

Geographic Extent

The geographic extent for the consideration of cumulative impacts to recreation is the California Desert District, as this is the area covered by the BLM's CDCA, the document that addresses recreation within the proposed Project area.

In addition, an analysis of cumulative impacts to recreation should take into account a wide area because the large amount of applications for development of renewable energy facilities could require the reduction or prevention of recreational roads or areas. Table 3.18-1 lists proposed energy projects in the California Desert District on BLM land and includes 125 projects that would cover approximately 1,001,603 acres (BLM 2009).

The criteria by which recreation impacts would be cumulatively considered significant are the same as those identified in Section 4.12.2.

Existing Cumulative Conditions

Past development near the proposed Project area, which includes the Red Bluff Substation and gen-tie area are those projects listed in Table 3.18-2. Many recreational opportunities are on lands in eastern Riverside County, along the I-10 corridor.

These existing projects illustrate the recreational uses of the area which are OHV and passenger vehicle pleasure driving, and Long Term Visitor Areas (LTVA) where recreationists can stay during the winter in RVs for up to seven months. A nearby attraction is the General Patton Museum at Chiraco Summit. The Museum is on BLM land but is operated by a nonprofit group.

Although the proposed Project area is nearly surrounded by Joshua Tree National Park, there are no roads or visitor access points into the park in that area, and little or no visitor use of that portion of the park. As such, this portion of Joshua Tree National Park surrounding the proposed Project area has little recreation activity.

Past, Present, and Reasonably Foreseeable Future Projects

Future

Foreseeable Projects in the Project Area ¶

Table 3.18-3 lists foreseeable projects in the proposed Project area, which is the I-10 corridor in eastern Riverside County, and Table 3.18-1 lists foreseeable renewable energy projects on BLM land in the California Desert District. As shown in the table, over 25 projects are proposed in the project area, nearly half of which have been approved or are under construction and over 20 of which are renewable energy projects.

Several of the future projects are residential in nature and include recreational facilities. The proposed Mojave Trails National Monument, which would protect and provide recreational opportunities on approximately 941,000 acres of federal land, would increase the amount of recreational opportunities in the region. The proposed 500-mile racetrack that would be developed as part of the Chuckawalla Valley Raceway would also add to the existing recreational opportunities

in the area. The Paradise Valley new Town Development would provide recreational uses and facilities for those within the self-contained community.

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Foreseeable Renewable Projects in the California Desert ¶
Table 3.18-1 lists foreseeable renewable energy projects on BLM land in the California Desert District. The proposed Project would not contribute significantly to any collective impact on recreation because it would have a less than significant impact on recreation in the region.

Overall Conclusion

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Cumulative Impact Analysis

Regionally, there have been both positive and negative impacts to recreational resources as a result of development projects in the Project area. Recreation projects and development of highway access to the region has provided direct vehicular access to open desert scenery for residents throughout southern California. This increased access has improved the recreational experience for some users by making the area more accessible, but has also detracted from the recreational experience for other users who prefer remote recreation experiences away from populated areas.

Cumulative construction impacts would occur if more than one project would be constructed across or adjacent to a recreation area at the same time. As with the proposed Project, construction impacts related to past, present, and reasonably foreseeable future projects would also have the potential to disrupt recreation use or interfere with the public's right of access, as well as prevent long-term recreation use or peak season use or impede or discourage existing recreation. However, potential cumulative construction impacts would be temporary, and therefore, would be less than significant. As such, the contribution of construction of the proposed Project would not be cumulatively considerable.

Operation and maintenance impacts associated with the proposed project would be less than significant for the same reason as stated under the construction impacts. However, the proposed project would permanently change the nature of land use at the proposed project site from BLM-administered land designated for Multiple Use to an intensive utility use for the generation of power. In addition, the cumulative impacts of the operation of numerous energy-related and industrial development projects would remove large acreages of land from potential recreational use. Therefore, the combined effect of the overall cumulative past, present, and proposed and reasonably foreseeable projects, including the proposed project, would adversely affect recreation resources.

The proposed project would not make a considerable contribution to a cumulative impact because the combined impact of existing and reasonably foreseeable future projects on recreation is not significant.

Due to similarities in their components and construction requirements, the recreation cumulative impacts for Alternatives 2 and 3 would be the same as described for the proposed Project and would be cumulatively considerable. There would be no cumulative recreation impacts under the No Action Alternatives (Alternatives 4, 5 or 6) because there would be no right-of-way grant for development of the Solar Farm area and associated facilities. Any future proposals for use of the site would be subject to separate environmental analysis.

4.13 SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE

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increased employment and equipment expenditures in the regional economy, increases in sales and use tax revenues to local governments, and improvements to public infrastructure (electric utility capacity). However, the impacts would not occur as a result of development of the proposed site at this time. In addition, the increases in use of public facilities and infrastructure and the development of infrastructure adjacent to residences and public facilities would not occur at this time but would likely occur as the result of another project (potentially another solar project) at this location. However, any potential socioeconomic benefit to the region and local communities would not occur as a result of Sunlight's proposal.

4.13.9 Cumulative Impacts

As discussed above in Section 4.13.3, the proposed Project and alternatives would not cause existing housing or persons to be displaced, necessitating the construction of replacement housing elsewhere. In addition, there would be no impact from construction workers requiring housing that exceeds the supply of local housing or temporary housing facilities and minimal potential changes in the demand for labor or in local employment. As growth has been accounted for in various local and regional plans and projections and no changes to that growth would be likely to occur as a result of the proposed Project and alternatives, displacement of and demand for housing and changes in the local labor market would not be considered as cumulative impacts and are not discussed further. A cumulative impact would result if impacts from the Project alternatives, when combined with other past, present, and future projects, would exceed the significance criteria presented in Section 4.13.2.

Geographic Extent

The geographic scope for the analysis of impacts on socioeconomics consists of Riverside County and the cities contained therein. This geographic extent is appropriate because socioeconomic factors such as public services and utilities are provided by local jurisdictions or districts, and the regional labor force is expected to come primarily from within Riverside County. Table 3.18-2 and Table 3.18-3 provide lists of projects within the geographic extent for the socioeconomics cumulative scenario.

The criteria by which socioeconomic, public services, and utilities impacts would be cumulatively considered significant are the same as those identified above in Section 4.13.2, CEQA Significance Criteria.

Existing Cumulative Conditions

Past development and population growth within Riverside County have impacted employment, public services, utilities, and housing demands. Population increases have increased development in Riverside County, mainly in incorporated areas, expanded the demand for housing, and increased the available workforce. Additional development in turn increases pressure on existing public services and utility systems. Continued development thus provides additional infrastructure to increase capacity and change employment opportunities. Section 3.13, Socioeconomics and Environmental Justice, describes existing socioeconomic, public services, and utilities conditions within the affected counties and cities. Cumulative impacts of the development of the Project alternatives, in conjunction with the projects described in Table 3.18-1 through Table 3.18-3, and the overall continued development of the region would continue to result in the potential for increased job opportunities, increased housing, public services and utilities demands, and land use development impacts, including redevelopment, expansion of facilities, and displacement.

No Action Alternatives¶
Under the No Action Alternatives, no solar energy project would be constructed to contribute to cumulative employment of construction personnel, and population and economic growth would likely continue as anticipated in the Riverside County General Plan and the Desert Center Area Plan, and as indicated by population projections in Table 3.13-2, Population Projections. The No Action Alternatives also would not contribute to any pressure to expand public facilities and services, as a result of growth, and would not place additional stress on water supply and waste disposal facilities during construction. However, the opportunity for another project to occupy this area under Alternatives 4 and 6 would allow for these contributions to cumulative economic activity, growth, and pressure on public facilities and services in the future.¶
Action Alternatives ¶

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Past, Present, and Reasonably Foreseeable Future Projects

Tables 3.18-1 through 3.18-3 lists past, present , and foreseeable projects in the Project area, which is the I-10 corridor in eastern Riverside County. Over 25 projects are proposed in the Project area, nearly half of which have been approved or are under construction and over 20 of which are renewable energy projects. At least fifteen of the proposed projects, including the proposed Project, would permanently disturb over 1,000 acres of land each.

The present and foreseeable projects in the Project area would significantly increase developed human use of land in the area. These projects are typical of an area where human presence and use is growing and include industrial, commercial, and residential developments as well as energy and infrastructure projects.

Cumulative Impact Analysis

Construction and operation of the proposed Project would not contribute to temporary or permanent displacements of businesses or residents in Riverside County that could occur as a result of the projects identified in Table 3.18-3. Employment of construction personnel for the proposed Project and the cumulative projects listed in Table 3.18-3 would be beneficial to local businesses and the regional and local economy through increased expenditure of wages for goods and services. In addition, the proposed Project would contribute to local expenditures on materials and supplies for construction, which in combination with other past, ongoing, and future projects would generate expenditures, income, and employment in the regional and local economy, stimulating economic growth. Construction and operation of the proposed Project would have similar incremental impacts in combination with the projects listed in Table 3.18-1 and Table 3.18-2. However, the demand for labor for construction of these projects could result in a reduction in the workforce available in Riverside County for the proposed Project, which could derive some of the construction employment from outside Riverside County. Given the relatively small size of the labor force required for the proposed Project, it would be unlikely that the incremental increased demand for labor would result in in-migration into Riverside County or additional pressure on the planned future capacity of public utilities and services. Therefore, the effects of the proposed Project on increases in employment and demands on public services and facilities would be minimal.

Sunlight has indicated that personnel for construction of the cumulative projects listed in Table 3.18-3 would be drawn from local populations in Riverside County, creating new temporary and permanent employment and economic benefit to the regional economy. Although the proposed Project alone would not be likely to generate population in-migration because of the large available labor pool in Riverside County, the demand for construction employment generated by the proposed Project in combination with extensive proposed solar development in the region would increase the demand for skilled labor, which could be beyond the capacity of the region to accommodate. This demand could result in in-migration that could change the character of the regional labor force.

The resulting population growth would require additional housing and could necessitate expansion of public services and facilities if the construction period of these projects were to overlap. In particular, the capacity of water and waste disposal facilities could be strained, emphasizing the need for conservation and recycling. A portion of the cumulative influx of construction labor would increase pressure on the available temporary lodging, which is described in greater detail in Section

Under Alternative 3, the restriction in cultivation or damage to cultivated crops that could occur as a result of GT-A-2 could decrease revenues for the agricultural landowners whose crops would be affected by construction of this facility and any acreage lost to the required ROW. Long-term impacts on these cultivated areas would be minimized by locating GT-A-2 within the existing SCE 161 kV transmission line ROW across these areas. The addition of other projects that would affect the agricultural resources of the same landowners also affected by the proposed route or to overall agricultural resources in the cumulative impact area could create a cumulative farming revenue impact on these landowners. However, this would not represent a notable reduction in farmland in the cumulative impact area (Riverside County). Many of the other cumulative projects listed in Table 3.18-2 and Table 3.18-3 could contribute to a loss of farmland and agricultural resources, to which GT-A-2 would contribute no loss or a minimal loss. However, based on the locations of these projects, it is unlikely any of them would impact the same farmland as GT-A-2.

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Foreseeable

Foreseeable Projects in the Project Study Area

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action alternatives

3.13-2, Existing Conditions, Population and Housing. Although availability and pricing may vary, the overall supply of 22,508 hotel/motel rooms would be likely to provide a substantial proportion the likely temporary workforce. In addition, lodging availability would increase if the construction workforce would be willing to commute a greater distance. Additional workers could be accommodated in vacant housing, which totaled 6,283 units in Blythe, Coachella, and Indio alone and 102,507 units in Riverside County as a whole.

Socioeconomic impacts on local businesses and residents adjacent to the Project area or along construction transportation routes would result from visual impacts, vehicular or pedestrian access delays or detours, land use impacts, or health and safety concerns. The extent that these impacts would affect the perceived quality of life in the areas adjacent to the proposed Project would be minimized by the aligning Gen-Tie Lines along existing linear features (such as Kaiser Road) and making the public aware of construction timing, duration, and location so that they may better plan for construction-related access issues. It is expected that the added daily traffic from construction vehicles would not have a noticeable impact on traffic volumes given the existing high volumes of car and truck traffic on I-10, even with partially overlapping construction periods for several projects. The cumulative effects of the proposed Project in combination with reasonably foreseeable projects on each of these resource areas are analyzed in this chapter in Sections 4.10, Noise, 4.16, Visual Resources, 4.15, Traffic, Transportation, and Public Access, 4.9, Lands and Realty, and 4.11, Public Health and Safety/Hazardous Materials. As discussed in these sections, the cumulative contribution of Alternative 4 to any short-term visual, traffic, land use, noise, emissions, or safety impacts for these issue areas would be mitigated. Any associated contribution to a short-term loss of local business revenue impacts would not be cumulatively significant, and any contribution of the proposed Project to a perceived loss in quality of life due to the location of Project facilities along with the listed cumulative projects would be minimal.

The proposed Project would require water for dust control and concrete production during construction and would generate construction waste largely in the form of soil from earthwork, grading and excavations, and the removal of structures. As a result, related projects in conjunction with construction of the proposed Project would place demands on local water or solid waste services during similar construction activities. These impacts would be minimal, ensuring that the proposed Project would not cumulatively contribute to an impact with the addition of other reasonably foreseeable projects.

The Project vicinity and geographic region is experiencing and will continue to experience increasing demands for public services and utilities as a result of continued growth. Agencies with development approval authority review individual project consistency with existing local and regional plans and programs. California laws require specific plans, projects, and planning and development programs to be consistent with local general plans. Therefore, when development proposals are consistent with local general plans, and those, in turn, are consistent with county and regional plans, the goals and policies of county and regional plans are implemented through the local actions on development proposals. As a consequence, if reasonably foreseeable development projects in the cumulative area of impact are consistent with the applicable local government plan and policy documents, then the impacts of those projects have already been anticipated and accounted for and are, therefore, consistent with the plans and policies listed in Table 3.18-3.

As a part of these plans, local planning agencies augment or develop water, wastewater, and solid waste facilities to meet the anticipated needs of population projected for the region. The water, wastewater, and solid waste needs related to the proposed Project are expected to be within the parameters of regional capacities, projections, and plans applicable to the geographic extent of the cumulative impact area. Therefore, the current cumulative impact of all development projects within the cumulative area of impact on water and solid waste facilities serving the areas would be reduced with the implementation of mitigation and because the impacts of growth would have already been anticipated and accommodated in approved plans.

The potential for construction activities of the proposed Project to increase potential fire hazards would be minimized by the fire prevention plan that would be in place during construction and would ensure adequate access in case of emergencies. Also, it would protect against the possibility of fires generated by construction and therefore would not noticeably contribute to cumulative fire hazards.

Because the proposed Project would not preclude emergency access, the addition of future projects would not cumulatively contribute to emergency response times.

There would be no permanent or temporary displacement of low-income or minority businesses or residents under the proposed Project to contribute to potential cumulative effects on minority populations. The health and safety of these populations would be protected during both construction and operation at the same levels as other populations by implementing the safety measures described in the Revised Project Description provided by Sunlight. It is assumed that future projects would be required to mitigate impacts on these populations; therefore, cumulative impacts on minority and low-income populations as a result of the proposed Project in combination with cumulative projects also would be minimal.

Construction and operation of the proposed Project would not contribute to temporary or permanent displacements of businesses or residents in Riverside County that could occur as a result of the projects identified in Table 3.18-3. In addition, the proposed Project would contribute to local expenditures on materials and supplies for construction, which, in combination with other past, ongoing, and future projects, would generate expenditures, income, and employment in the local economy, stimulating economic growth.

The incremental effects of construction and operation of the proposed Project would not have a cumulatively considerable impact on socioeconomic and environmental justice resources when combined with the past, existing, and future projects identified in Table 3.18-1 through Table 3.18-3.

Due to similarities in their components and construction requirements, the socioeconomic and environmental justice cumulative impacts for Alternatives 2 and 3 would be the same as described for the proposed Project and would be cumulatively considerable. There would be no cumulative socioeconomic and environmental justice impacts under the No Action Alternatives (Alternatives 4, 5 or 6) because there would be no right-of-way grant for development of the Solar Farm area and associated facilities. Any future proposals for use of the site would be subject to separate environmental analysis.

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Alternative 1

Employment of construction personnel for both Alternative 4 and any or all of the cumulative projects listed in Table 3.18-3 would be beneficial to local businesses in Desert Center, Lake Tamarisk Park, and Eagle Mountain, and the regional economy through increased expenditure of wages for goods and services.

Alternative 1

Foreseeable Renewable Projects in the California Desert ¶
Construction and operation of the action alternatives would have similar incremental impacts in combination with the projects listed in Table 3.18-1 and Table 3.18-2. However, the demand for labor for construction of these projects could result in a reduction in the workforce available in Riverside County for any of the action alternatives, which could derive some of the construction employment for an action alternative from outside Riverside County. Given the relatively small size of the labor force required for each of the action alternatives, it would be unlikely that the incremental increased demand for labor would result in in-migration into Riverside County or additional pressure on the planned future capacity of public utilities and services. Therefore, the effects of the action alternatives on increases in employment and demands on public services and facilities would be minimal.¶
Overall Conclusion¶
The incremental effects of construction and operation of any of the action alternatives would not have a cumulatively considerable impact on socioeconomic and environmental justice resources when combined with the past, existing, and future projects identified in Table 3.18-1 through Table 3.18-3.

4.15 TRANSPORTATION AND PUBLIC ACCESS

The geographic extent of the area impacted by public access is the CDD because this is the area covered by the BLM's CDCA, the land use planning document that applies to the Project area.

The criteria by which transportation and public access impacts would be cumulatively considered significant are the same as those identified above in Section 4.15.2 and 4.15.3.

Past, Present, and Reasonably Foreseeable Future Projects

Past development near the Project area includes those projects listed in Table 3.18-2. Projects 1 through 5, 7 and 8 have been implemented. Traffic associated with these projects would already be utilizing the road network and would therefore be accounted for in the traffic study performed by HKA and be part of the baseline for the Project-specific impact analysis. Project 6 is a project to designate additional energy corridors. Project 6 itself would not generate any traffic; however, future energy projects that utilize the newly designated corridors could add traffic to Project area's roads if they were sited and constructed within the Project area. Project 9 is the Kaiser iron ore mine, which was closed in 1983 and therefore would not contribute traffic to area roads.

The region of interest for cumulative transportation and traffic impacts are primary regional roadways providing access to Riverside County and the adjacent site areas, as well as airspace in the proximate proposed Project site radius. Thus, most of the projects listed in Table 3.18-3 can be considered close enough to the proposed Project to have the potential for cumulative impacts related to traffic and transportation.

Foreseeable renewable energy projects on BLM land in the CDD are listed in Table 3.18-1. Proposed projects outside of the I-10 corridor are not a consideration in the cumulative analysis of traffic and transportation for the proposed Project because traffic associated with these projects would not travel the same portions of the road network.

Cumulative Impact Analysis

Table 3.18-3 lists foreseeable projects in the Project area, which is the I-10 corridor in eastern Riverside County. Projects H, J, Q, X, and Z have the potential to affect the local road network (excluding I-10; see Figure 3.18-2). Of these projects, X, the Eagle Mountain Soleil project, is similar in size to the proposed Project and would likely generate a similar amount of vehicle trips and other traffic and transportation impacts. The other projects are smaller and would likely generate a smaller number of vehicle trips and other traffic and transportation impacts.

Cumulative impacts would be greatest if the peak construction period of all of these projects overlapped. Although this worst-case scenario is unlikely, even if it were to occur, it is unlikely that the LOS of the affected intersections and roadway segments would degrade below "C," the allowable limit in the Riverside County General Plan Vehicle Circulation Element (Riverside County 2003), because the local road network currently operates at LOS "A" and the Project-generated traffic would not be sufficient to degrade the LOS this much.

Using intersection delay to quantify LOS, the proposed Project would only slightly increase the delay; however, the increase would place the amount of delay near the border between LOS "A" and "B." LOS "A" is defined as less than 10 seconds of delay and LOS "B" is defined as between 10 and 15 seconds of delay (Transportation Research Board 2000). In a worst-case scenario where construction peak periods overlapped for all projects proposed in the Project area, the LOS might

Existing Cumulative Conditions

These projects have not resulted in cumulatively considerable impacts because they do not conflict with established standards of performance of the vehicle circulation system in the area (TA-1 and TA-2) because the system is currently operating at acceptable LOS. In addition, past development has not been located such that or contained features that would adversely impact air travel (TA-3). ¶
The traffic study already accounted for traffic generated by these existing projects in the study's baseline data. Since the results of the traffic study demonstrate that the vehicular circulation would continue to operate acceptably and would therefore not conflict with established standards of performance (TA-1 and TA-2), the Project would not create a cumulatively considerable effect. Some alternatives of the Project could impact air travel (TA-3); however, these impacts have been reduced to less than significant by applicant measures and would therefore not be cumulatively considerable. ¶
The Project would not create a cumulatively significant effect on public access given the development that has already occurred in the Project area. Currently, large tracts of BLM land are publicly accessible for designated multiple uses in the Project area. Past development, specifically the projects listed in Table 3.18-2, has generally had a relatively small footprint compared to the proposed Project and to the amount of BLM land in the area. As a result, public access has not been significantly impeded in the Project area. ¶
The Project would reduce the amount of public land in the area available for public access, as several thousand acres of BLM land that would be covered by the Solar Farm and Red Bluff Substation would be fenced and off-limits to the public. Use of the land for the proposed Project would likely preclude use or development for other activities such as recreation or mining. However, because there are no active or specific plans or proposals for alternative use or development, impacts would be less than significant. Access to the two private water wells east of the Solar Farm site would not be impacted.

¶

Future Foreseeable Projects

Foreseeable Projects in the Project Area ¶

temporarily degrade to "B" but would not likely degrade to "C." Both LOS "B" and "C" are allowable according to the Riverside County General Plan; therefore, the cumulative impact would be less than significant. Although the local road network would remain at an acceptable LOS, it is local residents and others who are familiar with the area may perceive the increase in traffic as significant because the existing volume of traffic is so low and the additional traffic would seem significant in comparison. Because the vehicle circulation system in the area would continue to operate within the established standards, impacts would not be cumulatively considerable.

(TA-1 and TA-2)

Cumulative impacts to I-10 have been considered separately from the remainder of the road network because, as the major transportation corridor in the area, it is likely that construction vehicle trips from foreseeable future projects would have the greatest potential to combine cumulatively on I-10 than on other roads. It is likely that construction traffic, including tractor trailers, for all projects shown on Figure 3.18-2 would traverse some portion of I-10. Because the area is sparsely developed, it is likely that equipment and workers would have to travel long distances to project sites and could traverse a good portion of I-10 in eastern Riverside County regularly during their involvement with the projects. In a worst-case scenario where construction peak periods overlapped for all projects proposed in the Project area, the LOS of I-10 might temporarily degrade slightly, but would not likely degrade below the acceptable LOS "C." Additional delay at on- and off-ramps would be the most likely impact perceived by travelers. Even a worst-case scenario would not likely exceed the capacity of I-10, which has two lanes in both directions in this area. Both LOS "B" and "C" are allowable according to the Riverside County General Plan[2]. Because the vehicle circulation system in the area would continue to operate within the established standards, impacts would not be cumulatively considerable.

impacts

be greater

(TA-1 and TA-2)

Operational vehicle trips would not have the potential to significantly impact local roadway performance standards, as they would be limited to minimal routine maintenance and inspection trips. This small volume of traffic would not have a cumulatively considerable contribution to local roadway average daily traffic volumes.

There are many low-level military flight paths in the area and the implementation of these foreseeable projects could present additional obstacles for low-level flight, limiting the military's ability to conduct these operations and resulting in a cumulatively considerable impact to air travel. There are few airports in the area and few if any projects would be in proximity to them. Any conflicts would be expected to be resolved between the affected airport and the proponent of the specific project through required FAA 7460 requirements and coordination; therefore, no cumulative impacts would result.

(TA-3)

Since the results of the traffic study demonstrate that the vehicular circulation would continue to operate acceptably and would therefore not conflict with established standards of performance, the Project would not create a cumulatively considerable effect. Some alternatives of the Project could impact air travel; however, these impacts have been reduced to less than significant by applicant measures and would therefore not be cumulatively considerable.

(TA-1 and TA-2)

(TA-3)

Impacts to public access would be cumulatively considerable because the total amount of land proposed for conversion by the projects listed in Table 3.18-3 would substantially reduce the

[2] The LOS standards identified in the General Plan were developed in consultation with the California Department of Transportation (Caltrans), Riverside County Transportation Commission, Riverside County, and local agencies.

amount of publicly-accessible land in the area. However, the proposed Project would not make a cumulatively considerable contribution to this impact because it represents a small fraction of the total amount of land proposed for conversion.

The Applicant Measures for traffic and transportation recommended for construction of the proposed Project and Alternatives 2 and 3 would reduce cumulative construction traffic impacts. Due to the short-term nature of construction, any temporary increase in vehicle trips, limit in public access, and transportation related impacts would result in a less than significant cumulatively considerable contribution to construction traffic and transportation impacts.

The Applicant Measures for aviation related impacts recommended for operation of the proposed Project and Alternatives 2 and 3 would reduce cumulative operational transportation impacts. The proposed Project and Alternatives 2 and 3 would not contribute to adverse long-term increases in traffic levels in the area. Because no substantial traffic or transportation related impacts would result from the action alternatives, it would be consistent with applicable roadway performance standards and applicable transportation regulations and have no cumulatively considerable contribution to operational traffic and transportation impacts.

There would be no cumulative transportation or public access impacts under the No Action Alternatives (Alternatives 4, 5 or 6) because there would be no right-of-way grant for development of the Solar Farm area and associated facilities. Any future proposals for use of the site would be subject to separate environmental analysis.

Foreseeable Renewable Projects in the California Desert¶

Foreseeable renewable energy projects on BLM land in the CDD are listed in Table 3.18-1. Proposed projects outside of the I-10 corridor are not a consideration in the cumulative analysis of traffic and transportation for the proposed Project because traffic associated with these projects would not travel the same portions of the road network; therefore, no cumulative impacts would occur. ¶
Impacts to public access would be cumulatively considerable because the total amount of land proposed for conversion by the projects listed in Table 3.18-1 would substantially reduce the amount of publicly-accessible land in the area. However, the proposed Project would not make a cumulatively considerable contribution to this impact because it represents a small fraction of the total amount of land proposed for conversion.

Overall Conclusion¶

Impacts to performance of the vehicular circulation system (TA-1 and TA-2) would not be cumulatively considerable and impacts would be less than significant because affected intersections and roadways would continue to operate at an acceptable LOS even given a worst-case scenario where peak project construction periods overlapped for all proposed projects. Impacts would be further reduced by the fact that peak construction periods and timing of construction traffic would likely be staggered, rather than occurring all at once. Since the results of the traffic study demonstrate that the vehicular circulation would continue to operate acceptably and would therefore not conflict with established standards of performance (TA-1 and TA-2), the Project would not create a cumulatively considerable effect.¶
There are many low-level military flight paths in the area and the implementation of these foreseeable projects could present additional obstacles for low-level flight, limiting the military's ability to conduct these operations and resulting in a cumulatively considerable impact to air travel (TA-3). There are few airports in the area and few if any projects would be in proximity to them. Any conflicts would be expected to be resolved between the affected airport and the proponent of the specific project; therefore, no cumulative impacts would result. Some alternatives of the Project could impact air travel (TA-3); however, these impacts have been reduced to less than significant by applicant measures and would therefore not be cumulatively considerable.¶
Impacts to public access would be cumulatively considerable because the total amount of land proposed for conversion by the projects listed in Table 3.18-1 would substantially reduce the amount of publicly-accessible land in the area. However, the proposed Project would not make a cumulatively considerable

Overall Conclusion

Impacts to performance of the vehicular circulation system (TA-1 and TA-2) would not be cumulatively considerable and impacts would be less than significant because affected intersections and roadways would continue to operate at an acceptable LOS even given a worst-case scenario where peak project construction periods overlapped for all proposed projects. Impacts would be further reduced by the fact that peak construction periods and timing of construction traffic would likely be staggered, rather than occurring all at once. Since the results of the traffic study demonstrate that the vehicular circulation would continue to operate acceptably and would therefore not conflict with established standards of performance (TA-1 and TA-2), the Project would not create a cumulatively considerable effect.

There are many low-level military flight paths in the area and the implementation of these foreseeable projects could present additional obstacles for low-level flight, limiting the military's ability to conduct these operations and resulting in a cumulatively considerable impact to air travel (TA-3). There are few airports in the area and few if any projects would be in proximity to them. Any conflicts would be expected to be resolved between the affected airport and the proponent of the specific project; therefore, no cumulative impacts would result. Some alternatives of the Project could impact air travel (TA-3); however, these impacts have been reduced to less than significant by applicant measures and would therefore not be cumulatively considerable.

Impacts to public access would be cumulatively considerable because the total amount of land proposed for conversion by the projects listed in Table 3.18-1 would substantially reduce the amount of publicly-accessible land in the area. However, the proposed Project would not make a cumulatively considerable contribution to this impact because it represents a small fraction of the total amount of land proposed for conversion.

4.16 VISUAL RESOURCES

condition, with no new structures or facilities constructed or operated on the site. However, in the absence of the proposed Desert Sunlight Solar Farm Project, other non-solar energy projects (e.g., mining, recreation, utilities, and other energy development) may be constructed. Details regarding these potential non-solar energy projects would be speculative. The views of the site are not expected to change noticeably from existing conditions under this alternative and, therefore, this No Action Alternative would not result in adverse impacts on visual resources at this location.

4.16.8 Alternative 6—No Issuance of a Right-of-Way Grant with Land Use Plan Amendment to Identify the Area as Suitable for Solar Development (No Action with Plan Amendment)

Under this alternative, the proposed Desert Sunlight Solar Farm Project would not be approved by the BLM, and the BLM would amend the CDCA Plan to allow for other solar projects on the site. As a result, it is possible that another solar energy project could be constructed in the Project Study Area.

Because the CDCA Plan would be amended, it is possible that the site would be developed with the same or a different solar technology. As a result, impacts would result from the construction and operation of the solar technology and would likely be similar to the impacts from the proposed Project. Different solar technologies require different amounts of grading and maintenance; however, it is expected that all the technologies would require some grading and maintenance. The benefits of the proposed Project in displacing fossil fuel-fired generation, and reducing associated pollutant emissions could occur with a different solar technology at this site and therefore with this alternative. As such, this No Action Alternative would result in impacts similar to those under the proposed Project, which is desctibed above.

4.16.9 Cumulative Impacts

Geographic Extent

The ROI for visual resources is defined as the viewshed, an area seen from a particular location to the visible horizon. Delineation of the viewshed from the proposed Project location must extend from the top elevation of all of the proposed facilities rising at the Project location, expanded to 5.5 feet above the ground of the visible horizon. Due to mountains surrounding the proposed Project site, the viewshed is generally less than 15 miles from the proposed Project to mountain ridgelines. For analyzing cumulative impacts on visual resources, the ROI is expanded to include a larger area. The ROI for the cumulative impact analysis is approximately 15 miles on both sides of the I-10 corridor.

Existing Cumulative Conditions

This discussion identifies existing development near the proposed Project site that have contributed to the cumulative conditions for visual resources. The natural landscape has been altered by Eagle Mountain Pumping Plant, Kaiser Mine, and West-wide Section 368 Energy Corridors. These projects are shown on Figure 3.18-2 and are described in Tables 3.18-2 and 3.18-3. These projects directly introduced artificial infrastructure, buildings, structures, and light to the natural landscape of the Chuckwalla Valley.

past and present

(ongoing) activities

Eagle Mountain Pumping Plant primarily involves a site-specific building. West-wide Section 368 Energy Corridors primarily involves transmission lines traversing through the landscape. The former

Eagle Mountain Mine operation was on approximately 3,800 acres. Although there are mine operation buildings and structures, most of the alterations to the landscape are associated with the topography and mountain landforms. The moderately developed area of the mine covers approximately 320 acres.

Past, Present, and Reasonably Foreseeable Future Projects

This discussion identifies past, present, and future foreseeable projects near the proposed Project site that would affect visual resources. Ongoing activities are residential activities associated with Lake Tamarisk, business activities associated with the Desert Center, recreation (such as sightseeing and off-highway driving) in the valley, and travel along transportation routes. For the most part, these activities are not highly developed or industrialized.

Other ongoing activities are residential activities associated with Lake Tamarisk, business activities associated with the Desert Center, recreation (such as sightseeing and off-highway driving) in the valley, and travel along transportation routes. For the most part, these activities are not highly developed or industrialized.¶

Future project include the near the Project site include the Eagle Mountain Pumped Storage Project, Eagle Mountain Landfill Project, Green Energy Express Transmission Line Project, Eagle Mountain Soleil Project, Chuckwalla Valley Raceway, and Chuckwalla Solar I. These projects are shown on Figure 3.18-2 and described in Tables 3.18-2 and 3.18-3. These foreseeable future projects involve visual elements similar to the proposed Project. For example, transmission lines, roads, and industrialized facilities and activities would be found at these foreseeable future projects.

would occur near the Proposed Project site

Cumulative Impact Analysis

Action Alternatives (Alternatives 1, 2, and 3)

This discussion evaluates the cumulative contribution of the proposed Project impacts from construction and operation activities, and in combination with past, present, and future activities along the I-10 corridor.

To the extent that construction of the proposed Project would be visible within the same field of view as one or more of the cumulative projects also under construction, adverse cumulative visual impacts could result. This would be due to the visible presence of construction equipment, vehicles, materials, and personnel. However, these visual impacts would be temporary. Based on the fact that these are short-duration impacts for each of the projects in the cumulative scenario and that not all of the cumulative scenario projects would be under construction simultaneously, the construction-period impacts would not create significant cumulative effects. No additional mitigation measures are recommended beyond Mitigation (such as MM-VR-1 through MM-VR-6 and other forms of mitigation) to minimize the sprawl of an industrialized landscape along the surface of the I-10 corridor are available to reduce adverse unavoidable cumulative impacts on visual resources

Operation and maintenance of the proposed Project would continue to transform the relatively undeveloped valley into a valley with industrial buildings and structures. Alternative 1, for example, would be on 4,390.57 acres, most of which would be densely developed. The incremental effect of altering scenic landscapes, the local setting, and artificial light, when combined with the same effects created by other past projects, ongoing activities, and foreseeable projects would create significant and permanent adverse cumulative impacts because of the increase in the total area of land disturbed by the projects and the increase in the number and density of artificial elements visible. Also, the proposed Project would form a line of visible development from Eagle Mountain across the valley floor toward the southeast where Chuckwalla Valley Raceway and Chuckwalla Solar I would occur. There is no mitigation that would reduce permanent adverse cumulative impacts to minor or less than significant.

The Solar Farm, Gen-Tie Line, and Substation

, and operation and maintenance.

The proposed Project would have significant and permanent adverse impacts on visual resources. Due to their type and location, the future foreseeable projects are expected to have impacts similar to those of the proposed Project; consequently, cumulative adverse impacts on visual resources would be significant and permanent. The cumulative impacts would involve the conversion of natural desert landscapes to landscapes with prominent industrial character (complex industrial forms and lines and surface textures and colors not found in natural desert landscapes). Viewers within the I-10 corridor would witness industrial landscapes and activities that are out of character with the desert landscape. Mitigation (such as MM-VR-1 through MM-VR-6 and other forms of mitigation) to minimize the sprawl of an industrialized landscape along the surface of the I-10 corridor are available to reduce adverse unavoidable cumulative impacts on visual resources. Nonetheless, the proposed Project's contribution to visual impacts would be cumulatively considerable.

Due to similarities in their components and construction requirements, the visual resource cumulative impacts for Alternatives 2 and 3 would be the same as described for the proposed Project and would be cumulatively considerable. There would be no cumulative visual resource impacts under the No Action Alternatives (Alternatives 4, 5 or 6) because there would be no right-of-way grant for development of the Solar Farm area and associated facilities. Any future proposals for use of the site would be subject to separate environmental analysis.

No Action Alternatives (Alternatives 4, 5, and 6)¶
There would be no cumulative impacts on visual resources under Alternatives 4, 5, or 6 because there would be no development of the DSSF area and associated facilities. Any future proposals for use of the site would be subject to separate environmental analysis.

4.17 WATER RESOURCES

The Colorado River flows south through the Palo Verde Valley, and water is diverted from the Colorado River to irrigate lands in both the Palo Verde Valley and in Palo Verde Mesa. Irrigation is probably the principal source of recharge to the Palo Verde Valley aquifer. Groundwater returns to the Colorado River at the southern end of the Palo Verde Valley.

Recent estimates of the water budget for the Chuckwalla Valley Basin (Table 4.17-1) suggest that storage in the Chuckwalla Valley Basin is currently increasing, because total inflows to the basin exceed outflows. As a result, groundwater levels on average in the Chuckwalla Valley Groundwater Basin must be rising. Although average groundwater levels in the basin will rise if net groundwater inflow exceeds outflow, local conditions can vary markedly.

The sustainable yield, or the amount of water that can be withdrawn over the long-term without reducing the amount in storage, depends in part on the amount of inflow from and outflow to adjacent basins, which may or may not be dependable or stable over the long term. Referring to Table 4.17-1, it can be seen that inflow from the adjacent Orocopia Valley and Pinto Valley Basins is roughly equivalent to the net increase in groundwater storage in the Chuckwalla Basin. If inflow from basins adjacent to the Chuckwalla Basin were reduced, then the sustainable yield of the Chuckwalla Basin would be reduced and both the quantity and quality of the groundwater stored in the basin would depend on a mixture of recharge from runoff from the adjacent mountain ranges and recharge from irrigation return flows and other wastewater sources.

Surface Water and Drainage

The geographic scope of cumulative impacts on surface water and drainage is much more localized than for groundwater. Surface water flows in the region are generally intermittent and depend on the timing, intensity, and duration of precipitation and runoff. Surface water and drainage effects also tend to occur downslope or downstream of a project. Upstream projects can alter surface water conditions downstream, but the reverse is not as likely.

Water Quality

Cumulative water quality impacts are expected mainly in relation to groundwater quality. Spills or releases of contaminants are likely to have localized and temporary impacts on surface water quality in the Project region, whereas regional groundwater quality could be affected by the combined effects of multiple projects.

Flooding

Impacts on flooding tend to result from localized conditions, and cumulative impacts on flooding are likely to propagate from upstream to downstream in a watershed. The geographic scope of flooding impacts is therefore limited to the watersheds containing the Project components.

Past, Present and Reasonably Foreseeable Future Projects

Prior to development, groundwater levels in the Chuckwalla Valley Groundwater Basin were generally higher than they are now. Agricultural use during the late 1970s and 1980s caused groundwater levels to decline by as much as 130 feet in some areas of the basin, such as east of Desert Center (Eagle Crest Energy Company 2008). In the late 1980s, groundwater levels began to rise in response to reduced groundwater extraction for irrigation, and have reportedly nearly recovered to levels that existed prior to the 1970s.

Effects of

and

The impacts of the proposed Project on water resources are expected to be localized, minor, and temporary (mainly occurring during construction), and are not expected to contribute substantially to cumulative impacts in conjunction with other projects or developments in the Chuckwalla Valley Basin. ¶

Current projects near the proposed Project site include the Chuckwalla Valley and Ironwood Prisons and the Eagle Mountain Pumping Plant. The impacts on groundwater resources within the basin are already captured in the current estimates of groundwater withdrawals from the basin presented in Table 4.17-1.

A list of foreseeable projects near the proposed Project site is presented in Tables 3.18-1 to 3.18-3. The geographic extent of impacts to water resources is the extent of the Chuckwalla Valley groundwater basin and Palo Verde Mesa Basin, which are shown in Figure 3.17-2.

Cumulative Impact Analysis

The impacts of the proposed Project on water resources are expected to be localized, minor, and temporary (mainly occurring during construction), and are not expected to considerably contribute to cumulative impacts in conjunction with other projects or developments in the Chuckwalla Valley Basin.

As indicated in Table 4.17-1, current groundwater extraction from the Chuckwalla Valley Groundwater Basin is slightly more than 10,000 AFY and inflow to the Chuckwalla Basin currently exceeds outflow by approximately 2,500 to 3,500 AFY. As long as inflow exceeds outflow, groundwater levels are expected, on average, to continue to rise in the Chuckwalla Valley Groundwater Basin, although conditions may vary locally in response to pumping and recharge. In general, higher groundwater elevations in the Chuckwalla Valley would likely contribute to increased outflow to the adjacent Palo Verde Mesa Valley Basin. Outflow to the Palo Verde Mesa Valley Basin is currently estimated to be about 400 AFY, which is roughly equivalent to the annual rate of evaporation from Palen Dry Lake.

Three of the foreseeable projects that are within this geographic extent account for 85 percent of the long-term water demand (see Table 4.17-3):

- Eagle Mountain Pumped Storage Project
- Palen Solar Power Project
- Genesis Solar Energy Project

Table 4.17-2 presents the groundwater demand for both construction and operation and maintenance of the major foreseeable projects and the proposed Project. Note that the construction demand is presented in AF, because the annual demand may vary. The average annual demand, in AFY, can be readily calculated by dividing the total construction demand (in AF) by the duration of the construction project (in years), and would total approximately 10,000 AFY for two years, if all of the projects were under construction simultaneously. Demand would decrease as construction of each of the projects was completed, eventually falling to the long-term operation and maintenance requirement of the combined projects.

As indicated in Table 4.17-1, current groundwater extraction from the Chuckwalla Valley Groundwater Basin is slightly more than 10,000 AFY and inflow to the Chuckwalla Basin currently exceeds outflow by approximately 2,500 to 3,500 AFY. As long as inflow exceeds outflow, groundwater levels are expected, on average, to continue to rise in the Chuckwalla Valley Groundwater Basin, although conditions may vary locally in response to pumping and recharge. In general, higher groundwater elevations in the Chuckwalla Valley would likely contribute to increased outflow to the adjacent Palo Verde Mesa Valley Basin. Outflow to the Palo Verde Mesa Valley Basin is currently estimated to be about 400 AFY, which is roughly equivalent to the annual rate of evaporation from Palen Dry Lake.

Projected groundwater use required for construction of the DSSF, including the Gen-Tie line and Substation, is on the order of 1,300 to 1,400 AF over the anticipated 26-month construction period, with relatively small amounts of groundwater required for operation and maintenance of the DSSF once it is built. This amount of groundwater is well within the current sustainable yield of the groundwater basin; therefore, the DSSF Project's incremental impact on groundwater conditions within the basin is not cumulatively considerable.

Foreseeable Future Projects

Groundwater

If all of the foreseeable projects are implemented, additional short-term groundwater withdrawals from the Chuckwalla Valley Groundwater Basin would be on the order of 8,000 to 10,000 AFY for several years, depending on the actual start and duration of construction. This amount of withdrawal would probably result in declining groundwater levels basin-wide during the construction period and possibly substantial local declines in water levels. The short-term cumulative impacts on groundwater storage in the basin would be cumulatively considerable because the proposed cumulative withdrawals would exceed the sustainable yield of the basin although, as can be

Three of the foreseeable projects that are within this geographic extent account for 85 percent of the long-term water demand (see Table 4.17-3):
<#>Eagle Mountain Pumped Storage Project
<#>Palen Solar Power Project
<#>Genesis Solar Energy Project
Table 4.17-2 presents the groundwater demand for both construction and operation and maintenance of the m

Overall Conclusion

The data in Table 4.17-2 indicate that construction water needs exceed long term operations and maintenance water needs for these projects. As noted in Section 3.17, current groundwater usage in the Chuckwalla Valley groundwater basin is approximately 5,000 to

Table 4.17-3
Summary of Groundwater Usage for Cumulative Project Impacts

Project Name	Map ID(1)	Construction Water Use (AF)	Construction Duration (years)	Average Annual Construction Water Use (AFY)	O&M Water Use (AFY)
Devers-Palo Verde 2 Trans-mission Line Project	D	12	3	4	0
Blythe Energy Project Trans-mission Line	E	8	2	4	0
Desert Southwest Transmission Line	G	1.2	2	0.6	
Eagle Mountain Pumped Storage Project	J	32,000	4	8,000	1,628
Palen Solar Power Project	K	1,278	3	426	300
Genesis Solar Energy Project	O	2,600	3	867	1,644
McCoy Soleil Project	N	unk	unk	unk	600
Big Maria Vista Solar Project	P	unk	unk	unk	0.2
Chuckwalla Solar I	Q	60	3	20	40
Desert Quartzite	U	27	3	9	3.8
Mule Mountain Solar Project	AC	unk	unk	unk	0.2
Paradise Valley "New Town" Develop-ment	AD	unk	unk	unk	0
Desert Sunlight Solar Farm	V	1,400	2.2	650	0.2
Totals		**1,400**		**9,981**	**4,216**

Notes: (1) Map ID refers to the locations shown on Figure 3.18-2.

7,000 AFY, and the basin has an estimated sustainable yield of 2,500 to 3,500 AFY. During the mid 1980s, when up to 21,000 AFY of groundwater was withdrawn from the basin, water levels declined by up to 130 feet in some areas. When groundwater pumping for irrigation was reduced, water levels quickly recovered.

If distributed evenly over the entire 304,000 acres of the Chuckwalla Valley Basin, the cumulative withdrawals from future foreseeable projects (if implemented at the same time) would result in an average decline in water levels of about 0.3 to 0.4 foot per year. However, the actual declines would not be distributed evenly and would be greatest at the extraction wells. The decline in groundwater elevations in the western portion of the Chuckwalla Valley can be estimated based on modeling results reported by others. The two nearest foreseeable future projects in the vicinity of the proposed Project are the Eagle Crest Energy and Palen Solar Project. AECOM (2010d) estimated that a drawdown of less than 1 foot would occur within a distance of about 1 mile from the wells

used for construction water supply in the proposed Project. By contrast, Eagle Crest Energy (2008) estimated that groundwater drawdown of about 6 feet would occur at a distance of about 1 mile from the pumping wells used for its project. Eagle Crest did not specify the location of its extraction wells, but it can be assumed for discussion that the Eagle Mountain Pumped Storage Project wells could be located more than 1 mile from the construction wells of the proposed Project. Interference between the two wells would therefore be less than the sum of the two drawdowns, or less than 7 feet. AECOM (CEC 2010) estimated a groundwater decline of about 1 foot at a distance of 2.3 miles from the Palen Solar Project. Since the Palen Solar Project is more than 10 miles from the proposed Project, the cumulative drawdown effects of these two projects are not expected to be substantial.

If all of the foreseeable projects are implemented, including the proposed Project, additional short-term groundwater withdrawals from the Chuckwalla Valley Groundwater Basin would be on the order of 8,000 to 10,000 AFY for several years, depending on the actual start and duration of construction. This amount of withdrawal would result in declining groundwater levels basin-wide during the construction period and local declines in water levels. The short-term cumulative impacts on groundwater storage in the basin would be cumulatively considerable because the proposed cumulative withdrawals would exceed the sustainable yield of the basin.

By comparison, increased demand by residential water users and associated commercial services would be minor. It is estimated that the average household in California will use about 0.3 AFY by 2011, including both indoor and outdoor use (ConSol 2010). Actual water consumption in the Chuckwalla Basin may be lower if water use for landscaping is lower than average.

The long-term cumulative impacts on groundwater would be considerably less, but would exceed the estimated current net rate of increase in storage of between 2,500 to 3,500 AFY (Table 4.17-1). Overall, groundwater levels would decline during the initial construction period, and then would continue to decline at a slower rate for the long-term. Because the quantities used in the estimate of the current basin water budget are uncertain, and may vary or fluctuate over time, the rate of long-term decline might be greater or less than estimated. Overall, however, the long-term cumulative impacts on groundwater storage in the basin would be cumulatively considerable because the proposed cumulative withdrawals would exceed the sustainable yield of the basin.

The connection between the Palo Verde Mesa Basin and the Chuckwalla Valley Basin is through a narrow gap between the McCoy Mountains and the Mule Mountains. This gap is underlain by a bedrock surface at an elevation of about 320 feet amsl (Eagle Crest Energy Co. 2008). This buried bedrock surface acts as a threshold to the flow of groundwater from the Chuckwalla Valley Basin to the Palo Verde Mesa Basin. Flow to the Palo Verde Mesa Basin would be expected to decline if groundwater levels in the eastern Chuckwalla Valley Basin fall below this threshold elevation. Currently, the groundwater elevation in this boundary area is estimated to be only about 20 to 30 feet above the bedrock surface. It is estimated that only about 400 AFY of groundwater flows across this boundary into the Palo Verde Mesa Basin. Even if groundwater elevations fall significantly so that interbasin flow to the Palo Verde Mesa Basin is cut off, the effect on groundwater levels in the Palo Verde Valley beneath the Colorado River would be negligible, because groundwater recharge in those basins is mainly dependent on recharge from irrigation.

Several factors may moderate or enhance the overall cumulative impact of these projects. Pumping would not be distributed evenly across the basin, for example, and groundwater levels would likely decline more rapidly in some parts of the basin than others. Groundwater elevations at the western (upgradient) end of the basin are currently more than 200 feet higher than at the eastern end. Many of the projects, including the Genesis Solar project, are located at the eastern end of the basin, or in the western end of the Palo Verde Mesa Valley Basin, and would capture outflow from the Chuckwalla Valley that now flows into the Palo Verde Mesa Valley. Lowering water levels in the eastern Chuckwalla Basin may induce flow into the Chuckwalla Valley Basin from the Palo Verde Mesa. Lowering water levels in the western Chuckwalla Valley Basin may induce additional flows from the adjacent Orocopia Valley and Pinto Valley Basins. By increasing inflow to the Chuckwalla Valley Basin from the adjacent basins, water levels in the Chuckwalla Valley Basin may not decline as much as they otherwise would, but the cumulative effect of lowering water levels would extend to the adjacent basins.

The proposed Project is not expected to contribute to a cumulative surface water and drainage impact because the Project would have little or no impact on surface water and drainage near the Project site. Furthermore, no additional impacts are expected in the same area from other known or foreseeable projects.

The primary impact on groundwater expected from the past, present, and reasonably and foreseeable projects in the region is to lower groundwater levels. Most basin recharge occurs along the range fronts at the margins of the basin and consists of relatively high-quality water. Groundwater quality tends to decrease to the east, where salts have accumulated in the lower parts of the basin. Groundwater quality is relatively good in the western part of the basin, with dissolved salts generally not exceeding secondary drinking water standards. The proposed Project will have little effect on water quality by itself. However, when combined with the Eagle Mountain Pumping project, there is some potential for a decline in groundwater quality. The Eagle Mountain Pumping project will capture some of the highest-quality groundwater in the basin, representing water that is recharging the basin at the basin margin. The capture of the higher-quality water will result in a slight increase in the percentage contribution of poor-quality recharge to the basin from irrigation return flows and wastewater discharge. This impact will be greatest during the construction phase of the projects and will decrease later. However, the Eagle Mountain Pumped Storage Project would require nearly half of the estimated net basin inflow and would continue to capture a disproportionate amount of the higher-quality basin recharge. Since the proposed Project is located in the western part of the Chuckwalla Valley Basin also, it would contribute to a cumulative reduction in overall water quality, but since the percentage of overall groundwater recharge represented by lower-quality sources would continue to be small, this would not be a considerable contribution.

The proposed Project is expected to result in a minor increase in runoff caused by reduced infiltration of stormwater because of the effects of soil compaction. The proposed 1,200-acre Eagle Mountain Soleil Project is the only other nearby project which would contribute to similar reductions in stormwater infiltration. The Desert Lily Soleil Project would involve about one-fourth the land area of the proposed Project and is not upstream or downstream of the proposed Project. Therefore, the proposed Project would not considerably contribute to cumulative impacts associated with flooding.

Le e 4

Cumulative impacts to water resources from current projects, the proposed Project and foreseeable projects in the Chuckwalla Valley Groundwater Basin are cumulatively considerable because the foreseeable projects would result in long-term overdraft of the Chuckwalla Valley Basin aquifer and a gradual decline in groundwater elevations over time. Average drawdowns would be on the order of 0.3 to 0.4 foot per year, but local drawdowns would be greater. It has been estimated that the cumulative long-term drawdown in the vicinity of the proposed Project would be on the order of 6 to 7 feet (Eagle Crest Energy Co. 2009). The contribution to this impact from the proposed Project is relatively small, however. Most of the expected drawdown will result from pumping by the Eagle Mountain Pumped Storage Project. ¶
In addition to lowering the groundwater table in the basin and reducing the amount of water in storage, outflow from the Chuckwalla Valley Basin to the Palo Verde Mesa Basin would be reduced. ¶
An indirect results of groundwater declines might include degradation of groundwater quality and increased cost of future pumping. Neither of these impacts is expected to be substantial. ¶
Other impacts, such as on flooding or surface water quality, would not be cumulatively substantial.

If all of the foreseeable projects are implemented, additional short-term groundwater withdrawals from the Chuckwalla Valley Groundwater Basin would be on the order of 8,000 to 10,000 AFY for several years, depending on the actual start and duration of construction. This amount of withdrawal would probably result in declining groundwater levels basin-wide during the construction period and possibly substantial local declines in water levels. The short-term cumulative impacts on groundwater storage in the basin would be cumulatively considerable because the proposed cumulative withdrawals would exceed the sustainable yield of the basin although, as can be seen in Table 4.17-3, the cumulative impacts would be dominated by the withdrawals for the Eagle Mountain Pumped Storage Project.

By comparison, increased demand by residential water users and associated commercial services would be minor. It is estimated that the average household in California will use about 0.3 AFY by 2011, including both indoor and outdoor use (ConSol 2010). Actual water consumption in the Chuckwalla Basin may be lower if water use for landscaping is lower than average.

If distributed evenly over the entire 304,000 acres of the Chuckwalla Valley Basin, the cumulative withdrawals from future foreseeable projects (if implemented at the same time) would result in an average decline in water levels of about 0.3 to 0.4 foot per year. However, the actual declines would not be distributed evenly and would be greatest at the extraction wells. The decline in groundwater elevations in the western portion of the Chuckwalla Valley can be estimated based on modeling results reported by others. AECOM (2010d) estimated that a drawdown of less than 1 foot would occur within a distance of about 1 mile from the wells used for construction water supply in the proposed Project. By contrast, Eagle Crest Energy (2008) estimated that groundwater drawdown of about 6 feet would occur at a distance of about 1 mile from the pumping wells used for its project. Eagle Crest did not specify the location of its extraction wells, but it can be assumed for discussion that the Eagle Mountain Pumped Storage Project wells could be located more than 1 mile from the construction wells of the proposed Project. Interference between the two wells would therefore be less than the sum of the two drawdows, or less than 7 feet. AECOM (CEC 2010) estimated a groundwater decline of about 1 foot at a distance of 2.3 miles from the Palen Solar Project. Since the Palen Solar Project is more than 10 miles from the proposed Project, the cumulative drawdown effects of these two projects are not expected to be substantial. These are the nearest foreseeable future projects proposed for the western Chuckwalla Valley.

The long-term cumulative impacts on groundwater would be considerably less, but would exceed the estimated current net rate of increase in storage of between 2,500 to 3,500 AFY (Table 4.17-1). Overall, groundwater levels would decline during the initial construction period, and then would continue to decline at a slower rate for the long-term. Because the quantities used in the estimate of the current basin water budget are uncertain, and may vary or fluctuate over time, the rate of long-term decline might be greater or less than estimated.

The connection between the Palo Verde Mesa Basin and the Chuckwalla Valley Basin is through a narrow gap between the McCoy Mountains and the Mule Mountains. This gap is underlain by a bedrock surface at an elevation of about 320 feet amsl (Eagle Crest Energy Co. 2008). This buried bedrock surface acts as a threshold to the flow of groundwater from the Chuckwalla Valley Basin to the Palo Verde Mesa Basin. Flow to the Palo Verde Mesa Basin would be expected to decline if groundwater levels in the eastern Chuckwalla Valley Basin fall below this threshold elevation. Currently, the groundwater elevation in this boundary area is estimated to be only about 20 to 30 feet above the bedrock surface. It is estimated that only about 400 AFY of groundwater flows across this boundary into the Palo Verde Mesa Basin. Even if groundwater elevations fall significantly so that interbasin flow to the Palo Verde Mesa Basin is cut off, the effect on groundwater levels in the Palo Verde Valley beneath the Colorado River would be negligible, because groundwater recharge in those basins is mainly dependent on recharge from irrigation.

Several factors may moderate or enhance the overall cumulative impact of these projects. Pumping would not be distributed evenly across the basin, for example, and groundwater levels would likely decline more rapidly in some parts of the basin than others. Groundwater elevations at the western (upgradient) end of the basin are currently more than 200 feet higher than at the eastern end. Many of the projects, including the Genesis Solar project, are located at the eastern end of the basin, or in the western end of the Palo Verde Mesa Valley Basin, and would capture outflow from the Chuckwalla Valley that now flows into the Palo Verde Mesa Valley. Lowering water levels in the eastern Chuckwalla Basin may induce flow into the Chuckwalla Valley Basin from the Palo Verde Mesa. Lowering water levels in the western Chuckwalla Valley Basin may induce additional flows from the adjacent Orocopia Valley and Pinto Valley Basins. By increasing inflow to the Chuckwalla Valley Basin from the adjacent basins, water levels in the Chuckwalla Valley Basin may not decline as much as they otherwise would, but the cumulative effect of lowering water levels would extend to the adjacent basins.

Surface Water and Drainage

The proposed Project is not expected to contribute to a cumulative surface water and drainage impact because the Project would have little or no impact on surface water and drainage near the Project site. Furthermore, no additional impacts are expected in the same area from other known or foreseeable projects.

Water Quality

The primary impact on groundwater expected from the planned and foreseeable projects in the region is to lower groundwater levels. Most basin recharge occurs along the range fronts at the margins of the basin and consists of relatively high-quality water. Groundwater quality tends to decrease to the east, where salts have accumulated in the lower parts of the basin. Groundwater quality is relatively good in the western part of the basin, with dissolved salts generally not exceeding secondary drinking water standards. The proposed Project will have little effect on water quality by itself. However, when combined with the Eagle Mountain Pumping project, there is some potential for a decline in groundwater quality. The Eagle Mountain Pumping project will capture some of the highest-quality groundwater in the basin, representing water that is recharging the basin at the basin margin. The capture of the

higher-quality water will result in a slight increase in the percentage contribution of poor-quality recharge to the basin from irrigation return flows and wastewater discharge. This impact will be greatest during the construction phase of the projects and will decrease later. However, the Eagle Mountain Pumped Storage Project would require nearly half of the estimated net basin inflow and would continue to capture a disproportionate amount of the higher-quality basin recharge. Since the proposed Project is located in the western part of the Chuckwalla Valley Basin also, it would also potentially contribute to a reduction in water quality overall. The effect is not expected to be substantial, since the percentage of overall groundwater recharge represented by lower-quality sources would continue to be small.

Flooding

The proposed Project is expected to result in a minor increase in runoff caused by reduced infiltration of stormwater because of the effects of soil compaction. The proposed 1,200-acre Eagle Mountain Soleil Project is the only other nearby foreseeable project with a potential to contribute to similar reductions in stormwater infiltration. The Desert Lily Soleil Project would involve about one-fourth the land area of the proposed Project and is not upstream or downstream of the proposed Project. Therefore, the cumulative impacts on flooding resulting from the combined project are expected to be dispersed and minor.

4 17 33 2 10 27 2010 2 27 00

Three of the foreseeable projects that are within this geographic extent account for 85 percent of the long-term water demand (see Table 4.17-3):

Eagle Mountain Pumped Storage Project

Palen Solar Power Project

Genesis Solar Energy Project

Table 4.17-2 presents the groundwater demand for both construction and operation and maintenance of the major foreseeable projects and the proposed Project. Note that the construction demand is presented in AF, because the annual demand may vary. The average annual demand, in AFY, can be readily calculated by dividing the total construction demand (in AF) by the duration of the construction project (in years), and would total approximately 10,000 AFY for two years, if all of the projects were under construction simultaneously. Demand would decrease as construction of each of the projects was completed, eventually falling to the long-term operation and maintenance requirement of the combined projects.

The data in Table 4.17-2 indicate that construction water needs exceed long term operations and maintenance water needs for these projects. As noted in Section 3.17, current groundwater usage in the Chuckwalla Valley groundwater basin is approximately 5,000 to

Table 4.17-3
Summary of Groundwater Usage for Cumulative Project Impacts

Project Name	Map	Construction	Construction	Average Annual	O&M Water

	ID[1]	Water Use (AF)	Duration (years)	Construction Water Use (AFY)	Use (AFY)
Devers-Palo Verde 2 Trans-mission Line Project	D	12	3	4	0
Blythe Energy Project Trans-mission Line	F	8	2	4	0
Desert Southwest Transmission Line	G	1.2	2	0.6	
Eagle Mountain Pumped Storage Project	J	32,000	4	8,000	1,628
Palen Solar Power Project	K	1,278	3	426	300
Genesis Solar Energy Project	O	2,600	3	867	1,644
McCoy Soleil Project	N	unk	unk	unk	600
Big Maria Vista Solar Project	P	unk	unk	unk	0.2
Chuckwalla Solar I	Q	60	3	20	40
Desert Quartzite	U	27	3	9	3.8
Mule Mountain Solar Project	AC	unk	unk	unk	0.2
Paradise Valley "New Town" Develop-ment	AD	unk	unk	unk	0
Desert Sunlight Solar Farm	V	1,400	2.2	650	0.2
Totals		**1,400**		**9,981**	**4,216**

Notes: (1) Map ID refers to the locations shown on Figure 3.18-2.

7,000 AFY, and the basin has an estimated sustainable yield of 2,500 to 3,500 AFY. During the mid 1980s, when up to 21,000 AFY of groundwater was withdrawn from the basin, water levels declined by up to 130 feet in some areas. When groundwater pumping for irrigation was reduced, water levels quickly recovered.

57

INDIAN WELLS
CALIFORNIA
OFFICE OF THE CITY COUNCIL

10 OCT 14 PM 1:21
PALM SPRINGS-SOUTH COAST
FIELD OFFICE
RECEIVED
BUREAU OF LAND MANAGEMENT

October 12, 2010

Ms. Allison Shaffer
Project Manager
Palm Springs South Coast Field Office
Bureau of Land Management
1201 Bird Center Drive
Palm Springs, California 92262

RE: Support for First Solar's Desert Sunlight Solar Project

Dear Ms. Shaffer:

I want to express my support in the EIS process for First Solar's Desert Sunlight Solar Project. The Coachella Valley and Southern California's desert area has been a leader in renewable energy. Desert Sunlight's utility scale solar project is a perfect fit for our region. 57-1

Desert Sunlight will provide clean, affordable and sustainable energy for 160,000 average California homes. At the same time, the project will displace over 300,000 metric tons of CO_2 greenhouse gas emission annually, the equivalent of taking almost 60,000 cars off the road. It will also generate hundreds of much needed jobs over the next few years, while generating approximately $27 million in sales and property taxes to the local region.

Indian Wells has been at the forefront of encouraging its residents to be energy efficient and has supported issues of sustainability. We feel fortunate to be attracting clean, green jobs to our region and encourage the prompt issuance of all necessary permits.

Sincerely,

Ed Monarch
Mayor

44-950 Eldorado Drive ~ Indian Wells, California 92210-7497 ~ V (760) 346-2489 F (760) 346-0407
www.IndianWells.com

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Ms. Allison Shaffer
Palm Springs South Coast Field Office
Bureau of Land Management
1201 Bird Center Drive
Palm Springs, CA 92262

92262$#001

58

COLLEGE OF THE DESERT
Opening the Door...

October 11, 2010

Ms. Allison Schaffer
Project Manager
Palm Springs South Coast Field Office
Bureau of Land Management
1201 Bird Center Drive
Palm Springs, CA 92262

Dear Ms. Schaffer,

I am writing to express support for First Solar's proposed Desert Sunlight Solar Farm. The Desert Sunlight project will produce much needed jobs for not only the nearby community of Desert Center, but also for Blythe and the cities of Coachella Valley. The Desert Sunlight project will produce 550 megawatts of electricity without polluting the air. This will be a significant contribution to meeting California's renewable portfolio standard. It will produce more electricity for more consumers without increasing carbon emissions. 58-1

I am also writing to express support for the company. First Solar has been working with College of the Desert and its project partners - Palo Verde College and Riverside Workforce Development - to establish training so that more workers from our communities will be eligible for the jobs created by large-scale solar projects in the desert region. From the beginning of our association, First Solar has demonstrated a high level of community involvement and support. The following are a few examples: 58-2

- Provided technical assistance and consultation on the development of a regional training curriculum;
- Participated in public information events designed to inform local communities of the job creation and training available through two area community colleges;
- Donated thin-film modules, mounting system, and balance-of-system components to College of the Desert for use in conducting its utility-scale solar energy program;
- Donated thin-film modules and mounting equipment to Palo Verde College for use in conducting its utility-scale solar energy program; and
- Provided staff support from a corporate field trainer to assist in launching the program at College of the Desert

It is apparent to us that First Solar is committed to having nearby communities fully benefit from the projects they build. They have been a good partner to College of the Desert and, I'm sure, will be a good steward and neighbor as the project gets underway.

Sincerely,

Larry McLaughlin
Director, Advanced Transportation Technology
and Energy Center

L. McLaughlin

College of the Desert
43-500 Monterey Avenue
Palm Desert, California 92260-2499

SAN BERNARDINO CA 924

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USA FIRST-CLASS FOREVER

RECEIVED
LAND MANAGEMENT
10 OCT 15 PM 2:17

Ms. Allison Schaffer
Project Manager
Palm Springs South Coast Field Office
Bureau of Land Management
1201 Bird Center Dr.
Palm Springs, CA 92262

92262-8001

October 27, 2010

2043 Berryman Street
Berkeley, CA 94709

59

Allison Shaffer
Project Manager,
Palm Springs South
Coast Field Office,
Bureau of Land Management
1201 Bird Center Drive
Palm Springs, CA 92262

RE: Desert Sunlight Solar Farm Draft EIS and Possible Plan Amendment

Dear Ms. Shaffer,

I strongly urge the BLM to adopt the **No Action Alternative** for the Desert Sunlight Solar Farm. 59-1

Solar panels belong on rooftops in towns and cities or on already highly degraded desert lands. The BLM land proposed for this project is currently natural and undisturbed. To the greatest extent possible, our remaining natural and undisturbed public lands should stay that way. There are plenty of highly disturbed desert lands (public and private) that would serve the purpose of this project. It is on those kinds of lands that these kinds of project belong, not where it is currently proposed. 59-2

In other words, the EIR does not consider the full range of possible sites to mitigate (or eliminate!) negative environmental impacts.

This proposed solar facility represents yet another inappropriately sited industrial development that, cumulatively, are turning the California desert into an ecological disaster.

Development near and around Joshua Tree National Park should take into account the potential negative impacts to the Park, including, but not limited to, the impacts to wildlife, air quality, and water quality. The current EIR does not adequately do this. 59-3

In summary, I support the **No Action Alternative**, and I strongly urge the BLM make the same decision. 59-4

Thank you for considering my views.

Sincerely,

David W Halligan

RECEIVED
10 NOV 1 AM 11:31

David Halligan
Simone Hoelck
2043 Berryman Street
Berkeley, CA 94709-1957

SAN FRANCISCO CA 941
28 OCT 2010 PM 5 L

Allison Shaffer
Project Manager,
Palm Springs South
Coast Field Office,
Bureau of Land Management
1201 Bird Center Drive
Palm Springs, CA 92262

92262+8001

60

Public Comment Card for Scoping Process

First Solar Desert Sunlight Solar Farm Project

Commentor Name: Pleona E. Jenneskens Date: 11-4-10

Address: P.O. Box 215 Desert Center, CA 92239 or 44060 Shadow Way Desert Center

Comment: Will support your efforts to build a solar system as long as the power line does not come down Kaiser Road or a populated area.

Reasons, Interfers with cellphone reception, T.V. signal, internet, health issues, noise on lines, & will deminish the property values & people will move away

60-1

Pleona E. Jenneskens

Cellphone # 509-220-9123

By submitting a scoping comment you will receive a copy of the EIS. Please indicate the format you would prefer:

☐ Compact Disk (CD) or ☒ Hardcopy

RECEIVED
BUREAU OF LAND MANAGEMENT
10 NOV -5 PM 12:21
DESERT DISTRICT
RIVERSIDE, CA

October 20, 2010, Lake Tamarisk Community Center, 28251 Parkview Drive, Desert Center, CA 92239

61

Public Comment Card for Scoping Process

First Solar Desert Sunlight Solar Farm Project

Commentor Name: Dale A. Jennekens Date: 11-04-2010

Address: P.O. Box 215 Desert Center, Ca. 92239

Comment: I am in full support of this Solar Project with the exception of the plan of the power line running along the Kaiser Road. 61-1

Please route the power line via Eagle Mountain road because of the following reasons:

a. The constant buzzing of the lines causing noise.

b. Could devalue the property now and in the future for the existing and future homes in this area. 61-2

RECEIVED
BUREAU OF LAND MANAGEMENT
10 NOV -5 PM 12:22
PALM SPRINGS-SOUTH COAST
FIELD OFFICE

Signed:
Dale A. Jennekens
Cell # 509-220-9123

By submitting a scoping comment you will receive a copy of the EIS. Please indicate the format you would prefer:

☐ Compact Disk (CD) or ☐ Hardcopy

October 20, 2010, Lake Tamarisk Community Center, 26251 Parkview Drive, Desert Center, CA 92239

62

"Geo. J. Donaldson Jr."
<yucca-realtors@hughes.net>

11/08/2010 11:26 AM

To <CAPSSolarFirstSolarDesertSunlight@blm.gov>
cc
bcc
Subject Proposed power route

The cost of the power lines probably are something that Desert Sunlight will be responsible for. In that respect Desert Sunlight should be sensitive to the communities concerns as to the route of these power lines. I and many others would like you to get behind changing the proposed route to the more Easterly route. The overall cost as a percentage of the project can not be that different as a long term basis. 62-1

Otherwise I and many others are in support of your project.

Geo. J. Donaldson Jr.
Desert Center Area Chamber of Commerce
Financial Officer
Yucca Realtors Inc.
Broker - Owner
yucca-realtors@hughes.net
PO BOX 7111
Desert Center, CA 92239
760-401-6316 direct
760-227-3290 facsimile
800-281-0282 toll free Lois.vcf

63

"John Beach"
<desertcenter@hughes.net>
11/09/2010 06:35 PM

To <CAPSSolarFirstSolarDesertSunlight@blm.gov>
cc
bcc
Subject Support for Desert Sunlight Solar Project

To: Allison Shaffer, Project Manager
Palm Springs South Coast Field Office, BLM
1201 Bird Center Drive
Palm Springs CA 92262

Ms. Shaffer -

I am a resident of and property owner at Desert Center. I support utility-scale solar projects as an essential component of our national and state policy to reduce our dependence on carbon-based energy, and with one reservation pertaining to the preferred gen-tie route A1, I specifically support First Solar's proposal to build the Desert Sunlight Solar Farm in this area. The vast majority of residents of this community also are in favor of the Desert Sunlight project, but are similarly concerned about the preferred gen-tie route A1. 63-1

One of the major objections voiced by opponents of this project is that it will co-opt a pristine desert wilderness for a purpose which can be served just as well or better by rooftop solar arrays in urban areas. The comparison between a utility-scale solar project and a multitude of privately-owned rooftop solar arrays is invalid, if for no other reason than that there is presently no way under the law to compel private owners to cooperate on a large-scale rooftop project. Even were that possible, it is far more economical to build a compact installation rather than a comparable dispersed network.

The land proposed for Desert Sunlight is not pristine desert wilderness, but over the years it has been disturbed, albeit in some areas more than in others. The desert southwest (eastern California, southern Nevada, and western Arizona) has the greatest solar irradiance in the country and is hence the optimum region for utility-scale solar projects. Abundant sunshine is a natural resource of this region and must be properly utilized. Within the desert southwest there are vast tracts which are truly pristine, and it is far better that land disturbed to some degree, as here at the proposed Kaiser Road Desert Sunlight site, be the land made available by BLM for utility-scale solar development.

A project the size of Desert Sunlight, and the construction work involved in building it, will necessarily have an impact on the environment. That is not to say that the end result will be adverse, but only that the factors must be anticipated so they can be dealt with properly as they arise. I believe that the identification of those factors and the development of plans to contain any problems is an objective exercise which has been essentially and successfully completed by First Solar, and that BLM will act in the interests of the public by the careful and judicious consideration of the results, and by requesting clarification or improvements where advisable.

The influx of workers during the period of construction, and the residual jobs once Desert Sunlight begins operations, will be a great economic boost to this area. The only concern commonly discussed here is dissatisfaction with the proposed gen-tie route A1 and the clear preference for route A2. Route A1 goes south along Kaiser Road and then east across the tip of the "triangle," crosses SR-177 (coincidentally immediately north of my property), continues east for perhaps a mile or two, turns south to cross Interstate 10 just east of the Coyote Village trailer park, and ends at the proposed Red Bluff Substation. Route A2 crosses SR-177 to the east of the proposed Desert Sunlight site and perhaps five miles farther north than A1 would cross SR-177, and then follows the existing power line right-of-way to a point north of the proposed substation, where it turns south and crosses Interstate 10. 63-2

Route A1 goes directly through areas marked for growth under the Riverside County General Plan.

There is some concern here about potential health risks from proximity to high-voltage power lines, and while I personally feel that the evidence is anecdotal rather than scientific, nonetheless it does worry some people. The prospect of a constant humming is also unpopular. And we do have whirlwinds here every few years - the last major storm was in August 2006 and brought down thirty power poles - so the question is what would happen if a similar storm brought down high-voltage lines in the vicinity of people. But the one point everyone can agree on is that a route through an area set aside for future development is aesthetically displeasing and a potential impediment to growth. 63-2 cont

I am strongly in favor of the proposed Desert Sunlight Solar Farm, both for the energy future of our state and country as well as for the economic benefits to the local community. Desert Sunlight will convert our natural resource of abundant sunshine into the usable form of electricity, while utilizing disturbed rather than pristine desert lands. And while I do not like gen-tie route A1 and believe that A2 would be much better, that does not affect my overall support for the Desert Sunlight project. (If it must be A1, then please see that it is built to blend into the landscape as much as possible.) 63-3

Sincerely,

John Beach
Box 91
Desert Center CA 92239-0091
650-327-4893

64

RECEIVED
BUREAU OF LAND MANAGEMENT
10 NOV -9 PM 12:50
PALM SPRINGS-SOUTH FIELD OFFICE
PALM SPRINGS, CA

Allison Shaffer, Project Manager,
Palm Springs South
Coast Field Office, BLM
1201 Bird Center Drive
Palm Springs, CA 92262

Sent VIA EMAIL: CAPSSolarFirstSolarDesertSunlight@blm.gov

11/ /10

RE: First Solar Desert Sunlight Solar Farm Draft EIS and Possible Plan Amendment

Dear Ms. Shaffer,

Thank you for this opportunity for me/us to comment on the proposed First Solar Desert Sunlight project located in the community of Eagle Mountain/Desert Center.

I/we wish to go on record by saying I/we oppose this project and strongly urge the **No Action Alternative** be issued, for the following reasons:

Employment:

- I/we understand and recognize the need for economic development in desert communities, but do not believe that projects that will result in an irretrievable commitment to the community's and Joshua Tree National Park's ("JoTr") natural resources are appropriate. Communities living next to national parks realize a booming tourism economy bringing in over $40 million dollars. This project will deprive a rural desert community of a sustainable economy.

Lighting:

- The area currently boasts of dark night skies that will be obliterated by the project.
- This area of Joshua Tree National Park is arguably the darkest at night of any part of the Park.

Air Quality:

- Bulldozing the desert will result in a PM10 problem in a Class I airshed.

- Removing desert pavement will release extra fine particulates that will impact the health of nearby residents.
- Disturbing desert soil releases arsenic, a known carcinogen threatening human and wildlife health.

Desert Soils:

- Deserts' alkaline soils have the capacity to absorb about the same amount of CO2 as some temperate forests.
- Removal of old growth desert will result in loss of carbon sequestering creosote.

Desert Tortoise and Climate Change:

- Climate change data indicates that tortoise habitat will become available on the slopes of Eagle Mountain.
- The healthy population of desert tortoises in the Chuckwalla Valley is the reservoir for future immigration into Joshua Tree National Park from the southeast.

Environmental Justice:

- Environmental issues are concerned with inequitable distribution of environmental burdens (pollution, industrial facilities, crime etc.).
- The Chuckwalla Valley is targeted by the world's largest garbage dump, a hydroelectric project, and the subject industrial solar field. An Environmental Justice trifecta!

Cumulative Impacts:

- Together (and singularly) the above projects will result in turning a vibrant ecosystem into a dust bowl,
- Eutrophication will begin resulting in "weedy" non-native species introduction that will out-compete native wildlife, resulting in a significant impact to Joshua Tree National Park, and surrounding desert.
- Disturbing desert soils will result in a bloom of Sahara Mustard, a problem weed not prevalent in the Upper Chuckwalla Valley, which will then pose a threat to Joshua Tree National Park and surrounding desert.

Distributed Generation:

- Solar panels belong on rooftops, not Public Lands hundreds of miles from urban centers.
- DG will create an economic engine – manufacturing, installing, maintaining, and replacing solar panels.

- Taxpayers will have control over energy production, not foreign interests. Desert Sunlight will be sold to the highest bidder after permits granted – who? Spain? Britain? Saudi Arabia? Germany?
- The United States will continue to be vulnerable to foreign energy control.

In closing, I/we support the **No Action Alternative**, and strongly urge you to render the same decision.

Sincerely,

Name R & M Johnson
Address 63633 Wagonwheel RD/HCR Box 3139
Phone Joshua Tree, CA 92252

R & M Johnson
HCR Box 3039
JT CA 92252

SAN BERNARDINO CA 924

08 NOV 2010 PM 2 L

USA44

Ms Allison Shaffer, Project Manager
Palm Springs South
Coast Field Office, BLM
1201 Bird Center Dr
Palm Springs, CA 92262

92262-2001

65

Rick Estes
<rickestes92595@gmail.com>

11/11/2010 12:42 PM

To CAPSSolarFirstSolarDesertSunlight@blm.gov
cc
bcc
Subject I support the "No Action Alternative" and urge you to support the "No Action Alternative"

Ms Allison Shaffer, Project Manager,
11-10-10
Palm Springs South Coast Field Office, BLM
1201 Bird Center Drive
Palm Springs, CA 92262

RE: First Solar Desert Sunlight Solar Farm Draft EIS and Possible Plan amendment

Dear Ms. Shaffer,

I wish to go on record in opposition to this project and urge a " No Action Alternative" position by your office. 65-1

I believe current and future tourism will far exceed any job creation this project can generate. 65-2

- The area's night skies will be negatively affected by this project. 65-3

Desert Tortoise and Climate Change:

- Climate change data indicates that tortoise habitat will become available on the slopes of Eagle Mountain. 65-4
- The healthy population of desert tortoises in the Chuckwalla Valley is the reservoir for future immigration into Joshua Tree National Park from the southeast. 65-5
- Non native species introduction:
- Non-native species introduction into the project site compete with native wildlife, resulting in a significant impact to Joshua Tree National Park, and surrounding desert. 65-6
- Disturbing desert soils results in blooms of Sahara Mustard which competes with native species of plants and starve out indigenous flora, mammals and insects. 65-7

Distributed Generation:

- Solar panels belong on rooftops, not hundreds of miles urban centers. 65-8

I support the "No Action Alternative" and urge you to support the "No Action Alternative"

Sincerely,

Name: Rick Estes
Address P.O. Box 1571, Wildomar, Ca 92595
Phone 951-314-3328

66

Britt Bailey
<britt@environmentalcommons.org>
11/12/2010 03:45 PM

To CAPSSolarFirstSolarDesertSunlight@blm.gov
cc
bcc
Subject DEIS Comments

Dear Ms. Shaffer,

Attached please find comments on the DEIS for the Desert Sunlight Solar Farm project submitted by Environmental Commons. Please let me know if you have any problems opening the document or questions regarding the submission.

Sincerely,
Britt Bailey, Executive Director

EC Comments_DSSF DEIS.pdf

environmentalcommons

November 8, 2010

Allison Shaffer, Project Manager
Palm Springs South Coast Field Office
Bureau of Land Management
1201 Bird Center Drive
Palm Springs, California 92262

RE: Comments Concerning Desert Sunlight Solar Farm DEIS

Dear Ms. Shaffer,

After reviewing the Draft Environmental Impact Statement (DEIS) for the Desert Sunlight Holdings, LLC (Sunlight) proposed project to construct and operate the Desert Sunlight Solar Farm (DSSF), Environmental Commons respectfully offers the following comments.

Before addressing the more substantive matters of the DEIS for the proposed project, there are some more minor matters that require attention.

Minor Issues

1. The Notice of Intent issued in January, 2010 names First Desert Solar, Inc. as the applicant whereas the DEIS names Sunlight Holdings as the project proponent. The applicant's name should be clarified and made consistent with additional explanation. **66-1**

2. Within the Executive Summary, the applicant uses the word "only" in describing permanent disturbance of acreage. The use of this word connotes a value judgment as well as possible bias and should be eliminated from use. **66-2**

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info@environmentalcommons.org

Substantive Issues

1. Purpose & Need of Project

According to the Council on Environmental Quality's regulations, the purpose and need of the proposed project "shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action."[1] The DEIS' purpose and need statement should define the goals of the project to allow for the review of an appropriate range of alternatives.[2] 66-3

According to the DEIS, BLM's stated purpose and need for the project is "to respond to Sunlight's application for a ROW grant to construct, operate, maintain, and decommission a . . . solar energy facility."[3] This purpose as stated in the DEIS is uncommonly limited in its scope. Its narrowness subsequently skews the range of alternatives provided. Instead of stating a bureaucratic purpose and need, BLM should provide a purpose that describes the specific need for this type of facility at this location. If such a specific need does not exist, the purpose and need should be expanded to the more general goal of expanding solar electric production. This purpose and need discussion should be expanded to include consideration of all of the other pending proposals for solar generating facilities in the region. In light of those projects, both proposed and approved, is there still the need for this project?

Although an agency has "considerable discretion" to define the purpose of a project,[4] it cannot narrow its objectives as to unreasonably limit the alternatives presented.[5] When an agency's purpose is drafted in light of the private proponent's objectives rather than its own, the court may find the project's goals so narrowly drawn as to "foreordain approval of the proposed

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[1] Council on Environmental Quality, Regulations for Implementing NEPA, 40 C.F.R. § 1502.13 (2009).

[2] Stop the Pipeline v. White, 233 F. Supp. 2d 957, 971 (S.D. Ohio 2002) (stating the purpose and need statement, required by NEPA regulation for proposed project, should defines the goals of the project to allow for the review of an appropriate range of alternatives).

[3] U.S. Dep't of the Interior, Bureau of Land Mgmt., Draft Environmental Impact Statement and Draft Plan Amendment to the California Desert Conservation Area Plan for the Proposed Desert Sunlight Solar Farm [hereinafter "DSSF DEIS"], ES-2 (Aug. 2010).

[4] Friends of Se. Future v. Morrison, 153 F.3d 1059, 1066 (9th Cir. 1998).

[5] Carmel-by-the-Sea v. U.S. Dep't of Transp., 123 F.3d 1142, 1155 (9th Cir. 1997); Nat'l Parks & Conservation Ass'n v. Bureau of Land Mgmt., 606 F.3d 1058, 1070 (9th Cir. 2010).

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action."[6] In the recently decided Nat'l Parks & Conservation Association v. Bureau of Land Management, the Ninth Circuit Court of Appeals held BLM's purpose unreasonably constrained the possible range of alternatives for the project.[7] Finding only one of the four stated goals related to a valid agency purpose, the Court determined BLM's purpose to be driven by the externally generated action.[8] The Court relied on the DOI NEPA Handbook for its analysis.[9] DOI's NEPA guidelines explain the "purpose and need statement for an externally generated action must describe a BLM purpose, not an applicant's purpose."[10] Responding to Desert Sunlight's application appears to be more of the applicant's purpose rather than BLM's purpose. **66-3 cont**

2. Alternatives

Under NEPA, agencies must prepare an EIS to include a detailed statement of alternatives to the proposed action.[11] Broadly speaking and in light of the narrow purpose, although BLM provides six alternatives for the proposed project (three action and three no-action), it is questionable whether the agency has developed a reasonable range of alternatives. **66-4**

Specifically, the scope and level of analyses of the alternatives offered in the EIS raise concern. The environmentally preferable alternative discussion serves as a good example of the deficient scope of alternatives analyzed. Under NEPA, BLM is encouraged to identify the environmentally preferable alternative(s) in the EIS. Although action alternative #3 appears to impact the environment the least because of its decreased affected acreage, there is inadequate discussion of the eliminated and remaining acreage (i.e. what resources are on those acres) to ascertain whether this is the preferable alternative with respect to environmental impacts. Does

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[6] Nat'l Parks & Conservation Ass'n v. Bureau of Land Mgmt., 606 F.3d 1058,1062 (9th Cir. 2010)
[7] Id.
[8] Id. at 1072.
[9] Id.
[10] Dep't of Interior, Bureau of Land Mgmt., National Environmental Policy Act Handbook H-1790-1 77 (Jan. 30, 2008), available at http://www.blm.gov/pgdata/etc/medialib/blm/wo/Information_Resources_Management/policy/blm_handbook (last visited Oct. 12, 2010). The purpose and need statement frames the range of alternatives. Id.
[11] NEPA § 102(2)(C)(iii), 42 U.S.C.A. § 4332(2)(C)(iii) (West 2010).

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the reduced acreage in alternative #3 avoid highly sensitive areas? In addition, why would the agency not combine the decreased acreage of alternative #3 with substation B as an alternative? Please review this latter combination as a potential environmentally superior alternative. **66-4 cont**

In addition, no-action alternatives #5 and #6 conflate permitting action with the proposed action. Without an amendment to the CDCA, the application would not be able to begin development. Specifically, for the NEPA analysis of alternative #6 (no ROW grant would be issued to the applicant yet the CDCA would be amended to identify the project area as suitable for future large-scale solar energy development) to be reasonable, BLM should be assessing the largest development that could occur on this site. In other words, this alternative should take into consideration maximum potential build-out under the amended CDCA. Is alternative #6 limited to this project and its alternatives, or could a larger project be constructed under this amendment? Under NEPA, BLM's examination of alternatives must be more than pro forma ritual and instead must seriously consider alternatives to avoid environmental costs.[12] **66-5**

In regards to the environmental consequences by alternative, Table ES-2 seems to indicate a failure to conduct the detailed analysis needed to provide decision-makers and the public with adequate information upon which to consider the project in light of potential alternatives. In a number of the resources described, the impacts listed under Alternatives #2 and #3 claim the impacts are "same as the proposed action" or "similar to the proposed action." Either the data from the impacts are so broad that the alternatives are not detecting a difference, or there really are not enough substantive differences between the alternatives. As such they do not meet NEPA objectives. The alternatives presented should "sharply defin[e] the issues and provid[e] a clear basis for choice among options.[13] The "environmental consequences" section should form the analytic basis for the concise comparison in the "alternatives" section. **66-6**

As an example, under the visual and water resource impacts, according to the agency, alternatives #2 and #3 would create "similar" impacts as described for the proposed project. How could alternative #3, with its 1000+ less acres create similar impacts as the proposed **66-7**

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[12] S. Utah Wilderness Alliance v. Norton, 237 F. Supp. 2d 48, 53 (D.D.C. 2002).
[13] 40 C.F.R. § 1502.13 (2009).

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project? Under "cultural resources" for the proposed action the EIS states that Native American consultation is ongoing and that sacred sites may be present. Under alternative #2 and #3, the agency states the impacts are the "same as the proposed project." Although we assume that the referral to similarity pertains to the ongoing consultation with Native American tribes, the impacts to the Native American sacred sites that may be affected under the various alignments are not addressed. The EIS should be revised to be clear and the analyses of the impacts of the alternatives should reflect the changes in impacts to the sacred sites. As described in below, this "ongoing consultation" is an inappropriately deferred analysis and therefore inadequately presents the impacts to the sites in question. The direct and indirect impacts should be provided for each alternative. **66-8**

3. Mitigation Measures

The DEIS for the proposed project contains a large number of deferred studies in the form of mitigation measures. The main purposes of the EIS are to present an analysis of potential impacts and then identify measures to reduce or eliminate those impacts. Therefore deferral of analysis to some future study is counter to the basic disclosure purposes of the law. Deferring important studies makes it virtually impossible to completely identify the affected environment and whether adverse impacts can be reduced. According to 40 C.F.R. § 1502.25, a draft EIS must "to the fullest extent possible" integrate "surveys and studies" required by statutes and environmental review laws. Further, future studies in now way have any mitigatory effect, and therefore do not constitute adequate mitigation of significant impacts. **66-9**

A few examples include the mitigation measures proposed for Vegetation and Cultural Resources. In particular the Vegetation BIO5 applicant mitigation measure includes the future preparation of a Vegetation Resources Management Plan. How can the environmental impacts and reductions be adequately assessed without this plan in place prior to the environmental review? **66-10**

In addition, the DEIS identifies impacts to cultural resources including a number of sites that are eligible for listing both in the State as well as nationally. The agency acknowledges that the possible impacts, particularly with the Tribal communities identification and mitigation of sacred sites and traditional use areas are incomplete as consultation with the Native American **66-11**

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info@environmentalcommons.org

tribes continues. Yet, BLM also acknowledges that one the sacred sites are characterized, re-design of the project may be necessary. The placement of the needed sacred sites survey within the mitigation measures is puzzling. It would seem prudent to identify the impacts of the proposed project on all cultural resources prior to the issuance of the DEIS so that adequate consideration of the effects can be ascertained. **66-11 cont**

4. Environmental Justice

Lastly, while BLM did complete a screening and detailed analysis identifying the proposed project's surrounding population constituted an environmental justice community, the conclusion that no disproportionate adverse impacts would result is incomplete and may be inadequate. The analysis only considered demographic and socioeconomic impacts and did not take into account the disproportionate effects of the project on cultural and natural resources for the Tribal communities. **66-12**

In addition, a key component in protecting environmental justice communities involves providing opportunities for effective community participation in the NEPA process. Such outreach elicits statements from the community as to what is important and what impacts need evaluation. To date, BLM has engaged the environmental justice community by using routine, and possibly deficient, notification practices. Its sole outreach to the Native American population consists of a letter sent to fourteen local tribes seeking input on traditional use areas that may impact the Native American population. The letter was sent to the tribes on April 15, 2010, nearly three months after the proposed project's notice of intent was published that initiated the public comment period. **66-13**

Properly considering and recognizing the unique values, history, and culture in the environmental justice analysis may better fulfill the mandate of Executive Order 12898.

Conclusion

In summary, we respectfully request BLM address the inadequacies of the Desert Sunlight Solar Farm's DEIS. In particular, we request BLM examine further the limited nature of the project's stated purpose and need, the scope and analysis of the provided range of **66-14**

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info@environmentalcommons.org

alternatives, the sheer amount of deferred mitigation related studies, and the incomplete and inadequate environmental justice analysis. By addressing the above issues, BLM will more effectively follow the purpose of NEPA to ensure that information on the environmental impacts of any Federal, or federally funded, action is available to public officials and citizens before decisions are made and before actions are taken. Should you have any questions regarding this submission, please feel free to contact me at 808-285-5222. **66-14 cont**

Respectfully submitted,

Britt Bailey, Executive Director

35501 S. Hwy. 1, #12 Gualala, CA 95445
info@environmentalcommons.org

67

John Beach
<desertcenter@hughes.net>
11/12/2010 02:17 PM

To CAPSSolarFirstSolarDesertSunlight@blm.gov
cc
bcc
Subject Suggestion re: Gen-Tie Route A1

Ms. Shaffer -

Please accept this message as an addendum to my email of 9 Nov 2010 in support of First Solar's Desert Sunlight project at Desert Center.

I have spoken with some of the residents here about a possible modification to plans for the gen-tie route A1 which would essentially satisfy concerns mentioned in my earlier email. Our preference for A2 is driven by the desire that a high-voltage corridor not impact areas presently inhabited or marked for future growth. A1 is approximately twelve miles long. If it were possible that the line be run underground from a point on Kaiser Road just north of Lake Tamarisk to a point on the north side of Interstate 10, north of the proposed Red Bluff substation, a distance of four or five miles, there would be few if any objections to the route. If that is too great a distance, then underground to a point half-a-mile or so east of SR-177 would still be a big improvement. The third option would be some lesser portion to be run underground. In options 2 and 3, any portion above ground from a point north of Lake Tamarisk to the Red Bluff substation should be designed, as far as possible, to be visually unobtrusive. There is little concern about the appearance of the high-voltage line between the Desert Sunlight site and a point north of Lake Tamarisk. 67-1 67-2

Sincerely,

John Beach
Box 91
Desert Center CA 92239-0091
650-327-4893

68

John Beach
<desertcenter@hughes.net>
11/12/2010 01:50 PM

To CAPSSolarFirstSolarDesertSunlight@blm.gov
cc
bcc
Subject Fwd: Note from the Deans on First Solar

Ms. Shaffer -

Warren and JoAnn Dean are residents of Desert Center for about 8 or 9 months of the year, and were not able to attend the 20 Oct meeting at the Lake Tamarisk CSA hall. I am forwarding to you their message of support for the Desert Sunlight project on Kaiser Road.

John Beach

---------- Forwarded message ----------
From: Cowtrail4@aol.com
Date: Oct 15, 2010
Subject: Note from the Deans on First Solar
To: desertcenter@hughes.net

Hi John,

We see that First Solar is having a public meeting next Wed. at Lake Tamarisk re: Desert Sunlight. Will you please let us know what happened at the meeting - just a quick summary? You should tell them to build their new projected plant in Desert Center! **68-1**

Thanks!

See you soon.

JoAnn and Warren Dean

69

Allison Shaffer, Project Manager
Palm Springs South
Coast Field Office BLM
1201 Bird Center Drive
Palm Springs, CA 92262

10/25/201

10 NOV 12 PM 1:45

RE: First Solar Desert Sunlight Solar Farm Draft EIS
and possible Plan Amendment

Dear Allison Shaffer,

Thank you for allowing me to comment on the proposed First Solar Desert Sunlight project located near Eagle Mountain and Desert Center.

Public land must be protected.

69-1 This is a bad project and should not be allowed. There are far better alternatives. This project will be a disaster for the desert, and a horrible precedent for the future of the natural world as well as the direction that solar energy - which is absolutely important as a green, renewable energy source - will take! Destruction and takeover of our public lands, and especially beautiful important wilderness like the Chuckwalla Valley must not happen.

69-2 There is no need for a solar farm in the Chuckwalla Valley, and the claim that such projects, like First

69-2 cont Solar DSSF that 160,000 houses can be provided electricity is misleading. It doesn't mean they will. Claims like that were made for Hoover Dam — and the lights in Las Vegas got it. This bad project will just provoke unneeded, destructive commercial construction projects - making the point of the project moot and doubly or triply destructive to the beautiful desert.

69-3 As well — those 300,000 houses should have the solar panels placed on their rooves - as Building Integrated Photo Voltaics. All houses and buildings that use energy should be equipped with the means to generate their own power, and conservation measure — all well known methods. There is ~~no~~ no need to destroy our public lands - especially! Please stop this awful project. Solar collectors should be placed on buildings, along road embankments, built into transportation paths, roads and right-of-ways that are already there - all over the place.

69-4 Green energy, sustainable energy

69-4 cont is supposed to be good for the earth — that's the point — not destructive and land wrecking like the fossil fuels and nuclear fuels that green energy is supposed to replace.

69-5 Photovoltaic Panels placed on the roofs along the Interstate 10 corridor from Los Angeles to Redlands and beyond into the Coachella Valley would generate an immense amount of energy — and transportation of the energy would be short distance — and not require big new transmission lines and more devastation — but first solar will require this awful and needless earth destroying construction.

69-6 I have taken many energy conservation classes from the Pacific Energy Center in San Francisco. They are funded by ratepayers in the state of Calyodnia, and staffed by energy experts of Pacific Gas and Electric. The Pacific Energy Center will tell you that there is not now a place in California that you can't build a house and make it comfortable year-round using passive, <u>possive</u> solar energy.

69-7 Add photovoltaics to the roofs to run appliances and there is no need for outside electricity. The state of California needs to head in this direction. First Solar will not only destroy beautiful wild desert, but will undermine the movement to build-in photovoltaic and other solar energy into buildings. Solar farms like First Solar are going to ~~wreck~~ wreck and slow the move towards building integrated solar energy.

69-8 It is also a move to preserve the status quo, and preserve the power — political — of the huge energy conglomerates. The use of solar energy should de-centralize and distribute energy production, not centralize it into the hands of a few — and especially not through their acquisition of public lands, as in the case of the First Solar Desert Sunlight project. This is a boondoggle of a project, a land wrecker. Tell them to go home, and begin installing Photovoltaics on peoples homes.

69-9 Please do not allow this

69-9 cont big, fat project from squashing the beautiful desert lands in the Chuckwalla Valley behind Joshua Tree National Park? Please, stop them!

69-10 I grew up on the Colorado Desert in the Coachella Valley, and it has become absolutely wrecked and turned into over 200 golf courses by developers. Every place I played as a child has been scraped clean by earthmovers and "development". The same types of people are behind these big solar projects that would destroy such beautiful natural worlds. Our world is being flattened by them — they even try to get public lands for their pecunious fantasies.

69-11 These projects, big land-grabbing solar farms, like First Solar — should turn in the direction of Building Integrated solar energy. Steve Strong of Solar Design Associates could educate them and show them how.

69-12 Please protect our beautiful desert lands, our public lands, and Joshua Tree National Park. Please protect the community of the Chuckwalla Valley,

69-12 cont and the lands there where I have hiked.

69-13 Please turn down the First Solar Project in the Eagle Mountain and Desert Center Community.

Please provide First Solar Desert Sunlight with a new vision - building integrated solar energy and green energy in places that already have an infrastructure, along roads, railways, and built into buildings. Help them decentralize power generation.

Please stop this bad, fragile land destroying project. Turn it down.

We need solar energy. We need wind and wave energy. But we don't need to destroy land to get it - That defeats the purpose.

69-14 Even a slight amount of energy conservation in California could mitigate the need for this project. Help us reduce our use, ~~turn~~ stop the project.

69-15 The pumped water energy storage project They will try to force along with it is another boondoggle

69-15 cont

and if deployed will undermine the green energy and conservation of California. There are other, much better solutions to this as well.

All of these projects will wreck the wilderness area of Joshua Tree National Park and the surrounding lands including the Chuckwalla Valley. Stop this project too! It will unquestionably destroy the back country in and around Joshua Tree National Park. The projects will damage and eliminate wildlife corridors and incredibly beautiful, sublime scenery.

Please educate First Solar in a forceful manner for our public lands.

69-16

Please stop the First Solar Desert Sunlight in the ~~Chuckwalla~~ Chuckwalla Valley — and help them decide to place their technology along road berms, on buildings, and in appropriate places close to the place where the energy is needed.

69-17

The First Solar project

69-17 cont will affect the micro climate on site such as in the Chuckwalla Valley. By absorbing the solar energy — and converting it to electricity — it will affect the temperature and air currents, and light conditions on the site. Besides the huge increase

69-18 in vehicular traffic, this will affect the small creatures that live there, including endangered species like the desert tortoise. Desert lands

69-19 everywhere are being subsumed by development — Please stop this one! First Solar could put their equipment along golf courses and on the walls of gated communities! Don't let them plow this desert under.

Sincerely,

Ron Brinkley
General Delivery
Boss Lake, CA 93604

415 830 4331

11/10/2010 (9)

Addenda:

69-20 1) Solar energy development should be integrated into buildings - green energy is supposed to save and preserve the natural world - especially on our public lands.

2) The Bureau of Land Management replaced the Grazing Service in 1946 - as a result of a budget cut - probably, or most likely, engineered by the cattle industry to create a weak and pewlet to serve their wants and desires. As the large livestock ranchers accumulated the gratuitous use of vast tracts of public land - having it practically given to this small, small fraction of the citizenry of the United States - ranchers, in Texas especially, found their livestock riches dwindling but new discoveries of oil replaced this in a big way. And these folks have kept the same view of public land. As the oil companies now become "energy" companies and "renewable energy" companies,

(and form cartels), they now ~~are~~ are making the same claims on public lands — in the same ways they did to lock up the west's lands for their cows — at the expense of the ecosystem every where they go. They have a hand maiden, the BLM, in this — and these companies have gotten the "fast track" to open up even more of our precious public lands. But lets call it a "fast one" as the BLM removes its dentures. Please, please guide these projects away from our public lands where our ecosystems are intact, and right of ways along already accessible highways — and on buildings (integrated into roofs) — and as roofs for parking lots (especially good for southern California — this will help, even, to cool cities), and on big box store rooves! Keep it off the "wide open spaces".

3) We have had decades to plan for the development and deployment of renewable, green energy and found ways to integrate it into our built environment. This was intended to save the natural world from further destruction in the name of "development". The large solar farms in the end create very few, very few long term jobs, and destroy the ecosystem to boot. The claim that it creates jobs is fallacious, and claim that the energy produced will replace the energy use of a big number of homes is fallacious, too – it merely encourages more destructive, pointless subdivisions which render the original claim moot. This has happened before, neon signs get Hoover Dam electricity.

4) The cattle industry had a huge hand in bringing us the Dust Bowl – wrecking thousands

of people's lives. Now the cattle industry which has become the oil industry — with its same techniques and shenanigans — are grabbing more land and wrecking public ecosystems — with the claim of "renewable energy." A mere land grab, unvarnished, out in the open — but not publicized in the media of course. Please, BLM, don't just roll over and let this happen.

3) In the particular area of this project "First Desert Sunlight Project" is Eagle Mountain and the Open Pit mine, left behind by Kaiser corporation. Warning: Kaiser company and various compatriots have schemed for years, decades, to ~~[illegible]~~ steal land from the public domain. They have been squatting on land loaned to them by us, the public, for steel through iron mining. That land reverted to the

public in 1990, seven years after Kaiser quit their (to that point legitimate) iron mining operations. The law is PL 790, with House Report Nr. 398). Kaiser Company and their cohorts continue to look for ways to steal this land — even taking the money and time wasting step of pushing their speculative agenda to the Supreme Court at this point! Guaranteed after trying to create the world's biggest dump there, military paint ball exercises, scheme upon ~~etc~~ miscellaneous scheme to ~~[illegible]~~ steal this land — that they will no doubt try and sound green now — and tie themselves in with the FDST project. This fraudulent behavior needs to be put to rest. The BLM needs to, and by its mission, protect our public lands by stopping these very destructive, irreversible projects. The FDST will surely be an excuse for more rapacious development of

of our incredible desert ecosystem in the Chuckwalla Valley.

6) But ~~we~~ we need renewable energy to replace fossil fuels and nuclear energy — done the right way — integrated into the built environment —. Stop the FDSP from destroying the desert and guide them to the rooftops and parking complexes and highway right-of-ways of southern California and elsewhere. Please do this before it is too late.

7) There are 2 PG&E's. The big corporate CEOs are for these big, expansive, land damaging solar farms. On the other hand, the Pacific Energy Center teaches the Building Integrated track — putting the renewables and conservation right into the building. This is the track to take. Please,

69-21 BLM take this track and deflect the FDSP onto this path. This is so important for the future of our country and protection of our public ecosystems and lands.

69-22 These land grabs are merely money makers for the top dogs. We need renewable energy - and its benefits - for everyone — built right into our infrastructure!

I think the owners of FDSP may be, and are, ~~so~~ well intentioned about ~~building~~ promoting green energy - but I think they are being mis guided; combined with (finally) ~~an~~ a cultural atmosphere that wants to correct our energy wasting course and destructive, consumptive ways - but we can't let our jittery, energetic enthusiasm to destroy more land - especially our public lands & ecosystems - all precious.

Ron Brinkley
General Delivery
Bass Lake, CA 93604

CERTIFIED MAIL™

7010 0290 0001 6020 4338

US

Allison Shaffer, Project Manager
Palm Springs South
Coast Field Office, BLM
1201 Bird Center Drive
Palm Springs, CA 92262

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Re: First Desert Solar Farm Draft EIS... comments

70

Public Comment Card for Scoping Process

First Solar Desert Sunlight Solar Farm Project

Commentor Name: Walter & Maryel Green Date: 11/5/2010

Address: 25-650 KAISER RD. DESERT CENTER CA. 92239

Comment: We have concerns that all the suggested electric generating material will increase the temperature for residents living close to the project and possible the whole valley. 70-1

We also have concerns about where the power lines for the project will run. Eagle Mtn. road has no population, but is not being considered because of nature concerns? 70-2

Kaiser Rd has population, farms, school buses, travelers ect. How will electromagnetic waves or radiation from powerlines affect 1. peoples health 70-3 70-4

2 phone interference 70-5

3. wireless phone interference

4. computer wireless interference

5. satellite TV interference

The third suggestion was very vague as to the route the power lines would take towards Rice Rd. If it would avoid population it would be preferable! 70-6

Rather than take up so much ground area, why not put solar panels on roofs of homes, businesses ect. Also what advantage is there for local resident or wild life. We will have to live with the health hazard, communication interference and eyesore. 70-7 70-8

By submitting a scoping comment you will receive a copy of the EIS. Please indicate the format you would prefer:

☐ Compact Disk (CD) or ☒ Hardcopy

RECEIVED 2010 NOV 12 PM 1:45

October 20, 2010, Lake Tamarisk Community Center, 26251 Parkview Drive, Desert Center, CA 92239

71

"Mike and Bebe"
<mikeandbebe@earthlink.net
>

11/13/2010 11:09 AM

Please respond to
"Mike and Bebe"
<mikeandbebe@earthlink.net>

To <CAPSSolarFirstSolarDesertSunlight@blm.gov>
cc
bcc
Subject First Solar Desert Sunlight Solar Farm Project

We are writing in support of the solar project at Desert Center, CA. My wife and I have owned property/home here since 1990, property that my parents owned since 1970. We have become very frustrated that a few people can manage to block any attempt of forward progress in the community. I hope you know that the majority of residents here are happy to have some industry in the area. 71-1

Michael and Bebe Silvey
26791 Fountain Cove
Desert Center, CA 92239

72

Public Comment Card for Scoping Process

First Solar Desert Sunlight Solar Farm Project

Commentor Name: Bruce & Nancy Ray Date: Nov. 10, 2010

Address: P.O. Box 22 Desert Center CA 92239

Comment: We are part time residents and owners in the Lake Tamarisk Desert Resort and consider ourselves supporters of the First Solar project, however we are very concerned with the proposed siting of the transmission lines. 72-1

We believe following Kaiser Rd. will have a very large impact on the Lake Tamarisk Resort ~~the~~ and the community of Desert Center. The transmission lines could and should follow one ~~the~~ of the existing transmission line routes either to the SW or the SE from the site and stay away from population areas.

Thank you for considering our comments.

RECEIVED
BUREAU OF LAND MANAGEMENT
10 NOV 15 AM 7:42
DESERT DISTRICT
CALIFORNIA

By submitting a scoping comment you will receive a copy of the EIS. Please indicate the format you would prefer:

☒ Compact Disk (CD) or ☐ Hardcopy

October 20, 2010, Lake Tamarisk Community Center, 26251 Parkview Drive, Desert Center, CA 92239

73

CeliaC21Wright@aol.com
11/15/2010 09:46 PM

To CAPSSolarFirstSolarDesertSunlight@blm.gov
cc msturtlelady@cox.net, celia61@verizon.net
bcc
Subject Desert Sunlight Site

Allison Shaffer
BLM Project Manager

I prefer solar projects to be built on already disturbed land and or on rooftops and NOT the Pristine Desert Habitat near Joshua Tree National Park. **73-1**

The BLM should conduct a THROUGH SURVEY of the proposed Desert Sunlight site, in order to accurately assess the number of Desert Tortoises, that will be harmed by the project before making a decision on which site layout is preferred. **73-2**

Also, there is a lot of concern over the way BrightSource was allowed to conduct the Ivanpah Project. There were more Tortoises there, than the BrightSource Biologists estimated. I don't believe the solar companies should do the counting of our endanger Desert Tortoise. It is, also to the solar companies advantage to make the count lower so they can get the projects moving. **73-3**

Thank you very much,

Celia Beauchamp

74

John Beach

From: "John Beach" <desertcenter@hughes.net>
To: <CAPSSolarFirstSolarDesertSunlight@blm.gov>
Sent: Tuesday, November 09, 2010 6:35 PM
Subject: Support for Desert Sunlight Solar Project
To: Allison Shaffer, Project Manager
Palm Springs South Coast Field Office, BLM
1201 Bird Center Drive
Palm Springs CA 92262

RECEIVED
10 NOV 15 AM 7:42

Ms. Shaffer -

I am a resident of and property owner at Desert Center. I support utility-scale solar projects as an essential component of our national and state policy to reduce our dependence on carbon-based energy, and with one reservation pertaining to the preferred gen-tie route A1, I specifically support First Solar's proposal to build the Desert Sunlight Solar Farm in this area. The vast majority of residents of this community also are in favor of the Desert Sunlight project, but are similarly concerned about the preferred gen-tie route A1. **74-1**

One of the major objections voiced by opponents of this project is that it will co-opt a pristine desert wilderness for a purpose which can be served just as well or better by rooftop solar arrays in urban areas. The comparison between a utility-scale solar project and a multitude of privately-owned rooftop solar arrays is invalid, if for no other reason than that there is presently no way under the law to compel private owners to cooperate on a large-scale rooftop project. Even were that possible, it is far more economical to build a compact installation rather than a comparable dispersed network. **74-2**

The land proposed for Desert Sunlight is not pristine desert wilderness, but over the years it has been disturbed, albeit in some areas more than in others. The desert southwest (eastern California, southern Nevada, and western Arizona) has the greatest solar irradiance in the country and is hence the optimum region for utility-scale solar projects. Abundant sunshine is a natural resource of this region and must be properly utilized. Within the desert southwest there are vast tracts which are truly pristine, and it is far better that land disturbed to some degree, as here at the proposed Kaiser Road Desert Sunlight site, be the land made available by BLM for utility-scale solar development. **74-3**

A project the size of Desert Sunlight, and the construction work involved in building it, will necessarily have an impact on the environment. That is not to say that the end result will be adverse, but only that the factors must be anticipated so they can be dealt with properly as they arise. I believe that the identification of those factors and the development of plans to contain any problems is an objective exercise which has been essentially and successfully completed by First Solar, and that BLM will act in the interests of the public by the careful and judicious consideration of the results, and by requesting clarification or improvements where advisable. **74-4**

The influx of workers during the period of construction, and the residual jobs once Desert Sunlight begins operations, will be a great economic boost to this area. The only concern commonly discussed here is dissatisfaction with the proposed gen-tie route A1 and the clear preference for route A2. Route A1 goes south along Kaiser Road and then east across the tip of the "triangle," crosses SR-177 (coincidentally immediately north of my property), continues east for perhaps a mile or two, turns south to cross Interstate 10 just east of the Coyote Village trailer park, and ends at the proposed Red Bluff Substation. Route A2 crosses SR-177 to the east of the proposed Desert Sunlight site and perhaps five miles farther north than A1 would cross SR-177, and then follows the existing power line right-of-way to a point north of the proposed substation, where it turns south and crosses Interstate 10. **74-5**

Route A1 goes directly through areas marked for growth under the Riverside County General Plan. There is some concern here about potential health risks from proximity to high-voltage power lines, and while I personally feel that the evidence is anecdotal rather than scientific, nonetheless it does worry some people. The prospect of a constant humming is also unpopular. And we do have whirlwinds here every few years - the last major storm was in August 2006 and brought down thirty power poles - so the question is what would happen if a similar storm brought down high-voltage lines in the vicinity of people. But the one point everyone can agree on is that a route through an area set aside for future development is aesthetically displeasing and a potential impediment to growth. **74-6**

I am strongly in favor of the proposed Desert Sunlight Solar Farm, both for the energy future of our state **74-7**

and country as well as for the economic benefits to the local community. Desert Sunlight will convert our natural resource of abundant sunshine into the usable form of electricity, while utilizing disturbed rather than pristine desert lands. And while I do not like gen-tie route A1 and believe that A2 would be much better, that does not affect my overall support for the Desert Sunlight project. (If it must be A1, then please see that it is built to blend into the landscape as much as possible.) **74-7 cont**

Sincerely,

John Beach
Box 91
Desert Center CA 92239-0091
650-327-4893

Print

Subject: **Suggestion re: Gen-Tie Route A1**
From: **John Beach <desertcenter@hughes.net>**
Sent: **Friday, November 12, 2010 2:17:57 PM**
To: **CAPSSolarFirstSolarDesertSunlight@blm.gov**

Ms. Shaffer -

Please accept this message as an addendum to my email of 9 Nov 2010 in support of First Solar's Desert Sunlight project at Desert Center.

I have spoken with some of the residents here about a possible modification to plans for the gen-tie route A1 which would essentially satisfy concerns mentioned in my earlier email. Our preference for A2 is driven by the desire that a high-voltage corridor not impact areas presently inhabited or marked for future growth. A1 is approximately twelve miles long. If it were possible that the line be run underground from a point on Kaiser Road just north of Lake Tamarisk to a point on the north side of Interstate 10, north of the proposed Red Bluff substation, a distance of four or five miles, there would be few if any objections to the route. If that is too great a distance, then underground to a point half-a-mile or so east of SR-177 would still be a big improvement. The third option would be some lesser portion to be run underground. In options 2 and 3, any portion above ground from a point north of Lake Tamarisk to the Red Bluff substation should be designed, as far as possible, to be visually unobtrusive. There is little concern about the appearance of the high-voltage line between the Desert Sunlight site and a point north of Lake Tamarisk.

Sincerely,

John Beach
Box 91
Desert Center CA 92239-0091
650-327-4893

Print

Subject: **Fwd: Note from the Deans on First Solar**
From: **John Beach <desertcenter@hughes.net>**
Sent: **Friday, November 12, 2010 1:50:04 PM**
To: **CAPSSolarFirstSolarDesertSunlight@blm.gov**

Ms. Shaffer -

Warren and JoAnn Dean are residents of Desert Center for about 8 or 9 months of the year, and were not able to attend the 20 Oct meeting at the Lake Tamarisk CSA hall. I am forwarding to you their message of support for the Desert Sunlight project on Kaiser Road.

John Beach

---------- Forwarded message ----------
From: Cowtrail4@aol.com
Date: Oct 15, 2010
Subject: Note from the Deans on First Solar
To: desertcenter@hughes.net

Hi John,

We see that First Solar is having a public meeting next Wed. at Lake Tamarisk re: Desert Sunlight. Will you please let us know what happened at the meeting - just a quick summary? You should tell them to build their new projected plant in Desert Center!

Thanks!

See you soon.

JoAnn and Warren Dean

Beach
Box 91
Desert Center, CA 92239-0091

USPS
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DESERT CENTER, CA

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Allison Shaffer, Project Manager
Palm Springs South Coast Field Office, BLM
1201 Bird Center Drive
Palm Springs CA 92262

92262$8001

M-287

75

Seth Shteir
<sshteir@npca.org>
11/15/2010 12:31 PM

To "CAPSSolarfirstsolardesertsunlight@blm.gov" <CAPSSolarfirstsolardesertsunlight@blm.gov>
cc
bcc
Subject First Solar Desert Sunlight Solar Farm Project Comment

Dear Sir or Madam,

Please accept these comments about the Desert Sunlight Solar Farm project on behalf of the National Parks Conservation Association.

Sincerely,

Seth Shteir

Seth Shteir
California Desert Field Representative
National Parks Conservation Association
61325 Twentynine Palms Highway, Suite B
Joshua Tree, CA 92252
760-366-7785- Office
760-332-9776- Cell

Desert Sunlight Solar Farm Comment Letter FINAL2.pdf

National Parks Conservation Association®
Protecting Our National Parks for Future Generations®

November 3, 2010

Allison Schaffer, Project Manager
Bureau of Land Management
1201 Bird Center Drive
Palm Springs, CA 92262

Dear Allison Schaffer:

The National Parks Conservation Association (NPCA) is a nonprofit dedicated to "Protecting and enhancing America's national parks for present and future generations." On behalf of our 325,000 members nationwide, NPCA would like to thank you for the opportunity to provide comments on the Draft Environmental Impact Statement for the Desert Sunlight Solar Farm Project. Our members care deeply for America's shared natural and cultural heritage that is preserved by units of the National Park System.

The Desert Sunlight Holdings LLC has applied for a right of way on approximately 4,500 acres of Bureau of Land Management Land for a 550 megawatt solar photovoltaic project with an interconnection to the Devers to Palo-Verde I 500 kilovolt distribution system. The project area lies to the Northeast of Desert Center on lands that have been described by some of First Solar's project managers as "Disturbed," but in reality are excellent habitat for desert plants and animals. Moreover, this project's proximity to Joshua Tree National Park and the fact that it is only one of a number of renewable energy projects slated for development in this area are causes for concern. The project itself will have a significant impact on Joshua Tree National Park and and the net cumulative effects from multiple projects will permanently alter the character and ecology of this area. 75-1 75-2

NPCA has concerns about the following impacts of First Solar's Desert Sunlight Solar Farm:

Wilderness

Section 2(C) of the 1964 Wilderness act defines wilderness as "An area of undeveloped federal land retaining its primeval character and influence, without permanent improvements or

habitation, and which generally appears to have been affected by the forces of nature with man's imprint substantially unnoticeable."

The construction of a 4000 plus acre photovoltaic solar plant near the JoshuaTree and Chuckwalla Mountains Wilderness would cause temporary light, noise and fugitive dust pollution during the 26 month construction period. Additionally, the Desert Sunlight Solar Farm would also have some permanent impacts to the wilderness for Solar Farm Layout B and Red Bluff Substation A under alternatives 1,2 and 3, which is contrary to what First Solars' staff have reported in meetings. 75-3

"Users of this wilderness would experience permanent impacts on their opportunities for solitude. There would also be permanent visual impacts from the strong form, line, and color contrast of the panels and other structures and from sunlight glint and glare reflecting from these structures. While operation and maintenance would not cause any direct impact on the Joshua Tree Wilderness, visitors traversing the southwest areas of the Coxcomb Mountains would experience permanent indirect effects."

From 2010 Desert Sunlight Solar Farm Project Draft EIS and CDCA Plan Chapter 4: Environmental Consequences - Special Designations 4-14-2

Finally, the draft EIS does not adequately examine cumulative impacts to wilderness of the numerous proposed development projects in the area including the Eagle Mountain Landfill and the Eagle Mountain Pumped Storage Project. The final draft of the EIS should examine these cumulative impacts both in terms of visitor experience and ecological impacts. 75-4

Air Quality

NPCA's 2003 State of the Parks Report found that Joshua Tree National Park has some of the worst air quality of any park in the nation, especially in terms of ozone. Despite this fact, the eastern section of Joshua Tree National Park, near the Desert Center area, has some of the best air quality in the park and finest night sky viewing opportunities. The 26 month construction period of the Desert Sunlight Solar Farm, will involve significant grading, destruction of native vegetation and obliteration of desert pavement, which will result in greatly reduced air quality for communities near the project and for Joshua Tree National Park. 75-5

The draft EIS discussed that the South Coast Air Quality Management District's (SCAQMD) localized emissions thresholds vary and explains they do so by geographic area, project emissions area size, and distance from emissions area boundaries. The draft EIS refers to the default significance thresholds for active emission source area sizes of 1 acre, 2 acres, and 5 acres and these are used in the draft EIS to suggest compliance with emissions regulations.

In fact, the report says that the " low number of sensitive receptors near the Project site does not warrant project-specific dispersion modeling analyses to identify project-specific localized emissions significance thresholds." NPCA disagrees. The problem is that the construction area far exceeds five acres, even when one takes into consideration that it will occur piecemeal on an average of 11 acres/day during the 26 month construction period. The authors of the draft EIS are extrapolating data on air quality instead of implementing a rigorous scientific methodology. **75-5 cont**

The final draft of the EIS should include project specific air dispersion modeling as is suggested by the SCAQMD for construction areas larger than five acres on their website. And there's another important reason why project specific air dispersion models should be conducted prior to a selection of one of the alternatives listed in this report: construction related vehicle traffic emissions. When these 2011 and 2012 emission levels are factored with daily onsite construction emissions under several of the alternatives, they exceed the Voluntary Localized Significance Emissions Thresholds for eastern Riverside County in terms of nitrogen oxides, PM10 and PM 2.5.

The final draft EIS must include project specific air dispersion modeling not only to ascertain the impact to night skies and Joshua Tree National Park's air quality, but also to protect human health: an elementary school and residential area lie 2.5 miles to the Northwest of the project area.

Night Skies

It is estimated that only around 10% of the population of the United States is able to see the night sky in its natural and unpolluted state. Currently, visitors to the eastern section of Joshua Tree National Park have the opportunity to gaze up at the heavens and marvel at the Milky Way. But fugitive dust from construction and later during operations of this project could impair the dark skies as in Joshua Tree National Park. **75-6**

There's a disturbing assumption made throughout the air quality section of the Environmental Impacts Chapter of the EIS under the heading, "*Changes in Night Sky Visibility due to Project-Related Fugitive Dust.*" The EIS states numerous times that "Airborne dust generated from construction sites would be widely dispersed and greatly reduced in concentration by nighttime hours." The implication here is that over time the dust will settle down, but that's a flawed assumption because it doesn't take into consideration several important factors: weather and different construction techniques. It's erroneous to assume that dust would settle down in the evening, especially if prevailing winds increased their velocity over the barren ground of a project site.

The following statement that is repeated throughout the EIS is equally flawed, "Construction activity would be phased across the Solar Farm site over a 26-month period, limiting the amount of disturbed area that could produce fugitive dust from wind erosion at night. Again this depends on construction techniques, local weather patterns and the success or lack thereof to mitigate fugitive dust.

Finally, light pollution from the Desert Sunlight Solar Farm and the cumulative impact of multiple renewable energy projects in the Desert Center area will impair Joshua Tree National Park's night sky resources. 75-6 cont

The final EIS should include elaborate a more realistic analysis of fugitive dust and night skies.

Endangered Species and threatened habitats

Despite the fact that the project area has both prehistoric and historic archaeological sites and was a training area for General Patton's troops during World War II, this area is a vibrant ecosystem and exceptional wildlife habitat. The Desert Sunlight Solar Farm will result in an elimination of approximately 4,500 acres of wildlife habitat and also impact wildlife that live in Joshua Tree National Park and the Chuckwalla Desert Wildlife Management Area. 75-7

A nesting pair of golden eagles active territory is 2 miles away from the project boundary. The elimination of 4,245 acres of foraging habitat will likely have a significant impact on them and its logical that the noise from large machinery, dust from denuded land and numerous workers during the 26th month construction period would likely make them avoid the area altogether. The project also lies adjacent to the Pinto Wash, which is dry desert woodland habitat and serves as a migration corridor for animals like the desert tortoise, bighorn sheep and even the elusive mountain lion. Utmost care should be given if the project moves forward to minimize impact to this area. 75-8

The proximity of the project site to the Pinto Wash, an acknowledged wildlife corridor is cause for additional concern. The fact that biologists have not recovered animal signs from the section of the wash adjacent to the project area does not substantiate the view that mammals are not using the corridor to move to and from habitat. In fact, the draft EIS states that 75-9

"Desert dry wash woodland habitat within and adjacent to SF-B (e.g., Pinto Wash) likely serve as important wildlife movement corridors in the area." As discussed in Section 3.4, due to its size, Pinto Wash, located immediately to the east of SF-B may be especially important in the region, especially for larger mammals such as mountain lion, Nelson's bighorn sheep, and burro deer."

-2010 Desert Sunlight Solar Farm Project Draft EIS and CDCA Plan Amendment 4.4-8 Chapter 4: Environmental Consequences

However, the draft EIS does not adequately discuss how wildlife will be affected by exclusion fencing on the perimeter of the Pinto Wash and noise, light and dust pollution during the 26 month construction period. Further investigation of how this project will impact wildlife movement should be evaluated further.

Additionally, the 4000 plus acres of solar panels, whose view from above was described by the project manager as similar to a mirage, should be examined as a potential collision source for migrating and foraging songbirds. The photovoltaic panels may attract birds either because they reflect the clouds or sky, because they are attracted to light or because these panels approximate a source of water. Approximately 100 million to 1 billion birds die in North America as a result of collisions each year. (American Bird Conservancy, 2010) Primary sources of collision-related mortality for birds are building windows, communication towers, vehicles, transmission lines, and wind turbines. (US Fish & Wildlife Service, 2005). What's absolutely essential in the final EIS is that this be evaluated in the field, in simulations and through a biological literature review. 75-10

A final issue is the construction and operations impacts of the Gen Tie power lines that will connect the solar plant with the power corridor along the I-10 freeway. Gen Tie A-1 travels along Kaiser Road bordering the Chuckwalla Desert Wildlife Management Area, critical habitat for the desert tortoise. It would be a poor environmental choice for the project because it would encourage the presence of ravens that prey on desert tortoises, despite passive deterrence and management. Gen Tie- A-2 is a superior choice to the Red Bluff substation because it crosses a network of roads near an airport, an already disturbed location. 75-11

Due to the significance of the project area as wildlife habitat, NPCA recommends the selection of Alternative 5. Alternative 5 is a no action alternative with no Issuance of a right-of-way grant with land use plan amendment to exclude solar energy development on the Site would protect the wildlife, cultural resources and night skies of this area. If the project does proceed forward, NPCA recommends Alternative 3 as it is the most desirable development plan for the Desert Sunlight Solar Farm because it avoids the greatest concentration of desert tortoise signs and minimizes impacts to the adjacent Chuckwalla Desert Wildlife Management Area. 75-12

Cumulative Impacts

Finally, in this EIR, like other renewable energy projects, there has been an inadequate examination of cumulative impacts on wildlife, wilderness, air quality and night skies. The draft EIS states that energy providers have submitted project applications that would cover more than 1,000,000 acres in our region. The draft EIS goes on to explain that poorly planned development could contribute to habitat loss and fragmentation and barriers to species movement and gene flow. Although project permitting and regional planning evaluate basic environmental impacts of such projects, rarely do they consider impacts on connectivity, conduct thorough cumulative effects analyses, or implement regional monitoring of effects or the efficacy of mitigation. NPCA is in complete agreement with the authors of the draft EIS that these projects rarely consider impacts to animal corridors, wildlife and other impacts on migration. But this draft EIS does nothing to address it and merely seems to raise it as an academic point. 75-13

The Cumulative Impacts section of this EIR demonstrates a general understanding of cumulative impacts to the area south of Joshua Tree National Park, but there is little attempt to really understand how the

de facto industrialization of the Desert Center area because of the proposed renewable energy projects and the proposed Eagle Mountain Landfill would affect night sky resources, wildlife, water resources and air quality. What's needed from agencies like the BLM and the Department of the Interior is a comprehensive examination of regional planning to ascertain the true impacts of projects like the Desert Sunlight Solar Farm on air quality, water resources, night sky resources, wildlife and Joshua Tree National Park. NPCA requests that a more detailed examination of the cumulative impacts of other proposed project in this area is provided in the final EIS. **75-13 cont**

In closing, National Parks Conservation Association is grateful for the opportunity to submit these public comments about First Solar's Desert Sunlight Solar Farm in the Desert Center area. We are deeply concerned about this project's impact to night skies, wilderness, air quality, wildlife and Joshua Tree National Park. While there is a great deal of sound data in the draft EIS, key sections are flawed and inadequate. We urge the Bureau of Land management to reevaluate the need for the Desert Sunlight Solar Farm and the aforementioned points for inclusion in the final EIS. **75-14**

Sincerely,

Seth Shteir, California Desert Field Representative
National Parks Conservation Association
61325 Twentynine Palms Highway, Suite B
Joshua Tree, CA 92252
sshteir@npca.org
760-332-9776

76

Shaun Gonzales
<shaun.gonzales@gmail.com
>

11/15/2010 04:07 PM

To CAPSSolarFirstSolarDesertSunlight@blm.gov
cc
bcc
Subject comments on Desert Sunlight DEIS

Please consider the attached comments on the Draft EIS for the Desert Sunlight project. I have also copied the contents of the attachment below, but please let me know if you have troubles opening the file.

-Shaun Gonzales
cell: 267.738.8116

To: Allison Shaffer, Project Manager

Re: Comments on the Desert Sunlight DEIS

Please consider the following comments in response to the draft environmental impact statement (DEIS) for the Desert Sunlight solar power project proposed for the Desert Center area adjacent to Joshua Tree National Park.

The DEIS fails to assess Desert Sunlight's impacts on the endangered desert tortoise, contains inadequacies in the habitat compensation plans, and contains misleading flaws in its analysis of alternatives, and proposes an amendment to the California Desert Conservation Area that is inconsistent with the land use plan's legislated intent.

Impacts on Desert Tortoise:

The DEIS does not fully evaluate the project's direct and indirect impacts on desert tortoises since the tortoise translocation plan does not include thorough analysis of the recipient site's quality and tortoise population density. According to the draft tortoise translocation plan, tortoises can only be moved to recipient sites containing less than 8 animals per square kilometer. The DEIS does not present adequate information regarding the density of tortoises in any of the recipient sites, and simply "confirms the presence" of tortoises in candidate recipient sites. The inadequate assessment of recipient sites undermines the effectiveness of the translocation plan as a mitigation effort. In particular, the Dupont recipient site has not been reviewed for density or quality. 76-1

The Bureau of Land Management has already learned through its experience with the Ivanpah Solar Energy Generating System (ISEGS) that tortoise survey and translocation plans based on modeling and USFWS calculations underestimated impacts on the tortoise. In the case of ISEGS, the USFWS estimated that approximately 32 tortoises would be impacted by the project disturbance. As of November 2010, initial clearance surveys have already encountered 37 desert tortoises.

The DEIS must also contain information regarding mortality rates for translocated tortoises, as experienced during the translocation of tortoises from Fort Irwin. The high mortality rate of tortoises moved from their home ranges calls into question the effectiveness of translocation as a mitigation tool—a factor that should be clearly stated in the DEIS. Without advising decision-makers of the mortality rates typically experienced during translocation, the mitigation proposal is misleading. 76-2

The DEIS also appears to contain inaccurate information regarding the total number of live tortoises probably inhabiting the project area. According to the Biological Resources appendix, surveys only observed 6 live tortoises on the Solar Farm B alternative, and estimated a total population of 12 tortoises. However, the surveys found a total of 22 active burrows in the project area for Solar Farm B. This disparity strongly suggests an incomplete or fault survey. The inaccuracy likely resulted in faulty conclusions of the number of endangered desert tortoises that will be impacted by the project. 76-3

Requested Action:

1.) Conduct a thorough review of proposed desert tortoise recipient sites, to include habitat quality and density of existing tortoise populations. 76-4

2.) Assess the potential mortality rates for tortoises translocated from the project site and possible mortality rates of tortoises located at recipient sites. 76-5

3.) Conduct a follow-on survey of the desert tortoise population on the proposed project site to investigate inconsistencies between observed tortoises and active burrows on the proposed site. 76-6

Incomplete Habitat Compensation Plan:

The Habitat Compensation Plan is incomplete as presented in the DEIS. The Plan does not specify the amount of acres that would need to be purchased for habitat compensation efforts under the various alternative layouts. The number of acres required for purchase affects decision-maker understanding of the economics of the project, and feasibility of the mitigation requirements. The plan also does not specify specific property that can meet the Plans criteria for habitat quality. Given concerns raised during California Energy Commission hearings for separate projects in the California Desert Conservation Area regarding the availability of private land available for mitigation efforts, either specific properties should be identified or the DEIS should clearly assess the potential obstacles to identifying habitat compensation lands that meet the BLM criteria. 76-7

Requested Action:

1.) Identify the number of acres of habitat compensation necessary under each site layout, transmission and substation alternative. 76-8

2.) Identify specific parcels of land that meet criteria for the compensation plan, or clearly assess the feasibility of finding sufficient compensation land. 76-9

Analysis of Alternatives:

The DEIS dismisses the "distributed generation" or "rooftop solar" alternative based on the needs of the State of California to meet its 33% renewable portfolio standard by 2020. The 76-10

dismissal of this alternative is not grounded in the purpose and need of the project, and the alternative should be thoroughly evaluated. The EIS should examine the option of installing PV solar in the built environment, to include installations on Federal and State facilities in California. 76-10 cont

The analysis of distributed generation should also provide a comparison of construction, operations and transmission costs for solar power from distributed generation and solar power generated at the proposed project site. 76-11

Thorough analysis of distributed generation as an alternative to the proposed project is necessary since the EIS will serve as the NEPA document for Department of Energy in addition to the Bureau of Land Management, and this distributed generation policy falls under the purview of one of the agencies participating in the NEPA analysis.

Requested Action:

1.) Conduct thorough analysis of distributed generation as an alternative to the proposed project. The dismissal of distributed generation was invalid based on the reasons provided above. 76-12

Improper Encouragement of EPA 2005 and Solar Energy Study Zones:

The Bureau of Land Management erroneously included the proposed project's location in the "solar energy study area" and the Energy Policy Act of 2005 (EPA 2005) under the purpose and need statement for the project. The Secretary of the Interior proposed Solar Energy Study Zones pursuant to Secretarial Order 3285 and EPA 2005. Both policies—Order 3285 and EPA 2005--are pending NEPA review under the Solar Programmatic EIS. The Department of the Interior's consideration of the Secretarial Order and specific consideration given to the Solar Energy Study Zones constitute a "major federal action" taken without a proper record of decision on the proposed policies. 76-13

Until such time that the Department of the Interior completes the Solar Programmatic EIS, the BLM should not consider EPA 2005, Order 3285, or the Solar Energy Study Zones under purpose and need for any proposed solar energy projects.

Requested Action:

1.) Remove or qualify language in the DEIS that references the Energy Policy Act of 2005, Secretarial Order 3285 or the "solar energy study area".

Improper Amendment of CDCA Plan:

The DEIS does not specifically state what modifications would be made to the CDCA plan. The DEIS should clearly state that even though the CDCA plan currently allows for solar energy development on Class L and Class M lands, the solar energy project would not conform to the intent of either Class L or Class M designations. The Desert Sunlight project would involve total ground disturbance of the site, which would require classification at Class I. Class M and particularly Class L do not permit the concentrated development required to build the proposed project. 76-14

Furthermore, the CDCA amendment would have to include changes to the use of Chuckwalla Critical Habitat Unit (CHU) and Desert Wildlife Management Area (DWMA). The construction and operation of energy facilities involving ground disturbance, and increased potential for predatory species such as ravens is inconsistent with the CDCA Plan. 76-15

Requested Action:

1.) The DEIS should be more specific about the amendments proposed for the CDCA Plan, and propose to designate project site lands to Class I, and not maintain the Class M or Class L designations. The intensive and concentrated nature of the project violates the intent of Class M and Class L designations, and the exemption for solar energy projects is contrary to the stated intent of the CDCA Plan. 76-16

2.) Investigate alternative transmission and substation layouts that would not impede upon Chuckwalla CHU and DWMA. 76-17

Thank you for considering these comments.

Sincerely,
Shaun Gonzales

Desert Sunlight public comments - shaun gonzales.docx

To: Allison Shaffer, Project Manager

Re: Comments on the Desert Sunlight DEIS

Please consider the following comments in response to the draft environmental impact statement (DEIS) for the Desert Sunlight solar power project proposed for the Desert Center area adjacent to Joshua Tree National Park.

The DEIS fails to assess Desert Sunlight's impacts on the endangered desert tortoise, contains inadequacies in the habitat compensation plans, and contains misleading flaws in its analysis of alternatives, and proposes an amendment to the California Desert Conservation Area that is inconsistent with the land use plan's legislated intent.

Impacts on Desert Tortoise:

The DEIS does not fully evaluate the project's direct and indirect impacts on desert tortoises since the tortoise translocation plan does not include thorough analysis of the recipient site's quality and tortoise population density. According to the draft tortoise translocation plan, tortoises can only be moved to recipient sites containing less than 8 animals per square kilometer. The DEIS does not present adequate information regarding the density of tortoises in any of the recipient sites, and simply "confirms the presence" of tortoises in candidate recipient sites. The inadequate assessment of recipient sites undermines the effectiveness of the translocation plan as a mitigation effort. In particular, the Dupont recipient site has not been reviewed for density or quality.

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Requested Action:
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2.) Assess the potential mortality rates for tortoises translocated from the project site and possible mortality rates of tortoises located at recipient sites.
3.) Conduct a follow-on survey of the desert tortoise population on the proposed project site to investigate inconsistencies between observed tortoises and active burrows on the proposed site.

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The Habitat Compensation Plan is incomplete as presented in the DEIS. The Plan does not specify the amount of acres that would need to be purchased for habitat compensation efforts under the various alternative layouts. The number of acres required for purchase affects decision-maker understanding of the economics of the project, and feasibility of the mitigation requirements. The plan also does not specify specific property that can meet the Plans criteria for habitat quality. Given concerns raised during California Energy Commission hearings for separate projects in the California Desert Conservation Area regarding the availability of private land available for mitigation efforts, either specific properties should be identified or the DEIS should clearly assess the potential obstacles to identifying habitat compensation lands that meet the BLM criteria.

Requested Action:
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2.) Identify specific parcels of land that meet criteria for the compensation plan, or clearly assess the feasibility of finding sufficient compensation land.

Analysis of Alternatives:

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The analysis of distributed generation should also provide a comparison of construction, operations and transmission costs for solar power from distributed generation and solar power generated at the proposed project site.

Thorough analysis of distributed generation as an alternative to the proposed project is necessary since the EIS will serve as the NEPA document for Department of Energy in addition to the Bureau of Land Management, and this distributed generation policy falls under the purview of one of the agencies participating in the NEPA analysis.

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Until such time that the Department of the Interior completes the Solar Programmatic EIS, the BLM should not consider EPA 2005, Order 3285, or the Solar Energy Study Zones under purpose and need for any proposed solar energy projects.

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2.) Investigate alternative transmission and substation layouts that would not impede upon Chuckwalla CHU and DWMA.

Thank you for considering these comments.

Sincerely,
Shaun Gonzales

77

Karen Berry
<theflyingturtle1953@yahoo.com>
11/16/2010 09:07 AM

To CAPSSolarFirstSolarDesertSunlight@blm.gov
cc
bcc
Subject solar project comments

First, let me say that I am for exploring and producing new forms of energy. However, I think common sense should prevail in the manner in which it's done. Common sense says utilize already damaged areas of the desert instead of destroying areas that are still pristine. There are still wagon wheel tracks in parts of the desert from the 1800's; the desert does not heal very quickly, so why denude and destroy it...? Thanks to ranching, off-roading and other activities, there are plenty of such areas that can be utilized. And, in the current economy, I'm sure that persons owning such damaged land would be amenable to selling it for a decent price. Also, large projects such as these inevitably do not pay for themselves, and have to be subsidized by the public to keep them going. Can we say Amtrak and the Metrolink here in California..?? We can't afford this. Not with the way the government is wasting taxpayer dollars, and spending like there's no tomorrow. The best use for the technology is to provide it to the individual home and business owner for their buildings. That would provide so many more jobs from new companies starting up to provide competition, and much more money to the government in the form of taxes from those businesses and their workers, instead of stealing it out of the pockets of the taxpayers. Our energy costs are NOT going to go down because of this project, and will only keep going up. Every time we conserve water or power, the companies apply for yet another rate increase because the conservation efforts of consumers results in less income. Yes, the sun is a free source of power, but anyone who wants to harvest it and market it should pay for it themselves. True capitalist ventures don't rely on the taxpayers to be holding the bag when projects fail. They forge ahead under their own financial power, and accept the risk of failure as part of the cost of doing business. 77-1 77-2

It has become obvious to most intelligent people that there is a political motivation for these projects, which is why most of the primary environmental groups have not joined in the protests against their implementation. The more radical, if you will, elements of the environmental movement would not hesitate to be beating down your doors, and pummeling you with lawsuits and every other weapon in their arsenal if it were not a liberal Democrat administration in power. Why would enforcement of the Endangered Species Act, the Bible of the environmental 77-3

movement, not be invoked as it has in other areas where the suffering of countless humans has occurred all to save a minnow or an owl..?? And, yet, with a number of endangered desert plants and animals involved, the most visible of which is the desert tortoise, the Sierra Club and others of its ilk are nowhere to be seen. Nary a peep out of them on this particular project..... In the words of Artie Johnson as the German soldier from Laugh-In....."Verrrrrrrry interesting". 77-3 cont

Yes, I am a big fan of the desert tortoise and more than disheartened that agencies that are supposed to protect them are so willing to screw them over. Scientists who have studied their behavior, and those of us who have them as pets, can attest to their homing characteristics and other behaviors that make translocation a very risky and dangerous thing to try and accomplish. Instinct cannot be overcome merely by moving tortoises, and to condemn so many of them to death needlessly is a travesty. They are on the Endangered Species List for a reason, and there's no reason that the energy projects can't be built on damaged desert land, other than the taxpayers wouldn't be paying a large part of the cost that way. 77-4

I support solar projects, but not in this current form and implementation. Nobody is saying not to build it. But as so many of us feel about the mosque near Ground Zero, for this and other solar projects, JUST DON'T BUILD IT HERE.... 77-5

I think the public's best interests (and our wallets) would be served by efforts to provide solar power to all of us individually, and it would definitely be in the best interest of the desert tortoise and the other desert dwellers, plant or animal, that will be so negatively affected by this project. 77-6

So much for the groups claiming that they protect the environment. They have absolutely no credibility now. They've sold their souls to the political devil.

Mrs. Karen Berry

Thousand Oaks, CA theflyingturtle1953.vcf

Karen Berry • *Treasurer/Adoption Committee*

First	Karen		
Middle			
Last	Berry		
Title	-None-	Suffix	-None-
Email			

Business

Company	CTTC Valley Chapter
Job Title	Treasurer/Adoption Committee

Business address

Street	P.O. Box 7364		
City	Van Nuys	State/Province	Ca
Zip/Postal	91409	Country/Region	

Additional business information

Contact information

Office phone	
Office fax	
Cell phone	
Pager	
Other email 1	
Other email 2	
Other email 3	

Personal

Street			
City		State/Province	
Zip/postal		Country/Region	

Family

Spouse	
Children	

Contact information

Home phone	
Home fax	
Cell phone	
Birthday	
Anniversary	

Contact briefcase

Comments

Name

Full name	Karen Berry
Short name	

Organize

Categories	
Display name format	☐ Firstname Lastname

Phonetic name	
Mail domain	

Internet certificate

Internet certificate	Not Available
Internet certificate issuers	

Show in preview pane	☐ Business data

Notes certificates

Certified public key	
Flat name key.	

78

LITTLEBUZZARD1@aol.com
11/16/2010 07:52 PM

To CAPSSolarFirstSolarDesertSunlight@blm.gov
cc
bcc
Subject DON'T KILL THE DESERT

Rooftops are perfect for solar panels , not the back of desert tortoises or the spines of lizards . 78-1
NO , NO and NO again . Killing species for luxury is not the answer .
Michele Mooney , Los Angeles

Auschwitz begins whenever someone looks at a slaughterhouse and thinks : **They are only animals.**
Theodor Adorno , 1903-1969

79

How to Comment:

Hardcopy: Use the form on the other side of this sheet. Please fold and staple this form and mail to the address be

Email: CAPSSolarFirstSolarDesertSunlight@blm.gov Make sure subject line reads "First Solar Desert Sunlight Solar Farm Project"

Comments must be postmarked/emailed by November 26, 2010

☒ Public comments, including names and street addresses of respondents, will be available for public review at Bureau of Land Management, 1201 Bird Center Drive, Palm Springs, CA 92262, during regular business hours (8:00 a.m. to 4:30 p.m.), Monday through Friday, except holidays. Individual respondents may request confidentiality. **If you wish to withhold your name or street address from public review or from disclosure under the Freedom of Information Act, you MUST check this box.** Such requests will be honored to the extent allowed by law. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public inspection in their entirety.

Bureau of Land Management
c/o Allison Shaffer, Project Manager
1201 Bird Center Drive
Palm Springs, CA 92262

First Solar Desert Sunlight Solar Farm Project

Public Comment Card for Scoping Process

First Solar Desert Sunlight Solar Farm Project

Commentor Name: Wm + Margit Eskew Date: 11-15-10

Address: Home - 26250 Parkview Dr # 38 - PO Box 25
Desert Center, CA 92239

Comment:

The power line down east of Lake Tamarisk through Joyaba field appears to be the best location. Does not affect Tourism as well as out of view of most of the Desert Center residents. 79-1

I feel the power field is a wonderful project but it must ~~to~~ be good for all ~~[illegible]~~ persons and animals in the area. 79-2

1) The Eagle Mt route is threw the most populated area 79-3

2) It will run threw the only commercial property + could ~~affect~~ effect any progress the ~~the~~ area in the future. 79-4

3) Will effect our view of the valley. 79-5

RECEIVED
BUREAU OF LAND MANAGEMENT
10 NOV 16 PM 12: 23
PALM SPRINGS-FOUNTAIN HILLS
PALM SPRINGS, CALIFORNIA

By submitting a scoping comment you will receive a copy of the EIS. Please indicate the format you would prefer:

☐ Compact Disk (CD) or ☒ Hardcopy

October 20, 2010, Lake Tamarisk Community Center, 26251 Parkview Drive, Desert Center, CA 92239

80

Public Comment Card for Scoping Process

First Solar Desert Sunlight Solar Farm Project

Commentor Name: B.E. SINGER Date: OCT 27, 2010

Address: box 4040 Palm Desert, CA 92261

Comment: All well presented —

good synergy between BLM and First Solar 80-1

Thanks for being at the apex of the

future - to lower dependence on

foreign oil.

Best Regards,

B.E. Singer

By submitting a scoping comment you will receive a copy of the EIS. Please indicate the format you would prefer:

☐ Compact Disk (CD) or ☒ Hardcopy

October 21, 2010, University of California- Riverside, Palm Desert Campus, 75080 Frank Sinatra Drive, Palm Desert, CA 92211

DEPARTMENT OF TRANSPORTATION
DISTRICT 8
PLANNING
464 WEST 4th STREET, 6th Floor MS 725
SAN BERNARDINO, CA 92401-1400
PHONE (909) 383-4557
FAX (909) 383-5936
TTY (909) 383-6300

81

Flex your power!
Be energy efficient!

November 16, 2010

RECEIVED
10 NOV 18 PM 1:49

Ms. Allison Shaffer
Bureau of Land Management
1201 Bird Center Drive
Palm Springs, CA 92264

Dear Ms. Shaffer:

Desert Sunlight Solar Farm, Applicant: Desert Sunlight Holdings, LLC
BLM Case File Number CACA #48649, State Clearinghouse Number 201008400
08-RIV 177, PM5.092

The California Department of Transportation (Caltrans) reviewed the Draft Environmental Impact Statement and California Desert Conservation Area Plan for Desert Sunlight Solar Farm Project (DSSF). The proposed DSSF project will consist of a 550-megawatt (MW) solar photovoltaic power plant on 4,410 acres of Bureau of Land Management land. The Applicant will also facilitate in the construction and operation of the Red Bluff Substation in cooperation with Southern California Edison (SCE).

It will have three main components; the solar farm site, Gen-Tie (transmission) line, and SCE's owned and operated Red Bluff Substation. The interconnection transmission line will extend south from the solar site, possibly crossing State Route 177 (SR-177) and interconnecting to the planned Red Bluff Substation south of Interstate 10 (I-10).

The site will be located northeast Kaiser Road, northwest of SR-177 and north of the community of Desert Center. Vehicle and truck access to the site will be off of Kaiser Road from SR-177.

We offer the following comments for ingress/egress from SR-177 to the site during construction, the interconnection of the transmission line, project related traffic, and any project related damage of the State Highway System due to construction vehicles weight and size.

Permits

I-10 Tie-line and SR-177 crossing

- Traffic Control Plan: When Lane closures are required on the State Highway System during construction, we recommend that Section 517 of the Encroachment Permits Manual be referenced for the proper procedures to manage traffic during construction. The manual can be accessed online at: http://www.dot.ca.gov/hq/traffops/developserv/permits/ **81-1**

Issuance of a Caltrans Encroachment Permit will be required prior to any construction within the State right of way and shall be in compliance to all current design standards, applicable policies, and construction practices. Please reference the Encroachment Permits Manual Chapter 600 Utility Permits for applicable requirements at the above website. In addition we recommend referencing the Right of Way Manual Chapter 13: http://www.dot.ca.gov/hq/row/rowman/manual/index.htm click on Utilities **81-1 cont**

Caltrans has the discretionary authority to issue special permits for the movement of vehicles/loads exceeding statutory limitations on the size, weight, and loading of vehicles contained in Division 15 of the California Vehicle Code. Requests for such special permits require the completion of an application for a Transportation Permit.

Information regarding Transportation Permit application for travel entering the State or beginning SOUTH of the San Luis Obispo/Kern County lines (includes Inyo and Mono Counties) contact:

SOUTH Region Transportation Permits Office
464 West 4th Street, 6th Floor, MS 618
San Bernardino, CA 92401-1400
(909) 383-4637

Or you may visit our web page at: http://www.dot.ca.gov/hq/traffops/permits/contact.htm

Project Development Procedures Manual Chapter 17
Transverse Utility Encroachment

New utility installations, and adjustment or relocation of existing utilities, may be permitted to cross a freeway or expressway. To the extent feasible and practicable, they should cross on a line generally normal to, but not less than 60° from the freeway longitudinal alignment, and preferably under the freeway. The utility should be located in such a manner that it can be serviced, maintained, and operated from outside the right of way, except for special cases covered under "New Utility Longitudinal Encroachments". Reference Chapter 17 of the manual at: http://dot.ca.gov/hq/oppd/pdpm/pdpmn.htm **81-2**

State Highway System Repair

Caltrans recommends prior to construction, the project owner photograph or videotape all affected public roads, easements, and right-of-way segments and/or intersections and provide a copy to us. We also recommend that the project owner rebuild, or repair any damage that is done due to project construction. **81-3**

We appreciate the opportunity to offer comments concerning this project. If this proposal requires future revision, please forward new project information to this office so that updated recommendations may be provided. If you have any questions regarding this letter, please contact me at (909) 383-4557 for assistance.

Sincerely,

DANIEL KOPULSKY
Office Chief
Community Planning/Local Development Review

c: Monica Lamb, First Solar Inc.
State Clearinghouse
Haissam Yahya, Operations Region B
Richard Goh, Encroachment Permits-Riverside

82

#A2.

Public Comment Card for Scoping Process

First Solar Desert Sunlight Solar Farm Project

Commentor Name: Jim & JACKIE DAVIES Date: NOV 15/2010

Address: Po Box 281 DESERT CENTER 92239.

Comment:

absolutely NO to Power line down Kaiser Road. 82-1

Any future development of Property Commercial or otherwise would be hampered by these power line's.

It is a known fact that anyone living within a 1/4 mile of these types of towers are in danger of developing serious health issues. 82-2

We don't need to have other Solar farm period in such a environmently sensitive area. This area is one of the true beautiful area's of the desert, in Southern California that is still pristine and not cluttered with man made atrocities. Home to a desert tortoise (turtle) 82-3

The powerline's already in existance are enough to create unnecessary damage. As for jobs for desert Center think again people. These companies bring their own people and the long employment given to desert Center will be temporary labour. 82-4

By submitting a scoping comment you will receive a copy of the EIS. Please indicate the format you would prefer:

☐ Compact Disk (CD) or ☐ Hardcopy

RECEIVED 10 NOV PM 12: 26

October 20, 2010, Lake Tamarisk Community Center, 26251 Parkview Drive, Desert Center, CA 92239

How to Comment:

Hardcopy: Use the form on the other side of this sheet. Please fold and staple this form and mail to the address below

Email: CAPSSolarFirstSolarDesertSunlight@blm.gov Make sure subject line reads "First Solar Desert Sunlight Solar Farm Project"

Comments must be postmarked/emailed by November 26, 2010

☑ Public comments, including names and street addresses of respondents, will be available for public review at Bureau of Land Management, 1201 Bird Center Drive, Palm Springs, CA 92262, during regular business hours (8:00 a.m. to 4:30 p.m.), Monday through Friday, except holidays. Individual respondents may request confidentiality. **If you wish to withhold your name or street address from public review or from disclosure under the Freedom of Information Act, you MUST check this box.** Such requests will be honored to the extent allowed by law. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public inspection in their entirety.

JIM & JACKIE DAVIES
PO BOX 281
DESERT CENTER
CALIFORNIA USA 92239

Bureau of Land Management
c/o Allison Shaffer, Project Manager
1201 Bird Center Drive
Palm Springs, CA 92262

First Solar Desert Sunlight Solar Farm Project

92262$8001

83

J V
<danzavega@sbcglobal.net>
11/19/2010 07:33 PM

To capssolarfirstsolardesertsunlight@blm.gov
cc
bcc
Subject STOP the 1st SoLar Desert Sunlight "farm" Project

Please stop the Tractors & other equipment operators from Traversing & Trespassing our Sacred Ground in Blythe - California. 83-1

It reminds me of when the spaniards & europeans invaded our Indigenous Lands & raped innocent young girls & women.

It's as if you went to where your dear relatives are Buried and took the earth off of them: grandmother -grandfather - Brother - Sister . 83-2

This is immoral. Please STOP the first solar Desert sunlight Project

Please Leave Our Sacred Cradle of Aztlan - Cuna de AztLan in Peace.

84

LaCunaDeAztlan@aol.com
11/19/2010 09:50 AM

To capssolarfirstsolardesertsunlight@blm.gov
cc LaCunaDeAztlan@aol.com
bcc
Subject First Solar Desert Sunlight Solar Farm Project

Dear Allison Shaffer, Project Manager of the Bureau of Land Management,

Attached is our opposition letter for the First Solar Desert Sunlight Solar Farm Project.

Sincerely,

Alfredo Acosta Figueroa
Chemehuevi Tribal Monitor
Elder/Historian of La Cuna de Aztlan Sacred Sites Protection Circle
424 North Carlton Ave.
Blythe, Ca 92225
(760) 922-6422
lacunadeaztlan@aol.com

Opposition to the First Solar Desert Sunlight Solar Farm.pdf

La Cuna de Aztlan
Sacred Sites Protection Circle

Alfredo A. Figueroa
424 N. Carlton Ave
Blythe, Ca 92225

13

Phone: (760) 922-6422
E-mail: lacunadeaztlan@aol.com

November 19, 2010

Bureau of Land Management
c/o Allison Shaffer, Project Manager
1201 Bird Center Drive
Palm Springs, Ca 92262

RE: Opposition to the First Solar Desert Sunlight Solar Farm Project

Dear Allison Shaffer,

I hereby state the follow comments concerning our opposition against the proposed First Solar Desert Sunlight Solar Farm Project in Desert Center, California:

My name is Alfredo Acosta Figueroa, and I am a Chemehuevi Tribal Monitor, Elder/Historian/Coordinator of La Cuna de Aztlan Sacred Sites Protection Circle that have an MOU with the BLM to be guardians of the sacred sites along the Colorado River extending from Needles, Ca down to Yuma, Az. I also wrote the book "*Ancient Footprints of the Colorado River,*" and for the past 55 years we have been researching the origins of the Aztec Sun Stone Calendar and the place of the Mexica Creation Story.

The proposed solar project is in the center of the most sacred area in the world and Joshua Tree National Park is an example of that environment. It has all the images, petroglyphs, solstice and other characteristics that allude to that fact. The Interstate-10 corridor in Eastern Riverside County parallels the ancient Coco-Maricopa trails and connects most of the sacred sites that lead from the Colorado River. And if this solar project is constructed their will be irremediable devastating effect in the whole area. 84-1

Throughout the centuries, numerous mountain ranges in the surrounding areas of the Palo Verde/Parker Valleys have kept their original names and meanings despite their differences in the native languages. The name of the Eagle Mountain Range has changed, but its meaning has remained the same.

In the Mojave language, Eagle Mountain is called "Amat Avi Aspa" meaning "Place of Eagle

Mountain." The Chemehuevi and Cahuilla also have their names for Eagle Mountain. Our Chemehuevi and other indigenous Elders have always regarded Eagle Mountain as very sacred place. When the Spaniards came to this area they called it "La Sierra de la Aguila," and when the Anglos came, the name changed to what it is now, "Eagle Mountain."

Through our investigations, we have deciphered and cross-referenced some of the petroglyphs and other symbols and images found on these mountains with the Nahua Codex's. We have also conducted field studies during the solstices and equinoxes confirming the authenticity of the allegorical name of "Cuauhtémoc."

In the Nahuatl/Uto-Aztecan language, the name Eagle Mountain refers to "Cuauhtémoc" and is derived from the word "Cuauhtli-" meaning (eagle) and "-temoc," meaning (descends) confirming that Cuauhtémoc, means "Descending Eagle".

In the Mexica codex, all of the energies have a spiritual animus/nahualli or symbolic animal representation. The eagle is one of the nahualli of the Sun, which is represented at 9:00 am and 3:00 pm. As a result, Cuauhtémoc represents the Sun as it begins to descend on the Eagle Mountain Range.

The manifestation of the metamorphosis of Cuauhtémoc takes place when the Sun (Eagle) descends on the most distinct "V" formation on top of the mountain range during the Summer Solstice. Thus, this is the origin of the name of the range, Eagle Mountain. This event can be seen from the Palo Verde Valley in the east.

According to the Mexica Codex, *"Historia de los Mexicanos por sus pinturas,"* Cuauhtémoc is one of the 4-posts (corners) created to form the roads (communication) between the newly formed Earth (Mother) and Cosmos (Father). The codex states that: *"Seeing the falling of the sky on the earth, 4-men were created to get help to be able to enter and rise up the sky. One was called Cuauhtémoc (Eagle Mountain) and the other Itzcoatl (Old Women Mountain), Itzmalli (Whipple Mountain) and Tenexuchitl (Palo Verde Valley)."* These 4-corners form the base of the pyramid Tamoanchan which peak is centered on top of Granite Mountain as seen from Blythe, California.

Other mountain ranges in the area have also kept their native names, such as the Chuckawalla Mountain Range located south of Eagle Mountain (near Desert Center, California). Chuckawalla means "Cuetzpalin" in Nahuatl and in Spanish it means "Lagarto" or "Largatijo," and in English it means lizard. Cuetzpalin is the forth day of the 20-day Aztec Calendar. The small ridge outcropping in Desert Center represents the lizard Chuckawalla, but is called "Alligator Ridge."

Alluding to the sacredness of the "V" formation which is on the south side of Eagle Mountain is where the Sun descends during the Summer Solstice and is where the large wash/arroyo begins which is called "Dragon Wash." Dragon Wash depicts the formation of the "Plumed Serpent" which is "Quetzalcoatl," that is descending from the top of the mountain down to the wash. At the beginning of the wash at the mountain range are the petroglyphs that depict the Summer Solstice. The petroglyphs align with 13 small stone monuments and the face image of "Tepetlyololt" which means "The Heart of the Mountain," that intern represents the heart of

Mother Earth. This image is directly south on the north side of the Chuckawalla Mountains and can be seen coming east on Interstate-10 (6-miles west of Desert Center). The 13-monuments that are directly south from Dragon Wash form the 13-Acatl (Reed) that forms the top part of the Aztec Sun Stone Calendar.

Throughout the years the Chemehuevi and other native tribes have used the Chuckawalla Mountains as a source of stone for their utensils such as the "molcajete" and "metates," and to pay respect to the sacredness of Mother Earth and the area.

According to Francis J. and Patricia H. Johnston's highly recognized research of the *University of California Berkeley, Archaeological Survey No. 37 dated April 1, 1957* gives excellent reference and general description of the 13-monuments and its sacred trails that lead all the way from the Blythe Giant Intaglios to the Coachella Valley.

For the reasons mentioned above, we cannot tolerate anymore destruction of Mother Earth and we are in total opposition against the proposed First Solar Desert Sunlight Solar Farm Project. 84-2

Sincerely,

Alfredo Acosta Figueroa

Alfredo Acosta Figueroa

85

Brendan Hughes
<jesusthedude@hotmail.com>

11/20/2010 07:36 PM

To <capssolarfirstsolardesertsunlight@blm.gov>
cc
bcc
Subject Comments on Desert Sunlight DEIS

To whom it may concern:

My name is Brendan Hughes and I would like to comment on the proposed First Solar Desert Sunlight project DEIS. This project has significant negative impacts on public land. It will have serious consequences for vegetation, wildlife, and visual resources.

This project will destroy several sensitive plant species on the project footprint. First Solar has not put forth an avoidance plan for any of these sensitive plants. **85-1**

Also, Desert Sunlight would have catastrophic effects on desert wildlife. First, at least several desert tortoises will have to be relocated for this project. Relocation has been shown several times over to fail, with mortality of up to 50 percent. And if the Ivanpah Solar project is any lesson, then several more times the number of tortoises that were discovered during initial surveys could be present on the site. Full surveys should be completed by competent biologists before any more actions can be taken. Additionally, this project cuts off connectivity between the Chuckwalla and Pinto Desert Wildlife Management Areas. With climate change occurring and projected to get worse, connectivity is essential for species survival, movement, and adaptation. Moreover, this project will have negative impacts on many species of birds. Burrowing owls and LeConte's thrashers are located on the project site, and several species of raptors currently use or could use the site for foraging, including golden eagles. The solar farm could also appear to be a lake to some birds, which could lead them to waste energy trying to obtain water that is not there. Disruption and mortality of this many sensitive species is unacceptable. **85-2**

Visual resources will be impacted by this project. This project will be visible from many areas within Joshua Tree National Park wilderness, as well as the Chuckwalla Mountains and Palen-McCoy Wilderness Areas. As an avid hiker and backpacker, I do not want to see such a large incursion on the landscape. **85-3**

Finally, BLM did not consider an adequate range of alternatives for this project. BLM should include an alternative that is No Action and proscribes further solar applications in this area. In addition, BLM should deny this Right of Way application because plenty of alternatives exist for the placement of photovoltaic technology. These include residential and commercial rooftops, like Southern California Edison's warehouse rooftop projects in the Inland Empire and LADWP's recent announcement of the placement of photovoltaics on a covered reservoir. Moreover, projects like Beacon Solar and Abengoa Mojave Solar show that large solar power projects placed entirely on private, disturbed land are viable. Intact, rich, and diverse public lands should not be sacrificed while hundreds of thousands of acres of rooftops and disturbed private lands are available. **85-4** **85-5** **85-6**

Thank you for your consideration

Brendan Hughes
61093 Prescott Trail
Joshua Tree, CA 92252
jesusthedude@hotmail.com

86

"Diane Mossbarger"
<dmossbar@verizon.net>
11/21/2010 05:02 PM

To <CAPSSolarFirstSolarDesertSunlight@blm.gov>
cc
bcc
Subject Desert Center Project

We are thrilled at the prospect of employment and a good service being located in D.C. Will there be much “light pollution” from the installation? 86-1

Pastor Diane
Jerry and Diane M. Mossbarger

87

Lorenzo Romero
<lorenzo_romero@ymail.com
>

11/21/2010 03:36 PM

To CAPSSolarFirstSolarDesertSunlight@blm.gov
cc
bcc
Subject

My name is Lorenzo Romero, I would like to offer my support in the Desert Center Solar project. I recently completed the Solar Energy course at the Palo Verde College in Blythe and I think it's a great project for our desert. 87-1

Lorenzo Romero
237 So. First St.
Blythe, CA 92225

88

marirlv@aol.com
11/21/2010 03:49 PM

To CAPSSolarFirstSolarDesertSunlight@blm.gov
cc
bcc
Subject new Installation...

My name is Marian Livengood and I am a six month resident of this area at the present, although I first arrived in this area from Washington State over 32 years ago and have maintained a residence here since that time. I currently have a home on Shasta Drive which is cirrently for sale as I grew too old to maintain it in the condition to which it deserves. I now have a mobile home in the park across the lake which is smaller.

I would like to see more development take place in this area and can see nothing detrimental to the installation of solar. Perhaps more information willl be forthcoming and others would come to this same conclusion. I also would like to see more development of restaurants, stores, permanent and part-time residencies, etc. 88-1

There are a few in this area who do not favor development of any type and have always been against everything that has been suggested and tried. They have even been able through frivolous lawsuits to harm the development that has been tried.

Good luck and keep trying!

89

Raymond Kelso
<pleistocene@verizon.net>
11/21/2010 10:15 PM

To CAPSSolarFirstSolarDesertSunlight@blm.gov
cc Tex Whitson <texwhitson1@hotmail.com>
bcc
Subject DESERT DESTRUCTION

There is no need to destroy the desert by the square mile. 89-1
Solar panels(photovoltiacs) work and they can put on any roof anywhere.
And no EIR's, etc.
Use common sense.
Put panels on Walmart, fast food joints, everyones house or mobile home!
Its simple, straight forward, and it works.
STOP this insane land grab by foreign investors.

Regards
Raymond

Raymond Kelso
Pleistocene Foundation
2362 Lumill St.
Ridgecrest, Ca. 93555
760-375-9833
760-382-0445 cell
pleistocene@verizon.net

90

desertcenter@sonic.net
11/21/2010 07:57 PM

To CAPSSolarFirstSolarDesertSunlight@blm.gov
cc
bcc
Subject Tie line through Desert Center

Hello Ms Shaffer, Sunday November 21,2010

My grandparents founded the town of Desert Center. I was born here and have inherited it now. I am finally able to restore the former socioeconomic status of the area by developing the businesses.

Of course solar power generation is good GLOBALLY. LOCALLY it means that despite the fact that the local residents will get NO direct power benefit from it we have to endure the loss of spacious beauty and the potential danger. The electricity will go toward the greater LA area as does as our Colorado River water. Other cities will benefit while this needy area (officially "blighted" by the county) will have to endure ugly metal behemoths blotting our view of the majestic mountains and what tourists come here to see and photograph—pristine desert. The tourist trade is our major industry. Spend an afternoon with me and you will see… 90-1

The A1 plan will go right by my home and the homes of children who are more sensitive to electromagnetic fields. The school bus picks them in what will be the shadow of these potentially dangerous structures. Stand below one and your hair will literally stand on end. Electric sparks have been seen and felt by those traveling on the pole roads. Don't be near one in a storm. If the Solar One project is approved, then use the A2 tie line route over agricultural land and pristine desert and BURY it. We locals will help get access through those neighbors' properties with less resistance than the A1 route. 90-2

The tortoise plan is wrong. Transplant to the SOUTH of the freeway where they thrived when I lived there as a child, or much further north. Humans will just infringe upon their delicate habitat in the near future with the current plan. 90-3

My father and grandfather were "characters" about whom you may have heard some good stories. Contrarily, I am an educated businessperson and as the major landholder in this area, intend to make progress while maintaining the beauty and ambiance of this desert. The community backs my efforts. I will fight against power poles.

Thank you for reading my concerns and please contact me if you would like to discuss this further.

Sincerely, Suzanne Ragsdale Office 760 227-3272

desertcenter@sonic.net

91

tex whitson
<texwhitson1@hotmail.com>
11/21/2010 04:20 PM

To CAPSSolarFirstSolarDesertSunlight@blm.gov
cc
bcc
Subject SOLAR

Solar is a good start. Wind is better but SOLAR works most everyday. I am all for alternate 91-1

92

"Morrison, Dennis W CTR US USA FORSCOM" <dennis.w.morrison@us.army.mil>

11/22/2010 10:22 AM

To <CAPSSolarFirstSolarDesertSunlight@blm.gov>
cc
bcc
Subject Desert Sunlight (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: FOUO

I am very much against the Desert Sunlight project due to its proximity to Golden Eagles nests and the large Desert Tortoise population of which there are many more than the EIS estimates. Relocation efforts have failed in the past and will continue to do so. The project also will remove 4,400 acres of foraging habitat for golden eagles. Loss of foraging habitat is considered a Take under the Bald and Golden Eagle Protection Act. This is a poorly sighted project and not enough alternatives have been considered. Better alternatives can be found on disturbed ground and on rooftops in the built environment. The BLM also needs to start considering the value of connectivity areas in these types of projects. Every single project in the desert (and there are many) cannot rely on mitigation and relocation to offset damage done by construction and operation of these so called "Green Energy" projects. 92-1 92-2 92-3

Dennis Morrison
Mojave Desert Resident/Public Land User

Classification: UNCLASSIFIED
Caveats: FOUO

93

Jeff Aardahl
<jaardahl@defenders.org>
11/22/2010 10:34 AM

To "CAPSSolarFirstSolarDesertSunlight@blm.gov" <CAPSSolarFirstSolarDesertSunlight@blm.gov>
cc
bcc
Subject DEIS Comment letter

Dear Ms. Shaffer:

On behalf of Defenders of Wildlife, Natural Resources Defense Council and the Sierra Club, I am pleased to submit our comment letter on the DEIS for the proposed Desert Sunlight Solar Farm project. Please contact us if you have any questions about our comment letter or if we can provide any additional information.

We hope our letter is helpful to BLM in addressing issues that will be addressed in the FEIS.

Jeff Aardahl
California Representative

Defenders of Wildlife
P.O. Box 1413, Gualala, CA 95445
Tel: 707-884-1169 | **Fax:** 916-313-5812
JAardahl@defenders.org | www.defenders.org

Desert Sunlight DEIS Comment Letter - DOW_NRDC_Sierra Club.pdf

DEFENDERS OF WILDLIFE

NATURAL RESOURCES DEFENSE COUNCIL

SIERRA CLUB

November 22, 2010

Allison Shaffer, Project Manager
Palm Springs/South Coast Field Office
Bureau of Land Management
1201 Bird Center Drive
Palm Springs, CA 92262

(Via email to: CAPSSolarFirstSolarDesertSunlight@blm.gov)

Re: Comments on Draft Environmental Impact Statement and Proposed Amendment to the California Desert Conservation Area Plan for the Proposed First Solar Desert Sunlight Solar Farm Project, Riverside County, CA (BLM Case File Number CACA 48649)

Dear Ms. Shaffer:

Thank you for the opportunity to review and comment on the Draft Environmental Impact Statement (DEIS) and Proposed Amendment to the California Desert Conservation Area Plan for the Proposed First Solar Desert Sunlight Solar Farm Project. These comments are submitted on behalf of Defenders of Wildlife ("Defenders"), the Natural Resources Defense Council ("NRDC"), and Sierra Club, all of which are non-profit public interest conservation organizations with offices in California as well as elsewhere in this country.

Defenders has 950,000 members and supporters nationally, 145,000 of whom reside in California. Defenders is dedicated to protecting all wild animals and plants in their natural communities. To this end, we employ science, public education and participation, media, legislative advocacy, litigation, and proactive on-the-ground solutions in order to impede the accelerating rate of extinction of species, associated loss of biological diversity, and habitat alteration and destruction.

NRDC has over 1.2 million members and online activists nationwide, 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. NRDC has worked to protect wildlands and natural values on public lands and to promote pursuit of all cost-effective energy efficiency measures and sustainable energy development for many years.

The Sierra Club is a national nonprofit organization of approximately 1.3 million members and supporters (approximately 250,000 of whom live in California) 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 public lands, wildlife, air and water while at the same time rapidly increasing our use of renewable energy to reduce global warming.

As we transition toward a clean energy future, it is imperative for our future and the future of our wild places and wildlife that we strike a balance between addressing the near term impacts of large scale solar development with the long-term impacts of climate change on our biological diversity, fish and wildlife habitat, and natural landscapes. To ensure that the proper balance is achieved, we need smart planning for renewable power that avoids and minimizes adverse impacts on wildlife and wild lands. These projects should be placed in the least harmful locations, near existing transmission lines and already disturbed lands.

We strongly support the emission reduction goals found in the Global Warming Solutions Act of 2006, AB 32, including the development of renewable energy in California. However, we urge that in seeking to meet our renewable energy portfolio standard in California, project proponents design their projects in the most sustainable manner possible. This is essential to ensure that project approval moves forward expeditiously and in a manner that does not sacrifice our fragile desert landscape and wildlife in the rush to meet our renewable energy goals.

We strongly support renewable energy production and utilization, but we do not consider the construction of large-scale projects, and especially the very large solar energy projects proposed on undisturbed public lands in the California Desert Conservation Area (CDCA), to be the primary way to meet our renewable energy goals. We believe such large scale solar projects should be located on degraded or disturbed land such as abandoned agricultural fields, industrial sites, and near existing structures before public lands containing natural plant and animal communities are considered.

The proposed project would entail the exclusive use of approximately 4,400 acres of public land managed by the Bureau of Land Management (BLM). The proposed project consists of a photovoltaic solar electrical generating facility with a rated power output of approximately 550 MW; a generation transmission interconnection line (gen-tie line); and a new Red Bluff Substation. Three alternatives to the proposed project are identified and analyzed in the DEIS: 1) No action; 2) Two alternative gen-tie line alignments; and 3) Two reduced solar farm footprints.

Our comments are presented below by subject:

I. National Environmental Policy Act (NEPA)

Purpose and Need: Federal agencies must "specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action." 40 C.F.R. § 1502.13. Courts "have interpreted NEPA to preclude agencies from defining the objectives of their actions in terms so unreasonably narrow that they can be accomplished by only one alternative." *Colorado Environmental Coalition v. Dombeck*, 185 F.3d 1162, 1165, 1174 (10th Cir. 1999), at 1174 (*citing Simmons v. United States Corps of Eng'rs*, 120 F.3d 664, 669 (7th Cir. 1997)).

BLM Purpose and Need: According to the DEIS, the stated purpose and need for the proposed project is to "…respond to Sunlight's application under Title V of the Federal Land Policy and Management Act (FLPMA) (43 U.S.C. 1761) for a right-of-way (ROW) grant to construct, operate, maintain, and decommission a utility-scale 550-MW PV solar energy facility (Solar Farm, Gen-Tie Line, and a 500/220-kV substation) on public lands, in compliance with FLPMA, BLM ROW regulations, and other applicable federal laws." (DEIS at 1-7). In addition, "[T]he BLM will decide whether to approve, approve with modifications, or deny issuance of a ROW grant to Sunlight for the proposed DSSF Project and the related assignment of any ROW grant for the substation to SCE. The BLM's actions will also include concurrent consideration of amending the CDCA Plan of 1980, as amended." *Id*.

BLM Authorities: In addition to authorities granted to BLM through FLPMA(43 U.S.C. 1701), the DEIS states that the Energy Policy Act of 2005 "…requires the Department of the Interior (BLM's parent agency) to approve at least 10,000 MW of renewable energy on public lands by 2015." (DEIS at 1-8).

Comment: Instead of the current purpose and need statement which declares that BLM is simply responding to a right of way application under Title V of FLPMA, we recommend that the purpose and need statement address the need to generate greater amounts of electrical energy from renewable energy sources so that dependency on carbon-based fuels is reduced, and to contribute to the generation of certain minimum amounts of renewable energy to comply with State and federal standards. By providing a broader statement of purpose and need, BLM will help ensure that its NEPA documents comply with all applicable legal requirements. 93-1

Comment: By so radically narrowing the scope of the project's purpose, BLM has impermissibly constricted the range of alternatives considered. *See Carmel by the Sea v. U.S. DOT*, 123 F.3d 1142, 1155 (9th Cir. 1995). Further, BLM has misinterpreted the intent of Congress in the Energy Policy Act in stating that the law "requires" BLM to approve at least 10,000 MW of renewable energy from public lands by 2015. Rather, the Act encourages the 93-2

Secretary of the Interior to approve a minimum of 10,000 MW of renewable energy from the public lands by the year 2015. 93-2 cont

Project Alternatives: In addition to properly defining the purpose and need of an agency action, agencies must consider a range of reasonable alternatives to the agency action in the EIS. *See* 42 U.S.C. § 4332(2)(E). The range of alternatives is "the heart of the environmental impact statement." 40 C.F.R. § 1502.14. NEPA requires BLM to "rigorously explore and objectively evaluate" a range of alternatives to proposed federal actions." *See* 40 C.F.R. §§ 1502.14(a) and 1508.25(c). The purpose of this requirement is "to insist that no major federal project should be undertaken 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." *Environmental Defense Fund v. Corps of Engineers*, 492 F.2d 1123, 1135 (5th Cir. 1974); *see also Methow Valley Citizens Council v. Regional Forester*, 833 F.2d 810 (9th Cir. 1987), rev'd on other grounds, 490 U.S. 332 (1989) (agency must consider alternative sites for a project).

Comment: We are pleased that several alternatives to the proposed project were considered, and that a reduced project size alternative (Solar Farm Boundary, Alternative C) was carried forward for analysis as a means of avoiding or reducing potential impact to the threatened Desert Tortoise and other species of concern, both plants and animals. This reduced project size alternative would provide a greater habitat linkage between the upper Pinto Wash and the designated Desert Wildlife Management Area/Desert Tortoise Critical Habitat located immediately west of the Kaiser Road (which generally forms the western boundary of the proposed project). 93-3

Comment: The gen-tie transmission line alternatives that would connect with the proposed Substation A appear to minimize impacts to the Desert Tortoise and Critical Habitat within the Chuckwalla DWMA to a greater extent than those associated with proposed Substation B (Gen-Tie Line B-2. Although proposed Substation A is located within the Chuckwalla DWMA, it would affect far fewer Desert Tortoises and burrows than proposed Substation B, which is not within the DWMA. Overall, we consider the Gen-Tie Line A-2 Alternative to be environmentally superior. 93-4

Comment: While we are pleased that private land alternatives were considered by both the BLM and the applicant, the BLM summarily dismissed the alternatives, noting "…they would be no better than the proposed Project area and would result in greater environmental impacts." (DEIS at 2-125). Although that may be the case, the veracity of this conclusion is weak because it is unsubstantiated - private land alternatives were not analyzed in the DEIS. We recommend that BLM carefully consider analyzing a full range of alternatives including those on private lands or a combination of private and adjacent public lands. This would strengthen the document with regard to NEPA adequacy. 93-5

The range of public land alternatives appears to be rather limited as well, focused on the I-10 Freeway corridor from Devers to Blythe due to transmission line capacity in the existing Devers Palo Verde I transmission line. The DEIS indicates the applicant searched for alternative sites within the service area of the Southern California Edison Company that had nearby transmission line capacity and, after consultation with the BLM, concluded the most appropriate region was adjacent to the Devers Palo Verde I transmission line and submitted a right of way application to the BLM that included public lands within the proposed project area. 93-5 cont

Comment: Due to the inherent flexibility in project size and configuration using photovoltaic technology, a wider range of alternatives may be justified, including a combination of disturbed private lands and adjacent public lands in addition to the two public land sites considered. We recommend the FEIS include a more robust analysis of existing transmission line capacities within all appropriate regions that exhibit the minimum insolation ratings necessary for efficient electrical generation using PV technology. This would potentially increase the number of viable locations for the proposed project and also provide for a critical review and strengthen the justification of the rationale for limiting project consideration to the I-10 Corridor. 93-6

Cumulative Impacts Analysis: Cumulative impact is defined as the impact on the environment which results from the incremental impacts of the action when added to other past, present, and reasonably foreseeable future action regardless of what agency 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.

Comment: Although the DEIS identifies a substantial number of existing and proposed land use activities that have and would add to the cumulative loss of significant cultural and biological resources, we urge BLM to be confident that the depth of the cumulative impact analysis to be included in the FEIS is sufficient to establish the condition and trend of various at-risk species and their habitats in the region. We believe this level of analysis is necessary to determine whether or not, on a regional scale, the biological resources are being managed consistent with the mandates of FLPMA, including maintenance of environmental quality. 93-7

FLPMA mandates that 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; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will pro-vide for outdoor recreation and human occupancy and use;" (Sec. 102(8)). FLPMA also addresses management of public lands within the CDCA: "the California desert environment is a total ecosystem that is extremely fragile, easily scarred, and slowly healed. (Sec. 601(a)(2)); and "the California desert environment and its resources, including

certain rare and endangered species of wildlife, plants, and fishes, and numerous archeological and historic sites, are seriously threatened by air pollution, inadequate Federal management authority, and pressures of increased use, particularly recreational use, which are certain to intensify because of the rapidly growing population of southern California; (Sec. 601(a)(3)); and lastly, " It is the purpose of this section to provide for the immediate and future protection and administration of the public lands in the California desert within the framework of a program of multiple use and sustained yield, and the maintenance of environmental quality. (Sec. 601(b)). 93-7 cont

II. Biological Resources

Identification of General Impacts and Mitigation: The organization of the DEIS with respect to impact mitigation (avoidance, minimization and compensation) appears somewhat unconventional, making it difficult to track and evaluate how impacts to biological resources will actually be avoided, minimized or compensated for. For example, the mitigation proposed for habitat losses for the Desert Tortoise and other species of concern is contained in the vegetation section, which then refers to a habitat compensation plan in Appendix H (Biological Resources: Technical Reports). The proposed habitat loss compensation plan is a general framework that will guide development of a project-specific habitat compensation plan. Furthermore, the plan lacks details, and simply states, "The precise details of the mitigation will be established in the BLM Right of Way Grant, FWS Biological Opinion, and CDFG 2080.1 Consistency Determination. (Habitat Compensation Plan, page 1)." 93-8

Comment: Analysis of the cumulative impacts to biological resources, and mitigation of those impacts, on a regional scale, is absent from the DEIS. We believe this expanded level of analysis and mitigation is needed due to the number and size of solar energy projects in the I-10 corridor of eastern Riverside County and their likely cumulative impacts on significant and fragile populations of plants and animals that are at-risk. Currently, the impacts to biological resources within this region, and the corresponding mitigation of those impacts, are addressed on a project-by-project basis. This piecemeal approach will not provide the mitigation necessary to achieve meaningful and effective reduction and offsets of impacts on a regional scale. 93-9

Comment: The habitat compensation plan that is specific to this proposed project is a form of mitigation, and should be affiliated directly with the environmental consequences presented in Chapter 4. For each impact to each biological resources component, the specific impact mitigation proposed should follow, comprised of impact avoidance, minimization and compensation (in priority order). 93-10

Comment: The large public land area (approximately 19,000 acres) within the applicant's right-of-way application that has been excluded from the footprint of the proposed project and the reduced acreage alternatives should be excluded from future renewable energy development. 93-11

This area contains significant at-risk resources, such as the Desert Tortoise, and drainages in the Pinto Wash that support microphyll woodlands. Furthermore, these undeveloped public lands provide foraging habitat for Golden Eagles that nest in nearby mountain ranges. Any proposed amendment of the CDCA Plan for this area should include the provision that the undeveloped lands within the original right-of way application would be excluded from future renewable energy development and any other land use that would result in loss of natural biological communities 93-11 cont

Comment: Minimization of impacts due to habitat loss through acquisition of similar or equal habitat should include permanent protection and enhancement actions tied to the acquired habitat so that the net impacts are minimized to the greatest extent practicable. We urge BLM to carefully consider whether or not habitat loss compensation for the Desert Tortoise will be sufficient to mitigate the impacts to Desert Tortoise and other wildlife movements within the Chuckwalla Desert Wildlife Management Area and Critical Habitat Unit, as indicated on page 4.4-43 of the DEIS. Given the critical importance of maintaining habitat connectivity and wildlife movements, we recommend a greater level of analysis be performed to determine the adequacy of habitat loss compensation in minimizing the effects of the proposed project on wildlife movements. We believe that greater specificity is required to identify specific compensation habitats for their contribution in maintaining wildlife movements and habitat linkages. 93-12

Desert Tortoise: Desert Tortoises are not evenly distributed over the proposed project footprint, and appear to be concentrated mainly in the northwestern portion of the proposed solar farm, and north of the MWD transmission line and access road. 93-13

Comment: The most appropriate strategy for mitigating the impacts to the Desert Tortoise is to avoid or minimize those impacts through project configuration flexibility. In this case, we think the reduced acreage alternative, termed the Solar Farm Layout C, is superior and should be adopted as the BLM preferred alternative. This reduced acreage alternative is consistent with our recommendations for minimizing impacts for this proposed contained in our issue scoping letter, and given to the project applicant in face-to-face meetings. We appreciate the applicant's attempts to minimize the environmental impacts of its project by revising its initial project proposal in a manner that avoided some of the more concentrated occurrences of sensitive biological resources, such as the Desert Tortoise, Foxtail Cactus and microphyll woodlands in the main section of Pinto Wash. As a result, the applicant proposed Solar Farm Layout B, which BLM adopted as its preferred alternative. However, we continue to believe that Solar Farm Layout C provides a greater degree of impact avoidance that is consistent with BLM's policy for management of Special Status Species (Manual 6840) and the overall intent of public land management in the CDCA.

Golden Eagle: The DEIS indicates there are 20 potential Golden Eagle nests within a 10-mile radius of the proposed project, comprising eight territories, six of which are considered active. The closest active territory is located approximately two miles from the project solar farm boundary, and one Golden Eagle was observed flying south of I-10 in Chuckwalla Valley in the vicinity of the proposed Red Bluff substation during surveys. (DEIS at 3.4-20, 21). 93-14

Comment: Mitigation to reduce the impacts due to the loss of potential Golden Eagle foraging habitat resulting from the proposed project is identified on page 4.4-7 of the DEIS: "Implementation of the *Habitat Compensation Plan* required in Applicant Measure BIO-1 discussed in Section 4.3, Vegetation, would reduce these impacts." For this measure to be effective, the habitat to be acquired must be located within foraging-territories associated with active nesting sites and in a natural condition suitable for supporting prey species. The goal should be to fully offset foraging habitat loss in order to achieve the "no net loss" standard of the U.S. Fish and Wildlife Service for this species. We urge BLM to establish a compensation ratio for lost Golden Eagle foraging habitat in coordination with the U.S. Fish and Wildlife Service so that impacts are fully offset. Golden Eagle habitat loss compensation should be fully analyzed and identified in the FEIS.

III. Ecological Processes

Maintaining drainage flow and sediment transport within the upper Chuckwalla Valley is essential in sustaining sand-based habitats downstream within Chuckwalla Valley, which are critical to the long-term viability of the southernmost populations of the Mojave Fringe-toed Lizard and other dune-dependent species. The southernmost populations of this species in the greater Chuckwalla Valley are essential to the long-term persistence of the entire species because this population is adapted hotter and drier environmental conditions than populations found elsewhere in the California Desert. Hotter and potentially drier conditions expected to occur within the region as a consequence of climate change necessitate that the populations of this species in the Chuckwalla Valley region be protected, primarily through habitat protection and maintenance of ecological processes necessary for persistence of dune systems. The DEIS appears to be silent on this issue. 93-15

Comment: The proposed project would affect three blue-line ephemeral drainages; a portion of Eagle Creek, and two unnamed tributaries to Big Wash. The DEIS does not address the issue of impact to these natural drainages and their contribution to sand transport within Chuckwalla Valley. Rather, the DEIS appears to limit the discussion of drainage impacts to the subject of flood control as a means of protecting the solar farm. We are particularly concerned that debris basins and check-dams, upgradient from the project, may be required and thus included in future final design of the project. (DEIS @ 4.17-7).

Comment: The FEIS should include a full analysis of the effects of the proposed project and each of the alternatives on natural drainages and fluvial sand transport. The FEIS should also disclose whether or not the proposed project includes debris basins or check dams upgradient from the solar farm field, and what impact such facilities would have on the biological and physical environment, and ecological processes such as seasonal water flow and sand transport in naturally occurring drainages. The location and size of the debris basins and check dams that may become part of the project should be described and mapped. 93-16

IV. Climate Change

The DEIS address the effects of climate change largely through reduction of greenhouse gases and development use of renewable energy sources. It does not analyze the impacts climate change will have on species, and the effects of climate change on habitats that would be required to sustain viable populations of at-risk species. 93-17

Comment: The "hard look" requirement of NEPA requires federal agencies to consider climate change in NEPA documents. BLM must consider the effect of the proposed action on climate change, the effect of climate change on the proposed action and the effect of climate change on the affected environment. Climate change considerations are relevant throughout the NEPA process, from the scope of the environmental document and the description of the affected environment to the design of the proposed action, its alternatives and their environmental impacts. *See also* Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources, Secretarial Order 3289 (Feb. 22, 2010) (directing DOI agencies to consider and analyze climate change impacts when making major decisions affecting DOI resources). 93-18

Comment: Analysis of the potential impacts of climate change on a proposed action and the environment is necessary to assess and reduce the vulnerabilities of the proposed action to climate change, to integrate climate change adaptation into the proposed action and alternatives and to produce accurate predictions of environmental consequences of the proposed action and alternatives. It will aid BLM in adequately preparing the proposed action or planning area for the inevitability of climate change. *See, e.g.,* Letter from Kathleen M. Goforth, Environmental Review Office, EPA, to Ramiro Villalvazo, Forest Supervisor, Eldorado National Forest (Oct. 26, 2009), *available at* http://yosemite.epa.gov/oeca/webeis.nsf/(PDFView)/20090313/$file/20090313.PDF?OpenElement. 93-19

Comment: BLM should expand the analysis of the effects of the proposed project and each alternative on biological resources and their ability to adapt to climate change, such as occupation and use of habitat on a regional scale that may be essential in sustaining at-risk 93-20

species. Such an expanded analysis should include cumulative effects and mitigation measures, including those associated with climate change.[1] 93-20 cont

Thank you for considering our comments. If you have any questions, please contact us at our address or by email as shown below.

Sincerely,

Jeff Aardahl
California Representative
P.O. Box 1413
Gualala, CA 95445
Email: jaardahl@defenders.org

Barbara Boyle
Senior Representative, Clean Energy Solutions
Sierra Club
801 K Street
Sacramento, CA 95814
Email: bboylesc@att.net

Johanna Wald
Director, Western Renewable Energy Project
Natural Resources Defense Council
111 Sutter Street, 20th floor
San Francisco, CA 94104
Email: jwald@nrdc.org

[1] *See* Secretarial Order 3226, *Evaluating Climate Change Impacts in Management Planning* § 4 (January 16, 2009) ("Each bureau and office of DOI shall, in a manner consistent and compatible with their respective missions: Consider and analyze potential climate change impacts when undertaking long-range planning exercises, setting priorities for scientific research and investigations, and/or when making major decisions affecting DOI resources"); Council on Environmental Quality, *Considering Cumulative Effects under the National Environmental Policy Act* 24, 42 (1997) (including documentation and analysis of global warming in the affected environment and effects), *available at* http://ceq.eh.doe.gov/nepa/ccenepa/ccenepa.htm (last visited Apr. 20, 2010).

~~Barbara Boyle~~
~~Senior Representative, Clean Energy Solutions Sierra Club, Suite 2700~~
~~801 K Street~~
~~Sacramento, CA 95814~~

Formatted: Indent: Left: 3.31"

94

"Jerry Grey"
<jgreysffd@jps.net>
11/22/2010 07:57 PM

To <CAPSSolarFirstSolarDesertSunlight@blm.gov>
cc <desertcenter@hughes.net>
bcc
Subject Transmission line

To Whom it may concern:

Please do not install the transmission line from the Solar Field down Kaiser Road. This location will impact our community in the wrong way. Eagle Mountain Road does not have a community living on it, and there must be another location to which the tortoise's can be relocated. 94-1

We live six months a year in Lake Tamarisk Desert Resort and travel down Kaiser Road daily. Please do not impact our view and our desert any more than you have to to achieve your goal of generating electricity.

Thank you,

Jerry and Veronica Grey
Lake Tamarisk Desert Resort
26250 Parkview
Desert Center, CA 92239

95

Public Comment Card for Scoping Process

First Solar Desert Sunlight Solar Farm Project

Commentor Name: Janell Forster Date: Nov 18, 2010

Address: PO Box 7092 Desert Center, CA 92239

Comment: As long as we continue to over populate our Planet we have to provide the energy required. Solar certainly being my first choice IF the power lines are hidden under ground I don't see how anyone could object. 95-1

Thank you,
Janell Forster

1-360-798-5935

By submitting a scoping comment you will receive a copy of the EIS. Please indicate the format you would prefer:

☐ Compact Disk (CD) or ☑ Hardcopy

October 20, 2010 Lake Tamar Community Center 26251 Parkview Drive, Desert Center, CA 92239

RECEIVED
BUREAU OF LAND MANAGEMENT
10 NOV 19 PM 12:26
PALM SPRINGS-SOUTH FIELD OFFICE
NOTED

96

Form #1 (see Letter #28)

"mattcindygreen@juno.com"
<mattcindygreen@juno.com>
11/22/2010 11:04 AM

To CAPSSolarFirstSolarDesertSunlight@blm.gov
cc
bcc
Subject

Allison Shaffer, Project Manager,
Palm Springs South
Coast Field Office, BLM
1201 Bird Center Drive
Palm Springs, CA
92262

Sent VIA EMAIL: CAPSSolarFirstSolarDesertSunlight@blm.gov

DATE

RE: First Solar Desert Sunlight Solar Farm Draft EIS and Possible Plan **Amendment**

Dear Ms. Shaffer,

Thank you for this opportunity for me/us to comment on the proposed First Solar Desert Sunlight project located in the community of Eagle Mountain/Desert Center.

I/we wish to go on record by saying I/we **oppose** this project and strongly urge the **No Action Alternative** be issued, for the following reasons:

Employment:

- I/we understand and recognize the need for economic development in desert communities, but do not believe that projects that will result in an irretrievable commitment to the community's and Joshua Tree National Park's ("JoTr") natural resources are appropriate. Communities living next to national parks realize a booming tourism economy bringing in over $40 million dollars. This project will deprive a rural desert community of a sustainable economy.

Lighting:

- The area currently boasts of dark night skies that will be obliterated by the project.
- This area of Joshua Tree National Park is arguably the darkest at night of any part of the Park.

Air Quality:

- Bulldozing the desert will result in a PM10 problem in a Class I airshed.
- Removing desert pavement will release extra fine particulates that will impact the health of nearby residents.
- Disturbing desert soil releases arsenic, a known carcinogen threatening human and wildlife health.

Desert Soils:

- Deserts' alkaline soils have the capacity to absorb about the same amount of CO2 as some temperate forests.
- Removal of old growth desert will result in loss of carbon sequestering creosote.

Desert Tortoise and Climate Change:

- Climate change data indicates that tortoise habitat will become available on the slopes of Eagle Mountain.
- The healthy population of desert tortoises in the Chuckwalla Valley is the reservoir for future immigration into Joshua Tree National Park from the southeast.

Environmental Justice:

- Environmental issues are concerned with inequitable distribution of environmental burdens (pollution, industrial facilities, crime etc.).
- The Chuckwalla Valley is targeted by the world's largest garbage dump, a hydroelectric project, and the subject industrial solar field. An Environmental Justice trifecta!

Cumulative Impacts:

- Together (and singularly) the above projects will result in turning a vibrant ecosystem into a dust bowl,
- Eutrophication will begin resulting in "weedy" non-native species introduction that will outcompete native wildlife, resulting in a significant impact to Joshua Tree National Park, and surrounding desert.
- Disturbing desert soils will result in a bloom of Sahara Mustard, a problem weed not prevalent in the Upper Chuckwalla Valley, which will then pose a threat to Joshua Tree National Park, and surrounding desert.

Distributed Generation:

- Solar panels belong on rooftops, not Public Lands hundreds of miles from urban centers.
- DG will create an economic engine – manufacturing, installing, maintaining, and replacing solar panels.
- Taxpayers will have control over energy production, not foreign interests. Desert Sunlight will be sold to the highest bidder after permits granted – who? Spain? BRITAIN? Saudi Arabia? Germany?
- The United States will continue to be vulnerable to foreign energy control.

In closing, I/we support the No Action Alternative, and strongly urge you to render the same decision.

Sincerely,

Name Matthew & Cynthia Green
Address 25-650 Kaiser Road
Phone (760) 227-3190

97

Cowtrail4@aol.com
11/22/2010 09:31 AM

To CAPSSolarFirstSolarDesertSunlight@blm.gov
cc
bcc
Subject FROM DESERT CENTER RESIDENTS.....

YES.....IN FULL SUPPORT OF THE FIRST SOLAR PROJECT FOR DESERT CENTER CALIFORNIA. 97-1

WARREN AND JOANN DEAN
P.O.BOX 8
DESERT CENTER, CA. 92239
760 227 3023

98

Edith Arizmendi
<bonbon_didi@hotmail.com>
11/23/2010 02:21 PM

To <capssolarfirstsolardesertsunlight@blm.gov>
cc
bcc
Subject Desert Sunlight Solar Farm Project near Desert Center, CA

Nov 23, 2010
Allison Shaffer, Project Manager

To Allison Shaffer:

Hello Allison, my name is Edith Ari mendi and I've lived in the Coachella valley my whole life. rowing up I felt like there was not many things to do here in the desert. I would walk to home from school and I would see empty lots and think It would be nice to see a park. even when we didn t need one. There used to be three empty lots on my street, one of them was right next to my house, one day I decided I would explore the lot and I found a rabbit hole and also the rabbit that made it. Two weeks after that they started constructing a house on that same lot i had found the rabbit and the first thing I thought about was the rabbit. That day I thought about how selfish we humans are to take some animals home for a house that was not needed and hadn t been sold for a year and a half. Where did the rabbit go Where was it going to live Is it still alive Can the rabbit survive in his new home I became aware of the Solar Farm Project and I STR N L DISA REE with this project because we are putting desert animals at risk of dying and some becoming extinct. Where are there animal rights Also, the desert land being used for this project is public land. I do not want to see the desert tortoise extinct, Find somewhere else to put these farms. 98-1

Sincerely,

Edith Ari mendi, Palm Springs.

99

Public Comment Card for Scoping Process

First Solar Desert Sunlight Solar Farm Project

Commentor Name: George and Ruth Oliphant Date: 11-15-10

Address: PO Box 304 Desert Center CA 92239

Comment: we are writing in response to the Desert Sunlight solar Project. We are residents of Lake Tamarisk Desert Resort and are concerned about Desert Sunlight's proposal to run their power lines down Kaiser Rd past Lake Tamarisk. We have a nice little community here and have several concerns, some of which are: health and safety issues, long term effects on future growth and the economy of the valley. We choose to be here because of the beauty of our location and would hate to see that beauty diminished. We understand that your project has incredible merits and assets to our environment, but feel that our property values will be negatively impacted and the desirability of our location diminished if option A-1 is implemented. If Option B-1 is out of the Question (turtle-wise) Then option A-2 would be the next reasonable Solution. One which would not only benefit the Desert Sunlight Solar project, but would garner a great deal of good will and gratitude from the residents of Desert Center and Lake Tamarisk. Please help us to continue to enjoy our beutiful unobstructed views and sunsets. 99-1 99-2

Thank you for your Consideration

George and Ruth Oliphant

RECEIVED BUREAU OF LAND MANAGEMENT 10 NOV 23 PM 1:36 CALIFORNIA DESERT DISTRICT

By submitting a scoping comment you will receive a copy of the EIS. Please indicate the format you would prefer:

☐ Compact Disk (CD) or ☒ Hardcopy

October 20, 2010, Lake Tamarisk Community Center, 26251 Parkview Drive, Desert Center, CA 92239

100

"jlevin@mycod.us"
<jlevin@mycod.us>
11/23/2010 01:28 PM

To "CAPSSolarFirstSolarDesertSunlight@blm.gov"
<CAPSSolarFirstSolarDesertSunlight@blm.gov>
cc "rnolan@collegeofthedesert.edu"
<rnolan@collegeofthedesert.edu>
bcc
Subject Solar Project

I am a student at college of the desert and I am doing a research project on solar energy. I don't believe you're project would be very good for our local environment. There are lots of plants and animals that would suffer. Please explain to me why you think it is a good idea. **100-1**

Thank you,
Jonathan Levin

101

Patti Cockcroft
<patticockcroft@yahoo.ca>
11/23/2010 10:52 AM

To CAPSSolarFirstSolarDesertSunlight@blm.gov
cc
bcc
Subject solar farm

To whom it may concern,
First I would like to say that in general we think the idea of a solar farm is perfect for southern California. 101-1
However we have some concerns.
The first concern is with regard to having the lines so close to our community. My husband and I live in Vancouver Canada and the government has purchased the homes underneath and close to power lines because of health concerns. I'm not sure how close is too close but if there's a choice - and in this case there certainly is - we would by happier to see them moved further away from homes. 101-2
Another concern is the use of water. From what I understand the system would require huge amounts of water, and although we seem to have lots, we would hate to see it depleted to the point where we don't have enough. And we probably wouldn't know how close we were getting to the end of it until it would be too late to do anything about it. 101-3
So although we agree in principle to solar farms we would prefer not to have it in our backyard.
Thank you.
Ken and Patti Stamp
Lake Tamarisk

102

"Mike Rhoades"
<mike.rhoades@paloverde.edu>
11/23/2010 12:05 PM

To <CAPSSolarFirstSolarDesertSunlight@blm.gov>
cc
bcc
Subject Support for First Solar sight Desert Center.

I recently attended your meeting in Desert Center. Our state needs more companies like First Solar to provide clean energy to California. I am in complete support of their proposal and hope they will install more sites in the desert southeast to supply our even increasing energy needs. I currently live in Blythe and I am very excited about the Parabolic Trough plants coming to our area to supply clean energy. **102-1**

Thank you for your time

Michael Rhoades
Blythe Ca 92225

103

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4182
(909) 396-2000 • www.aqmd.gov

E-mailed: November 24, 2010 November 24, 2010
DesertSunlight@blm.gov

Ms. Allison Shaffer
Bureau of Land Management
Palm Springs-South Coast Field Office
1201 Bird Center Drive
Palm Springs, CA 92262

Review of the Draft Environmental Impact Report (Draft EIR)
for the Desert Sunlight Solar Farm Project

The South Coast Air Quality Management District (AQMD) appreciates the opportunity to comment on the above-mentioned document. The following comments are intended to provide guidance to the lead agency and should be incorporated into the Final Environmental Impact Report (EIR) as appropriate.

Based on a review of the Draft EIR the AQMD staff is concerned about the significant regional air quality impacts from the proposed project. Given that the project demonstrates significant air quality impacts the AQMD staff strongly recommends that the lead agency provide additional mitigation measures to further reduce air quality impacts from the construction phase of the proposed project. In addition, the calculation of dust generated by wind erosion during project operations appears to follow non-standard methodology. AQMD staff recommends that this analysis be revisited based on the attached comments prior to releasing the Final EIR. Lastly, additional evaluation of mitigation measures during operation of the project to reduce dust from wind erosion should be presented in the Final EIR.

Pursuant to Public Resources Code Section 21092.5, please provide the AQMD with written responses to all comments contained herein prior to the adoption of the final EIR. Further, staff is available to work with the lead agency to address these issues and any other questions related to air quality that may arise. Please contact Dan Garcia, Air Quality Specialist CEQA Section, at (909) 396-3304, if you have any questions regarding the enclosed comments.

Sincerely,

Ian MacMillan
Program Supervisor, CEQA Inter-Governmental Review
Planning, Rule Development & Area Sources

Attachment

IM:DG

RVC100831-02
Control Number

Effectiveness of Solar Panels to Reduce Wind Erosion

It is unclear from the Draft EIR how effective the solar panels would be in controlling wind blown dust. Solar panels would be expected to increase the surface roughness similar to vegetation; however unlike vegetation the shape of solar panels allows for laminar and turbulent air flow adjacent to the entire bare desert land surface. Although recent studies have begun to evaluate the effectiveness of this measure, field studies may not yet be available to verify how panels affect wind erosion. AQMD staff recommends that the lead agency provide additional information on more recent studies available from the Owen's Valley in the Final EIR. In addition, other alternatives that may reduce saltation and suspension of particulate matter should be considered. This could include permeable drapes or fencing that sit beneath the solar panels to restrict air flow. **103-1**

Wind Blown Dust Calculation Methodology

AQMD staff is concerned that the calculation procedure of future wind erosion emissions during operation of the project does not follow standard EPA Guidance for fugitive dust. The wind erosion calculation methodology presented in Appendix D-4 of the Draft EIR is based on assuming that wind erosion rates fit a sigmoidal curve. Geologic and atmospheric processes are input as parameters that modify the shape of the curve. The description of this methodology in the spreadsheets sent to AQMD staff appears to be limited. For example, the rationale for determining how natural phenomenon affect the shape of the curve appears to be ad hoc in places, and generally unreferenced (see comments below). In addition, the methodology appears to rely on converting all control efficiencies into an equivalent vegetative cover control factor. This simplification may not be valid, as many of the conversions appear to be unsubstantiated. **103-2**

If the lead agency chooses to use this calculation procedure, then additional information should be provided in the Final EIR that justifies its use. This could include field studies that verify the model's accuracy, or other references that may be relevant. If additional justification is not available, the lead agency should use procedures available from EPA or ARB for determining wind erosion rates.[1]

Wind Blow Dust Calculation Parameters

The choice of several parameters used in the wind blown dust calculation in the Draft EIR appears to yield underestimates of potential wind erosion emissions. The primary factor that should be reconsidered for all parameters is the assumption that the solar fields can be considered homogenous. For example, the underlying geology includes areas of high desert pavement areas in 20-30% of the site (unit Qoa), and low to no pavement areas in the rest of the site (unit Qal and Qoal). As the wind erosion calculation does not yield a linear control efficiency response, an assumption of uniform pavement beneath the entire site may overestimate the control efficiency for this parameter. **103-3**

[1] General information on wind erosion is available on ARB's website here: http://www.arb.ca.gov/ei/areasrc/arbmiscprocfugwbdst.htm

Further guidance from EPA is available in EPA 450/3-74-037 Development of Emission Factors for Fugitive Dust Sources beginning on page 144. The reference may be obtained online from EPA's library here: http://www.epa.gov/natlibra/ols.htm

Another parameter that may contribute to an underestimation of emissions is the assumption of 7% silt + clay. Based on the data presented in the Draft EIR, the silt + clay content may reach 13% for the younger alluvium. AQMD staff recommends that a worst case analysis include an assumption of 13% silt in the Final EIR. **103-3 cont**

Lastly, the ability of vegetation to control dust is largely based on studies of playa salt grass in the Owen's Valley. It is unclear if this type of vegetation will be available for use at this site. In addition, the ability of this vegetation to reduce wind erosion is likely dramatically enhanced by the irrigation and subsequent high soil moisture required for these plants to grow. The WNDEROSN spreadsheet presents control efficiencies for non-irrigated vegetative cover, however no reference is provided. References should be provided in the Final EIR that justifies the use of these values.

Proposed Use of Palliatives to Control Dust

In the Draft EIR, the lead agency states that dust palliatives would be applied to the surface of the solar field annually. However, in a subsequent phone call the project proponent indicated to AQMD staff that this mitigation measure may not be feasible as the ground will be tilled up immediately after construction of the array to enhance the vegetative potential of the site. The furrowed ground would both remove the previously lain palliatives, and preclude the ability of trucks to traverse the disturbed soils. AQMD staff therefore recommends that the lead agency provide further description and analysis of this mitigation measure in the Final EIR. Credit should not be taken for this measure if it is found to be infeasible. **103-4**

Wind Data

The lead agency uses wind data from the Barstow Daggett airport in this analysis; however that station is approximately 120 miles away from the site. AQMD staff recommends that the lead agency either use data from the Indio monitoring station located approximately 50 miles away, or explain in the Final EIR why the Barstow dataset is more appropriate to use. **103-5**

Mitigation for Construction Activities

In Section 4.2 (Air Resources) of the draft EIR the lead agency summarizes the project's air quality impacts. The lead agency's evaluation of the project's regional air quality impacts during project construction demonstrate significant air quality impacts from VOC, NOx, PM10 and PM2.5 emissions. Therefore, AQMD staff recommends that the lead agency add the following mitigation measures to further reduce air quality impacts from the construction phase of the project, if feasible: **103-6**

- Provide temporary traffic controls such as a flag person, during all phases of construction to maintain smooth traffic flow,
- Provide dedicated turn lanes for movement of construction trucks and equipment on- and off-site,
- Reroute construction trucks away from congested streets or sensitive receptor areas,

- Appoint a construction relations officer to act as a community liaison concerning on-site construction activity including resolution of issues related to PM10 generation, 103-6 cont
- Replace ground cover in disturbed areas as quickly as possible,
- Require the use of electricity from power poles rather than temporary diesel or gasoline power generators, and
- Restrict construction delivery trucks to "clean" trucks, such as 2010 or newer model years or 2010 compliant vehicles.

Further, to reduce the project's significant air quality impacts from NOx and PM2.5 emissions from off-road equipment, AQMD staff recommends that the lead agency revise mitigation measure MM-AIR-1 as follows: 103-7

- Sunlight and SCE shall ~~give preference to construction contractors who have newer equipment with lower emission rates or who have retrofitted their equipment with supplemental emission control devices (diesel particulate filters and catalytic controls for nitrogen oxide emissions). This measure might have economic consequences in terms of construction costs.~~ require all on-site construction equipment to meet EPA Tier 2 or higher emissions standards according to the following:

  - ✓ *April 1, 2010, to December 31, 2011:* All offroad diesel-powered construction equipment greater than 50 hp shall meet Tier 2 offroad emissions standards. In addition, all construction equipment shall be outfitted with the BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 2 or Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.

  - ✓ *January 1, 2012, to December 31, 2014*: All offroad diesel-powered construction equipment greater than 50 hp shall meet Tier 3 offroad emissions standards. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.

  - ✓ *Post-January 1, 2015*: All offroad diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.

A copy of each unit's certified tier specification, BACT documentation, and CARB or SCAQMD operating permit shall be provided at the time of mobilization of each applicable unit of equipment. **103-7 cont**

Also, the lead agency should consider encouraging construction contractors to apply for SCAQMD "SOON funds. Incentives could be provided for those construction contractors who apply for SCAQMD "SOON" funds. The "SOON" program accelerates clean up of off-road diesel vehicles, such as heavy duty construction equipment. More information on this program can be found at the following website: http://www.aqmd.gov/tao/Implementation/SOONProgram.htm **103-8**

104

Ileene Anderson
<ianderson@biologicaldiversity.org>

11/24/2010 04:51 PM

Please respond to ianderson@biologicaldiversity.org

To CAPSSolarFirstSolarDesertSunlight@blm.gov

cc brian_croft@fws.gov, khunting@dfg.ca.gov, Plenys.Thomas@epa.gov, lbelenky@biologicaldiversity.org, ianderson@biologicaldiversity.org

bcc

Subject CBD comments on Desert Sunlight DEIS

Hello Allison Shaffer,
Please find attached the Center for Biological Diversity's comments on the Draft EIS for the Desert Sunlight project. I will be sending a hardcopy of this same letter along with a CD of the references. Please don't hesitate to contact me with any questions.
Thanks very much for the opportunity to submit these comments and have a very nice Thanksgiving holiday!
Best regards,
Ileene Anderson

ILeene Anderson
Desert Program Director/Biologist
Center for Biological Diversity
PMB 447
8033 Sunset Boulevard
Los Angeles, CA 90046
(323) 654-5943
www.biologicaldiversity.org
Our good fortune will only last as long as our natural resources - Will Rogers

CBD comments Desert sunlight DEIS final 11-24-10.pdf

CENTER *for* BIOLOGICAL DIVERSITY

Sent by electronic mail and USPS Mail

November 24, 2010

Allison Shaffer
Project Manager
Bureau of Land Management
1201 Bird Center Drive
Palm Springs, CA, 92264
CAPSSolarFirstSolarDesertSunlight@blm.gov

RE: Comments on the Draft Environmental Impact Statement and California Desert Conservation Area Plan Amendment for the Proposed First Solar Desert Sunlight Solar Farm Project, Riverside County, California, August 2010, BLM Case File Number CACA #48649.

Dear Project Manager Shaffer:

These comments are submitted on behalf of the Center for Biological Diversity's 255,000 staff, members and on-line activists in California and throughout the western states, regarding the Draft Environmental Impact Statement and California Desert Conservation Area Plan Amendment for the Proposed First Solar Desert Sunlight Solar Farm Project, Riverside County, California BLM Case File Number CACA #48649, issued by the Bureau of Land Management ("BLM").

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 emission reductions set by AB 32 and Executive Orders S-03-05 and S-21-09. 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 lines 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 would disturb almost 4,400 acres of public lands in the Colorado Desert that provide habitat for many species including the threatened desert tortoise. The proposed project also includes a gen-tie line, a new Red Bluff substation and other ancillary structures. The DEIS for the proposed plan amendment and right-of-way application: fails to provide adequate identification and analysis of all of the significant impacts of the **104-A**

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proposed project on the desert tortoise, golden eagles, and other rare plants, animals and vegetation communities including Colorado desert microphyll woodlands, and other biological resources. The DEIS also fails to adequately address the significant cumulative impacts of the project; and lacks consideration of a reasonable range of alternatives. 104-A cont

Of particular concern is the BLM's failure to include adequate information regarding the impacts to resources and the failure to fully examine the impact of the proposed plan amendment to the California Desert Conservation Act Plan ("CDCA Plan") along with other similar proposed plan amendments from other projects and as a result the current piecemeal process appears to be on track to result in the approval of industrial sites sprawling across the California Desert generally, and the Chuckwalla Valley in particular, within habitat that should be protected to achieve the goals of the bioregional plan as a whole. This piecemeal and segmented approach maximizes (rather than minimizes) the indirect and cumulative impacts of each of the projects and will cause extensive habitat fragmentation. The DEIS also fails to adequately consider potential alternative plan amendments that would protect the most sensitive lands within the proposed ROW from all future industrial development. Alternative siting and alternative technologies (including distributed generation) should have been fully considered in the DEIS, because they could significantly reduce the impacts to many species, soils, and water resources in the Colorado Desert. Although the area of the proposed project is currently part of the evaluation being undertaken by the BLM for the solar PEIS for solar energy zones, within the western portion of the "Riverside East" proposed solar energy study area ("SESA"), unfortunately, there has been no environmental documentation yet provided for that process and there is as yet no way to discern if the proposed project siting will be compatible with that planning. In scoping comments on the PEIS, the Center raised concerns about the impacts that development in this portion of the proposed SESA would have to species and habitats and particularly to connectivity. As the Center has emphasized in our comments on the various large-scale industrial solar proposals in the California desert, planning should be done *before* site specific projects are approved in order to ensure that resources are adequately protected from sprawl development and project impacts are avoided, minimized and mitigated. 104-B

In the sections that follow, the Center provides detailed comments on the ways in which the DEIS 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 substation, and cumulative impacts. 104-1

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). 104-1 cont

The DEIS does not appear to provide the specific language of the proposed amendment to the CDCA plan. While the DEIS (at 2-35 through 2.45) describes the proposed action alternative, the only reference to the plan amendment is "This alternative would require an amendment to the CDCA Plan" (DEIS at 2-35). The DEIS lays out the process for a California Desert Conservation Area (CDCA) plan amendment (DEIS at 1-22), but fails to identify the specific parameters of the proposed amendment. 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 CDCA plan as well and should have looked at additional and/or different amendments as part of the alternatives analysis.

While the Center supports additional protections for species and habitats on public land that could accrue (for example by adoption the no action alternative 5 which would not allow solar development on the proposed project site), we have several concerns with the proposed land use amendments not the least of which is the BLM's failure to accurately address the limits of those protections on the ground under the current regulatory and statutory framework that applies to these public lands. For example, most of the lands that would be excluded from new solar ROW siting under the proposal are MUC class M lands that are open to multiple other high intensity uses. *See* CDCA Plan at 13. Specific comments on the proposal are discussed below:

The Center has repeatedly sought stronger protections for desert tortoise and tortoise critical habitat both in the DWMAs and in other areas within the CDCA as a whole and particularly within the NECO planning area. Despite the fact that desert tortoise populations in the NECO DWMAs continue to decline, BLM has continued to allow activities that significantly impact tortoise and critical habitat within the DWMAs and in other areas of occupied habitat outside of the DWMAs. As detailed below, the proposed project will significantly impact occupied desert tortoise habitat both outside of DWMA and within DWMA and alternatives should have been considered to relocate all of the project elements to minimize these impacts but no such alternatives were adequately explored.

BLM has failed to take a comprehensive look at the proposed plan amendment for the ROW to determine: 1) whether industrial scale projects are appropriate for any of the public lands in this area; 2) if so, how much of the public lands are suitable for such industrial uses given the need to balance other management goals including preservation of habitat and water resources; and 3) the location of the public lands suitable for such uses. As noted above, the BLM has also failed to explain how this proposed project would interface with the Solar PEIS process that is already under way and was intended to consider these questions. The DEIS also fails to explain how the piecemeal review for the Red Bluff substation (which is needed for the proposed project to interconnect to the Devers Palo Verde 1 transmission line), relates to earlier review by BLM for the Devers Palo Verde 2 transmission line ROW and the yet to be completed review for the Colorado River substation "expansion" which is also a connected action that is part of the DPV2 transmission line. The Center remains concerned that the result of the current process is a piecemeal approach to project review with site-specific approvals made before

planning is completed which threatens to undermine the "bioregional" approach in the CDCA Plan as a whole as well as violate the fundamental planning principles of FLPMA. 104-1 cont

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

Unfortunately, the DEIS 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. 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: 104-2

> 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.
>
> *—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.

104-2 cont

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 in detail. The inclusion of multiple "no action" alternatives, a reduced acreage alternative, and a reconfigured 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. Nothing in the DEIS shows that BLM considered the landscape level issues and management objectives or alternatives to the proposed plan amendment *in the DEIS*.

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

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

104-3

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 based on the sensitivity of

resources in each area. The proposed project site is in MUC class M and L lands. DEIS at 3.16-6. Under the CDCA Plan, Multiple-use 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 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). Under the CDCA Plan, Multiple-use Class L (Limited Use) "protects sensitive, natural, scenic, ecological, and cultural resources values. Public lands designated as Class L are managed to provide for generally *lower-intensity, carefully controlled multiple use of resources, while ensuring that sensitive values are not significantly diminished*." CDCA Plan at 13 (emphasis added). **104-3 cont**

The DEIS fails to accurately identify exactly how many acres of each MUC Class will be converted into the industrial solar facility, substation, transmission lines or other ancillary structures. Moreover, the proposed project is a high-intensity, single use of resources that will displace all other uses and that will significantly diminish (indeed, completely destroy) approximately 4,400 acres of occupied desert tortoise habitat, including critical habitat, blocking a key tortoise habitat linkage area and potentially impacting eolian transport to the downwind dunes ecosystem, as well as directly impacting habitat for other rare species. While the DEIS considers some alternative configurations that would avoid some impacts to some resources, it still completely fails to consider impacts to downwind sand dunes and eolian transport or how those impacts along with the loss of a large area of habitat will affect the biological resources of this area. 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 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 is unclear as to the extent that the proposal would require changes in the route network resulting in routes which would need to be moved—those changes to the route network are simply not addressed in the DEIS (nor are the likely direct, indirect and cumulative impacts of changing those route designations adequately identified or analyzed, as discussed in detail below). Any changes to routes would require BLM to amend the route designations in the area because these routes are part of a network that was adopted through a plan amendment. When BLM does consider these issues, as it must, in a revised or supplemental DEIS, a range of alternatives must be considered in addition to the fact that such changes will undoubtedly change use of the previously existing nearby routes, most likely causing increased use on other nearby routes. Even if BLM attempts to simply reroute along the fence line 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 this in analyzing the impacts of this project on the existing route network and

any proposal to amend that network. While the proposed project attempts to avoid rare plants and animal locations through project design, it inadvertently focuses the on-going multiple use impacts into these very same areas which harbor the most sensitive resources. 104-3 cont

C. Fails to Adequately Address Other Ongoing Planning Efforts

As noted above, the DEIS fails to adequately address the proposed project in the context of other connected projects (including multiple renewable energy projects, substations and additional transmission lines) and the ongoing PEIS planning process for solar development in six western states undertaken by BLM and DOE, where a draft plan is tentatively slated to be released in less than 30 days. The scoping and early maps for the PEIS did identify this area as a proposed solar energy study area[1], however, without prior planning and analysis being completed, there is a high risk that the direct, indirect and cumulative impacts of the proposed project in conjunction with others may lead to sprawl development in the area and undermine the planning for renewable energy industrial zones that BLM has undertaken. 104-4

The BLM did not previously analyze a substation in the general area where the Red Bluff substation is being proposed, for example this substation was not included in the DEIS for the Devers to Palo Verde No. 2 environmental review by BLM (or as revised for the California-only line adopted by the CPUC),. In addition, both Red Bluff substation alternatives will affect desert tortoise critical habitat; Alternative A Red Bluff substation is within the Chuckwalla Desert Wildlife Management Area (DWMA) while Alternative B is on private lands surrounded by DWMA. The Red Bluff Substation will be utilized by other industrial solar projects in the Chuckwalla Valley, and the BLM cannot lawfully piecemeal this project approval from other connected actions. Once again this shows that prior planning should have been done and could have likely streamlined much of the site-specific review and provided a better alternatives analysis by addressing these project components as a whole. Moreover, the BLM has failed to explain how this site specific approval would interface with, or alternatively undermine, the solar programmatic planning by federal agencies for the western states. This critical issue regarding planning on public lands is not addressed at all in the DEIS which doesn't even mention the PEIS. The BLM needs to analyze how the PEIS could be affected by the approval of this and the other multiple projects in the area and also address how this piecemeal analysis of the Red Bluff substation and gen-tie line may undermine the planning for a solar zone in this area. Such analysis *after the fact* is not consistent with the planning requirements of FLPMA or, indeed, any rational land use planning principles.

D. BLM Failed to Inventory the Resources of these Public Lands Before Making a Decision to Allow Destruction of those Resources

FLPMA states that "[t]he Secretary shall prepare and maintain on a continuing basis an inventory of all public lands and their resource and other values," and this "[t]his inventory shall be kept current so as to reflect changes in conditions and to identify new and emerging resource and other values." 43 U.S.C. § 1711(a). FLPMA also requires that this inventory form the basis of the land use planning process. 43 U.S.C. § 1701(a)(2). *See Center for Biological Diversity v. Bureau of Land Management*, 422 F.Supp.2d 1115, 1166-67 (N.D. Cal. 2006) (discussing need 104-5

1 http://solareis.anl.gov/documents/maps/studyareas/Solar_Study_Area_CA_Ltt_7-09.pdf

for BLM to take into account known resources in making management decisions); *ONDA v. Rasmussen*, 451 F.Supp. 2d 1202, 1212-13 (D. Or. 2006) (finding that BLM did not take a hard look under NEPA by relying on outdated inventories and such reliance was inconsistent with BLM's statutory obligations to engage in a continuing inventory under FLPMA). It is clear that BLM should not approve a management plan amendment based on outdated and inadequate inventories of affected resources on public lands. **104-5 cont**

As detailed below in the NEPA sections, here BLM has failed to compile an adequate inventory of the resources of the public lands that could be affected by the proposed project *before* preparing the DEIS (including, e.g., desert tortoise densities, rare plants, golden eagle surveys, and other biological resources) which is necessary in order to adequately assess the impacts to resources of these public lands in light of the proposed plan amendment and BLM has also failed to adequately analyze impacts on known resources. For example, the DEIS states for instance that the bird point count surveys were only done for a maximum of ten days in 2010 (DEIS at pg. 3.4-13) and the bat survey was a single day reconnaissance survey (Appendix H – Avian and Bat Protection Plan at pg. 22). Special status plant surveys were only performed during the spring season, despite the fact that the project area, indeed the whole Chuckwalla Valley, is subject to bimodal precipitation, and that summer rains germinate a suite of summer annuals, some of which are rare species and have been found on nearby development sites. Similarly for golden eagles only a single nest survey was completed. Even three years of surveys may be inadequate to evaluate the rare species on the project site due to the episodic nature of rainfall and the resources that precipitation supports. Coupled with the unprecedented size of the proposed project, as well as related and cumulative projects, the project would typically have been subject to many years of careful surveys and documentation of onsite resources.

Therefore, it appears that a revised DEIS or supplemental DEIS must be prepared to include several categories of new information including new survey data about the resources of the site and potential impacts of the project on resources of our public land and water, and that document must be circulated for public review and comment.

E. The DEIS Fails to Provide Adequate Information to Ensure that the BLM will Prevent Unnecessary and Undue Degradation of Public lands

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 adequate information and analysis of the current status of the resources of these public lands, BLM cannot fulfill its duty to prevent unnecessary or undue degradation of the public lands and resources. Thus, the failure to provide an adequate current inventory of resources and environmental review undermines BLM's ability to protect and manage these lands in accordance with the statutory directive. **104-6**

BLM has failed to properly identify and analyze impacts to the resources including the impacts from all of the project components. As detailed below, the BLM's failure in this regard violates the most basic requirements of NEPA 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"). **104-6 cont**

II. The DEIS 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). **104-7**

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).

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). Where there is incomplete information that is relevant to the reasonably

foreseeable impacts of a project and essential for a reasoned choice among alternatives, the BLM must obtain that information unless the costs of doing so would be exorbitant or the means of obtaining the information are unknown. 40 C.F.R. § 1502.22. Here the costs are reasonable to obtain information needed to complete the analysis and the BLM must provide additional information in the EIS—through a supplement or revised EIS. Even in those instances where complete data is unavailable, the EIS also must contain an analysis of the worst-case scenario resulting from the proposed project. *Friends of Endangered Species v. Jantzen*, 760 F.3d 976, 988 (9th Cir. 1985) (NEPA requires a worst case analysis when information relevant to impacts is essential and not known and the costs of obtaining the information are exorbitant or the means of obtaining it are not known) *citing Save our Ecosystems v. Clark*, 747 F.2d 1240, 1243 (9th Cir. 1984); 40 C.F.R. § 1502.22. **104-7 cont**

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

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). **104-8**

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 Sunlight project is "to respond to Sunlight's application under Title V of the FLPMA (43 USC 1761) for a right-of-way (ROW)

grant to construct, operate, maintain, and decommission a utility-scale 550-MW PV solar energy facility (Solar Farm), Gen-Tie Line, and a 500/220-kV substation on public lands, in compliance with FLPMA, BLM ROW regulations, and other applicable federal laws." (DEIS at 1-7), and also states that the "BLM authorities include: 104-8 cont

> • Executive order 13212, dated May 18, 2001, which mandates that agencies act expediently and in a manner consistent with applicable laws to increase the "production and transmission of energy in a safe and environmentally sound manner."
> • The EPAct, which requires the Department of the Interior (BLM's parent agency) to approve at least 10,000 MW of renewable energy on public lands by 2015.
> • Secretarial Order 3285, dated March 11, 2009, which "establishes the development of renewable energy as a priority for the Department of the Interior."

(DEIS at 1-7 through 1-8). The DEIS notes that an amendment to the CDCA Plan is needed in order to approve the project but does not clearly identify the plan amendment as a part of the project being evaluated, nor provide language as to what that amendment includes. Rather, the DEIS states: "If the BLM decides to approve the issuance of a ROW grant, the BLM will also amend the CDCA Plan as required." (DEIS at 1-7). 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 is impermissibly narrow under NEPA for several reasons, most importantly because it forecloses meaningful alternatives review in the DEIS. 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.

The DOE purpose and need statement provides:

> "is to comply with its mandate under EPAct 2005 by selecting eligible projects that meet the goals of the act. The DOE's proposed action is issuance of a loan guarantee for this Project under Title XVII of the EPAct 2005, as amended by Section 406 of the American Recovery and Reinvestment Act of 2009, P.L. 111-5 (the "Recovery Act"). The Recovery Act requires that construction for the Project commence by September 30, 2011."

DEIS at 1-8. It goes onto state:

> "On December 16, 2009, Sunlight submitted an application to the DOE Loan Guarantee Program for a federal loan guarantee for the Desert Sunlight Solar Farm at Desert Center, California in response to DOE's October 7, 2009 solicitation, "Federal Loan Guarantees for Commercial Technology Renewable Energy Generation Projects under the Financial Institution Partnership Program."

DEIS at 1-10.

In discussing the cumulative scenario, the DOE loan guarantee program is also described as one of the incentive programs for funding renewable energy projects:

Example[s] of incentives for developers to propose renewable energy projects on private and public lands in California, Nevada and Arizona, include the following: 104-8 cont

● U.S. Treasury Department's Payments for Specified Energy Property in Lieu of Tax Credits under §1603 of the American Recovery and Reinvestment Act of 2009 (Public Law 1115) - Offers a grant (in lieu of investment tax credit) to receive funding for 30% of their total capital cost at such time as a project achieves commercial operation (currently applies to projects that begin construction by December 31, 2010 and begin commercial operation before January 1, 2017).

● U.S. Department of Energy (DOE) Loan Guarantee Program pursuant to §1703 of Title XVII of the Energy Policy Act of 2005 - Offers a loan guarantee that is also a low interest loan to finance up to 80% of the capital cost at an interest rate much lower than conventional financing. The lower interest rate can reduce the cost of financing and the gross project cost on the order of several hundred million dollars over the life of the project, depending on the capital cost of the project.

DEIS at 3.18-6.

The Center is well aware that deadlines for funding, particularly for the DOE Loan Guarantee funds, have driven the pace of the environmental review for this project and others and, while such funding mechanisms are important, deadlines cannot be used as an excuse for rushed and inadequate NEPA review. The BLM and DOE must be concerned with the adequacy of the NEPA review and even if the agencies can properly have an objective of *timely* approval of projects they cannot properly have as purpose and need of the project a *rushed* inadequate environmental impact review.

Moreover, in its discussion of the need for renewable energy production the DEIS fails to 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, 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 ecologically functioning ecosystems, occupied habitat and important habitat linkage areas, major washes and other fragile desert resources could undermine a meaningful climate change adaptation strategy with a poorly executed climate change mitigation strategy. Moreover, the project itself will emit greenhouse gases during construction and manufacturing in particular and the DEIS contains no discussion of ways to avoid, minimize or off-set these emissions although such mitigation is clearly necessary. The

way to maintain healthy, vibrant ecosystems is not to fragment them and reduce their biodiversity. 104-8 cont

B. The DEIS Does Not Adequately Describe Environmental Baseline

BLM is required to "describe the environment of the areas to be affected or created by the alternatives under consideration." 40 CFR § 1502.15. The establishment of the baseline conditions of the affected environment is a practical requirement of the NEPA process. In *Half Moon Bay Fisherman's Marketing Ass'n v. Carlucci*, 857 F.2d 505, 510 (9th Cir. 1988), the Ninth Circuit states that "without establishing . . . baseline conditions . . . there is simply no way to determine what effect [an action] will have on the environment, and consequently, no way to comply with NEPA." Similarly, without a clear understanding of the current status of these public lands BLM cannot make a rational decision regarding proposed project. *See Center for Biological Diversity v. U.S. Bureau of Land Management, et al*., 422 F. Supp. 2d 1115, 1166-68 (N.D. Cal. 2006) (holding that it was arbitrary and capricious for BLM to approve a project based on outdated and inaccurate information regarding biological resources found on public lands). 104-9

The DEIS fails to provide adequate baseline information and description of the environmental setting in many areas including in particular the status of rare plants, animals and communities including desert tortoise, golden eagles, rare plants, and sand transport corridors.

The baseline descriptions in the DEIS are inadequate particularly for the areas where surveys were a single season, a day, or not performed at all. As discussed below, because of the deficiencies of the baseline data for the proposed project area, the DEIS fails to adequately describe the environmental baseline. Many of the rare and common but essential species and habitats have incomplete and/or vague on-site descriptions that make determining the proposed project's impacts difficult at best. Some of the rare species/habitats baseline conditions are totally absent and as a result no impact assessment is provided either. A supplemental document is required to fully identify the baseline conditions of the site, and that baseline needs to be used to evaluate the impacts of the proposed project.

C. 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 (9th 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.") 104-10

Moreover, BLM must look at reasonable mitigation measures to avoid impacts in the DEIS 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). **104-10 cont**

The lack of comprehensive surveys is particularly problematic. Failure to conduct sufficient surveys prior to construction of the project also effectively eliminates the most important function of surveys - using the information from the surveys to avoid and minimize harm caused by the project and reduce the need for mitigation. Often efforts to mitigate harm are far less effective than avoiding and preventing the harm in the first place. In addition, without understanding the scope of harm before it occurs, it is difficult to quantify an appropriate amount and type of mitigation.

The DEIS fails to provide all of the information necessary for decisionmakers and the public to adequately review the proposed project. Therefore the impacts cannot be fully analyzed or mitigated appropriately or fully. For this reason alone, a supplemental or revised DEIS needs to be provided and additional alternatives are included (including a preferred alternative) that avoids and reduces the impacts to biological resources.

The DEIS does not discuss if the proposed project actually lies within a Wildlife Habitat Management Area. It appears from the Northern and Eastern Colorado FEIS that a portion of the project may lie within one[2].

The Recirculated or Supplemental DEIS also should consider and include the final recommendations of the Independent Science Advisors (ISA) that was convened by the Desert Renewable Energy Conservation plan[3]. This eminent group of scientists from many different research backgrounds laid out some basic *Principles for Siting and Designing Renewable Energy Developments* including:

- **Maximize Use of Already Disturbed Lands**
- **Avoid Soil Disturbance**—
- **Avoid Disrupting Geological Processes**

(at page vi – Executive Summary). Clearly the proposed project and alternatives (except the no action alternative) fail to follow these three very basic principles.

With regards to transplantation and relocation, the ISA state that "In general, moving organisms from one area to another—for example, out of an impact area into a reserve area—is *not* a successful conservation action and may do more harm than good to conserved populations by spreading diseases, stressing resident animals, increasing mortality, and decreasing reproduction and genetic diversity. Transplantation or translocations should be considered a last recourse for unavoidable impacts, should never be considered full mitigation for the impact, and

2 BLM 2002 NECO Map 2-21
3 http://www.energy.ca.gov/2010publications/DRECP-1000-2010-008/DRECP-1000-2010-008-F.PDF

in all cases must be treated as experiments subject to long-term monitoring and management." (at pg. Vii – Executive Summary). Clearly the DEIS fails to consider the impacts of moving both plants and animals from the project site onto adjacent areas. As discussed below the DEIS fails to evaluate the impacts of any of the translocated species on resident species and habitat – at a minimum, carrying capacity (the ability of the habitat to support species) of the landscape where species area proposed to be moved needs to be included **104-10 cont**

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 is in the process of updating the Recovery Plan, and a Draft Updated Recovery Plan was issued in 2008, however it has not been finalized to date. Current data indicate a continued decline across the range of the listed species[4] despite its protected status and recovery actions. **104-11**

The original and draft 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[5]. Recent population genetics studies[6] have further reconfirmed 1994 Recovery Plan conclusions - the Eastern Colorado Recovery unit was one of the most genetically unique recovery units. While the proposed project site may have low desert tortoise densities, this particular recovery unit has also been documented to have the second highest declines in population over the last two years – 37% decline[7]. The DEIS fails to identify and consider the localized impact to this recovery unit that is already in steep decline.

Table 4.4-4 Summary of Construction Impacts on Special Status Wildlife Species under Alternative 1(the proposed alternative) misrepresents the impacts to desert tortoise. The table provides the number of burrows and the number of live tortoises documented for the proposed alternative. However it does not present the estimated number of desert tortoises on the project, although those number are estimated to be 10-14 tortoises at the solar site, 0-4 at Gen-Tie Line A1, and zero at both Red Bluff Station A and the Access road. Therefore, the DEIS and related documents acknowledge that up to 18 desert tortoise could be moved. This information is buried in Appendix H at pg.40.

Despite reliance on surveys and USFWS methodologies for estimating the number of desert tortoise on the proposed project site, the numbers may still be underestimated. On the Brightsource Ivanpah Valley site, which utilized the same type of surveys and estimation methodology, the numbers of desert tortoise on the whole three-phase site were estimated to be 38. However when

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4 http://www.fws.gov/nevada/desert_tortoise/documents/reports/2007_Rangewide_Desert_Tortoise_Population_Monitoring.pdf

5 http://ecos.fws.gov/docs/recovery_plans/1994/940628.pdf

6 Murphy et al. 2007

7 http://www.fws.gov/nevada/desert_tortoise/documents/reports/2007_Rangewide_Desert_Tortoise_Population_Monitoring.pdf

clearance surveys for the *first phase* were implemented, at least 42 desert tortoise were found. The Brightsource site in Ivanpah Valley is also located in BLM designated "Category 3" habitat. Like this proposed project site, where DWMA is separated from the project site by Kaiser Road, Brightsource's Ivanpah site was separated from DWMA by Interstate 15. Despite both of these linear features have permeability for desert tortoises, the boundaries of the DWMAs were arbitrarily designated based on human constructed features (in this case roads), not necessarily the habitat quality. As they survey results in and around this project area suggest, while the desert tortoise are not evenly distributed across the landscape, there are pockets of much higher density desert tortoise occupancy in these "Category 3" lands than even in parts of the DWMA that may be affected by the proposed project. **104-11 cont**

Likewise the USGS modeling of desert tortoise habitat is a good broad brush treatment of habitat, but as the results of the surveys associated with this proposed project confirm, the model does not always reflect the reality on the ground, where high sign of desert tortoise are located in an area of low habitat value (Appendix H – Figure 16). In addition, the categories of desert tortoise habitat were designated before the widespread recognition that global climate change was affecting the deserts. Now these Category 3 areas may be more important over the long-term either as habitat or connectivity for desert tortoise movement[8]

The map provided of the locations of desert tortoise in and around the project site (DEIS at Map 3.4-1 and Map 3.4-2) are presumably the locations where desert tortoise were documented during the surveys. However, desert tortoises are not static and utilize home ranges, where the size of the home range is generally sex dependent with males typically utilizing larger home ranges[9]. However, no determination of home ranges for these tortoises is provided, so these data are provided are only a snapshot in time. It is likely that some of the tortoises that were documented directly outside of the proposed project area boundary actually utilize part of the project area as their home range. No impacts to these tortoises are analyzed, and it is unclear once the desert tortoise exclusion fences were to go up if enough home range would be present to support those tortoises.

The DEIS provides a translocation plan in Appendix H. This draft plan violates not only the existing Desert Tortoise Recovery Plan[10] (1994) recommendations, but also the ISA recommendations[11] by proposing to translocate desert tortoise into the Chuckwalla DWMA. Recent desert tortoise translocations have resulted in significant short-term mortality of 45% or greater[12] and unknown long-term survivorship.

Mechanisms need to be included to assure that any and all mitigation acquisitions will be conserved in perpetuity for the conservation of the desert tortoise. If those acquisitions are within existing Desert Wildlife Management Areas (DWMAs), higher levels of protection than are currently in place for DWMAs need to be put in place. 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.

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8 Barrows 2009.
9 Harless et al. 2009; O'Connor et al . 1994..
10 http://ecos.fws.gov/docs/recovery_plans/1994/940628.pdf
11 http://www.energy.ca.gov/2010publications/DRECP-1000-2010-008/DRECP-1000-2010-008-F.PDF
12 Gowan and Berry 2009.

The 1:1 mitigation ratio of desert tortoise habitat outside of critical habitat is inadequate to mitigate for the destruction of this occupied habitat and should be far higher.[13] 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 species, at a minimum a 5:1 mitigation ratio should be required as mitigation for the total elimination of occupied desert tortoise habitat on the proposed project site. **104-11 cont**

If tortoises are relocated or translocated outside of the DWMA, then the relocation and/or translocation areas need to be secured for tortoise conservation in perpetuity, to preclude moving the animals subsequently if additional projects move forward on the relocation or translocation site(s).

While the DEIS recognizes that impacts from the proposed project will occur to desert tortoise there is no analysis of the significance of those impacts. Impacts are proposed to be reduced with the implementation of the Habitat Compensation Plan, however that plan (Appendix H – pg 121 of the pdf) is only 3 pages long and fails to clearly identify what the mitigation strategy actually is.

2. Sand Transport System

The DEIS fails to consider the contribution that the proposed project site makes to the sand transport system of the larger Chuckwalla Valley. The site need not have active dunes on it to be an integral part of the sand transport corridor and overall eolian system. In fact, the area of the proposed solar project appears to lie within the sand transport corridor that comes out of the Pinto Basin in Joshua Tree National Park and sustains the Palen dunes "downstream" of the proposed project site[14]. The impacts of the proposed project to the sand transport corridor, and the down-wind sand dune habitat which supports the Mojave fringe-toed lizard could be significant and that analysis must be done in a revised or supplemental DEIS. In fact, Figure 3.8-1 Regional Geology and Soils map (DEIS at pg. 3.8-4) indicates that a sizable part of the proposed project site is made up of quaternary dune sand but the loss of this type of soils is not addressed. **104-12**

3. Rare and Special Status Plants

As mentioned above, the no fall botanical surveys were done before the DEIS was prepared (Appendix H – pg 23 of the pdf) making the botanical surveys inadequate. These incomplete data sets preclude evaluation of the impacts, or more importantly the ability to design the project to avoid and minimize impacts. Clearly a supplemental DEIS is required to present these missing data. **104-13**

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13 Moilanen et al 2009, Norton 2008
14 Muhs et al. 2003

4. Avifauna

Migratory Birds

The DEIS downplays the fatalities that have been documented to occur from birds running into reflective surfaces[15]. Adjacent to the proposed project site are agricultural fields, which also attract birds. The DEIS does not quantify the number of birds (rare, migratory or otherwise) that use/traverse the project site from the (inadequate) 13 days of avian point count surveys (Appendix H – page 25 of the pdf), nor does it evaluate the impact to birds. McCrary[16] estimated 1.7 birds deaths per week on a 32 ha site with mirrors and a power tower configuration. The proposed project solar site is approximately 1700 ha (over 50 times larger). While the proposed solar project is a photovoltaic technology as compared to the mirrors in the McCrary study, other researchers have evaluated impacts to avian species from reflective surfaces and power lines[17] and find significant impacts associated with them. The revised or supplemental DEIS needs to analyze likely impacts to birds from the proposed project and panel configuration based on the point counts. **104-14**

The failure to provide the baseline data from which to make any impact assessment violates NEPA. This failure to analyze impacts is not only a NEPA violation, but for migratory birds, may also lead to a violation of the Migratory Bird Treaty Act, 16 U.S.C. §§ 703 -711, because migratory birds may be "taken" if the proposed project is constructed.

The Avian and Bat Protection Plan (Appendix H – page 129 of the pdf) is woefully inadequate. It is little more than a list of best management practices (BMPs) for construction. Despite elimination of nesting and foraging habitat for a suite of rare species, no compensation is proposed. Further, the BMPs are based on wind farms, not solar facilities where the threats to species are very different, as mentioned above.

Additionally Executive Order 13186 states "Each Federal agency taking actions that have, or are likely to have, a measurable negative effect on migratory bird populations is directed to develop and implement, within 2 years, a Memorandum of Understanding (MOU) with the Fish and Wildlife Service (Service) that shall promote the conservation of migratory bird populations." [18] Furthermore the EO states that goals pursuant to the MOU include "3) prevent or abate the pollution or detrimental alteration of the Environment for the benefit of migratory birds, as practicable;" and "(6) ensure that environmental analyses of Federal actions required by the NEPA or other established environmental review processes evaluate the effects of actions and agency plans on migratory birds, with emphasis on species of concern". Clearly, the supplemental DEIR needs to adequately identify the migratory bird issues on site and evaluate the impact to those species in light of the guidance in Executive Order 13186.

Burrowing Owls

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15 McCrary 1986

16 Ibid

17 Klem 1990, Erickson et al. 2005

18 http://ceq.hss.doe.gov/nepa/regs/eos/eo13186.html

The DEIS notes that burrowing owls are located in the proposed project area (DEIS at 3.4-21). Preliminary results from the 2006-7 statewide census identified that the Sonoran desert harbors few Western burrowing owls.[19] Even more worrisome is the documented crash of burrowing owls in their former stronghold in the Imperial Valley. The Imperial Valley has had a recently documented decline of 27% in the past 2 years[20], 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 declining severely, the burrowing owls on this proposed project site (and on other renewable energy projects) become even more important to species conservation efforts. The recirculated or supplemental DEIS needs to evaluate the potential impact of the proposed project on this regional distribution of owls. **104-15**

While habitat acquisition specifically for burrowing owls as identified in the DEIS, the proposed mitigation of only 6.5 acres per "active burrow" is too low (DEIS at 4.3-18), especially in the Colorado Desert, as it is outdated agency guidance. Mean burrowing owl foraging territories are 242 hectares in size, although foraging territories for owl in heavily cultivated areas is only 35 hectares[21]. Regardless, the acquisition of only 6.5 acres (2.6 hectares) per "active burrow" fails to mitigate for one bird even if it was relying on a heavily cultivated area. Therefore, additional mitigation acreage needs to be required – calculated using the mean foraging territory size times the number of owls. Using the average foraging territory size for mitigation calculations may not accurately predict the carrying capacity and may *overestimate* the carrying capacity of the proposed project site, since the proposed project site at 4,200 acres only support 4 birds (DEIS at 3.4-21) – it may be that in this area of the Colorado desert 4,000+ acres is necessary to support 4 burrowing owls. While the DEIS relies on guidance from CDFG from 2003, that guidance is now out of date in light of identified population declines[22], a more thorough census of burrowing owls throughout the state[23] and additional research on the species habitat[24]. Lastly, because the carrying capacity is tied to habitat quality, language should be included that mitigation lands that are acquired for burrowing owl be native habitats on undisturbed lands, not cultivated lands, which are subject to the whims of land use changes. The long-term persistence of burrowing owls lie in their ability to utilize natural landscapes, not human-created ones.

While "passive relocation" does minimize immediate direct take of burrowing owls, ultimately the burrowing owls' available habitat is reduced, and "relocated" birds are forced to compete for resources with other resident burrowing owls and may move into less suitable habitat, ultimately resulting in "take". While the Avian and Bat Protection Plan proposes to passively relocate burrowing owls, it is unclear what the subsequent monitoring will be targeting. The requirements of the plan do not explicitly include long-term monitoring of passively relocated birds in order to evaluate survivorship of passively relocated birds. Additionally no requirement for constructed burrows is identified as mitigation for the destruction of impacted

19 IBP 2008
20 Manning 2009.
21 USFWS 2003
22 Manning 2009
23 Wilkerson and Siegel 2010
24 USFWS 2003

burrows. Other solar projects in the area have been required to construct two burrows for every burrowing owl burrow destroyed. **104-15 cont**

Golden Eagle

Not only was a golden eagle documented *on the project site* (DEIS at 3.4-21), but the DEIS states that **104-16**

> "there are or were 20 potential golden eagle nests, associated with eight territories, within a 10-mile (16-kilometer) radius of the Proposed Project (Fesnock 2010). Of the eight territories, six are considered active, and two are historic. The closest active territory is in the southwest portion of the Coxcomb Mountains within the Joshua Tree National Park (referred to as the Coxcomb Mountain Southwest Territory), approximately two miles (3.2 kilometers) from the proposed Solar Farm site boundaries…Given the proximity of the Coxcomb Mountains Southwest Territory, it is highly likely that the Project site overlaps the territorial foraging area of this pair of eagles."

(DEIS at 3.4-20 through 3.4-21). However the map provided in Appendix H (at page 148 of the pdf) as Figure 3 – Results of Golden Eagle Phase 1and 2 Surveys only shows 9 golden eagle nests. No territories are mapped. The DEIS fails to present exactly how to mitigate the loss of a substantial amount of foraging habitat for the golden eagle from this project and other proposed projects within these territories. The fact still remains that significant amounts of foraging habitat will decrease carrying capacity of the landscape and could result in a potential loss of habitat needed to support a nesting pair, which would impact reproductive capacity.

Scientific literature on this subject is clear - the presence of humans detected by a raptor in its nesting or hunting habitat can be a significant habitat-altering disturbance even if the human is far from an active nest[25]. Regardless of distance, a straight-line view of disturbance affects raptors, and an effective approach to mitigate impacts of disturbance for golden eagles involves calculation of viewsheds using a three-dimensional GIS tool and development of buffers based on the modeling[26]. Golden eagles have also been documented to avoid industrialized areas that are developed in their territory.[27] Additionally, the DEIS does not actually clearly analyze the impacts to and mitigations for the golden eagle under the Bald Eagle and Golden Eagle Protection Act, which prohibits, except under certain specified conditions, the take, possession, and commerce of such birds.

5. Badger

While badgers were not documented on the site, the proposed project area provides good habitat for them (DEIS 3.4-24). Literature on the highly territorial badger indicates that badger home territories range from 340 to 1,230 hectares[28]. Therefore, the proposed project could **104-17**

25 Richardson and Miller 1997
26 Camp et al. 1997; Richardson and Miller 1997
27 Walker et al. 2005
28 Long 1973, Goodrich and Buskirk 1998

displace *at least* one badger territory. While surveys prior to construction are clearly essential, even passive relocation of badgers into suitable habitat may result "take". Excluding badger from the site is likely to cause badgers to move into existing badger's territory. The recirculated or supplemental DEIS needs to include an actual analysis of impacts to badgers from the proposed project. **104-17 cont**

6. Desert Kit Foxes

The DEIS fails to mention the desert kit fox, much less provide data on the presence or absence of the species on site or the locations of natal and other types of dens. Desert kit foxes are "protected furbearing mammals" under California Code of Regulations, Title 14, section 460 and may not be "taken" at any time. As such the DEIS fails to analyze the impacts to this species as required under CEQA (which the BLM indicated the DEIS would do). The revised or supplemental DEIS should identify the density of kit foxes on the proposed project site, including natal and other dens. If passive relocation is identified as an avoidance strategy, the DEIS must evaluate if suitable habitat occurs nearby and is not already occupied by existing kit foxes. **104-18**

7. Cryptobiotic soil crusts and Desert Pavement

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[29]. 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. 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 through photosynthesis[30]. **104-19**

The DEIS 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 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 revised or supplemental DEIS 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 desert pavements are mentioned as occurring on the proposed project site (DEIS at 3.6-16), quantitative acreage of pavement are not identified. The impact to air quality from disturbance of desert pavement is not analyzed.

8. Insects

29 http://www.mdaqmd.ca.gov/index.aspx?page=214

30 Belnap 2003, Belnap et al 2003, Belnap 2006, Belnap et al. 2007

The DEIS fails to address insects on the proposed project site. In fact no surveys or evaluation of rare or common insects are included in the DEIS. Sandy habitats are notorious for supporting endemic insects, typically narrow habitat specialists[31].The revised or supplemental DEIS must include an analysis of rare insects on the proposed project site. Several papers have been published regarding the impacts of solar panels on invertebrates and ways to potentially avoid those impacts.[32] These issues need to be addressed in a supplemental DEIS. **104-20**

9. Rosy Boa

One rosy boa was observed in the proposed Red Bluff Station A site (DEIS at 3.4-20). Avoidance measure include actively or passively relocating the rosy boa during construction activities. Rosy boas utilize home ranges with fidelity over a number of years[33]. While we support avoidance of impacts to rosy boas (and other species), translocated snakes make much longer unidirectional movements experience much lower survivorship than resident snakes[34]. **104-21**

10.. Vegetation Resources Management Plan

AM-BIO-5 (DEIS at 4.3-21) requires a Vegetation Resources Management Plan which would include 1) a Vegetation Salvage Plan and 2) a Restoration Plan. However none of these plans are provided. **104-22**

Desert lands are notoriously hard to revegetate or rehabilitate[35] and revegetation never supports the same diversity that originally occurred in the plant community prior to disturbance[36]. 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[37] only requires 40% of the original density of the "dominant" perennials, only 30% of the original cover. Dominant perennials are further defined as "any combination of perennial plants that originally accounted cumulatively for at least 80 percent of relative density".[38] These requirements fail to truly "revegetate" the plant communities to their former diversity and cover even over the long term. BLM's own regulations, 43 CFR 3809.550 et seq., require a detailed reclamation plan and a cost estimate, they need to be included in the revised or supplemental DEIS.

11. Wildlife Movement Corridor

The DEIS identifies the Pinto Wash as a key connectivity corridor for wildlife (DEIS at 3.4-24). However numerous other washes that currently provide connectivity for wildlife will be potentially impacted by the proposed project. For example Big Wash and Eagle Creek (Figure **104-23**

31 Dunn 2005.
32 Horvath et al. 2009; Horvath et al 2010
33 Diffendorfer et al. 2005.
34 Plummer and Mills 2000
35 Lovich and Bainbridge 1999
36 Longcore et al. 1997
37 http://www.blm.gov/ca/st/en/fo/cdd/neco.html
38 Ibid

3.17-2 – Surface Water Resources, DEIS at 3.17-10) appear to be impacted by the proposed project, but no analysis of the impact to these movement corridors is provided. This analysis should be included in the revised or supplemental DEIS **104-23 cont**

Additionally the whole project site is located within an area identified as an "essential connectivity area"[39] for wildlife identified by the California Essential Habitat Connectivity Project.

12. Rare Plants

While a number of rare plants were identified as occurring on the proposed project site (DEIS at Table 3.3-2, DEIS at 3.3-13 through 3.3-14), the rare plant surveys were only performed in the spring, from March 15 through April 9. 2010 (DEIS at3.3-10). Because of the monsoonal flows of precipitation in the Chuckwalla Valley during the summer, summer and fall annuals, some of which are rare, can only be surveyed for in late summer and early fall. All of the other solar projects proposed in the Chuckwalla Valley to have performed these late summer/early fall surveys Absent these essential surveys, the DEIS cannot accurately evaluate the impact to rare plants without first knowing what is on site. These surveys must be performed and the results of these surveys incorporated into the revised or supplemental DEIS. **104-24**

13. Failure to Identify Appropriate Mitigation

Because the DEIS 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 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 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 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." **104-25**

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*

39 Spencer et al. 2010

Fork Band Council of Western Shoshone v. DOI , 588 F.3d 718 , 727 (9th Cir. 2009) (emphasis in original). 104-25 cont

Here, the DEIS 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.

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

104-26 As the DEIS notes, the proposed project will impact a large number of washes and ephemeral streams and is on an alluvial fan. These areas provide important habitat values that will be lost by the construction of the proposed for the project site. Moreover, the loss of natural surface water flows and the re-direction of surface waters will have significant impacts to the dunes ecosystems. The impacts on soils and particularly on sand transport from the proposed project have not been adequately addressed in the DEIS.

The DEIS determined that no US Army Corps of Engineers jurisdictional waters occur on site (Appendix H – page 223 of the pdf), however, the DEIS failed to evaluate the impact to the Waters of the State which is necessary if the document is to be used in a CEQA process by the CPUC as stated in the document.

Ephemeral and intermittent streams make up over 81% in the arid and semi-arid southwest (Arizona, New Mexico, Nevada, Utah, Colorado and California). These streams provide a variety of ecosystem services including

- landscape hydrologic connections;
- stream energy dissipation during high-water flows to reduce erosion and improve water quality;
- surface and subsurface water storage and exchange;
- ground-water recharge and discharge;
- sediment transport, storage, and deposition to aid in floodplain maintenance and development;
- nutrient storage and cycling;
- wildlife habitat and migration corridors;
- support for vegetation communities to help stabilize stream banks and provide wildlife services;
- and water supply and water-quality filtering[40].

Yet the DEIS fails to evaluate the impact of the proposed project on the ephemeral and intermittent streams and the ecosystem processes that they provide both on and off of the proposed project site. The revised or supplement DEIS will need to include an analysis of these important issues.

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. 104-27

40 Levick et al. 2008.

16 U.S.C. §410aaa-76.[41] 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). **104-27 cont**

Although no *express* reservation of rights has been made for many of the other public lands in the CDCA, the DEIS 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 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 and recently approved 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 concerned that the discussion in the DEIS 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

41 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.")

involve somewhat complex legal issues, at minimum, the BLM must address this question and to either require the project proponent to agree that no water rights will be created or to otherwise 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. **104-27 cont**

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

Federal courts have squarely held that NEPA requires federal agencies to analyze climate change impacts. *Center for Biological Diversity v. National Highway Traffic Safety Administration*, 508 F.3d 508 (9th Cir. 2007). As most relevant here, NEPA requires consideration of greenhouse gas emissions ("GHG emissions") associated with all projects and, in order to fulfill this requirement the agencies should look at all aspects of the project which may create greenhouse gas emissions including operations, construction, and life-cycle emissions from materials. Where a proposed project will have significant GHG emissions, the agency should identify alternatives and/or mitigation measures that will lessen such effects. **104-28**

As part of the NEPA analysis federal agencies must assess and, wherever possible, quantify or estimate GHG emissions by type and source by analyzing the direct operational impacts of proposed actions. Assessment of direct emissions of GHG from on-site combustion sources is relatively straightforward. For the proposed project, energy consumption for manufacturing, transportation and construction, will be the major source of GHGs. The indirect effects of a project may be more far-reaching and will require careful analysis. Within this category, for example, the BLM should evaluate, GHG and GHG-precursor emissions associated with construction, electricity use, fossil fuel use, water consumption, waste disposal, transportation, the manufacture of building materials (lifecycle analysis), and land conversion. Moreover, because many project may undermine or destroy the value of carbon sinks, including desert soils, projects may have additional indirect effects from reduction in carbon sequestration, therefore both the direct and quantifiable GHG emissions as well as the GHG effects of destruction of carbon sinks should be analyzed.

The discussion of greenhouse gas emissions ("GHG") in the DEIS notes that the solar project will produce GHGs primarily from construction. The GHG emissions from the construction phase of the project are stated to be over 90.6 metric tons CO2 equivalent (Table 4.5-2 Summary of Greenhouse Gas Emissions from On-Site Construction Activity for 2011, Solar Farm Layout B – DEIS at 4.5-3). There is no discussion of reducing these emissions by using more efficient equipment or vehicles.

The DEIS also fails to adequately address other air quality issues including PM10 both during construction and operation which is of particular concern in this area which is a

nonattainment area for PM10 and ozone. It is clear that extensive on-site grading will result in significant amounts of bare soils and increased PM10 may be introduced into the air by wind and that the use of the area during construction and operations will lead to additional PM10 emissions from the site. Although some mitigation measures are suggested they are not specific and enforceable and because the extent of the impact has not been adequately addressed as an initial matter there is no way to show that the mitigation measures proffered will reduce the impacts to less than significance. **104-28 cont**

BLM fails to identify any significant GHG emissions and therefore does not provide for avoidance, minimization, or mitigation. BLM has also failed to include the loss of carbon sequestration from soils in its calculations or to provide a lifecycle analysis of GHG emissions that include manufacturing and disposal. Moreover, it is undisputed that in the near-term GHG emissions will increase emissions during construction, and in the manufacturing and transportation of the components. BLM fails to consider any alternatives to the project that would minimize such emissions or to require that these near-term emissions be off set in any way.

Although the proposed project may reduce GHG's overall it will also emit GHGs during construction and due to the manufacturing process that are not accounted for or off-set, BLM completely fails to explore this aspect of the impacts of the project in the DEIS in violation of NEPA.

F. The Analysis of Cumulative Impacts in the DEIS 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 (9th Cir. 1997); *Muckleshoot Indian Tribe v. U.S. Forest Service*, 177 F.3d 800, 809-810 (9th Cir. 1999). **104-29**

"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 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 (9th Cir. 1990) (emphasis in original). **104-29 cont**

The DEIS 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, transmission, and others). Moreover, because the initial identification and analysis of impacts is unfinished, the cumulative impacts analysis cannot be complete. For example, because the identification of potentially occurring rare plants on site is unfinished and incomplete, the cumulative impacts are also therefore inadequate.

The DEIS 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 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).

The NEPA regulations also require that indirect effects including changes to land use patterns and induced growth be analyzed. "Indirect effects," include those that "are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include *growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems*." 40 C.F.R. s.1508.8(b) (emphasis added). *See TOMAC v. Norton*, 240 F. Supp.2d 45, 50-52 (D.D.C. 2003) (finding NEPA review lacking where the agency failed to address secondary growth as it pertained to impacts to groundwater, prime farmland, floodplains and stormwater run-off, wetlands and wildlife and vegetation); *Friends of the Earth v. United States Army Corps of Eng'rs*, 109 F. Supp.2d 30, 43 (D.D.C. 2000) (finding NEPA required analysis of inevitable secondary development that would result from casinos, and the agency failed to adequately consider the cumulative impact of casino construction in the area); *see also Mullin v. Skinner*, 756 F. Supp. 904, 925 (E.D.N.C. 1990) (Agency enjoined from proceeding with bridge project which induced growth in island community until it prepared an adequate EIS identifying and discussing in detail the direct, indirect, and cumulative impacts of and alternatives to the proposed Project); *City of Davis v. Coleman*, 521 F.2d 661 (9th Cir. 1975) (requiring agency to prepare an EIS on effects of proposed freeway interchange on a major interstate highway in an agricultural area and to include a full analysis of both the environmental effects of the exchange itself and of the development potential that it would create).

Among the cumulative impacts to resources that have not been fully analyzed are impacts to desert tortoise, impacts to sand transport systems and down-wind Mojave fringe-toed lizard habitat, impacts to golden eagles, and impacts to water resources. 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. **104-29 cont**

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."). **104-30**

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.

Here, BLM too narrowly construed the project purpose and need such that the DEIS did not consider an adequate range of alternatives to the proposed project. The alternatives analysis is inadequate even with the inclusion of the alternative site configuration and a reduced acreage alternative. Additional feasible alternatives should be considered which would avoid all of occupied desert tortoise habitat as well as alternatives that would have looked at alternative sites for the Red Bluff substation to avoid impacts to the DWMA and critical habitat. In addition, a phased alternative should have been included which could allow some 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 (for example such as the abandoned farmlands in Desert Center) and also to explore other off-site alternatives. **104-30 cont**

The document did not consider a distributed renewable energy alternative. The BLM should have also looked 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 line gen-tie and the new substation. In addition, as discussed above, the BLM should have looked at alternatives for construction and operations that would reduce GHG emissions through offsets or other means.

The BLM failed to consider any off-site alternative that would significantly reduce the impacts to biological resources including occupied desert tortoise habitat, key movement corridors, golden eagles, sand transport corridors and others. Because such alternatives are feasible, on this basis and other the range of alternatives is inadequate. The Center urges the BLM to revise the DEIS to adequately address a range of feasible alternatives and other issues detailed above and then to re-circulate a revised or supplemental DEIS for public comment.

In addition, in order to meet the DOE's purpose and need states that: "The two principal goals of the loan guarantee program are to encourage commercial use in the United States of new or significantly improved energy-related technologies and to achieve substantial environmental benefits. The purpose and need for action by DOE is to comply with their mandate under EPAct by selecting eligible projects that meet the goals of the Act." (DEIS at 1.8). Assuming for the sake of argument alone that these are proper project objectives, the DEIS should have considered alternatives that would provide funding to other types of projects. Such alternatives could include, for example, conservation and efficiency measures that both avoid and reduce energy use within high-energy use load-centers including the Los Angeles area and the Inland Empire.

Alternative measures could include funding community projects for training and implementation of 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 long-term 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), thus fulfilling the purpose and objectives of the ARRA.

The existence of these and other feasible but unexplored alternatives shows that the BLM's analysis of alternatives in the DEIS is inadequate.

III. Conclusion

Thank you for your consideration of these comments. In light of the many omissions in the environmental review to date, we urge the BLM to revise and re-circulate the DEIS or prepare a supplemental DEIS before making any decision regarding the proposed plan amendment and right-of-way application. In the event BLM chooses not to revise the DEIS and provide adequate analysis, the BLM 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,

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SENT VIA USPS

NOVEMBER 24, 2010

RE: First Solar Desert Sunlight Solar Farm Draft EIS and Possible Plan Amendment

Dear Ms. Shaffer

Thank you for this opportunity for the Citizens for the Chuckwalla Valley ("CCV") to comment on the above captioned project. CCV is a grass-roots organization made up of residents of Eagle Mountain/Desert Center, Native Americans, local environmental activists from San Bernardino, Imperial, and Riverside Counties. CCV was formed in 1990 to prevent the World's largest garbage dump from being built across the street from the Eagle Mountain elementary school, and on the doorstep of Joshua Tree National Park. We have since expanded our mission to include other potentially damaging proposals and actively participate in the decision making process for proposals that include, but are not limited to water storage projects, power generating projects, questionable land use issues, and other projects that have the potential to harm desert communities and the environment in and around Joshua Tree National Park.

The document is both an Draft EIR and an Draft EIS ("DEIS/R") for the proposed project, therefore issues regarding California Environmental Quality Act ("CEQA") and National Environmental Policy Act ("NEPA") must be satisfied. This document falls way short of even the minimal requirements for CEQA and NEPA. One glaring violation is the Public has no way of knowing who the Lead Agency is for the CEQA component of the document. Never has CCV or individual members receive notice of scoping or hearings from the CEQA agency who is the Lead for the State of California. **105-A**

The Federal Government shall:
Include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of human environment, a detailed statement by the responsible official on –
The environmental impact of the proposed action
Any adverse environmental effects which cannot be avoided should the proposal be implemented

Alternatives to the proposed action
The relationship between local short term uses of man's environment and the maintenance and enhancement of long term productivity, and
Any irreversible and irretrievable commitment of resources which would be involved in the proposed action should it be implemented.

Despite the above, the DEIS/R states that there are 5 Issues of Concern Outside the Scope of the EIS, and will not be addressed: We believe the DEIS/R is inadquate for excluding the following: 105-B

i. Agencies must require adequate end of life project life planning, including reuse of abandoned sites for future renewable energy projects in lieu of allowing development on other undisturbed lands; and/or returning to public use in orignial condition
ii. Include thorough analysis of anticipated costs of decommissioning and restoration of project site
iii. Identify how siting of large energy projects would impact private property values and quality of life
iv. Does First Solar have plans to expand their project?
v. "Fast tracking" viewed as unwise

Regarding **Issue # 1**: Agencies must require adequate end of life project life planning. The project must be physically possible, legally permissible, and financially feasible, for BLM to grant any approvals. Why would BLM illegally decide that the anticipated costs of decommissioning and restoration of project site be excluded from analysis? How does the Public know if this is just a big PONZI scheme and the American taxpayer is being defrauded? 105-1

The FEIS/R must analyze the decommissioning of this solar swath. During the summer of 2010 the applicants created a mock solar array on private property across the street and about one mile from the proposed solar project. They leased about 13 acres of privately owned land and developed about 2 1/2 acres. Within a few weeks, the posts were removed and two types of soil stabilizers were applied to the now barren land. What is of particular interest is the shape the posts were in when they were removed. The posts were twisted and bent from installation. Also, the metal had oxidized and began to deteriorate in just the few weeks they were in the ground. There will be copious amounts of water used during construction, which will accelerate deterioration of the posts. We can see from the image that the alkaline soil readily attacks the aluminum posts. This results in a very unstable array of panels. For the sake of argument, lets say that they hold up during the lifespan of the Project, although that is highly unlikely. If decommissioning this solar swath is not going to be analyzed, the public nor agencies will know the potential problems. Eventually the posts holding up the panels will fail, leaving behind broken panels and exposure to cadmium telluride to nearby residents. This is another fatal flaw in the DEIS/R.

Regarding **issue #2**: The applicants claim that they will recycle solar panels, pull up the fixtures and return the land to its original as best they can. Considering that carcinogenic cadmium telluride is a major component in manufactoring solar panels, there must be a discussion of where these toxic panels will be handled at the end of the project's life. This analysis MUST be conducted using 2043 (end of project's life cycle) dollars, to ensure that the developers just simply do not walk away from the mess they leave. 105-2

The applicants need some bonding mechanism that needs to be included in the Final EIS/R. Further, it is unlawful for BLM to knowingly and willfully allow anyone to store or dispose of hazardous materials on Public Lands. 105-2 cont

Regarding **Issue # 3**: The National Environmental Policy Act of 1969 ("NEPA"), 42 U.S.C. § 4331(2)(c), requires all agencies of the federal government to prepare an environmental impact statement for all major projects significantly affecting the quality of the human environment. Again BLM wants to sweep stubborn problems under the rug. There are a number of absent private property owners virtually a stone's throw away from the proposed project, in Section 16. CCV members, Donna & Larry Charpied have developed a certified organic jojoba farm a mere 600 feet from the proposed project. BLM must include the property value decline as well as quality of life issues in order for them to achieve an adequate EIS/R. 105-3

It is no wonder why BLM and the applicants do not want to discuss private property issues. The Charpieds will be subjected to a constant hum from the 500 transformers that will be created for the Project. The desert is an extremely quite place, that is why many urbanites flock to the desert – for quiet, peace, and solitude. The noise created by the Project will be akin to torture. Psychologists and psychiatrists have documented the mental stress on people who live next to windmills, that also produce a constant hum. What kinds of mitigations are in place to protect public health and safety from low frequency and infrasonic noise that will be created by the 500 transformers throughout the 4000+ acre solar swath? People who normally had quiet nights now cannot sleep, which creates mental problems from agitation to full blown psychosis due to lack of sleep. These are common systems with people who have amnesia or who take drugs, such a methamphetamines. The applicants claim that the noise will not be noticeable. They need to camp out on their land to see and hear what it is like now. Noise travels well in the desert. For example, the developers of the Chuckwalla Valley Raceway, about 16 miles away from the Project site can be heard in the morning. Those developers also claimed nobody would hear them. 105-4

Further, the Charpied jojoba farm will become an endangered species if this project is approved. Jojoba is a wind pollinated plant. During pollination times, cultural practices are such that no tractor work or any dust creating equipment is used. When the styles are exposed on the female plant for pollination, it creates a sticky substance to ensure it catches pollen. If dust happens to fall on the style, the flower ceases creating the sticky substance because it thinks it has been pollinated. The result is aborted seeds, i.e. empty seed capsules. During construction and throughout the life of the project, the jojoba farm is threatened with no production. What government agency oversees the regulation for taking of people's livelihoods? There will be a huge significant impact to the jojoba if this project goes forward. BLM will undoubtedly have a tort claim against them if this project is approved and yields from the crop decrease due to insects introduced due to the project. 105-5

Blowing dust from employees going to and fro, along with equipment trucks, trash trucks, and general construction will cause a lot of dust. Dust is also is a problem for jojoba (all plants actually) because it carries with it, spider mites. Currently the problem with spider mites are not a problem, because despite the characterizations that the proponents claim, the project area is UNDISTURBED ! Once the land is distured by the project, dust (PM10) will become a significant problem. 105-6

Spider mites like to live on leaves and suck all the juice from them, leaving behind damaged and dwarfed leaves on the plant. The farm next to the proposed solar acreage has been in operation for almost 30 years.

Additionally, what will be the impacts of the electromagnetic field that will be created with the development of this project on nearby residents/farm, and flora and fauna of the area. Although anecdotal, members of CCV have observed cactus blooming in the dead of winter under high line transmission wires. Plants actually vibrate under the humming towers. How will this effect yields and growth patterns to farms next to this project? 105-7

Further, clearly the temperatures will be adversely affected with the solar field. Not only will the plants suffer from the increase in temperature, people will, too. Increase in temperatures, a micro-climate around the jojoba farm if you will, will result in different flowering patterns, potential to burn pollen-receptive styles, and a need to increase irrigation. The applicants and BLM deny any increase in temperatures, without any proof of such. The Charpieds have had a number of discussions with First Solar's Wayne Hoffman regarding impacts to the farm. First Solar was offered part of the Charpied property to construct the mock solar array, since the property is so close to the subject project. The mock array was constructed at least one mile away from the proposed solar swath. The Charpied's strongly encouraged First Solar to construct their weather station on their property for the same reason. A weather station so close to the proposed project would yield baseline information then a comparison could be made over the lifetime of the project. Since First Solar decided not to utilize property closest to their proposed project, CCV must assume that monitoring devices are being placed in areas where the least pertinent information would be yielded. It is apparent if not common sense that 4,000 acres of black, heat absorbing mirrors will negatively impact the ability for the Charpied's to continue their farming and therefore BLM and First Solar are merely taking the livelihoods from people who scratched a living in the desert without government subsidies or handouts of any kind! The irony is jojoba is RENEWABLE RESOURCE. A truly GREEN renewable resource. 105-8

Again, we strongly urge that this project not be approved due to it's close proximity to people's homes and farms, and its impacts to Joshua Tree National Park, and desert flora and fauna. No industrial project should be located next to such vulnerable receptors.

Over the years, the Charpied's have created a balance with pests through cultural practices. Scraping 4,000 + acres of desert will upset that delicate balance. For example what invasive insects will be attracted to the Sahara Mustard that will take hold in the area where it is virtually absent? We know one insect, the Say Stink bug will be attracted to the mustard as it is a preferred diet. Over the years, the Charpieds have irradicated, by hoeing the Sahara Mustard when it sprung up to protect the field. The Say Stink bug over-winters in the desert, then crawls in its larvae stage to farms, weedy areas etc. In its adulthood the bug develops wings and a long proboscis which it inserts into the seed capsule, when the embryo is in a jelly-like state, and sucks it dry. The jojoba seed capsule will continue to grow, making the grower think there is a viable seed. Then when harvest comes, you have a bunch of empty capsules. The Charpieds deal with this bug by dedicating 1 1/2 rows to native desert wildflowers where birds, lizards, and spiders live. When the Say Stink bug crawls into the row during its larvae stage, the natural predators eat them. There are absolutely no chemical applications to this farm, and has been certified organic with California Certified Organic Farmers for 20 years. The Say Stink bug can razor through a farm in less than a day if there is a large infestation, which is anticipated with the Project. If First Solar decides to use chemical pesticides to control weeds, they must apply when it is not windy, and notify the Charpieds when applications are planned. For more information on the Charpied's cultural practices, please see www.LaRonnaJojoba.com. Again, to ignore impacts to property values and people's health is a fatal flaw in the DEIS/R. 105-9

Back to the Sahara Mustard. Bulldozing the land will create a haven for the Sahar Mustard. This weedy species is wrecking havoc throughout the desert, out-competing native flora and a soucre for fuel for fires. There is not a huge problem with the Sahara Mustard in the project area, or the wilderness areas of Joshua Tree National Park. Introduction of this species will result in eutrophication of the surrounding desert, and Joshua Tree National Park Wilderness. 105-10

Holly Roberts from BLM Palm Springs field office was quoted in a recent newspaper article, after the meeting that was held in Joshua Tree Community Center. Holly says, "a contingent of people who are going to be very adversely affected and they're not going to like the impact on their quality of life. I don't know if there is a way to mitigate the human impacts." From Hi-Desert Star Saturday November 13, 2010.

Lastly, water consumption from the Project along with water consumption from the proposed hydroelectric pumped storage project and the proposed dump together will deplete the aquifer in the Chuckwalla Valley. The Project states several ways to obtain water – drill their own water well(s) or purchase water from nearby. The Charpied's well is the closest well to the Project. Once the water is lowered below the pump, there is no more access to water unless a new well is drilled. The impacts to private property are enormous. There have been no mitigation measures that will lessen or eliminate this problem. There will be more on water below. 105-11

Regarding **issues # 4**: While uses that are merely speculative or conjectural need not be considered, uses that are "reasonably probable" must be analyzed. This analysis must "have due regard for the existing business or wants of the community, or such needs as may be reasonably expected to develop in the near future." 26 Am Jur. 2d Eminent Domain § 322 (1966). Clearly, not discussing First Solar's plan to expand is in violation of NEPA and CEQA, when one considers that First Solar originally applied for 15,000 + acres, their possibility of expansion is not unreasonable. 105-12

Regarding **Issue # 5**: There is no discussion regarding fast tracking to enable the reader to understand how the conclusion not to include would be justified. To fast track these projects leads the public to believe that there has been a predetermined decision made to approve and construct these projects, completely infects the public process, and violates NEPA and CEQA. The State of California has developed the California Environmental Quality Act, and the Federal Government developed the Council on Environmental Quality with the Environmental Impact Statement the vehicle which the public may articulate its concerns. The reason for these environmental documents is to provide decision-makers with all of the available information to ensure a knowledgeable decision is rendered. To do less only shows the BLM and whoever the CEQA Lead is desire to by-pass any meaningful discussion for the project and sweep any stubborn problems under the rug. We believe this also violates the Environmental Justice doctrine, which will be discussed in detail below. 105-13

The BLM just cannot arbitrarily ignore the above issues they refuse to address. All of these issues are in the scope of the project and BLM just cannot legally sweep stubborn problems under the rug. A court will uphold an agency's decision in certifying an EIR as adequate IF the agency's decision is supported by substantial evidence. Substantial evidence is defined as "enough relevant information and reasonable inferences from this information that a fair argument can be made to support the conclusion even though other conclusions might also be reached".

Alternatives:

The DEIS/R fails to consider a reasonable range of alternatives, in violation of NEPA. *Id.* at 20-23. A federal agency may not employ criteria derived from the agency's preferred alternative as a means of rejecting other reasonable alternatives. *Idaho Conservation League v. Mumma,* 956 F.2d 1508, 1522 (9th Cir. 1992). Nor may an agency evade its duty to consider a reasonable range of alternatives by defining its project objectives in unnecessarily narrow terms, in order to artificially restrict the range of alternatives considered. *City of Carmel By-The-Sea v. U.S. Department of Transportation,* 123 F.3d 1142, 1155 (9th Cir. 1997). "The federal courts cannot condone an agency's 'contriv[ing] a purpose so slender as to define competing 'reasonable alternatives' out of consideration.'" *Simmons v. U.S. Army Corps. of Engineers,* 120 F.3d 664, 666 67 (7th Cir. 1997); *Citizens Against Burlington, Inc. v. Busey,* 938 F.2d 190, 196 (D.C. Cir. 1991). 105-14

First, jojoba, a truly green renewable energy source was completely omitted from any discussion in alternatives. Jojoba, a renewable natural resource, was included in the 98th Congress Report 98-109, CRITICAL AGRICULTURAL MATERIALS LIST. The Report states, in part, "...Congress recognizes the need of a domestic industry or industries for the production and manufacture from native agricultural crops of products other than rubber which are of strategic and industrial importance but for which the Nation is now dependent upon foreign sources, that such activities would benefit the economy, the defense, and the general well - being of the Nation, and that additional research efforts in this area should be undertaken or continued and expanded...". Former Congressman Al McCandless (R Palm Springs) was responsible for adding jojoba to the critical agricultural materials list. Jojoba plantings need to be part of the Alternative Actions section of the environmental documents.

Members of CCV are experts in the field and will be happy to provide further information. This plant is native to the area, and the infrastructure is already in place to re-start the industry, thus providing an alternative energy source from the region you desire to develop alternative energy projects.

Over 6,000 acres of jojoba were planted in Desert Center/Eagle Mountain in the early 1980's. The BLM gave away land at $2.50 an acre under the Desert Land Entry Program, which has since been discontinued. Hundreds of acres of ironwood forests and dry wash woodlands were developed with jojoba, now abandoned. What will be the impacts be to the environment (i.e. soil erosion, flooding etc.) when the remaining ironwood forests and dry wash woodlands are scraped away for solar?

DOI's NEPA handbook explains that the "purpose and need statement for an externally generated action must describe the BLM purpose and need, *not an applicant's or external proponent's purpose and need.*" Department of Interior, Bureau of Land Management, National Environmental Policy Act Handbook 35,(citing 40 C.F.R. § 1502.13) (emphasis added), *available at:*
http://www.blm.gov/pgdata/etc/medialib/blm/wo/Information_Resources_Management/policy/blm_handbook.Par.24487.File.dat/h1790-1-2008-1.pdf
(citing 40 C.F.R. § 1502.13) . "The applicant's purpose and need may provide useful background information, but this description must not be confused with the BLM purpose and need for action . . . . It is the BLM purpose and need for action that will dictate the range of alternatives.

The BLM's definition of the project's purpose will necessarily affect the range of alternatives considered, because when "the purpose is to accomplish one thing, it makes no sense to consider the alternative ways by which another thing might be achieved."

The DEIS/R states, "The BLM's purpose and need for the Proposed Action is to respond to Sunlight's

application under Title V of FLPMA (43 USC 1761) for a ROW grant to construct, operate, maintain and decommission a utility scale 550-MW PV solar energy facility (Solar Farm), Gen-Tie line, and a 500/220-kv substation on public lands, in compliance with FLPMA, BLM ROW regulations and other applicable federal laws.". 105-14 cont

The BLM proposed several alternatives that would have been responsive to the need to meet long-term energy demand, such as distributed and rooftop photovoltaic, private property in the Chuckwalla Valley, contaminated sites, alternative BLM lands for example. The BLM did not, however, consider these options in any detail because each of these alternatives failed to meet the narrowly drawn, project objectives, which required that Sunlight's private needs be met.

Environmental Justice:

Environmental Justice is ...the confluence of social and environmental movements, which deals with the inequitable environmental burden born by groups such as racial minorities, women, poor, or residents of rural areas and developing nations. It is a holistic effort that seeks to analyze and overcome the power structures that have targeted these groups and thwarted environmental reforms. Environmental justice proponents generally view the environment as encompassing 'where we live, work, and play' (sometimes adding learn and pray). The movement seeks to redress inequitable distributions of environmental burdens (pollution, industrial facilities, crime, etc.) and access to environmental goods (nutritious food, clean air & water, parks, recreation, health care, education, transportation, safe jobs, etc.) in a variety of situations. 105-15

In 1984, a report by Cerrell and Associates, commissioned by the California Waste Management Board outlined the communities most vulnerable and therefore easiest to site polluting facilities near, outlined those communities we refer to as Environmental Justice Communities. The report suggested that the Waste Board should… "target communities with less than 25,000 people, and where the residents are old, poor, politically conservative and Roman Catholic." That description certainly applies to the Eagle Mountain, Desert Center, and Lake Tamarisk communities where this project is proposed. The report goes on to state, "All socioeconomic groupings tend to resent the nearby siting of major facilities, but the middle and upper socioeconomic strata possess better resources to effectuate their opposition."

Energy laws before Congress aren't taking into account the economic realities of working people. Proposals such as Cap-and-Trade would target coal-intensive states, home to millions of America's working families and low-wage earners. Regardless of the environmental reasoning, such proposals would cause the price of electricity to rise drastically.

Renewable Energy proposals raise the same challenge. Many states are ill-equipped to take advantage of renewable energy sources such as solar and wind in an affordable way. In these states, working people will be forced to pay higher energy bills due to federal penalties assessed to energy producers and passed on to customers.

Research shows that higher energy prices have a greater impact as income decreases. This means that the most economically vulnerable Americans will suffer disproportionately. This is neither morally just nor politically fair.

Visual Resources

The project is proposed in an area with no land disturbances, except for some military training 70 years ago. These "disturbances" are extremely weathered/eroded tracks from Patton's army. The DEIS/R states in part, "…Most scenic vistas involving the Project site are from viewpoints along I-10, along SR-177, and in Desert Center/Lake Tamarisk. You forgot about the people who live a mere 600 ft from the site in Eagle Mountain. But then again, that would show how visually distressing the Project is taking into consideration it would be surrounded by sensitive desert areas and Joshua Tree National Park. 105-16

Key Observation Points ("KOP") that we viewed during the BLM meeting in Desert Center never even attempted to show the project to sensitive receptors. Not one image was taken from private property lines. Further, the private property owners in Section 16 would have to be blind not to see the mirrors. The Charpied's will not only see the panels, they will hear the constant hum of the transformers and have their eyes assaulted by transmission lines, and panels where Joshua Tree National Park Wilderness once painted the scenery. A visitor's wilderness experience in Joshua Tree National Park will be impugned.

Image taken from base of Coxcombs – JoTr Wilderness

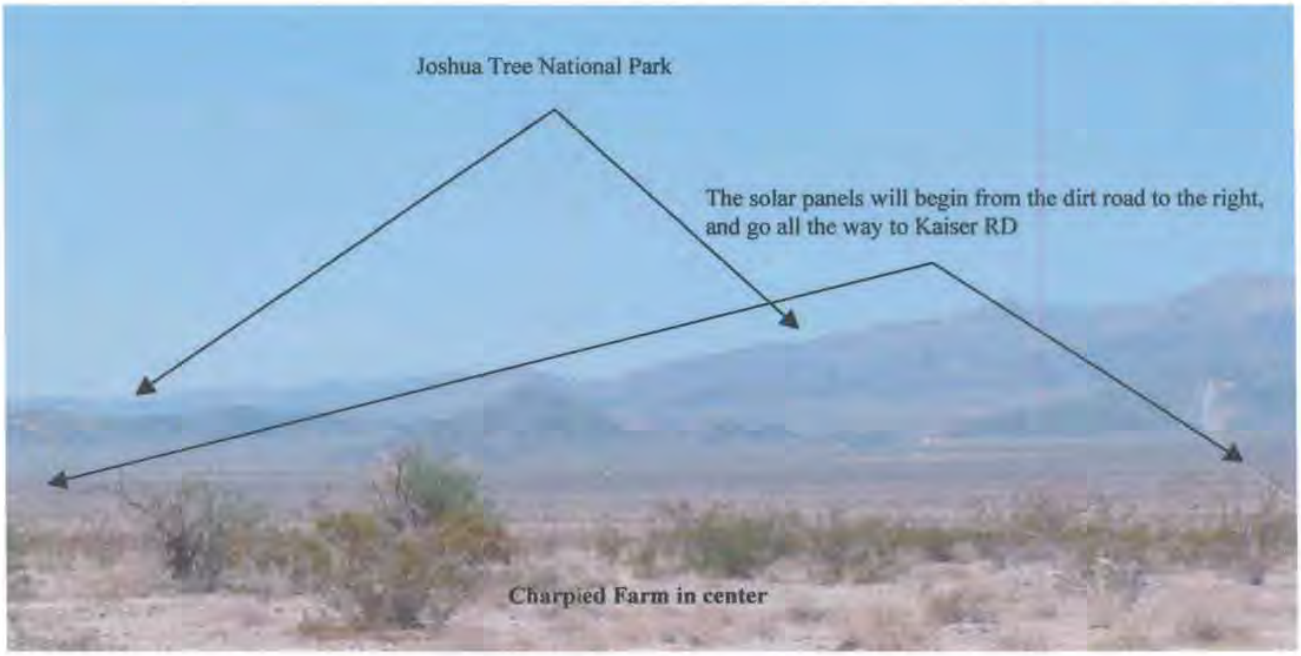


Image taken from JoTr Wilderness in the Eagle Mountains

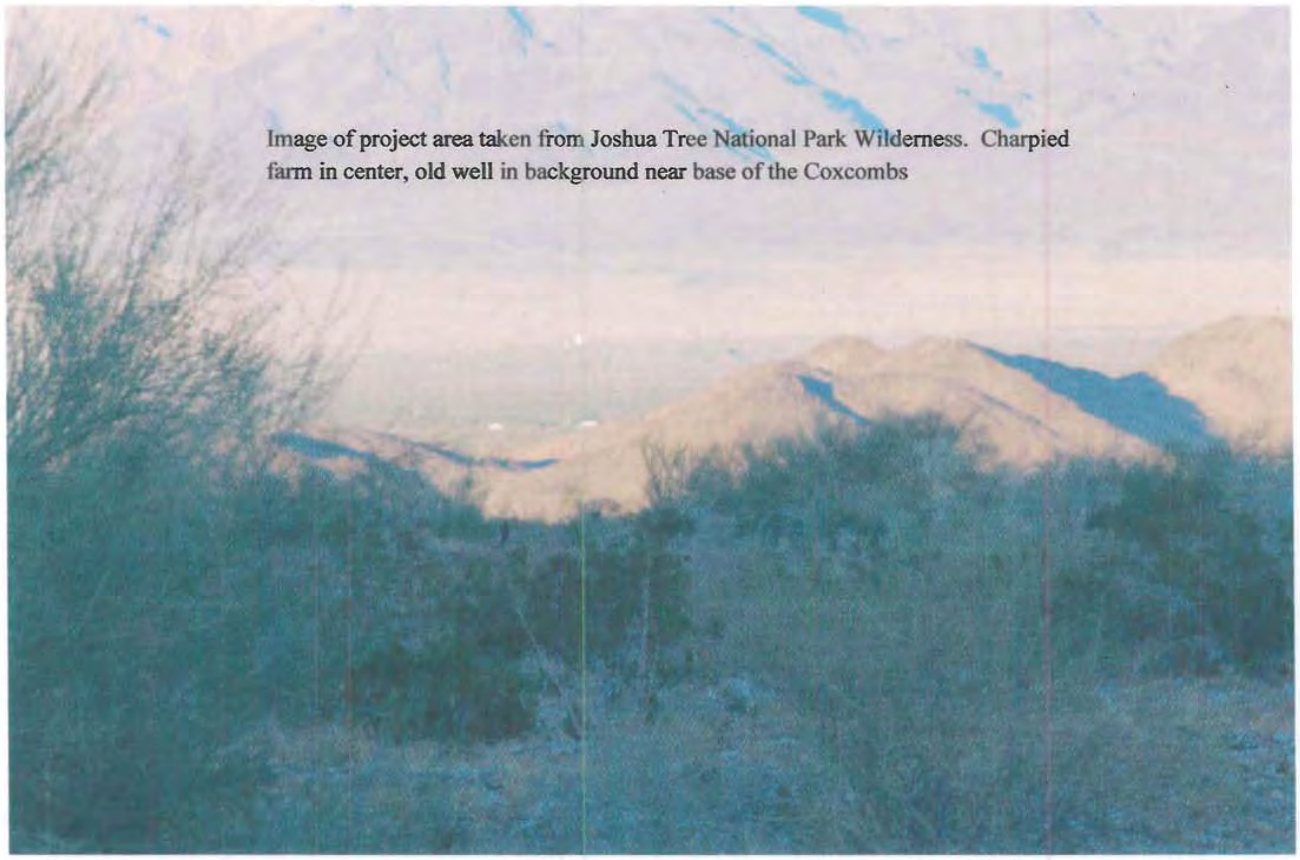
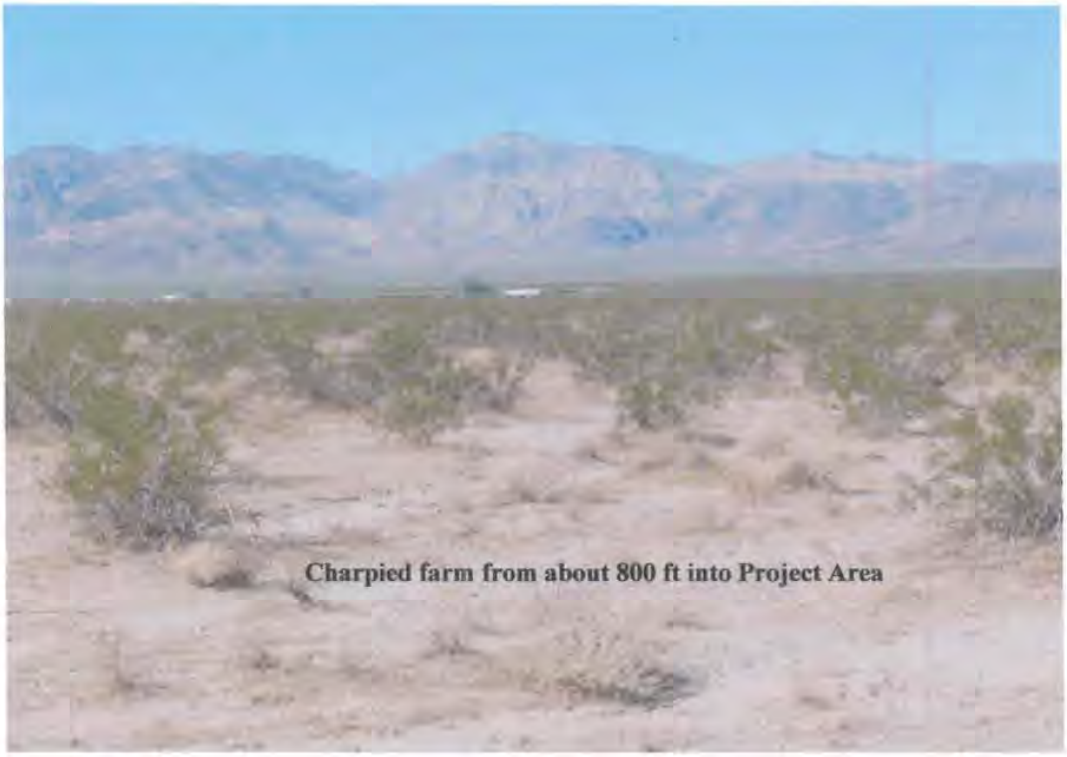


Image taken from Project area to Charpied Farm



Cultural Resources:

During archaeological investigation of the projected impact zones related to the Desert Sunlight solar energy project, a total of 435 cultural resources were recorded. Of these, at least 27 sites were of prehistoric origin classified into lithic reduction loci (stone tool manufacture), scatters of lithic waste and ceramic shards, four habitation sites, and trail segments which operated as part of the Coco-Maricopa trans-desert transportation system. Two other sites contained evidence of both prehistoric and historic activity. 105-17

Eighteen historic period sites related to actions of the World War II Desert Training Center have been identified as "potentially eligible for the CRHR (California Register of Historical Resources)" pending further investigation (Final Draft, Class III Cultural Resources Inventory of the Desert Sunlight Solar Farm Project, 6-3). Two historic dumps, one (P33-15095) containing refuse dated from the late 1920s to the 1980s and probably related to the community of Desert Center, and the other (CA-RIV-9388) consisting of scattered concentrations of primarily World War II era refuse, are both considered potentially eligible for the CRHR.

Two multi-component sites containing evidence of both prehistoric and historic activity are also

considered as potentially eligible for the CRHR. A complex of various mining features of one of the historic sites (CA-RIV-9415) and the possibility of subsurface cultural materials associated with the prehistoric components (lithic scatters) of both sites establish them as potentially eligible for the CRHR. Nearly all of the sites recorded as prehistoric have been described as having potential for subsurface manifestation, and are therefore considered potentially eligible for the CRHR. 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 associated with the area (Cahuilla, Chemehuevi, Mojave, Serrano), resource exploitation 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. 105-17 cont

The resulting material recovered during archaeological testing and recovery phases is a sensitive subject among Native Americans. Their concerns regarding all aspects of archaeological "mitigation" should be sought and seriously considered. Curation of recovered materials is one of these concerns. It has been said that "these materials should not live away from the people and place to which they are connected." People of the, Chemehuevi, Serrano, Mojave, and Cahuilla nations should be consulted as to how and where they wish recovered materials to be maintained.

Water Quantity:

105-18

Since the undersigned is most familiar with the water well on the Charpied farm, it is used as the example even though members of CCV have experienced the same water well problem.

For background purposes, in the mid-late 1980's many people (if not all) who own water wells had to lower their pumps, including the Charpied well, the closest private well to the proposed project. The well began to pump air in 1987 and the pump had to be lowered three pipe lengths from 278 ft to 341 ft. In 2004 when we had to replace our pump, we lowered it to 363 feet, where it sets now. We now have less than 40 feet to the bottom of the well.

Over the years, we have monitored the water level, which consistently reads 282.69 feet to 282.75 feet. Thus from 1987 until present, the water level has not reached it's historic level since the over draught occurrence from the 1980's jojoba boom. While it may true that the table is not depleting any longer, we haven't reached historical levels. Additionally, the USGS Scientific Investigations Report 2004-5267 provides supporting isotopic sampling and age dating evidence indicating that most of the groundwater in the region was likely recharged 3,000 to 32,000 years ago.

In 1994, we granted Eagle Crest Energy Company permission to access our property to drill three monitoring wells. Flow, drawdown, recovery rates were all calculated from 24-hour test pumps. During the time of the data collecting and preliminary analysis, Patti Croen, lead person for Greystone, and Mark E. Sydnor, Senior Hydrologists, both told us that the water necessary was not available. The study was to determine groundwater flow, availability, recovery, etc. The study included the 3 monitoring wells they drilled as well as the on-farm water well.

105-18 cont

ECEC measured the levels in the three monitoring wells on 4/22/08 and 5/15/08*. The measurements:

MW1 April – 280.99 May – 281.06
MW2 April – 280.98 May – 280.88 and,
MW3 April – 281.06 May – 279.55
*No measurements performed on the farm well

Once the water table is below the pump, it is not possible to make that well deeper. The casing inside the well would preclude that. Once our water level drops below our pump, First Solar could easily say that it is the problem of the dump (still an active proposal), hydroelectric project, farmers, etc. and we all could be in litigation to determine who caused the lowering of the water table. This is unacceptable. Clearly, this Valley cannot sustain the withdrawal of water planned for this project, when considering the pumping from the hydroelectric project, dump, other solar swaths, and other reasonably foreseeable future projects.

The DEIS/R simply regurgitates information from other solar projects.

We shall attach water balance statistics submitted by the Department of Interior's National Park Service to the proposed hydroelectric pumped storage project. The charts describe water balance from the historic water uses in the Chuckwalla Valley as well as reasonably foreseeable projects and details uses and recharge. Since the hydroelectric project covers the same geographical area as the subject project, the charts are well within the scope of the subject EIS/R.

There is no data presented at all that accounts for the loss of rainfall recharge due to the solar industrialization of the desert. For example, during construction (which coincides with ECEC's project), the solar developers will consume copious amounts of water for compaction, dust control, construction, and then rinsing of solar panels. Tens of thousands of acres of desert will no longer be able to percolate rainwater to the aquifer. How will this loss of percolation affect the underground aquifer? How much rain water will simply run-off and evaporate, instead of percolating into the underground aquifer? The hydroelectric project along with the proposed dump and proposed solar swaths will deplete this aquifer. And for some, depletion means when the pump in their well can no longer access the water. The average rainfall in the Chuckwalla Valley is 4 inches, and we have had spans of four and seven years without any rainfall at all. NOAA is our source of information. Even if it does rain a paltry 4 inches a year, that still would not recharge the aquifer with the tens of thousands of acre-feet you purport. Add to the equation that water does not flow uphill from the Cadiz and the Palo Verde basins, the recharge must be even less!

Referring again to the mock array that the applicant constructed, water consumption for construction is understated. The 2 1/2 acres that was developed required copious amounts of water, JUST FOR THE EQUIPMENT NOT TO GET STUCK IN THE SAND! We observed 3 water trucks at the site two 3,500 gallon capacity and one 8,000 gallon capacity. We observed the trucks making trips to Lake Tamarisk from the site for water. One would hope the Manager at Lake Tamarisk maintained logs to ascertain how much water was taken, so they could be compensated for it. However, we also observed water trucks going Jeff Randall's house which is located to the north of mock array on Kaiser Road, where he had

105-18 cont

created a water hole, and water was being taken from there. Nobody knows how much water was used from that site, which would obviously skew the amount of water needed for construction. One day we observed the water trucks making 9 trips for water - that would be 27 truck loads with 3 trucks. Keep in mind this water was just for construction on a mere 2 1/2 acres. The amount of water for construction has been woefully understated.

Lastly regarding water. If First Solar decides to utilize the water well that Kaiser claims to own, in trespass on public land, a full analysis must be conducted on what impacts to Joshua Tree National Park's water supply. That particular well was exclusively for mining operations that ceased in 1983. This will surely be an IBLA appeal.

Denuding the Desert

105-19

CCV anticipates that excessive pumping from all of the projects will lower the water table to the point that plants' roots will no longer be able to access water. First small plants will not be able to survive, then as the table lowers, ironwoods, smoketrees, palo verde, and creosote will eventually die leaving a denuded desert and a PM10 problem that currently does not exist in the Upper Chuckwalla Valley. This adds to eutrophication of the desert described below. Residents are also concerned about exposing arsenic that naturally occurs in desert soils, by denuding the desert. There is a human health consequence from denuding the desert. Arsenic occurs naturally in desert soils, but pose no risk *unless it is disturbed*. The solar swath will expose residents and wildlife to cancer causing arsenic when it becomes airborne. Cumulatively with the other 30,000 plus acres of solar swaths, as well as singularly, a significant negative impact will be created.

What will be the impacts to the Palm Springs Roundtail Ground Squirrel who like to live in the sand dune/mesquite areas where the water tables are higher? They will be the first to die from the obvious drawdown of water from the proposed and present activities in the Upper Chuckwalla Valley.

Researchers are finding that the desert is sucking up carbon at rates they never imagined:

> "...Researchers have found that Nevada's Mojave Desert, square meter for square meter, absorbs about the same amount of CO2 as some temperate forests. The two sets of findings suggest that deserts are unsung players in the global carbon cycle. "Deserts are a larger sink for carbon dioxide than had previously been assumed," says Lynn Fenstermaker, a remote sensing ecologist at the Desert Research Institute (DRI) in Las Vegas, Nevada, and a coauthor of a paper on the Mojave findings published online last April in Global Change Biology.

The effect could be huge: About 35% of Earth's land surface, or 5.2 billion hectares, is desert and semiarid ecosystems. If the Mojave readings represent an average CO2 uptake, then deserts and semiarid regions may be absorbing up to 5.2 billion tons of carbon a year--roughly half the amount emitted globally by burning fossil fuels, says John "Jay" Arnone, an ecologist in DRI's Reno lab and a co-author of the Mojave paper…". (Science 13 June 2008: Vol. 320. no. 5882, pp. 1409 – 1410 DOI: 10.1126/science.320.5882.1409). **105-19 cont**

There is no evidence that this solar project will cause a net benefit to offset global warming.

CDCA Plan Amendment:

The large public land area (approximately 19,000 acres) within the applicant's right-of-way application that has been excluded from the footprint of the proposed project and the reduced acreage alternatives should be excluded from future energy development. This area contains significant at-risk resources, such as the Desert Tortoise, Palm Springs Roundtail Squirrel, and drainages in the Pinto Wash that support microphyll woodlands. Furthermore, these undeveloped public lands provide foraging habitat for Golden Eagles that nest in nearby mountain ranges in Joshua Tree National Park. Any proposed amendment of the CDCA Plan for this area should include the provision that the undeveloped lands within the original right-of way application would be excluded from future renewable energy development and any other land use that would result in loss of natural biological communities. Moreover, if BLM chose the correct alternative, NO ACTION, then the entire area should be placed under protection from future energy production, since it is contiguous with Pinto Wash, supports microphyll woodlands, and is undisturbed public lands. **105-20**

Golden Eagle:

The DEIR/S indicates there are 20 potential Golden Eagle nests within a 10-mile radius of the proposed project, comprising eight territories, six of which are considered active. The closest active territory is located approximately two miles from the project solar swath boundary, and one Golden Eagle was observed flying south of I-10 in Chuckwalla Valley in the vicinity of the proposed Red Bluff substation during surveys. Illegal off roading activities will have a negative impact on the species. **105-21**

Mitigation to reduce the impacts due to the loss of potential Golden Eagle foraging habitat resulting from the proposed project is identified on page 4.4-7 of the DEIS: "Implementation of the *Habitat Compensation Plan* required in Applicant Measure BIO-1 discussed in Section 4.3, Vegetation, would reduce these impacts." For this measure to be effective, the habitat to be acquired must be located within foraging-territories associated with active nesting sites and in a natural condition suitable for supporting prey species. The goal should be to fully offset foraging habitat loss in order to achieve the "no net loss" standard of the U.S. Fish and Wildlife Service for this species. We urge BLM to select the No Action Alternative to protect this and other species (i.e. desert tortoise) from becoming extinct in the Chuckwalla Valley.

Mining:

The DEIR/S states that gravel necessary for roads within the project site would be obtained on-site or from some other source. First, there needs to be analysis that include impacts of significance, mitigation, and a cumulative impact analysis. If First Solar is going to mine the subject R-O-W for gravel for the **105-22**

project the impact to air, groundwater quality/quantity, noise, wildlife, lighting, etc all must be analyzed. If mining of gravel is to be a part of this project Cal OSHA, the Department of Mine Reclamation, and other agencies who oversee/permit mining operations must be contacted for their input/comments/recommendations. 105-22 cont

In past conversations, First Solar representative Wayne Hoffman indicated that gravel could be obtained from the DEFUNCT Kaiser iron-ore mine. There are a number of problems with this. First, the DEIR/S did not discuss cumulative impacts with Kaiser restarting their abandoned mining operations. Kaiser currently cannot legally mine the defunct Eagle Mountain mine because they had to cease mining when they went bankrupt due to the uneconomical status of the mine. The reclamation plan was adopted in the dumps EIR when the County of Riverside certified the document in 1997. Further, Kaiser had to relinquish all of its permits and abandon mining because of the proposed dump. Kaiser has no legal way of mining or providing First Solar with gravel or aggregate, from their closed mine.

If First Solar and Kaiser decide to do business together, then a full analysis of restarting mining operations, on the doorstep of Joshua Tree National Park must be conducted. The analysis must include but not limited to analysis of the cumulative impacts on traffic, road deterioration (remember there is only ONE road to the proposed project and the defunct mine). Kaiser will need to obtain all necessary permits, and withdraw its applications for the world's largest garbage dump. Additionally, analysis of the material taken from the defunct mine must be analyzed for toxins, prior to First Solar using it for construction of their project. The FEIR/S must discuss activities at the defunct mine. To satisfy NEPA/CEQA requirement analyze all past, current and foreseeable future activities. One such activity ignored needing analysis is the training of mercenaries at the old mine site. The US Marine Corps trained for two weeks, mercenaries remain on the site today.

The training exercises began in July 2006. Activities include detonation of ordnance, cannon fire, machine gun fire, helicopter maneuvers, thousands of troops, heavy equipment, tanks, personnel carriers, and everything necessary to train troops. Training was conducted by a private contractor, International Program Group, Inc.

Kaiser claims that the mercaneries are being trained on 10,000 acres of land. Among questions that remain unanswered are, especially if mining is resurrected: where does solid and liquid waste go? What airborne toxins will be exposed to school children virtually next door to these activities? How will the Project prevent airborne dust containing these air borne toxins from exposing the school children and employees at the Eagle Mountain Elementary School? What will prevent water, air, and soil contamination from perchlorate and other toxic chemical residues? What impact will be caused to the Big Horn Sheep who have guzzlers in the area? What happens to ordnance that do not explode? All of these questions must be answered in the FEIS/R.

Housing

The DEIR/S states there will be around 500 people during construction. Where are these people going to live? There is no housing in Desert Center/Eagle Mountain/Lake Tamarisk that could accommodate such an influx of people. There aren't even 500 permanent residents in the area, so this will double our population. Are they going to set up tents on the project site? Do they plan to commute? If they plan to commute, will where they park their cars? On the side of Kaiser Road like when the mock array was 105-23

being constructed, blocking traffic and visibility? What air quality impacts can be expected from all this travel from at a minimum 50 miles away? What impact will that have on GW, albeit temporary, there are so many areas where this project produces more CO2 than it offsets. 105-23 cont

Law Enforcement

What will the impact be on law enforcement with this influx of construction workers, who have the reputation of being quite rowdy? The nearest Sheriff station is 50 miles to the east in Blythe or 50 miles to the west in Indio. How will this area not turn into a lawless, haven for illegal activity? What would the economic impact be to law enforcement's resources having to drive 50 miles one way to answer a call? 105-24

Also, there are no doctors, hospitals, or urgent care centers here. What is the plan if something goes terribly wrong and people are seriously injured?

Among the illegal activities constructor workers engage in is off roading. Do you plan to educate your employees on off roading issues? Surely once people become familiar with the area they will explore more and very easily end up inside Joshua Tree's Wilderness. This problem is nearly non-existent currently. A large percentage of construction workers own off road vehicles and very few obey the road rules. What will be the impact to Joshua Tree National Park when these people decide to recreate in the desert when the work day is over? Active Golden Eagle nests were located in the Coxcomb mountains, which is Joshua Tree National Park Wilderness. What impact would these activities have on the Golden Eagle, Desert Tortoise, vegetation, etc?

Fire Response

This project is located virtually in the middle of nowhere. What contingencies are in place if (when) there is some kind of short in the lines, or other reasonable scenario that would cause the solar swath to start on fire? Although there is a County Fire Station located in Lake Tamarisk, about 5 miles south of the project, it is not equipped for large industrial fires containing hazardous materials (cadmium telluride). There are no fire hydrants anywhere nearby. The fire trucks would have to drive approximately 10 miles (5 miles each way) to fill the truck with water from one of the man-made lakes at Lake Tamarisk. How does First Solar plan for the worse case fire scenario? Perhaps a mitigation would be to construct another firehouse closer to the site, with a source of water. 105-25

Future Ownership

CCV insists that when this project is sold, it is sold to a corporation in the United State of America, for two reasons. One is for Homeland Security, which needs no explanations. Secondly, we all can see how well it works for taxpaying Americans when foreign sources contro our oil. Why would we want to hand over control to these so-called renewable energy projects? Again, quoting from the Hi-Desert Star article: A citizen, Stephanie Weigel quizzed First Solar's Monica lamb on how tax revenues would benefit Riverside County. Weigle got a complicated answer that involved a First Solar subsidiary and "whoever ends up owning the project". The Public MUST know who is going to own and operate this project. Is the Public just suppose to "trust" that all bonding for decommissioning, mitigation dollars, and habitat restoration will be forthcoming? Well, we don't trust them. There needs to be some type of legally binding development agreement to ensure the American taxpayer isn't saddled with the costs of foreiner corporation's or American Coporation's defaults. Again, bonding mechanisms must be 2043 dollars, or 105-26

whatever the life of the Project ends up being. 105-26 cont

CCV very much wants this project to be denied. However if it is to go to fruition, there are a number of mitigation measures that must be implemented:

- All transmission lines inside the project area must be buried under ground. We have seen Raven perch on the most unlikely sources and transmission lines are ripe for birds who prey on desert tortoise. 105-27

- Lighting at night only for repairs. In this area, even a penlight could be seen in the nighttime from a mile away. There simply are no barriers and light will travel much farther than in urban areas.

- A weather station needs to be constructed as close as practical to the solar swath. As mentioned above, the Charpieds will allow the construction of a weather station on the farm.

- Fencing needs to be at raised least 12 inches from the ground to allow desert tortoise to travel freely as they have for millenniums. Not during construction – tortoise need to stay outside of the equipment as bulldozers are no match for them.

- Plant ironwood trees, palo verde trees, mesquite trees, jojoba, or other native desert trees/shrubs along the outside fence line in an attempt to shield the solar swath from vision and possible sound barrier.

- All tours to the site must be conducted with electric cars, golf carts, shuttle buses. This would reduce the use of fossil fuels and lessen noise.

- Employees must be shuttled to work from Indio, Blythe and other areas 50 or so miles away, to lessen traffic on Kaiser Road, which is the only road to the community of Eagle Mountain, where the project is proposed.

- Cactus and trees removed for the project must be replanted elsewhere to enable replacement after the life of the project.

If this project should go to fruition, the Charpieds offer land on their property not yet developed to accommodate saving the lives of these trees/plants at the expense (irrigation supplies, water, fertilizer etc) of First Solar.

Lastly, CCV incorporates as though fully contained herein, the comments submitted by Basin and Range Watch. 105-28

In closing, CCV wishes to quote Edward Abbey from Desert Solitare (page 31):

"Strolling on, it seems to me that the strangeness and wonder of existence are emphasized here, in the desert, by the comparative scarcity of the flora and fauna; life is not crowded upon life as in other places but scattered abroad in sparseness and simplicity, with a generous give of space for each herb and brush and tree, each stem of grass, so that the living organisms stands out bold and brave and vivid against the lifeless sand and barren rock. The extreme clarity of the desert light is equaled by the extreme individuation of desert life-forms. Love flowers best in openness and freedom."

The above is the sentiment of us who love and respect our desert. Read that passage a few times. The mere words bring about a calming effect. This is why us warriors will protect this vulnerable area with all of our might, getting strength from the very place you wish to weaken.

Respectfully Submitted,

Donna Charpied Executive Director for,
Citizens for the Chuckwalla Valley

Cc: Interested Parties

Enc:
NPS Water Quantity analysis
Hi Desert Star article dated November 13, 2010

6 WATER BALANCE TABLES CREATED
BY NATIONAL PARK SERVICE

Submitted BY
CITIZENS FOR THE CHUCKWALLA VALLEY

DESERT Sunlight DEIS/R
NOVEMBER 24, 2010

TABLE 1 - PROPOSED WATER BALANCE USING APPLICANT's RECHARGE ESTIMATE TO PREDICT EFFECTS TO GROUNDWATER STORAGE FROM HISTORIC PUMPING IN THE CHUCKWALLA VALLEY (1948 - 2007)
(Submitted by the National Park Service in support of comments concerning the draft EIR for the proposed Eagle Mountain Pumped Storage Project)

Year	Eagle Mtn. Mine Water Supply Wells (Pinto V.)	Eagle Mtn. Mine Water Supply Wells (Chuckwalla V.)	Agricultural Pumping	Aquaculture Pumping/ Open Water Evap.	Desert Center Domestic Water Usage	So. Cal. Water Usage	Lake Tamarisk Water Usage	Chuckwalla/ Ironwood State Prison Water Usage	Subsurface Outflow	SUBTOTAL OUTFLOW	Lake Tamarisk Wastewater Return	Chuckwalla/ Ironwood State Prison Wastewater Return	Precipitation Recharge in Chuckwalla Valley	Subsurface Inflow from Pinto Valley	Subsurface Inflow from Orocopia Valley	SUBTOTAL INFLOW	INFLOW minus OUTFLOW	CUMULATIVE CHANGE IN AQUIFER STORAGE
1948	60								400	460			6,125	5,875	700	12,700	12,240	12,240
1949	160								400	560			6,125	5,875	700	12,700	12,140	24,380
1950	188								400	588			6,125	5,875	700	12,700	12,112	36,492
1951	220								400	620			6,125	5,875	700	12,700	12,080	48,572
1952	260								400	660			6,125	5,875	700	12,700	12,040	60,612
1953	320								400	720			6,125	5,875	700	12,700	11,980	72,592
1954	540								400	940			6,125	5,875	700	12,700	11,760	84,352
1955	660								400	1,060			6,125	5,875	700	12,700	11,640	95,992
1956	836								400	1,236			6,125	5,875	700	12,700	11,464	107,456
1957	647								400	1,047			6,125	5,875	700	12,700	11,653	119,109
1958	1,681								400	2,081			6,125	5,875	700	12,700	10,619	129,728
1959	1,712								400	2,112			6,125	5,875	700	12,700	10,588	140,316
1960	3,494								400	3,894			6,125	5,875	700	12,700	8,806	149,122
1961	3,866								400	4,266			6,125	5,875	700	12,700	8,434	157,556
1962	4,600								400	5,000			6,125	5,875	700	12,700	7,700	165,256
1963	7,904								400	8,304			6,125	5,875	700	12,700	4,396	169,652
1964	6,968								400	7,368			6,125	5,875	700	12,700	5,332	174,984
1965	5,950	2,454							400	8,804			6,125	5,875	700	12,700	3,896	178,880
1966	6,266	3,864							400	10,530			6,125	5,875	700	12,700	2,170	181,050
1967	6,689	3,951							400	11,039			6,125	5,875	700	12,700	1,661	182,711
1968	5,468	4,019							400	9,887			6,125	5,875	700	12,700	2,813	185,524
1969	5,426	4,097							400	9,923			6,125	5,875	700	12,700	2,777	188,301
1970	5,932	3,507							400	9,839			6,125	5,875	700	12,700	2,861	191,162
1971	5,190	3,211							400	8,801			6,125	5,875	700	12,700	3,899	195,061
1972	4,860	2,344							400	7,604			6,125	5,875	700	12,700	5,096	200,157
1973	5,114	3,724							400	9,238			6,125	5,875	700	12,700	3,462	203,619
1974	5,074	3,553							400	9,029			6,125	5,875	700	12,700	3,671	207,290
1975	5,026	3,574							400	9,000			6,125	5,875	700	12,700	3,700	210,990
1976	5,482	3,750							400	9,632			6,125	5,875	700	12,700	3,068	214,058
1977	5,980	3,896							400	10,276			6,125	5,875	700	12,700	2,424	216,482
1978	5,488	4,177							400	10,063			6,125	5,875	700	12,700	2,637	219,119
1979	5,388	4,166							400	9,954			6,125	5,875	700	12,700	2,746	221,865
1980	5,204	3,245							400	8,849			6,125	5,875	700	12,700	3,851	225,716
1981	5,966	3,005	11,331	302	50	1	870		400	21,925	29		6,125	5,875	700	12,729	-9,196	216,520
1982	4,854	1,574	13,220	302	50	1	870		400	21,271	29		6,125	5,875	700	12,729	-8,542	207,978
1983	3,128	47	15,108	302	50	1	870		400	20,004	29		6,125	5,875	700	12,729	-7,275	200,703
1984	500	790	16,997	302	50	1	870		400	19,910	29		6,125	5,875	700	12,729	-7,181	193,522
1985		484	18,885	302	50	1	870		400	20,992	29		6,125	5,875	700	12,729	-8,263	185,259
1986		450	20,774	302	50	1	870		400	22,847	29		6,125	5,875	700	12,729	-10,118	175,141
1987			18,243	302	50	1	870		400	19,886	29		6,125	5,875	700	12,729	-7,157	168,004
1988			15,712	302	50	1	870		400	17,335	29		6,125	5,875	700	12,729	-4,606	163,398
1989			13,181	302	50	1	870	1,000	400	15,804	29	379	6,125	5,875	700	13,108	-2,696	160,702
1990			10,650	302	50	1	870	1,000	400	13,273	29	379	6,125	5,875	700	13,108	-165	160,537
1991			8,119	302	50	1	870	1,000	400	10,742	29	379	6,125	5,875	700	13,108	2,366	162,903
1992			5,587	302	50	1	1,090	1,000	400	8,430	36	379	6,125	5,875	700	13,115	4,685	167,588
1993			4,749	302	50	1	1,090	1,000	400	7,592	36	379	6,125	5,875	700	13,115	5,523	173,111
1994			3,911	302	50	1	1,090	2,100	400	7,854	36	795	6,125	5,875	700	13,531	5,677	178,788
1995			3,073	302	50	1	1,090	2,100	400	7,016	36	795	6,125	5,875	700	13,531	6,515	185,303
1996			2,235	302	50	1	1,090	2,100	400	6,178	36	795	6,125	5,875	700	13,531	7,353	192,656
1997			2,235	302	50	1	1,090	2,100	400	6,178	36	795	6,125	5,875	700	13,531	7,353	200,009
1998			2,235	302	50	1	1,090	2,100	400	6,178	36	795	6,125	5,875	700	13,531	7,353	207,362
1999			2,235	302	50	1	1,090	2,100	400	6,178	36	795	6,125	5,875	700	13,531	7,353	214,715
2000			2,235	302	50	1	1,090	2,100	400	6,178	36	795	6,125	5,875	700	13,531	7,353	222,068
2001			2,235	302	50	1	1,090	2,100	400	6,178	36	795	6,125	5,875	700	13,531	7,353	229,421
2002			2,235	302	50	1	1,090	2,100	400	6,178	36	795	6,125	5,875	700	13,531	7,353	236,774
2003			2,235	302	50	1	1,090	2,100	400	6,178	36	795	6,125	5,875	700	13,531	7,353	244,127
2004			2,235	302	50	1	1,090	2,100	400	6,178	36	795	6,125	5,875	700	13,531	7,353	251,480
2005			3,433	215	50	1	1,090	2,100	400	7,289	36	795	6,125	5,875	700	13,531	6,242	257,722
2006			3,433	215	50	1	1,090	2,100	400	7,289	36	795	6,125	5,875	700	13,531	6,242	263,964
2007			6,389	215	50	1	1,090	2,100	400	10,245	36	795	6,125	5,875	700	13,531	3,286	267,250

TABLE 2 - PROPOSED WATER BALANCE USING NPS's RECHARGE ESTIMATE TO PREDICT EFFECTS TO GROUNDWATER STORAGE FROM HISTORIC PUMPING IN THE CHUCKWALLA VALLEY (1948 - 2007)
(Submitted by the National Park Service in support of comments concerning the draft EIR for the proposed Eagle Mountain Pumped Storage Project)

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1948	60								400	460			2,060	624	329	3,013	2,553	2,553
1949	160								400	560			2,060	624	329	3,013	2,453	5,006
1950	188								400	588			2,060	624	329	3,013	2,425	7,431
1951	220								400	620			2,060	624	329	3,013	2,393	9,824
1952	260								400	660			2,060	624	329	3,013	2,353	12,177
1953	320								400	720			2,060	624	329	3,013	2,293	14,470
1954	540								400	940			2,060	624	329	3,013	2,073	16,543
1955	660								400	1,060			2,060	624	329	3,013	1,953	18,496
1956	836								400	1,236			2,060	624	329	3,013	1,777	20,273
1957	647								400	1,047			2,060	624	329	3,013	1,966	22,239
1958	1,681								400	2,081			2,060	624	329	3,013	932	23,171
1959	1,712								400	2,112			2,060	624	329	3,013	901	24,072
1960	3,494								400	3,894			2,060	624	329	3,013	-881	23,191
1961	3,866								400	4,266			2,060	624	329	3,013	-1,253	21,938
1962	4,600								400	5,000			2,060	624	329	3,013	-1,987	19,951
1963	7,904								400	8,304			2,060	624	329	3,013	-5,291	14,660
1964	6,968								400	7,368			2,060	624	329	3,013	-4,355	10,305
1965	5,950	2,454							400	8,804			2,060	624	329	3,013	-5,791	4,514
1966	6,266	3,864							400	10,530			2,060	624	329	3,013	-7,517	-3,003
1967	6,688	3,951							400	11,039			2,060	624	329	3,013	-8,026	-11,029
1968	5,468	4,019							400	9,887			2,060	624	329	3,013	-6,874	-17,903
1969	5,426	4,097							400	9,923			2,060	624	329	3,013	-6,910	-24,813
1970	5,932	3,507							400	9,839			2,060	624	329	3,013	-6,826	-31,639
1971	5,190	3,211							400	8,801			2,060	624	329	3,013	-5,788	-37,427
1972	4,860	2,344							400	7,604			2,060	624	329	3,013	-4,591	-42,018
1973	5,114	3,724							400	9,238			2,060	624	329	3,013	-6,225	-48,243
1974	5,074	3,555							400	9,029			2,060	624	329	3,013	-6,016	-54,259
1975	5,026	3,574							400	9,000			2,060	624	329	3,013	-5,987	-60,246
1976	5,482	3,750							400	9,632			2,060	624	329	3,013	-6,619	-66,865
1977	5,960	3,896							400	10,276			2,060	624	329	3,013	-7,263	-74,128
1978	5,486	4,177							400	10,063			2,060	624	329	3,013	-7,050	-81,178
1979	5,388	4,166							400	9,954			2,060	624	329	3,013	-6,941	-88,119
1980	5,204	3,245							400	8,849			2,060	624	329	3,013	-5,836	-93,955
1981	5,966	3,005	11,331	302	50	1	870		400	21,925	29		2,060	624	329	3,042	-18,883	-112,838
1982	4,854	1,574	13,220	302	50	1	870		400	21,271	29		2,060	624	329	3,042	-18,229	-131,067
1983	3,226	47	15,108	302	50	1	870		400	20,004	29		2,060	624	329	3,042	-16,962	-148,029
1984	500	790	16,997	302	50	1	870		400	19,910	29		2,060	624	329	3,042	-16,868	-164,897
1985		484	18,885	302	50	1	870		400	20,992	29		2,060	624	329	3,042	-17,950	-182,847
1986		450	20,774	302	50	1	870		400	22,847	29		2,060	624	329	3,042	-19,805	-202,652
1987			18,243	302	50	1	870		400	19,866	29		2,060	624	329	3,042	-16,824	-219,476
1988			15,712	302	50	1	870		400	17,335	29		2,060	624	329	3,042	-14,293	-233,769
1989			13,181	302	50	1	870	1,000	400	15,804	29	379	2,060	624	329	3,421	-12,383	-246,152
1990			10,650	302	50	1	870	1,000	400	13,273	29	379	2,060	624	329	3,421	-9,852	-256,004
1991			8,119	302	50	1	870	1,000	400	10,742	29	379	2,060	624	329	3,421	-7,321	-263,325
1992			5,587	302	50	1	1,090	1,000	400	8,430	36	379	2,060	624	329	3,428	-5,002	-268,327
1993			4,749	302	50	1	1,090	1,000	400	7,592	36	379	2,060	624	329	3,428	-4,164	-272,491
1994			3,911	302	50	1	1,090	2,100	400	7,854	36	795	2,060	624	329	3,844	-4,010	-276,501
1995			3,079	302	50	1	1,090	2,100	400	7,016	36	795	2,060	624	329	3,844	-3,172	-279,673
1996			2,235	302	50	1	1,090	2,100	400	6,178	36	795	2,060	624	329	3,844	-2,334	-282,007
1997			2,235	302	50	1	1,090	2,100	400	6,178	36	795	2,060	624	329	3,844	-2,334	-284,341
1998			2,235	302	50	1	1,090	2,100	400	6,178	36	795	2,060	624	329	3,844	-2,334	-286,675
1999			2,235	302	50	1	1,090	2,100	400	6,178	36	795	2,060	624	329	3,844	-2,334	-289,009
2000			2,235	302	50	1	1,090	2,100	400	6,178	36	795	2,060	624	329	3,844	-2,334	-291,343
2001			2,235	302	50	1	1,090	2,100	400	6,178	36	795	2,060	624	329	3,844	-2,334	-293,677
2002			2,235	302	50	1	1,090	2,100	400	6,178	36	795	2,060	624	329	3,844	-2,334	-296,011
2003			2,235	302	50	1	1,090	2,100	400	6,178	36	795	2,060	624	329	3,844	-2,334	-298,345
2004			2,235	302	50	1	1,090	2,100	400	6,178	36	795	2,060	624	329	3,844	-2,334	-300,679
2005			3,433	215	50	1	1,090	2,100	400	7,289	36	795	2,060	624	329	3,844	-3,445	-304,124
2006			3,433	215	50	1	1,090	2,100	400	7,289	36	795	2,060	624	329	3,844	-3,445	-307,569
2007			6,389	215	50	1	1,090	2,100	400	10,245	36	795	2,060	624	329	3,844	-6,401	-313,970

TABLE 3 - PROPOSED BASELINE WATER BALANCE USING APPLICANT's RECHARGE ESTIMATE TO PROJECT EFFECTS OF EXISTING PUMPING INTO FUTURE (EXCLUDES PROJECT PUMPING AND FORESEEABLE PROJECT PUMPING)

(Submitted by the National Park Service in support of comments concerning the draft EIR for the proposed Eagle Mountain Pumped Storage Project)

Year	Eagle Mtn. Pumped Storage Project Water Supply Wells	Eagle Mtn. Pumped Storage Project Construction Water Usage	Eagle Mtn. Townsite	Eagle Mtn. Pumped Storage Project Seepage Recovery Wells	Proposed Landfill Water Usage	Proposed Solar Projects Construction Water Usage	Proposed Solar Projects Operational Water Usage	Agricultural Pumping	Aquaculture Pumping/ Open Water Evap.	Desert Center Domestic Water Usage	So. Cal. Water Usage	Recovery Water Usage	Lake Tamarisk Water Usage	Chuckwalla/ Ironwood State Prison Water Usage	Subsurface Outflow	SUBTOTAL OUTFLOW	Inflow from Reservoir Seepage	Lake Tamarisk Wastewater Return	Chuckwalla/ Ironwood State Prison Wastewater Return	Precipitation Recharge in Chuckwalla Valley	Subsurface Inflow from Pinto Valley	Subsurface Inflow from Orocopia Valley	SUBTOTAL INFLOW	INFLOW minus OUTFLOW	CUMULATIVE CHANGE IN AQUIFER STORAGE
2008								6,400	599	50	1		1,090	2,100	400	10,640		36	795	6,125	5,875	700	13,531	2,891	2,891
2009								6,400	599	50	1		1,090	2,100	400	10,640		36	795	6,125	5,875	700	13,531	2,891	5,782
2010								6,400	599	50	1		1,090	2,100	400	10,640		36	795	6,125	5,875	700	13,531	2,891	8,673
2011								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	12,164
2012								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	15,655
2013								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	19,146
2014								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	22,637
2015								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	26,128
2016								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	29,619
2017								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	33,110
2018								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	36,601
2019								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	40,092
2020								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	43,583
2021								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	47,074
2022								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	50,565
2023								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	54,056
2024								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	57,547
2025								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	61,038
2026								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	64,529
2027								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	68,020
2028								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	71,511
2029								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	75,002
2030								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	78,493
2031								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	81,984
2032								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	85,475
2033								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	88,966
2034								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	92,457
2035								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	95,948
2036								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	99,439
2037								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	102,930
2038								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	106,421
2039								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	109,912
2040								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	113,403
2041								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	116,894
2042								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	120,385
2043								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	123,876
2044								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	127,367
2045								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	130,858
2046								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	134,349
2047								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	137,840
2048								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	141,331
2049								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	144,822
2050								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	148,313
2051								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	151,804
2052								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	155,295
2053								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	158,786
2054								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	162,277
2055								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	165,768
2056								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	169,259
2057								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	172,750
2058								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	176,241
2059								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	179,732
2060								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	183,223
2061								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	186,714
2062								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	190,205
2063								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	193,696
2064								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	197,187
2065								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	200,678
2066								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	204,169
2067								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	207,660
2068								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	211,151
2069								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	214,642
2070								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	218,133
2071								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	221,624
2072								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	225,115
2073								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	228,606
2074								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	232,097
2075								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	235,588
2076								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	239,079

TABLE 3 - PROPOSED BASELINE WATER BALANCE USING APPLICANT's RECHARGE ESTIMATE TO PROJECT EFFECTS OF EXISTING PUMPING INTO FUTURE (EXCLUDES PROJECT PUMPING AND FORESEEABLE PROJECT PUMPING)

(Submitted by the National Park Service in support of comments concerning the draft EIR for the proposed Eagle Mountain Pumped Storage Project)

Year	Eagle Mtn. Pumped Storage Project Water Supply Wells	Eagle Mtn. Pumped Storage Project Construction Water Usage	Eagle Mtn. Townsite	Eagle Mtn. Pumped Storage Project Seepage Recovery Wells	Proposed Landfill Water Usage	Proposed Solar Projects Construction Water Usage	Proposed Solar Projects Operational Water Usage	Agricultural Pumping	Aquaculture Pumping/ Open Water Evap.	Desert Center Domestic Water Usage	Ia. Cal. Water Usage	Reservoir Water Usage	Lake Tamarisk Water Usage	Chuckwalla/ Ironwood State Prison Water Usage	Subsurface Outflow	SUBTOTAL OUTFLOW	Inflow from Reservoir Seepage	Lake Tamarisk Wastewater Return	Chuckwalla/ Ironwood State Prison Wastewater Return	Precipitation Recharge in Chuckwalla Valley	Subsurface Inflow from Pinto Valley	Subsurface Inflow from Orocopia Valley	SUBTOTAL INFLOW	INFLOW minus OUTFLOW	CUMULATIVE CHANGE IN AQUIFER STORAGE
2077								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	242,570
2078								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	246,061
2079								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	249,552
2080								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	253,043
2081								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	256,534
2082								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	260,025
2083								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	263,516
2084								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	267,007
2085								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	270,498
2086								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	273,989
2087								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	277,480
2088								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	280,971
2089								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	284,462
2090								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	287,953
2091								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	291,444
2092								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	294,935
2093								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	298,426
2094								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	301,917
2095								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	305,408
2096								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	308,899
2097								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	312,390
2098								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	315,881
2099								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	319,372
2100								6,400	599	50	1		1,090	1,500	400	10,040		36	795	6,125	5,875	700	13,531	3,491	322,863

TABLE 4 - PROPOSED BASELINE WATER BALANCE USING *NPS's* RECHARGE ESTIMATE TO PROJECT EFFECTS OF EXISTING PUMPING INTO FUTURE (EXCLUDES PROJECT PUMPING AND FORESEEABLE PROJECT PUMPING)

(Submitted by the National Park Service in support of comments concerning the draft EIR for the proposed Eagle Mountain Pumped Storage Project)

Year	Eagle Mtn. Pumped Storage Project Water Supply Wells	Eagle Mtn. Pumped Storage Project Construction Water Usage	Eagle Mtn. Tunnelite	Eagle Mtn. Pumped Storage Project Seepage Recovery Wells	Proposed Landfill Water Usage	Proposed Solar Projects Construction Water Usage	Proposed Solar Projects Operational Water Usage	Agricultural Pumping	Aquaculture Pumping/ Open Water Evap.	Desert Center Domestic Water Usage	So. Cal. Water Usage	Raceway Water Usage	Lake Tamarisk Water Usage	Chuckwalla/ Ironwood State Prison Water Usage	Subsurface Outflow	SUBTOTAL OUTFLOW	Inflow from Reservoir Seepage	Lake Tamarisk Wastewater Return	Chuckwalla/ Ironwood State Prison Wastewater Return	Precipitation Recharge in Chuckwalla Valley	Subsurface Inflow from Pinto Valley	Subsurface Inflow from Orocopia Valley	SUBTOTAL INFLOW	INFLOW minus OUTFLOW	CUMULATIVE CHANGE IN AQUIFER STORAGE
2008								6,400	599	50	1		1,090	2,100	400	10,640		36	795	2,060	624	329	3,844	-6,796	[illegible]
2009								6,400	599	50	1		1,090	2,100	400	10,640		36	795	2,060	624	329	3,844	-6,796	[illegible]
2010								6,400	599	50	1		1,090	2,100	400	10,640		36	795	2,060	624	329	3,844	-6,796	[illegible]
2011								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2012								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2013								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2014								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2015								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2016								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2017								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2018								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2019								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2020								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2021								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2022								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2023								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2024								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2025								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2026								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2027								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2028								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2029								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2030								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2031								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2032								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2033								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2034								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2035								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2036								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2037								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2038								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2039								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2040								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2041								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2042								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2043								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2044								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2045								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2046								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2047								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2048								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2049								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2050								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2051								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2052								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2053								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2054								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2055								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2056								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2057								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2058								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2059								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2060								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2061								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2062								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2063								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2064								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2065								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2066								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2067								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2068								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2069								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2070								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2071								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2072								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2073								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2074								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2075								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2076								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]

TABLE 4 - PROPOSED BASELINE WATER BALANCE USING NPS's RECHARGE ESTIMATE TO PROJECT EFFECTS OF EXISTING PUMPING INTO FUTURE (EXCLUDES PROJECT PUMPING AND FORESEEABLE PROJECT PUMPING)

(Submitted by the National Park Service in support of comments concerning the *draft* EIR for the proposed Eagle Mountain Pumped Storage Project)

Year	Eagle Mtn. Pumped Storage Project Water Supply Wells	Eagle Mtn. Pumped Storage Project Construction Water Usage	Eagle Mtn. Townsite	Eagle Mtn. Pumped Storage Project Seepage Recovery Wells	Proposed Landfill Water Usage	Proposed Solar Projects Construction Water Usage	Proposed Solar Projects Operational Water Usage	Agricultural Pumping	Aquaculture Pumping/ Open Water Evap.	Desert Center Domestic Water Usage	So. Cal. Water Usage	Raceway Water Usage	Lake Tamarisk Water Usage	Chuckwalla/ Ironwood State Prison Water Usage	Subsurface Outflow	SUBTOTAL OUTFLOW	Inflow from Reservoir Seepage	Lake Tamarisk Wastewater Return	Chuckwalla/ Ironwood State Prison Wastewater Return	Precipitation Recharge in Chuckwalla Valley	Subsurface Inflow from Pinto Valley	Subsurface Inflow from Orocopia Valley	SUBTOTAL INFLOW	INFLOW minus OUTFLOW	CUMULATIVE CHANGE IN AQUIFER STORAGE
2077								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2078								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2079								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2080								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2081								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2082								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2083								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2084								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2085								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2086								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2087								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2088								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2089								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2090								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2091								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2092								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2093								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2094								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2095								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2096								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2097								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2098								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2099								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2100								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]

TABLE 5 - REVISED WATER BALANCE USING NPS's RECHARGE ESTIMATE TO PROJECT EFFECTS OF EXISTING PUMPING AND PROJECT PUMPING INTO FUTURE (EXCLUDES FORESEEABLE PROJECT PUMPING)

(Submitted by the National Park Service in support of comments concerning the draft EIR for the proposed Eagle Mountain Pumped Storage Project)

Year	Eagle Mtn. Pumped Storage Project Water Supply Wells	Eagle Mtn. Pumped Storage Project Construction Water Usage	Eagle Mtn. Townsite	Eagle Mtn. Pumped Storage Project Seepage Recovery Wells	Proposed Landfill Water Usage	Proposed Solar Projects Construction Water Usage	Proposed Solar Projects Operational Water Usage	Agricultural Pumping	Aquaculture Pumping/ Open Water Evap.	Desert Center Domestic Water Usage	So. Cal. Water Usage	Raceway Water Usage	Lake Tamarisk Water Usage	Chuckwalla/ Ironwood State Prison Water Usage	Subsurface Outflow	SUBTOTAL OUTFLOW	Inflow from Reservoir Seepage	Lake Tamarisk Wastewater Return	Chuckwalla/ Ironwood State Prison Wastewater Return	Precipitation Recharge in Chuckwalla Valley	Subsurface Inflow from Pinto Valley	Subsurface Inflow from Orocopia Valley	SUBTOTAL INFLOW	INFLOW minus OUTFLOW	CUMULATIVE CHANGE IN AQUIFER STORAGE
2008								6,400	599	50	1		1,090	2,100	400	10,640		36	795	2,060	624	329	3,844	-6,796	[illegible]
2009								6,400	599	50	1		1,090	2,100	400	10,640		36	795	2,060	624	329	3,844	-6,796	[illegible]
2010								6,400	599	50	1		1,090	2,100	400	10,640		36	795	2,060	624	329	3,844	-6,796	[illegible]
2011								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2012		308						6,400	599	50	1		1,090	1,500	400	10,348		36	795	2,060	624	329	3,844	-6,504	[illegible]
2013		308						6,400	599	50	1		1,090	1,500	400	10,348		36	795	2,060	624	329	3,844	-6,504	[illegible]
2014	7,758	308		1,628				6,400	599	50	1		1,090	1,500	400	19,734	1,628	36	795	2,060	624	329	5,472	-14,262	[illegible]
2015	8,066			1,628				6,400	599	50	1		1,090	1,500	400	19,734	1,628	36	795	2,060	624	329	5,472	-14,262	[illegible]
2016	8,066			1,628				6,400	599	50	1		1,090	1,500	400	19,734	1,628	36	795	2,060	624	329	5,472	-14,262	[illegible]
2017	8,066			1,628				6,400	599	50	1		1,090	1,500	400	19,734	1,628	36	795	2,060	624	329	5,472	-14,262	[illegible]
2018	2,688			1,628				6,400	599	50	1		1,090	1,500	400	14,356	1,628	36	795	2,060	624	329	5,472	-8,884	[illegible]
2019	1,767			1,628				6,400	599	50	1		1,090	1,500	400	13,435	1,628	36	795	2,060	624	329	5,472	-7,963	[illegible]
2020	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2021	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2022	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2023	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2024	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2025	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2026	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2027	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2028	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2029	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2030	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2031	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2032	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2033	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2034	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2035	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2036	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2037	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2038	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2039	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2040	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2041	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2042	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2043	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2044	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2045	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2046	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2047	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2048	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2049	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2050	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2051	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2052	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2053	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2054	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2055	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2056	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2057	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2058	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2059	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2060	1,763			1,628				6,400	599	50	1		1,090	1,500	400	13,431	1,628	36	795	2,060	624	329	5,472	-7,959	[illegible]
2061								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2062								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2063								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2064								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2065								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2066								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2067								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2068								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2069								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2070								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2071								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2072								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2073								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2074								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2075								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]
2076								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	[illegible]

TABLE 5 - REVISED WATER BALANCE USING NPS's RECHARGE ESTIMATE TO PROJECT EFFECTS OF EXISTING PUMPING AND PROJECT PUMPING INTO FUTURE (EXCLUDES FORESEEABLE PROJECT PUMPING)

(Submitted by the National Park Service in support of comments concerning the draft EIR for the proposed Eagle Mountain Pumped Storage Project)

Year	Eagle Mtn. Pumped Storage Project Water Supply Wells	Eagle Mtn. Pumped Storage Project Construction Water Usage	Eagle Mtn. Townsite	Eagle Mtn. Pumped Storage Project Seepage Recovery Wells	Proposed Landfill Water Usage	Proposed Solar Projects Construction Water Usage	Proposed Solar Projects Operational Water Usage	Agricultural Pumping	Aquaculture Pumping/ Open Water Evap.	Desert Center Domestic Water Usage	So. Cal. Water Usage	Raceway Water Usage	Lake Tamarisk Water Usage	Chuckwalla/ Ironwood State Prison Water Usage	Subsurface Outflow	SUBTOTAL OUTFLOW	Inflow from Reservoir Seepage	Lake Tamarisk Wastewater Return	Chuckwalla/ Ironwood State Prison Wastewater Return	Precipitation Recharge in Chuckwalla Valley	Subsurface Inflow from Pinto Valley	Subsurface Inflow from Orocopia Valley	SUBTOTAL INFLOW	INFLOW minus OUTFLOW	CUMULATIVE CHANGE IN AQUIFER STORAGE
2077								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	-549,134
2078								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	-555,330
2079								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	-561,526
2080								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	-567,722
2081								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	-573,922
2082								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	-579,118
2083								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	-585,314
2084								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	-591,510
2085								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	-597,706
2086								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	-603,902
2087								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	-607,098
2088								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	-613,294
2089								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	-619,490
2090								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	-625,686
2091								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	-631,882
2092								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	-638,078
2093								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	-644,274
2094								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	-650,470
2095								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	-656,666
2096								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	-662,862
2097								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	-669,058
2098								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	-675,254
2099								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	-681,450
2100								6,400	599	50	1		1,090	1,500	400	10,040		36	795	2,060	624	329	3,844	-6,196	-687,646

TABLE 6 - REVISED WATER BALANCE USING NPS's RECHARGE ESTIMATE TO PROJECT EFFECTS OF EXISTING PUMPING, PROJECT PUMPING AND FORESEEABLE PROJECT PUMPING INTO FUTURE

(Submitted by the National Park Service in support of comments concerning the draft EIR for the proposed Eagle Mountain Pumped Storage Project)

Year	Eagle Mtn. Pumped Storage Project Water Supply Wells	Eagle Mtn. Pumped Storage Project Construction Water Usage	Eagle Mtn. Townsite	Eagle Mtn. Pumped Storage Project Seepage Recovery Wells	Proposed Landfill Water Usage	Proposed Solar Projects Construction Water Usage	Proposed Solar Projects Operational Water Usage	Agricultural Pumping	Aquaculture Pumping/ Open Water Evap.	Desert Center Domestic Water Usage	So. Cal. Water Usage	Recovery Water Usage	Lake Tamarisk Water Usage	Chuckwalla/ Ironwood State Prison Water Usage	Subsurface Outflow	SUBTOTAL OUTFLOW	Inflow from Reservoir Seepage	Lake Tamarisk Wastewater Basin	Chuckwalla/ Ironwood State Prison Wastewater Basin	Precipitation Recharge in Chuckwalla Valley	Subsurface Inflow from Pinto Valley	Subsurface Inflow from Orocopia Valley	SUBTOTAL INFLOW	INFLOW minus OUTFLOW	CUMULATIVE CHANGE IN AQUIFER STORAGE
2008								6,400	599	50	1		1,090	2,100	400	10,640		36	795	2,060	624	329	3,844	-6,796	[illegible]
2009								6,400	599	50	1		1,090	2,100	400	10,640		36	795	2,060	624	329	3,844	-6,796	[illegible]
2010						10		6,400	599	50	1	11	1,090	2,100	400	10,661		36	795	2,060	624	329	3,844	-6,817	[illegible]
2011						73		6,400	599	50	1	3	1,090	1,500	400	10,116		36	795	2,060	624	329	3,844	-6,272	[illegible]
2012		308				92	5	6,400	599	50	1	3	1,090	1,500	400	10,448		36	795	2,060	624	329	3,844	-6,604	[illegible]
2013		308				885	17	6,400	599	50	1	14	1,090	1,500	400	11,264		36	795	2,060	624	329	3,844	-7,420	[illegible]
2014	7,754	308		1,628		1,783	62	6,400	599	50	1	3	1,090	1,500	400	21,582	1,628	36	795	2,060	624	329	5,472	-16,110	[illegible]
2015	8,066			1,628		2,849	88	6,400	599	50	1	3	1,090	1,500	400	22,674	1,628	36	795	2,060	624	329	5,472	-17,202	[illegible]
2016	8,066			1,628		3,439	1,761	6,400	599	50	1	14	1,090	1,500	400	24,948	1,628	36	795	2,060	624	329	5,472	-19,476	[illegible]
2017	8,066			1,628		3,870	2,241	6,400	599	50	1	3	1,090	1,500	400	25,848	1,628	36	795	2,060	624	329	5,472	-20,376	[illegible]
2018	2,688			1,628		2,783	2,721	6,400	599	50	1	3	1,090	1,500	400	19,863	1,628	36	795	2,060	624	329	5,472	-14,391	[illegible]
2019	1,767			1,628		1,358	3,351	6,400	599	50	1	3	1,090	1,500	400	18,147	1,628	36	795	2,060	624	329	5,472	-12,675	[illegible]
2020	1,763		173	1,628	245		3,951	6,400	599	50	1	3	1,090	1,500	400	17,803	1,628	36	795	2,060	624	329	5,472	-12,331	[illegible]
2021	1,763		173	1,628	185		3,951	6,400	599	50	1	3	1,090	1,500	400	17,743	1,628	36	795	2,060	624	329	5,472	-12,271	[illegible]
2022	1,763		173	1,628	185		3,951	6,400	599	50	1	3	1,090	1,500	400	17,743	1,628	36	795	2,060	624	329	5,472	-12,271	[illegible]
2023	1,763		173	1,628	185		3,951	6,400	599	50	1	3	1,090	1,500	400	17,743	1,628	36	795	2,060	624	329	5,472	-12,271	[illegible]
2024	1,763		173	1,628	185		3,951	6,400	599	50	1	3	1,090	1,500	400	17,743	1,628	36	795	2,060	624	329	5,472	-12,271	[illegible]
2025	1,763		173	1,628	365		3,951	6,400	599	50	1	3	1,090	1,500	400	17,923	1,628	36	795	2,060	624	329	5,472	-12,451	[illegible]
2026	1,763		173	1,628	365		3,951	6,400	599	50	1	3	1,090	1,500	400	17,923	1,628	36	795	2,060	624	329	5,472	-12,451	[illegible]
2027	1,763		173	1,628	365		3,951	6,400	599	50	1	3	1,090	1,500	400	17,923	1,628	36	795	2,060	624	329	5,472	-12,451	[illegible]
2028	1,763		173	1,628	365		3,951	6,400	599	50	1	3	1,090	1,500	400	17,923	1,628	36	795	2,060	624	329	5,472	-12,451	[illegible]
2029	1,763		173	1,628	365		3,951	6,400	599	50	1	3	1,090	1,500	400	17,923	1,628	36	795	2,060	624	329	5,472	-12,451	[illegible]
2030	1,763		173	1,628	581		3,951	6,400	599	50	1	3	1,090	1,500	400	18,139	1,628	36	795	2,060	624	329	5,472	-12,667	[illegible]
2031	1,763		173	1,628	581		3,951	6,400	599	50	1	3	1,090	1,500	400	18,139	1,628	36	795	2,060	624	329	5,472	-12,667	[illegible]
2032	1,763		173	1,628	581		3,951	6,400	599	50	1	3	1,090	1,500	400	18,139	1,628	36	795	2,060	624	329	5,472	-12,667	[illegible]
2033	1,763		173	1,628	581		3,951	6,400	599	50	1	3	1,090	1,500	400	18,139	1,628	36	795	2,060	624	329	5,472	-12,667	[illegible]
2034	1,763		173	1,628	581		3,951	6,400	599	50	1	3	1,090	1,500	400	18,139	1,628	36	795	2,060	624	329	5,472	-12,667	[illegible]
2035	1,763		173	1,628	823		3,951	6,400	599	50	1	3	1,090	1,500	400	18,381	1,628	36	795	2,060	624	329	5,472	-12,909	[illegible]
2036	1,763		173	1,628	823		3,951	6,400	599	50	1	3	1,090	1,500	400	18,381	1,628	36	795	2,060	624	329	5,472	-12,909	[illegible]
2037	1,763		173	1,628	823		3,951	6,400	599	50	1	3	1,090	1,500	400	18,381	1,628	36	795	2,060	624	329	5,472	-12,909	[illegible]
2038	1,763		173	1,628	823		3,951	6,400	599	50	1	3	1,090	1,500	400	18,381	1,628	36	795	2,060	624	329	5,472	-12,909	[illegible]
2039	1,763		173	1,628	823		3,951	6,400	599	50	1	3	1,090	1,500	400	18,381	1,628	36	795	2,060	624	329	5,472	-12,909	[illegible]
2040	1,763		173	1,628	823		3,946	6,400	599	50	1	3	1,090	1,500	400	18,376	1,628	36	795	2,060	624	329	5,472	-12,904	[illegible]
2041	1,763		173	1,628	823		3,894	6,400	599	50	1	3	1,090	1,500	400	18,324	1,628	36	795	2,060	624	329	5,472	-12,852	[illegible]
2042	1,763		173	1,628	823		3,863	6,400	599	50	1	3	1,090	1,500	400	18,293	1,628	36	795	2,060	624	329	5,472	-12,821	[illegible]
2043	1,763		173	1,628	823		2,190	6,400	599	50	1	3	1,090	1,500	400	16,620	1,628	36	795	2,060	624	329	5,472	-11,148	[illegible]
2044	1,763		173	1,628	823		1,710	6,400	599	50	1	3	1,090	1,500	400	16,140	1,628	36	795	2,060	624	329	5,472	-10,668	[illegible]
2045	1,763		173	1,628	1,070		1,230	6,400	599	50	1	3	1,090	1,500	400	15,907	1,628	36	795	2,060	624	329	5,472	-10,435	[illegible]
2046	1,763		173	1,628	1,070		600	6,400	599	50	1	3	1,090	1,500	400	15,277	1,628	36	795	2,060	624	329	5,472	-9,805	[illegible]
2047	1,763		173	1,628	1,070			6,400	599	50	1	3	1,090	1,500	400	14,677	1,628	36	795	2,060	624	329	5,472	-9,205	[illegible]
2048	1,763		173	1,628	1,070			6,400	599	50	1	3	1,090	1,500	400	14,677	1,628	36	795	2,060	624	329	5,472	-9,205	[illegible]
2049	1,763		173	1,628	1,070			6,400	599	50	1	3	1,090	1,500	400	14,677	1,628	36	795	2,060	624	329	5,472	-9,205	[illegible]
2050	1,763		173	1,628	1,070			6,400	599	50	1	3	1,090	1,500	400	14,677	1,628	36	795	2,060	624	329	5,472	-9,205	[illegible]
2051	1,763		173	1,628	1,070			6,400	599	50	1	3	1,090	1,500	400	14,677	1,628	36	795	2,060	624	329	5,472	-9,205	[illegible]
2052	1,763		173	1,628	1,070			6,400	599	50	1	3	1,090	1,500	400	14,677	1,628	36	795	2,060	624	329	5,472	-9,205	[illegible]
2053	1,763		173	1,628	1,070			6,400	599	50	1	3	1,090	1,500	400	14,677	1,628	36	795	2,060	624	329	5,472	-9,205	[illegible]
2054	1,763		173	1,628	1,070			6,400	599	50	1	3	1,090	1,500	400	14,677	1,628	36	795	2,060	624	329	5,472	-9,205	[illegible]
2055	1,763		173	1,628	1,070			6,400	599	50	1	3	1,090	1,500	400	14,677	1,628	36	795	2,060	624	329	5,472	-9,205	[illegible]
2056	1,763		173	1,628	1,070			6,400	599	50	1	3	1,090	1,500	400	14,677	1,628	36	795	2,060	624	329	5,472	-9,205	[illegible]
2057	1,763		173	1,628	1,070			6,400	599	50	1	3	1,090	1,500	400	14,677	1,628	36	795	2,060	624	329	5,472	-9,205	[illegible]
2058	1,763		173	1,628	1,070			6,400	599	50	1	3	1,090	1,500	400	14,677	1,628	36	795	2,060	624	329	5,472	-9,205	[illegible]
2059	1,763		173	1,628	1,070			6,400	599	50	1	3	1,090	1,500	400	14,677	1,628	36	795	2,060	624	329	5,472	-9,205	[illegible]
2060	1,763		173	1,628	1,070			6,400	599	50	1	3	1,090	1,500	400	14,677	1,628	36	795	2,060	624	329	5,472	-9,205	[illegible]
2061			173		1,070			6,400	599	50	1	3	1,090	1,500	400	11,288		36	795	2,060	624	329	3,844	-7,442	[illegible]
2062			173		1,070			6,400	599	50	1	3	1,090	1,500	400	11,288		36	795	2,060	624	329	3,844	-7,442	[illegible]
2063			173		1,070			6,400	599	50	1	3	1,090	1,500	400	11,288		36	795	2,060	624	329	3,844	-7,442	[illegible]
2064			173		1,070			6,400	599	50	1	3	1,090	1,500	400	11,286		36	795	2,060	624	329	3,844	-7,442	[illegible]
2065			173		1,070			6,400	599	50	1	3	1,090	1,500	400	11,286		36	795	2,060	624	329	3,844	-7,442	[illegible]
2066			173		1,070			6,400	599	50	1	3	1,090	1,500	400	11,286		36	795	2,060	624	329	3,844	-7,442	[illegible]
2067			173		1,070			6,400	599	50	1	3	1,090	1,500	400	11,286		36	795	2,060	624	329	3,844	-7,442	[illegible]
2068			173		1,070			6,400	599	50	1	3	1,090	1,500	400	11,286		36	795	2,060	624	329	3,844	-7,442	[illegible]
2069			173		1,070			6,400	599	50	1	3	1,090	1,500	400	11,286		36	795	2,060	624	329	3,844	-7,442	[illegible]
2070			173		1,070			6,400	599	50	1	3	1,090	1,500	400	11,286		36	795	2,060	624	329	3,844	-7,442	[illegible]
2071								6,400	599	50	1	3	1,090	1,500	400	10,043		36	795	2,060	624	329	3,844	-6,199	[illegible]
2072								6,400	599	50	1	3	1,090	1,500	400	10,043		36	795	2,060	624	329	3,844	-6,199	[illegible]
2073								6,400	599	50	1	3	1,090	1,500	400	10,043		36	795	2,060	624	329	3,844	-6,199	[illegible]
2074								6,400	599	50	1	3	1,090	1,500	400	10,043		36	795	2,060	624	329	3,844	-6,199	[illegible]
2075								6,400	599	50	1	3	1,090	1,500	400	10,043		36	795	2,060	624	329	3,844	-6,199	[illegible]
2076								6,400	599	50	1	3	1,090	1,500	400	10,043		36	795	2,060	624	329	3,844	-6,199	[illegible]

TABLE 6 - REVISED WATER BALANCE USING NPS's RECHARGE ESTIMATE TO PROJECT EFFECTS OF EXISTING PUMPING, PROJECT PUMPING AND FORESEEABLE PROJECT PUMPING INTO FUTURE

(Submitted by the National Park Service in support of comments concerning the draft EIR for the proposed Eagle Mountain Pumped Storage Project)

Year	Eagle Mtn. Pumped Storage Project Water Supply Wells	Eagle Mtn. Pumped Storage Project Construction Water Usage	Eagle Mtn. Townsite	Eagle Mtn. Pumpell Storage Project Seepage Recovery Wells	Proposed Landfill Water Usage	Proposed Solar Projects Construction Water Usage	Proposed Solar Projects Operational Water Usage	Agricultural Pumping	Aquaculture Pumping/ Open Water Evap.	Desert Center Domestic Water Usage	So. Cal. Water Usage	Raceway Water Usage	Lake Tamarisk Water Usage	Chuckwalla/ Ironwood State Prison Water Usage	Subsurface Outflow	SUBTOTAL OUTFLOW	Inflow from Reservoir Seepage	Lake Tamarisk Wastewater Return	Chuckwalla/ Ironwood State Prison Wastewater Return	Precipitation Recharge in Chuckwalla Valley	Subsurface Inflow from Pinto Valley	Subsurface Inflow from Orocopia Valley	SUBTOTAL INFLOW	INFLOW minus OUTFLOW	CUMULATIVE CHANGE IN AQUIFER STORAGE
2077								6,400	599	50	1	3	1,090	1,500	400	10,043		36	795	2,060	624	329	3,844	-6,199	[illegible]
2078								6,400	599	50	1	3	1,090	1,500	400	10,043		36	795	2,060	624	329	3,844	-6,199	[illegible]
2079								6,400	599	50	1	3	1,090	1,500	400	10,043		36	795	2,060	624	329	3,844	-6,199	[illegible]
2080								6,400	599	50	1	3	1,090	1,500	400	10,043		36	795	2,060	624	329	3,844	-6,199	[illegible]
2081								6,400	599	50	1	3	1,090	1,500	400	10,043		36	795	2,060	624	329	3,844	-6,199	[illegible]
2082								6,400	599	50	1	3	1,090	1,500	400	10,043		36	795	2,060	624	329	3,844	-6,199	[illegible]
2083								6,400	599	50	1	3	1,090	1,500	400	10,043		36	795	2,060	624	329	3,844	-6,199	[illegible]
2084								6,400	599	50	1	3	1,090	1,500	400	10,043		36	795	2,060	624	329	3,844	-6,199	[illegible]
2085								6,400	599	50	1	3	1,090	1,500	400	10,043		36	795	2,060	624	329	3,844	-6,199	[illegible]
2086								6,400	599	50	1	3	1,090	1,500	400	10,043		36	795	2,060	624	329	3,844	-6,199	[illegible]
2087								6,400	599	50	1	3	1,090	1,500	400	10,043		36	795	2,060	624	329	3,844	-6,199	[illegible]
2088								6,400	599	50	1	3	1,090	1,500	400	10,043		36	795	2,060	624	329	3,844	-6,199	[illegible]
2089								6,400	599	50	1	3	1,090	1,500	400	10,043		36	795	2,060	624	329	3,844	-6,199	[illegible]
2090								6,400	599	50	1	3	1,090	1,500	400	10,043		36	795	2,060	624	329	3,844	-6,199	[illegible]
2091								6,400	599	50	1	3	1,090	1,500	400	10,043		36	795	2,060	624	329	3,844	-6,199	[illegible]
2092								6,400	599	50	1	3	1,090	1,500	400	10,043		36	795	2,060	624	329	3,844	-6,199	[illegible]
2093								6,400	599	50	1	3	1,090	1,500	400	10,043		36	795	2,060	624	329	3,844	-6,199	[illegible]
2094								6,400	599	50	1	3	1,090	1,500	400	10,043		36	795	2,060	624	329	3,844	-6,199	[illegible]
2095								6,400	599	50	1	3	1,090	1,500	400	10,043		36	795	2,060	624	329	3,844	-6,199	[illegible]
2096								6,400	599	50	1	3	1,090	1,500	400	10,043		36	795	2,060	624	329	3,844	-6,199	[illegible]
2097								6,400	599	50	1	3	1,090	1,500	400	10,043		36	795	2,060	624	329	3,844	-6,199	[illegible]
2098								6,400	599	50	1	3	1,090	1,500	400	10,043		36	795	2,060	624	329	3,844	-6,199	[illegible]
2099								6,400	599	50	1	3	1,090	1,500	400	10,043		36	795	2,060	624	329	3,844	-6,199	[illegible]
2100								6,400	599	50	1	3	1,090	1,500	400	10,043		36	795	2,060	624	329	3,844	-6,199	[illegible]

Solar energy farm plans reap fans, critics

By Rebecca Unger
Hi-Desert Star

DESERT CENTER — A solar energy field called Desert Sunlight proposed for this community near Joshua Tree National Park is drawing both criticism and anticipation from neighbors.

The centerpiece of Desert Sunlight will be a solar farm on Bureau of Land Management property near Desert Center. It's surrounded on three sides by Joshua Tree National Park and at its closest point, the solar farm would be about 1.4 miles away from the park boundary.

The project includes transmission line and a substation owned and operated by Southern California Edison.

In all, it will require about 4,410 acres.

With two weeks left for public comments, the major players behind Desert Sunlight — including parent company First Solar and public relations firm CV Strategies — met with the public Nov. 4 at a forum hosted by the BLM at the Joshua Tree Community Center.

Some of those involved wanted to show that Desert Sunlight was a responsible development.

Holly Roberts, the BLM's associate field manager for the Palms Springs-South Coast Office, noted that when the bureau received the project in 2006, it was proposed for more than 19,000 acres.

"In four years of study and looking at sensitive resources, the project is now just over 4,000 acres," Roberts said.

Kim Oster, First Solar's project manager, pointed out Desert Sunlight won't use water to convert solar energy into electricity, as some facilities do, and will "displace" about 300,000 metric tons of greenhouse gas emissions per year.

She also said Desert Sunlight will be capable of delivering 550 megawatts, powering about 160,000 homes.

Oster estimated the project will pour $27 million into Riverside County from sales taxes and property taxes.

In addition, First Solar chose a site where the generated electricity could connect into the existing system without requiring new transmission lines or upgrades to existing lines.

Some neighbors aren't impressed.

First Eagle Mountain, now this

Take Larry and Donna Charpied of Desert Center. For over 20 years they've been fighting the Eagle Mountain landfill project.

Desert Sunlight would be located 600 feet from the Charpied's property and surround them on three sides.

The object to the fast-tracking federal and state agencies have granted to alternative-energy plants like Desert Sunlight, saying it gives the impression the projects are done deals.

"To fast track these projects leads the public to believe that there has been a predetermined decision made to approve and construct these projects. It completely infects the public process, and violates the National Environmental Policy Act," Donna Charpied commented via e-mail.

In a letter to the BLM, the Charpieds detailed many drawbacks they see to Desert Sunlight. Along with the project's harm to plants, animals and soil, the Charpieds pointed to environmental justice issues such as polluting or value-degrading industries that render some areas sacrifice zones to development.

"The Chuckwalla Valley is targeted by the world's largest garbage dump, a hydroelectric project and the subject industrial solar field," the Charpieds wrote. "An environmental justice trifecta!"

Speaking for the BLM, Roberts said the study documents acknowledge that there's "a contingent of people who are going to be very adversely affected and they're not going to like the impact on their quality of life. I don't know if there is a way to mitigate the human impacts."

Others eager for jobs, development

Some among Desert Center's 300 residents are eager to see Desert Sunlight proceed.

John Beach and several others signed a petition welcoming the project for the jobs and retail business that the high-paid construction workers will bring to their desolated economy.

REBECCA UNGER Hi-Desert Star

Stephanie Weigel, right, a regional land use planner for the Sonoran Institute who also heads up the Morongo Basin Open Space Group, quizzes First Solar's Monica Lamb on how tax revenues would benefit Riverside County. Weigel got a complicated answer that involved a First Solar subsidiary and "whoever ends up owning the project."

Also on the fast track for Beach's neck of the woods is the Solar Millennium Palen Solar Project, approximately 9,000 acres of facilities and right-of-ways to generate 484 megawatts of renewable power.

When asked if he and his fellow believers felt the same way about the five other, larger projects coming, Beach said they all have their advantages to bring in workers, create jobs for locals and bolster the meager economy.

"There's a high potential for development here," Beach observed.

The job-creating power of Desert Sunlight will be temporary, however.

Oster told her listeners for a two-year construction phase, the company will employ about 440 local workers. After that, however, Desert Sunlight would only require "minimal ongoing maintenance," providing for about 15 full-time jobs.

A desert or a gold mine?

For officials and utility professionals looking at the state's ambitious goals to change California's energy reliance from coal to alternative sources, projects like Desert Sunlight are the only way to go.

"The state's Renewable Portfolio Standards mandate that 20 percent of California's power has to come from geothermal, solar, wind, nuclear and gas by 2010," said Lin Juniper, a spokesperson for Southern California Edison.

"The highest concentration of sun in the United States is in the Mojave Desert, and that's where there's going to be these big plants. It is a gold mine as far as economic development goes."

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

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NOV 23 2010

John Kalish
Field Manager
Palm Springs South Coast Field Office
Bureau of Land Management
1201 Bird Center Drive
Palm Springs, California 92262

Subject: Draft Environmental Impact Statement for the Proposed First Solar Desert Sunlight Solar Farm Project, Riverside County, California (CEQ #20100338)

Dear Mr. Kalish:

The U.S. Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (DEIS) for the Proposed First Solar Desert Sunlight Solar Farm Project (Project). Our review and comments are provided pursuant to the National Environmental Policy Act (NEPA), the Council on Environmental Quality (CEQ) Regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act (CAA).

EPA supports increasing the development of renewable energy resources, as recommended in the Energy Policy Act of 2005, in an expeditious and well planned manner. Using renewable energy resources such as solar power can help the nation meet its energy requirements while reducing greenhouse gas emissions. Given the large number of renewable energy project applications currently under consideration, particularly in the Desert Southwest, we believe it is imperative that project applicants coordinate early with federal agencies and stakeholders on site selection and project design in order to facilitate timely environmental reviews. While renewable energy facilities offer many environmental benefits, appropriate siting and design of such facilities is of paramount importance if the nation is to make optimum use of its renewable energy resources without unnecessarily depleting or degrading its water resources, wildlife habitats, recreational opportunities, and scenic vistas.

The Bureau of Land Management (BLM) has identified thirty-four proposed renewable energy projects as "fast track" projects that were expected to complete the environmental review process and be ready to break ground by December 2010 in order to be eligible for funding under the American Recovery and Reinvestment Act (Section 1603). Twenty-eight of these projects are located in our Region, of which fourteen are located in California. We are aware that many more projects that have not been designated "fast-track" are also being considered by BLM. The vast majority of these projects, fast track or otherwise, are proposed for previously undeveloped sites on public lands.

In making its decisions regarding whether or not to grant rights-of-way for such projects, we recommend that BLM consider a full range of reasonable alternatives to minimize the adverse environmental impacts. Such alternatives could include alternative technologies or altered project footprints at the proposed locations, as well as alternate sites, such as inactive landfills, abandoned mines or other disturbed sites, including on private lands, that may offer 106-1

advantages in terms of availability of infrastructure and less vulnerable habitats. Given the large number of renewable energy project applications currently under consideration, we continue to encourage BLM to apply its land management authorities in a manner that will promote a long-term sustainable balance between available energy supplies, energy demand, and protection of ecosystems and human health. 106-1 cont

On January 27, 2010, EPA provided extensive formal scoping comments for the Project which included detailed recommendations regarding purpose and need, range of alternatives, cumulative impacts, biological and water resources, and other resource areas of concern. Based on our review of the DEIS, we have rated the Project and document as *Environmental Concerns – Insufficient Information* (EC-2) (see the enclosed "Summary of EPA Rating Definitions"). We were pleased to note avoidance of highly sensitive resources, such as the Pinto Wash and aeolian sand deposits, as well as the commitment to minimal water use during operation of the facility. We commend the early resource analyses and coordination that resulted in selection of the 4,410 acre site within the 19,000 acre Right-of-Way in order to avoid and minimize environmental impacts. We continue to recommend that early analyses of key resource areas, such as jurisdictional waters of the Unites States and impacts to threatened and endangered species, as well as identification of compensatory mitigation lands, be completed as early as possible to determine a project's viability, to avoid potential project delays, and to assist in identifying the least environmentally damaging alternative.

While we note positive aspects of the proposed Project, EPA remains concerned about the Project's potential direct and indirect impacts to desert dry wash woodlands, site hydrology, desert tortoise, air quality and groundwater, as well as cumulative impacts associated with the influx of the multitude of large-scale solar energy projects proposed in the Chuckwalla Valley. 106-1A

We urge BLM to adopt the Reduced Acreage Alternative, Alternative 3, which would protect the site's highest desert tortoise densities, as well as other special status plants, on the northwest corner of the proposed Project site. Further, we recommend the design flexibility of the solar photovoltaic (PV) technology be fully utilized to avoid the 35 acres of desert dry wash woodlands located within the Reduced Acreage Alternative footprint. 106-2

EPA continues to have concerns with the solar farm's potential to increase erosion, migration of channels, and local scour. We recommend that the Final Environmental Impact Statement (FEIS) include detailed information on channel design which incorporates natural features to minimize disruption to upstream and downstream hydrology. We also strongly encourage design modifications to the PV array layout to maximize avoidance of drainages and sensitive habitat. We have requested further clarification of the efficacy of the proposed soil decompaction technique and use of rip-rap to minimize these impacts to site hydrology. In order to avoid complete clearing and grading of the site, we request a full evaluation of mounting PV panels at sufficient height above ground to maintain natural vegetation and reduce impacts to drainages. 106-3

We understand that the jurisdictional delineation of waters of the United States has not been finalized, and the full extent of impacts has not been determined. The FEIS should quantify the potential impacts to waters of the U.S. and discuss the steps that would be taken to avoid and 106-4

minimize such impacts, as necessary. The FEIS should also include a robust discussion of all avoidance and mitigation measures proposed for the Project and include an outline of the requirements of a compensatory mitigation plan. 106-4 cont

We recommend that the Applicant and BLM work closely with the U.S. Fish and Wildlife Service in the identification of lands for habitat compensation for the Project's impacts, in order to ensure that compensatory lands are of comparable or superior quality, and are suitable compensation for the unique habitat on the Project's site. Due to the large influx of other large-scale solar energy projects proposed in the Chuckwalla Valley, we request additional analysis of the indirect and cumulative impacts on sensitive species, groundwater use, and air quality. 106-5 With respect to adverse air quality impacts resulting from the 26-month construction period, we recommend requiring more stringent mitigation measures, phased construction, and early coordination among multiple renewable energy project construction schedules to minimize adverse air quality impacts in the region. 106-6 Finally, we are concerned that the alternatives fully evaluated in the DEIS do not include a private lands or disturbed lands alternative. 106-7

EPA appreciates the opportunity to provide input on this Project and the multitude of DEISs under preparation for renewable energy projects in our Region. We are available to further discuss all recommendations provided. When the FEIS is released for public review, please send two hard copies and two CDs to the address above (Mail Code: CED-2). If you have any questions, please contact me at (415) 972-3843 or contact Tom Plenys, the lead reviewer for this Project. Tom can be reached at (415) 972-3238 or plenys.thomas@epa.gov.

Sincerely,

Laura Fujii, Acting for

Kathleen M. Goforth, Manager
Communities and Ecosystems Division

Enclosures: Summary of EPA Rating Definitions
EPA's Detailed Comments

cc: Jim Abbott, Bureau of Land Management, California State Office
Michael Picker, California Governor's Office
Allison Schaffer, Bureau of Land Management, Project Manager
James Mace, US Army Corps of Engineers
Jody Fraser, United States Fish and Wildlife Service
Becky Jones, California Department of Fish and Game
Ray Brady, Energy Policy Team Lead, Bureau of Land Management

SUMMARY OF EPA RATING DEFINITIONS*

This rating system was developed as a means to summarize the U.S. Environmental Protection Agency's (EPA) level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the Environmental Impact Statement (EIS).

ENVIRONMENTAL IMPACT OF THE ACTION

"LO" (Lack of Objections)

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

"EC" (Environmental Concerns)

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

"EO" (Environmental Objections)

The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

"EU" (Environmentally Unsatisfactory)

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

ADEQUACY OF THE IMPACT STATEMENT

"Category 1" (Adequate)

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

"Category 2" (Insufficient Information)

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analysed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

"Category 3" (Inadequate)

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analysed in the draft EIS, which should be analysed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640, Policy and Procedures for the Review of Federal Actions Impacting the Environment.

U.S. EPA DETAILED COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE PROPOSED FIRST SOLAR DESERT SUNLIGHT SOLAR FARM PROJECT, RIVERSIDE COUNTY, CALIFORNIA, NOVEMBER 23, 2010

Project Description

Desert Sunlight Holdings, LLC (Applicant), a wholly owned subsidiary of First Solar Development, Inc., has requested a right-of-way (ROW) authorization to develop a 4,410-acre, 550-megawatt (MW) solar photovoltaic (PV) generation facility (Project). The Project area is located approximately 6 miles north of the rural community of Desert Center, California and Interstate 10 on lands primarily managed by the Bureau of Land Management (BLM). The Project area is largely vacant, undeveloped, and relatively flat between the cities of Blythe and Coachella in the Chuckwalla Valley of the Sonoran Desert in eastern Riverside County.

The Project will be comprised of three primary components: 1) the main PV generating facility, including administration, operations, and maintenance facilities; 2) a 220-kilovolt (kV) Gen-Tie (transmission line); and, 3) a 500/220-kV Substation (Red Bluff Substation) and supporting facilities. The Red Bluff Substation would be used to interconnect with the Southern California Edison (SCE) regional transmission system. While the Red Bluff Substation was included as part of the Project for planning and environmental analysis, it would be constructed, owned, and operated by SCE, not the Applicant.

The DEIS analyzes alternatives which include: the 550MW solar farm, a reduced size 413MW solar farm, and No Action alternatives; 3 different transmission line alignments; and two different substation locations.

Water Resources

Clean Water Act Section 404

Shortly after the publication of the DEIS, a request for an official jurisdictional determination of the extent of Waters of the United States (WUS) subject to Section 404 of the Clean Water Act (CWA) was made to the U.S. Army Corps of Engineers (Corps). The DEIS indicates desert dry washes on site may meet the criteria for WUS, based upon project surveys; however, they are potentially not subject to Corps jurisdiction under the Clean Water Act because of a lack of a surface water connection to a traditional navigable waterway or an intrastate commerce connection (p. 3.3-18). We understand the Applicant has requested an official jurisdictional determination from the Corps that it is still pending. In the absence of a formal jurisdictional determination verified by the Corps, it is difficult to discern the extent of impacts to waters.

Recommendation:
EPA recommends that the FEIS: (1) document whether the Project will require a CWA Section 404 permit based on completed consultation with the Corps, (2) include the findings of the jurisdictional delineation, and (3) identify avoidance and minimization of impacts to WUS and mitigation measures for impacts that cannot be avoided. **106-8**

The DEIS estimates that 304 to 354 acres of desert dry washes will be impacted by the Project, the transmission line, and proposed Substations (p. 4.3-3). While the DEIS notes that the engineering contractor is exploring other vegetation removal methods to minimize impacts, it assumes that the entire solar farm will be cleared and graded (p. 2-76). Clearing, grading and compaction of the solar farm site in preparation for Project construction, in addition to access roads and transmission line development, could directly (via temporary or permanent fill) and indirectly affect drainages and ephemeral washes within the proposed Project area. Further, road crossings within potential WUS may result in the reduction of the physical extent of waters, adverse modification of stream hydrology and sediment transport, and adverse effects to habitat connectivity and wildlife movement.

If it is determined that there are jurisdictional waters within the Project area, a CWA Section 404 permit from the Corps will be required for any discharges of dredged or fill material into these waters. If a Section 404 permit is required, EPA will review the Project for compliance with the Federal Guidelines for Specification of Disposal Sites for Dredged or Fill Materials (40 CFR 230), promulgated pursuant to Section 404(b)(1) of the CWA (Guidelines). Pursuant to the Guidelines, any permitted discharge into WUS must be the Least Environmentally Damaging Practicable Alternative (LEDPA) available to achieve the project purpose. No discharge can be permitted if it will cause or contribute to significant degradation of WUS. Based on the information available within the DEIS, the Applicant has not demonstrated compliance with the Guidelines.

If impacts to aquatic resources cannot be avoided, alternatives that minimize impacts must be fully considered. With projects such as transmission lines and solar farms, there are opportunities to avoid and minimize direct, indirect, and cumulative impacts to potential jurisdictional washes by applying sensitive design criteria. EPA offers the following recommendations to help facilitate compliance of the Project with the Section 404 Guidelines:

Recommendations:

The 404 (b)(1) Guidelines require that projects first avoid, then minimize, and, finally, mitigate any impacts to WUS. The FEIS should quantify the direct, indirect/secondary and temporary impacts to waters in a table, and discuss steps that would be taken to avoid and minimize impacts for the project alternatives. The FEIS should identify the LEDPA, if applicable, and describe how the project would comply with the 404(b)(1) Guidelines. The location of desert dry wash woodlands and other sensitive habitat and species should be considered during development of the LEDPA. Additionally, compensatory mitigation measures for potential impacts to WUS should be included in the FEIS, as appropriate.[1] **106-9**

Explore additional avoidance and minimization measures such as bridging and the use of at-grade crossings or Arizona crossings. Sensitive design criteria should also be included such as: reducing the fill footprint; locating PV arrays out of waters, including drainages and washes; utilizing existing drainage channels; and, if necessary, constructing drainage channels with natural features. Pursuant to the Guidelines, the Applicant must mitigate for unavoidable impacts to WUS.

[1] Compensatory Mitigation for the Loss of Aquatic Resources, Final Rule, 33CFR 325 and 332, April 10, 2008.

Drainages, Ephemeral Washes, and Floodplains

While we are pleased that the Applicant has chosen to avoid direct impacts to the Pinto Wash and the aeolian sand deposits, we remain concerned with the scope of indirect and direct impacts to natural washes and site hydrology. Although specific Project objectives include "to minimize environmental impacts and land disturbance by locating the project near existing transmission infrastructure and roads and by avoiding sensitive environmental areas, recreational resources and wildlife habitats" (p. 1-10), the DEIS fails to consider the up and downstream reach and extent of waters or their importance in this landscape.

The Project would permanently or temporarily impact between 304 and 354 acres of California Department of Fish and Game (CDFG) jurisdictional resources subject to CDFG's Lake and Streambed Alteration Agreement Program (p. 4.3-3). In addition to filling gullies, removing topographic irregularities, and eliminating existing washes, construction grading activities could have direct effects on the water quality and hydrology of desert dry washes located downstream of the solar farm (pps. 4.17-20 and 4.3-4). These activities could indirectly affect desert dry wash woodlands downstream and adjacent to the Project site (including Pinto Wash) by creating opportunities for nonnative invasive weed species to colonize or spread (p. 4.3-5). The DEIS states that a total project loss of 10.5 percent of the desert dry wash woodland habitat in the Palen Watershed from existing and foreseeable future projects would constitute a significant cumulative impact (p. 4.3-84). These desert dry wash habitats likely serve as important wildlife movement corridors in the area (p. 4.4-9).

Natural washes perform a diversity of hydrologic, biochemical, and geochemical functions that directly affect the integrity and functional condition of higher-order waters downstream. Healthy ephemeral waters with characteristic plant communities control rates of sediment deposition and dissipate the energy associated with flood flows. Ephemeral washes also provide habitat for breeding, shelter, foraging, and movement of wildlife. Many plant populations are dependent on these aquatic ecosystems and adapted to their unique conditions. The potential damage that could result from disturbance of flat-bottomed washes includes alterations to the hydrological functions that natural channels provide in arid ecosystems, such as adequate capacity for flood control, energy dissipation, and sediment movement; as well as impacts to valuable habitat for desert species.

Recommendations:

To the extent any aquatic features that could be affected by the Project are determined not to constitute waters of the U.S., EPA recommends that the FEIS characterize the functions of such features and discuss potential mitigation. **106-10**

To avoid and minimize direct and indirect impacts to desert washes (such as erosion, migration of channels, and local scour):

- do not place PV panel support structures in washes or desert dry wash woodlands,
- utilize existing natural drainage channels on site and more natural features, such as earthen berms or channels, rather than concrete-lined channels,

- commit to the use of natural washes, in their present location and natural form and including adequate natural buffers, for flood control to the maximum extent practicable, **106-10 cont**
- reconfigure the project layout, roads, and drainage channels to avoid ephemeral washes, including desert dry wash woodlands within the Project footprint, and
- minimize the number of road crossings over washes and design necessary crossings to provide adequate flow-through during storm events.

Discuss the availability of sufficient compensation lands within the Chuckwalla Valley watershed to replace desert wash functions lost on the Project site.

In order to address the potential impacts to on-site hydrology, the Applicant's primary mitigation measure is to decompact soil between solar panels to increase infiltration potential (p. 4.17-23). Additional mitigation measures may include placing riprap on the site, installing retention ponds upstream to capture run-on, constructing check dams to slow runoff within or at the downstream end of the site, and constructing strip detention basins to retain and slow runoff within the site (p. 4.17-22). We are particularly concerned that decompaction may result in indirect effects such as erosion and an increase in sedimentation to downstream channels. Retention basins and check dams may have indirect impacts associated with them as well.

Recommendation:
The FEIS should quantify the effectiveness of decompacting soils and the use of rip rap, check dams, retention ponds and strip detention basins to support the assertion that these measures would reduce the magnitude of change in onsite and offsite hydrology to within one percent of pre-development hydraulic conditions (p. 4.3-13). **106-11**

The DEIS fails to evaluate mounting PV panels at sufficient height above ground to maintain natural vegetation and minimize drainage disturbance in order to avoid complete clearing and grading of the site. It is our understanding that other PV solar companies have proposed such designs which can reduce the need for site clearing and grading.

Recommendation:
The FEIS should evaluate mounting PV panels at sufficient height above ground to maintain natural vegetation and minimize drainage disturbance. Quantify acreage that would not require clearing and grading as a result. Compare these results to existing alternatives, and incorporate project design changes into site design and conditions of certification. **106-12**

We note that limited research has been conducted regarding effects associated with development on relatively flat topographical areas and alluvial fans in the Mojave Desert, and assumptions that the effects would be insignificant are contingent on the accuracy of surface water modeling. The DEIS fails to describe the expected post-Project flooding conditions and potential impacts to vegetation downstream.

Finally, if substantial maintenance would be needed based on the proposed Project design, the implementation mechanism, accountability, enforcement, and funding of such a program should

be identified. In general, the DEIS does not discuss the viability of mitigation, and mitigation specifics are deferred to a later approval process.

Recommendation:
The FEIS should include the results of the final hydrology report, site design and drainage plan and incorporate the following: 106-13

- description of how offsite flows will be collected and how erosion of offsite areas will be mitigated and identification of discharge points and flow controls for the sediment/retention basins' water,
- maintenance program necessary to prevent significant erosion and offsite damage and flooding, including the implementation mechanism, responsible parties, enforcement, and funding sources,
- description of the expected post-Project flooding conditions, potential impacts to vegetation downstream, and explanation of the basis for these expectations,
- modeled impacts (hydraulics of flow, velocity, sediment transport, sediment delivery and potential stream channel changes) of diverting drainages and floodplains,
- demonstration that downstream flows will not be disrupted due to proposed changes to natural washes, the excavation of large amounts of sediment, or as a result of major storm events.

Fencing

The DEIS does not provide detailed information about fencing nor the effects of fencing on drainage systems. In this region storms can be sudden and severe, resulting in flash flooding. Fence design must address hydrologic criteria, as well as security performance criteria. The National Park Service recently published an article[2] on the effects of the international boundary pedestrian fence on drainage systems and infrastructure. We recommend that BLM review this article to ensure that such issues are adequately addressed.

Recommendation:
Provide more detailed information in the FEIS on the proposed fencing design and placement, and its potential effects on drainage systems on the Project site. Ensure that fencing proposed for this Project will meet appropriate hydrologic, wildlife protection and movement, and security performance standards. Describe those standards in the FEIS. 106-14

Groundwater

EPA supports the Project's proposal to minimize water use once in operation (p. 2-112); however, we are concerned about the potential groundwater drawdown and cumulative impacts to the Chuckwalla Valley Groundwater Basin and the Palo Verde Mesa Basin, associated with

[2] National Park Service, August 2008, Effects of the International Boundary Pedestrian Fence in the Vicinity of Lukeville, Arizona, on Drainage Systems and Infrastructure, Organ Pipe Cactus National Monument, Arizona,

the construction phase of the proposed Project in conjunction with the reasonably foreseeable projects in the vicinity.

Construction of the proposed 550 MW Project would require 1,300 to 1,400 acre-feet (AF) of water at an average pumping rate of 600 to 650 acre feet per year (AFY) over a period of 26 months (p. 4.17-3). The DEIS indicates that the source of this water has not been determined. It states that water demand could be met by local groundwater, either from nearby existing wells that are located in the Project study area or though a new, temporary well to be constructed closer to the Solar Farm site (pps. 2-81 and 4.17-3).

The DEIS relies on groundwater budgets for the Chuckwalla Valley Groundwater Basin prepared for the Palen and Genesis Solar Power Project DEISs (p. 4.17-4). The DEIS uses the Net Inflow Budget Balance in Table 4.17-1 to justify sufficient water supply to meet the Project needs.

Recommendation:
The FEIS should confirm the approved source of water for Project construction and quantify the combined water use, by year, from reasonably foreseeable projects projected to draw from the Chuckwalla Valley Groundwater Basin and Palo Verde Mesa Basin (including the Genesis, Blythe and Palen solar projects and the next five solar projects that have submitted Plans of Development to the BLM Palm Springs Office). **106-15**

The DEIS acknowledges that, due to the high volume of projects in the region with potentially similar construction schedules, impacts to groundwater could be cumulatively considerable, leading to declining groundwater levels basin-wide during the construction period, and possible substantial local declines in water levels (p. 4.17-36). In conjunction with the neighboring Eagle Mountain Pumped Storage Project, groundwater levels could decline in excess of 6 feet in the vicinity of the Project (p. 4.17-37). Even modest drawdowns of 0.3 foot can adversely affect vegetation if groundwater drops below the effective rooting levels for a sustained period of time. A drop in groundwater levels could also impact neighboring wells, lower the water table, and adversely affect groundwater-dependent vegetation and woodlands.

Recommendations:
The FEIS should: 1) incorporate mitigation and monitoring plans, for effects on groundwater levels and water quality, as proposed for the Genesis and Palen solar projects, 2) describe the effectiveness of, and commitments to, these mitigation and monitoring plans, and 3) address what mitigation measures would be taken, and by whom, should groundwater resources in the basins become overextended to the point that further curtailment is necessary due to, for example, additional growth, the influx of large-scale solar projects, drought, climate change, and the utilization of existing or pending water rights in the basin. **106-16**

The FEIS should describe the estimation of the impacts from withdrawing groundwater that is recharged by the Colorado River and incorporate and discuss the effectiveness of any mitigation proposed. The expected effectiveness of the mitigation must be documented and committed to, and the FEIS should clarify whether or not an entitlement

to water from the Colorado River aquifer would be needed. This information should be made available in the FEIS and the ROD. 106-16 cont

The FEIS should evaluate whether operations for all reasonably foreseeable projects could result in indirect impacts to the Palo Verde Mesa Groundwater Basin by inducing underflow from the Colorado River to the Palo Verde Mesa Groundwater Basin as was discussed in the Genesis Solar DEIS. Such basin balance analyses for the cumulative effects to the Palo Verde Mesa Basin, as well as the Chuckwalla Valley Groundwater Basin, should be included in the DEIS.

As proposed in the DEIS, the FEIS and ROD should include as a condition of certification that there will be no water use for washing.

Biological Resources

Endangered Species and Other Species of Concern

The site supports a diversity of mammals, birds, and reptiles, including special status wildlife species. Grading on the Project site would result in direct impacts to special status animal species through the removal of vegetation that provides cover, foraging, and breeding habitat for wildlife. Depending on the alternative selected, between 3,045 and 4,245 acres of wildlife habitat would be permanently disturbed (p. 4.1-1). Long-term impacts may occur as a result of permanent loss of habitat, increased predation, and habitat fragmentation. In addition to desert tortoise, the Project site hosts nesting sites for the burrowing owl, as well as, foraging habitat for the northern harrier and golden eagle. It is conservatively estimated that the entire Project site falls within the active territory of a pair of golden eagles. The proposed Project would comprise 5.5% of the foraging habitat for this pair (p. 4.4-7). Further, the Gen-Tie Line and the Substation will contribute to between 176 and 390 acres of impacts to the Chuckwalla Desert Wildlife Management Area (DWMA) and the Chuckwalla Critical Habitat Unit (CHU) (p. 4.4-3). These areas are likely important movement corridors for the desert tortoise (p. 4.4-17).

Severe damage involving vegetation removal and soil disturbance can take from 50 to 300 years for partial recovery. Complete ecosystem recovery may require over 3,000 years (p. 4.4-1). We understand that the Biological Opinion for this Project has not yet been finalized. The Biological Opinion will play an important role in informing the decision on which alternative to approve and what commitments, terms, and conditions must accompany that approval.

Recommendations:

We urge BLM to coordinate with USFWS on the timing of FEIS and the Biological Opinion. The FEIS should provide an update on the consultation process. We strongly recommend including the Biological Opinion as an appendix. 106-17

Mitigation and monitoring measures that result from consultation with USFWS to protect sensitive biological resources, including desert tortoise, burrowing owl, golden eagles and northern harriers should be included in the FEIS and, ultimately, the ROD.

EPA appreciates the extensive discussion on the impacts to desert tortoise. The Reduced Acreage Alternative – Alternative 3 - would reduce Project acreage by roughly 25% while potentially avoiding more than 60% of the desert tortoises on site. Additionally, the southwest portion of Alternative 3 appears to have a cluster of desert tortoise activity. EPA believes that there are cases where effective mitigation for impacts on rare or unusual habitat can only be obtained by avoiding impacts. Rarely, if ever, is restoration or compensation an adequate mitigation for the loss of these habitats. In such cases, mitigation occurs by siting projects away from habitats of concern.[3]

Recommendations:

We recommend adoption of the Reduced Acreage Alternative that could reduce impacts to desert tortoise by approximately 60%. In addition, modify the Project layout to further protect desert dry wash woodlands and to avoid high density desert tortoise habitat and activity on the southwest corner of the Reduced Acreage Alternative. 106-18

The FEIS should discuss the tradeoff between the Gen Tie Line B-2/Substation B alignment versus the Gen-Tie A-2/Substation A alignment. The Gen Tie Line B-2/Substation B combination effects far less Chuckwalla Desert Wildlife Management Area (DWMA) and Critical Habitat Unit (CHU) habitat; however, the Gen-Tie A-2/Substation A combination potentially impacts less desert tortoises. Incorporate USFWS recommendations as to which alignment provides the best long-term approach to protect biological resources and wildlife species and whether alternate Gen-Tie alignments and Substation locations would be preferable.

Mitigation Commitments

We note that a draft compensation plan has been included as an Appendix to the DEIS. We recommend the FEIS include the final compensation ratios for all direct and indirect impacts to sensitive habitat and species with the associated compensation costs. EPA remains concerned with the availability of suitable habitat to compensate for habitat losses for the Project, in addition to the multiple projects pending approval in the Chuckwalla Valley.

Recommendations:

Quantify, in the FEIS, available lands for compensatory habitat mitigation for this Project, the Palen, Blythe and Genesis solar projects, as well as reasonably foreseeable projects in the area (e.g. those that have submitted Plans of Development to date). 106-19

Quantify, in the FEIS, the extent to which the Chuckwalla Desert Wildlife Management Area (DWMA) has already been developed and calculate the additional percentage of the Chuckwalla DWMA proposed for development under each Project alternative.

[3] *Habitat Evaluation: Guidance for the Review of Environmental Impact Assessment Documents* (January, 1993), p. 88. Available: http://www.epa.gov/compliance/resources/policies/nepa/habitat-evaluation-pg.pdf

The FEIS and ROD should discuss mechanisms and incorporate proposed conditions for certification that would: 1) protect into perpetuity any compensatory lands that are selected, and 2) exclude the non-developed portion of the subject 19,000 acre ROW from further disturbance or development based on this Project's resource analyses and the decision to select the proposed Project's footprint to minimize environmental impacts. **106-19 cont**

Include, in the FEIS, mitigation plans for unavoidable impacts to waters of the US and State, and biological resources such as desert tortoise, burrowing owls, golden eagles, and their habitats. Specifically, if the applicant is to acquire compensation lands, the location(s), management plans, implementation mechanisms, and funding for these lands should be fully disclosed.

Analyze the environmental and economic trade-offs of acquiring off-site compensation lands versus reducing the size of on-site alternatives for equivalent protection.

Air Quality

EPA commends BLM for incorporating fugitive dust control measures to limit impacts from particulate matter 10 microns or less in size (PM_{10}), and mitigation measures to address exhaust emissions. EPA supports incorporating mitigation strategies to reduce or minimize fugitive dust emissions, as well as, more stringent emission controls for PM and ozone precursors for construction-related activity. However, we advocate minimizing disturbance to the natural landscape as much as possible, so that measures to reduce fugitive dust are not required or are minimized.

Recommendation:
The FEIS should describe the effectiveness of utilizing dust suppressants only once per year, as proposed in the DEIS, and how decompaction of soils may affect this effectiveness. **106-20**

All applicable state and local requirements, and the additional and/or revised measures listed below, should be included in the FEIS in order to reduce impacts associated with PM, ozone precursors, and toxic emissions from construction-related activities: **106-21**

Fugitive Dust Source Controls:

- Reduce land disturbance activities as much as possible so that natural, stable soil conditions remain.
- Stabilize open storage piles and disturbed areas by covering and/or applying water or chemical/organic dust palliative where appropriate. This applies to both inactive and active sites, during workdays, weekends, holidays, and windy conditions.
- Install wind fencing, and phase grading operations and operate water trucks for stabilization of surfaces under windy conditions.
- When hauling material and operating non-earthmoving equipment, prevent spillage, and limit speeds to 15 miles per hour (mph) or lower. Limit speed of earth-moving equipment to 10 mph, 5 mph on unpaved roads and unsealed site areas.

Mobile and Stationary Source Controls:

106-21 cont

- Reduce use, trips, and unnecessary idling from heavy equipment.
- Maintain and tune engines per manufacturer's specifications to perform at California Air Resources Board (CARB) and/or EPA certification, where applicable, levels and to perform at verified standards applicable to retrofit technologies. Employ periodic, unscheduled inspections to limit unnecessary idling and to ensure that construction equipment is properly maintained, tuned, and modified consistent with established specifications. CARB has a number of mobile source anti-idling requirements. See their website at: http://www.arb.ca.gov/msprog/truck-idling/truck-idling.htm.
- Prohibit any tampering with engines and require continuing adherence to manufacturer's recommendations.
- If practicable, lease new, clean equipment meeting the most stringent of applicable Federal or State Standards.
- Utilize EPA-registered particulate traps and other appropriate controls where suitable, to reduce emissions of diesel particulate matter and other pollutants at the construction site.

Administrative controls:

- Identify all commitments to reduce construction emissions and incorporate these reductions into the air quality analysis to reflect additional air quality improvements that would result from adopting specific air quality measures.
- Identify where implementation of mitigation measures is rejected based on economic infeasibility.
- Prepare an inventory of all equipment prior to construction, and identify the suitability of add-on emission controls for each piece of equipment before groundbreaking.[4] Meet CARB diesel fuel requirement for off-road and on-highway (i.e., 15 ppm), and where appropriate use alternative fuels such as natural gas and electric.
- Develop a construction traffic and parking management plan that minimizes traffic interference and maintains traffic flow.
- Identify sensitive receptors in the project area, such as children, elderly, and infirm, and specify the means by which you will minimize impacts to these populations. For example, locate construction equipment and staging zones away from sensitive receptors and fresh air intakes to buildings and air conditioners.

Cumulative Air Quality Analysis

Construction of the Genesis and Palen Solar projects as well as the transmission line projects (Devers-Palo Verde 2, Desert Southwest, and Green Energy transmission lines) may overlap with the proposed Project (p. 4.2-90). We note the construction schedule for the Project was included in Appendix B of the DEIS. However, the DEIS does not provide an equivalent analysis of construction emissions from the proposed Project, combined with the reasonably

[4] Suitability of control devices is based on: whether there is reduced normal availability of the construction equipment due to increased downtime and/or power output, whether there may be significant damage caused to the construction equipment engine, or whether there may be a significant risk to nearby workers or the public.

foreseeable projects in the area. Without further information about projects in the region, it is difficult to conduct a thorough cumulative impacts analysis.

Recommendations:
Discuss, in the FEIS, the cumulative emissions from the proposed Project combined with the Genesis and Palen Solar projects, as well as the transmission line projects (Devers-Palo Verde 2, Desert Southwest, and Green Energy transmission lines). In consultation with the local air quality management agency, we recommend this cumulative emissions data be used to develop an incremental construction schedule that will not result in any violations of local, state or Federal air quality regulations. EPA strongly recommends incremental construction on-site to ensure air quality impacts are limited and are sufficiently staggered. **106-22**

The FEIS should provide technical justification for any projects that are deemed too far from the proposed Project to contribute to cumulative air quality impacts.

If additional mitigation measures would be needed, or if the Project would affect the ability of other foreseeable projects to be permitted, the FEIS should discuss this.

Climate Change

EPA commends the BLM for devoting a substantive section of the DEIS to greenhouse gases (GHG), including detailed estimates of emissions from construction and operation of the Project. The DEIS, however, does not include a discussion of the potential impacts of climate change on the Project. Considering the Project is planned to be in operation for 30, and possibly as many as 50 years, the FEIS should include a description of how climate change may affect the Project, particularly groundwater resources.

Recommendation:
EPA recommends that BLM provide information detailing what impacts climate change may have on the Project, particularly sensitive species, its sources of groundwater, and reclamation and restoration efforts after construction and decommissioning. **106-23**

Purpose, Need and Reasonable Range of Alternatives

EPA believes the discussion in the DEIS regarding the purpose and need for the Project should be expanded. As we indicated in our scoping comments, the *purpose* of the proposed action is typically the specific objectives of the activity, while the *need* for the proposed action may be to eliminate a broader underlying problem or take advantage of an opportunity. The Purpose and Need for a project should be broad enough to spur identification of the full breadth of a reasonable range of alternatives, regardless of what the future findings of an alternatives analysis may be.

We commend BLM for including a Reduced Acreage Alternative, as well as, consideration of EPA's RE-Power America disturbed sites. However, the DEIS eliminates all off-site, including

private lands alternatives, and alternative technology alternatives from consideration and full evaluation. Elimination of such alternatives is, in part, influenced by the BLM's narrowly defined Purpose and Need. According to the DEIS, BLM's Purpose and Need for the proposed action is to approve, approve with modifications, or deny issuance of a Right-of-Way (ROW) grant for the Project (p. 1-7). EPA understands the rationale in considering the "federal" Purpose and Need for the Project; however, EPA recommends that the FEIS further characterize the "project" Purpose and Need as part of BLM's statement. The "project" Purpose and Need should address the need to generate renewable energy to reduce our dependence on fossil fuels as well as the Federal and State renewable energy targets, timelines, and underlying needs to which BLM is responding. BLM's purpose statement should be broad enough to allow for a reasonable range of alternatives, including off-site alternatives.

Recommendations:

The FEIS should reflect a purpose and need statement that is broad enough for analysis and consideration of a full range of reasonable alternatives for addressing the underlying need including off-site alternatives on private lands, and other modes of renewable energy generation. The FEIS should further explain how the Project meets those needs in the context of the many renewable energy project applications in the Desert Southwest and California. **106-24**

Describe BLM's options for acting upon an application for a right-of-way grant. For instance, describe the extent of BLM's authority to require the adoption of a "modified" project design or alternate site on BLM land, to deny an application, or to select another ROW application submitted by the same applicant or its corporate owner.

The FEIS should include a table comparing the life-cycle costs of the different alternatives. Include information on the cost of the land, different project design criteria that would be required, acquisition effort, scheduling effects, and cost of mitigation.

The FEIS should demonstrate that the approved Project site is consistent with the Desert Renewable Energy Conservation Plan for the Mojave and Colorado Desert Regions. At a minimum, the FEIS should describe and commit to a process to ensure approved projects are consistent with the Desert Renewable Energy Conservation Plan.

Cultural Resources and Coordination with Tribal Governments

The Project could have direct impacts on 73 significant cultural resources including 6 prehistoric sites (p. 4.6-3). Executive Order 13175, *Consultation and Coordination with Indian Tribal Governments* (November 6, 2000), was issued in order to establish regular and meaningful consultation and collaboration with tribal officials in the development of federal policies that have tribal implications, and to strengthen the United States government-to-government relationships with Indian tribes.

Recommendation:
The FEIS should discuss how the concerns raised by Tribes were addressed and resolved. Provide an update on the status of the Programmatic Agreement and whether coordination with Tribes is occurring. The FEIS should indicate whether the Tribes are in agreement that the Programmatic Agreement will reduce impacts to prehistoric and sacred sites to less than significant. We recommend that these measures be adopted in the Record of Decision (ROD). **106-25**

Consultation for tribal cultural resources is required under Section 106 of NHPA. Section 106 of the NHPA requires a federal agency, upon determining that activities under its control could affect historic properties, consult with the appropriate State Historic Preservation Officer/Tribal Historic Preservation Officer (SHPO/THPO). Under NEPA, any impacts to tribal, cultural, or other treaty resources must be discussed and mitigated. Section 106 of the NHPA requires that Federal agencies consider the effects of their actions on cultural resources, following regulation in 36 CFR 800.

Executive Order 13007, *Indian Sacred Sites* (May 24, 1996), requires federal land managing agencies to accommodate access to, and ceremonial use of, Indian sacred sites by Indian Religious practitioners, and to avoid adversely affecting the physical integrity, accessibility, or use of sacred sites. It is important to note that a sacred site may not meet the National Register criteria for a historic property and that, conversely, a historic property may not meet the criteria for a sacred site.

Recommendation:
The FEIS should address Executive Order 13007, distinguish it from Section 106 of the NHPA, and discuss how the BLM will avoid adversely affecting the physical integrity, accessibility, or use of sacred sites, if they exist. **106-26**

Socio-Economic Analysis

The Desert Sunlight, Blythe, Palen, and Genesis projects are located within approximately 40 miles of one another. Thus, the region anticipates an influx of hundreds of workers. According to the Genesis Solar DEIS, combined construction for the Genesis, Blythe and Palen projects will require an average of 1,816 workers over the three to five year construction periods. Construction workers may come from the local counties of La Paz, AZ, Riverside, CA, and San Bernardino, CA. The FEIS should discuss the additional workforce necessary for the proposed Project and how the construction schedule will overlap with those of other approved and reasonably foreseeable projects. We were pleased to note the DEIS included carpooling measures to the Project site from central off-site locations.

Recommendations:
We recommend the FEIS for all projects contain analyses of the impacts of the influx of workers on Desert Center and Blythe, CA. The documents should provide an estimate of the amount of growth, likely location(s), the impacts on municipal services, and the biological and environmental resources at risk. The FEIS should include a discussion of **106-27**

final transit options (including formal Rideshare, Carpooling, and Bussing) and how they will service the other projects in the vicinity to transport workers from the nearest population centers to the remote project sites, as well as other measures to facilitate accessibility. **106-27 cont**

Provide supporting documentation for the estimate that 89.5% of workers would use shuttle buses.

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First Solar

November 24, 2010

Allison Shaffer
Project Manager
Palm Springs South Coast Office
Bureau of Land Management
1201 Bird Center Drive
Palm Springs, CA 92262

Re: Comments on Desert Sunlight Solar Farm Draft Environmental Impact Statement

Dear Ms. Shaffer:

Thank you for the opportunity to provide comments on the Draft Environmental Impact Statement (DEIS) prepared by the Bureau of Land Management (BLM) for the Desert Sunlight Solar Farm Project, dated August 27, 2010. As the applicant for the project, along with Southern California Edison, we greatly appreciate BLM's tremendous efforts in working with First Solar, the local community, stakeholders and cooperating federal, state and local agencies in providing input on the proposed project and conducting thorough review and analysis of the project pursuant to the National Environmental Policy Act (NEPA) and related federal, state and local laws and regulations.

To assist BLM in its preparation of the Final EIS for the project, we have prepared and provide our written comments on the DEIS in the enclosed document. We have organized our comments by chapter and will also be forwarding BLM several updated reports, plans and supporting documents developed in conjunction with other agencies which will provide further background and details regarding the project. These updated reports and plans will include the following: Biological Assessment and supporting plans, U.S. Army Corps of Engineers Jurisdictional Delineation report, Department of Fish and Game Streambed Alteration Agreement notification, Class III Cultural Resources Technical report, and a Fall Plant Survey report.

Please let us know if you have any questions regarding the enclosed comments. We look forward to continuing to work with the BLM in completing the NEPA process and related project review, and with the local community and other federal, state and local agencies in completing the review process for this important renewable energy project.

Sincerely,

Kim Oster

Kim Oster
Direct, Business Development

Enclosure

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First Solar Development, Inc.
Comments on Sunlight DEIS
November 24, 2010

First Solar Comments on Draft Environmental Impact Statement for the Desert Sunlight Solar Farm Project

Executive Summary

Throughout, e.g., p. 1, 3, 4 & 9. The text should use the terms "Gen-Tie" or "interconnection" line where appropriate rather than the generic reference to "transmission" line. See below: 107-1

> Abstract: "the construction, operation, maintenance, and decommissioning of a utility-scale 550-megawatt photovoltaic solar energy facility, interconnection ~~transmission~~ line, and substation"
> ES-1: "generation interconnection ~~transmission~~ line"
> ES-3: "associated interconnection ~~transmission~~ infrastructure"
> ES-4: "220-kV Gen-Tie (interconnection ~~transmission~~) Line"
> ES-9: "The interconnection ~~transmission~~ lines would be maintained on an as needed basis"

Chapter 1 – Introduction

Section 1.1, p. 1-4, paragraph 3. The text notes that the Gen-Tie Line would encompass **"**up to 256 acres". It also should specify that the 256 acres is for the entire 160-foot wide transmission right of way, but that permanent disturbance would be limited to 18 acres. 107-2

Section 1.2.3, p. 1-11, second bullet. The discussion of Executive Order S-14-09 is confusing in how it presents the level of additional renewable generation that investor owned utilities (IOU) will need to acquire in order to comply. Rather than saying that the "IOUs will have to acquire, annually, an additional 75 terawatt-hours (TWh) of electricity from renewable generation by 2020 in order to meet this requirement, more than twice the amount currently obtained from renewable generation" we suggest an alternative. Per Table 3 in the referenced CPUC 2009 RPS quarterly report document, we suggest revising the text to read: "In order to meet this requirement, the IOUs will have to almost quadruple their annual renewable energy procurement, from 27 terawatt-hours (TWh) in 2007 to 102 TWh by 2020." 107-3

Section 1.3, p. 1-16, last paragraph. The text states that the Project is within Riverside County's Desert Center Planning Area. However, only parts of some Project components are within Riverside County's Desert Center Planning Area, because only parts of Gen-Ties A-1 and A-2 run through this Planning Area. 107-4

Table 1.4-1, p. 1-17. The status of the information on the Project's FLPMA ROW Grant needs to be updated because additional information has been submitted by First Solar. The list of submittals should read "updates were submitted in February 2007, June 2009, October 2009, February 2010, April 2010, and August 2010." 107-5

Tables 1.4-1, 1.4-2, and 1.4-3. These tables should be updated to reflect the current status of each of the permits and approvals at the time the FEIS is released. First Solar can provide the updated information to BLM, if needed. 107-6

Section 1.4, p. 1-17, paragraph 3. The status of the information on the Project's Large Generator Interconnection Process needs to be updated. The section should read: "On August 9, 107-7

2010, Project Sponsor received SCE's and CAISO's signature pages to the LGIA, which is dated August 4, 2010." 107-7 cont

Chapter 2 – Description of the Proposed Action and Alternatives

Section 2.1, p. 2-1, last paragraph. Through its continuing efforts to improve project design and efficiency, reduce potential impacts from the Project and respond to public and government agency input, First Solar is currently working to further reduce the project footprint and improve construction techniques to minimize ground and vegetation disturbance. Therefore, we suggest including additional language addressing this process, which we will supplement with specific information for the FEIS as that information becomes available. After the sentence stating "The numbers are based on best available information and generally represent conservative estimates for purposes of analyzing impacts," we suggest inserting and replacing the next sentence with: 107-8

> "In response to public and government agency input, First Solar is continuing to evaluate project design and construction methods to determine if potential environmental impacts can be further reduced. If so, the numbers may change in terms of further reductions based on the final engineering and permit requirements for the Project components."

Section 2.2.2, p. 2-4, paragraph 2. It would be helpful to explain that the components were grouped into specific alternative groupings or configurations (i.e., Alternatives 1, 2 & 3) to facilitate the review and analytical process. However, the actual alternatives analysis is not limited to these groupings or configurations since the various components can be grouped into a number of other configurations. In addition, it would be helpful to note that First Solar identified and performed full technical, environmental and cultural surveys for Solar Farm A and Gen-Tie Line B-1 but that these were not carried forward based on BLM's conclusion regarding the severity of impacts associated with these two additional component alternatives. 107-9

Section 2.2.3, p. 2-6, last paragraph. It is important to include additional information regarding First Solar's certification, testing and monitoring of its PV modules in light of the risk analysis contained in Chapter 4.11, and therefore we suggest inserting the additional language following the sentence ending "….including desert locations in the United States." 107-10

> "First Solar's manufacturing facilities are ISO 14001 and 9001 certified. First Solar PV modules conform to Underwriters Laboratories Inc. (UL) and International Electrotechnical Commission (IEC) test standards. First Solar does additional accelerated life-cycle testing of its PV modules to evaluate reliability and long-term performance characteristics. Based on the results of these tests and performance in the field, First Solar provides a 5 year workmanship warranty and a 25 year power output warranty. The company conducts routine monitoring of existing deployed panels to assess durability and longevity to meet it warranty obligations."

In addition, we suggest inserting additional language after the sentence ending "… through which any module may be returned to First Solar for recycling.":

> "The collection and recycling is at no cost to the end user. The anticipated recycling costs are pre-funded into a trust account that is managed by a third party trustee."

107-10 cont

2.2.3, p. 2-18, second paragraph of "Transmission Line" section and Figures 2-10/2-11. 107-11
First Solar has revised the design of the Gen-Tie poles from a delta to vertical configuration. We are therefore submitting revised figures to replace Figures 2-10 and 2-11, which are new figures TAN-1 and DE-1, respectively, and which are attached to this submittal of DEIS comments. This design change does not impact the height or footprint of the poles, the typical spacing between the pole structures, or the construction process for the Gen-Tie. The text in the second paragraph should be revised with the following:

> "The Applicant plans to use steel monopoles for the Gen-Tie Line. Poles are expected to be approximately 135 feet tall. Typical 220-kV poles designed with a vertical configuration are shown in Figure 2-10 and Figure 2-11. Typical spacing between structures would be approximately 900 to 1,100 feet. Self-weathering steel would be used for the monopoles, which would blend with the surrounding mountains better than other potential finishes. Self-weathering steel is composed of a special alloy that forms an oxide, which prevents further rusting. The finish appears as a matte patina and is commonly used in environmentally sensitive areas where a shiny appearance would be undesirable."

See attachment A (TAN-1 and DE-1 to replace Figures 2-10 and 2-11, respectively).

Section 2.2.4, p. 2-52, paragraph 1. The text incorrectly states that Red Bluff Substation B is located south of the Chuckwalla Mountains. Red Bluff Substation B is north of the Chuckwalla Mountains, not south. 107-12

Section 2.2-4, p. 2-60, paragraph 5. The text notes that Governor Schwarzenegger's Executive Order S-14-08 means that Investor Owned Utilities (IOUs) "will have to acquire an additional approximately 75 terawatt-hours (TWh) annually of electricity from renewable generation by 2020 in order to meet this requirement, which is more than twice the amount currently obtained from renewable generation." [See comment on similar passage in DEIS Section 1]. Per Table 3 in the in the referenced CPUC document, we suggest revising the text to read: "In order to meet this requirement, the IOUs will have to almost quadruple their annual renewable energy procurement, from 27 terawatt-hours (TWh) in 2007 to 102 TWh by 2020." 107-13

Section 2.2.4, p. 2-61 paragraph 1. The first full paragraph on the page discusses the RETI process and notes that the Project Study Area is within a RETI-designated renewable energy zone (CREZ). The paragraph should briefly discuss the BLM/DOE Solar Programmatic EIS and note that the Project site also is in a PEIS-designated Solar Energy Study Area. 107-14

Section 2.3.1, p. 2-64. The Construction Workforce discussion presents the construction workforce numbers in a somewhat confusing manner. We suggest that it would be clearer to present the overall average and peak values for the combined Solar Farm and Gen-Tie workforce and then break these values down into their components. The authors also should confirm that the workforce numbers are consistent across the different sections of the EIS. 107-15

Section 2.3.1, p. 2-81, paragraph 1. The description of solar farm construction phase water needs and the plan to obtain the needed water from local groundwater is somewhat confusing. We suggest rewording the paragraph as follows: 107-16

> "Project water demand would be met by local groundwater from a new well or wells to be constructed on the Solar Farm Site. Sunlight proposes to construct two wells, one of which would continue to be used for operation. Both wells would be available for use during construction to provide flexibility in the water supply and in the event of a well malfunction. Historically, local wells within the Project Study Area produced almost 6,000 acre-feet per year (AFY) largely in support of agriculture in the area of Desert Center and mining activities. The water usage during that period dwarfs the expected use by the DSSF, both during construction and operation. As an alternative to new wells, Sunlight may explore using nearby active wells that have a reported individual (each well) production capacity of between 800 and 2,000 AFY (First Solar 2009). Large stationary temporary water storage tanks (stand tanks) would be used to store the water and water trucks would be filled from these tanks."

Section 2.3.1, p. 2-83, top of page. The California Department of Toxic Substances Control (DTSC) is currently engaged in a regulatory rulemaking process that is evaluating changes to requirements applicable to the management of waste PV modules in California. In order to maximize the information provided to the public, the following text describing DTSC's program is proposed for insertion following the sentence ending "… in accordance with local, state, and federal regulations.": 107-17

> "In July 2010, the California Department of Toxic Substances Control (DTSC) issued proposed regulatory amendments (Proposed Standards for Management of Waste Solar Panels) that provide for the appropriate future regulation of waste solar panels. These proposed regulations classify waste solar panels that would otherwise be classified as California-only hazardous waste as universal wastes, which would allow waste solar panels to be regulated under the universal waste regulatory scheme. The proposed regulations also create an option for waste solar panels to be managed as recyclable materials, which would allow waste solar panels to be regulated under the requirements governing recyclable materials. First Solar's existing corporate collection and recycling program that will be utilized for Sunlight meets the proposed standards for managing waste solar panels as recyclable materials."

Section 2.3.1, p. 2-84, paragraph 1. This paragraph indicates water use during Gen-Tie line construction for dust abatement and soil conditioning in gallons. The data also should be 107-18

presented in acre-feet for consistency with the description of water use during Solar Farm construction. **107-18 cont**

Section 2.3.1, p. 2-84, Table 2.3-8. The discussion of hazardous materials/wastes during construction should acknowledge that there also will be de minimis quantities of batteries, paints, thinners, and cleaning solvents used on-site. These materials will be stored and wastes disposed according to federal, state and local requirements. It should also be noted that the transformer oil used by First Solar at the inverter transformers will be vegetable-based and is non-toxic and biodegradable. The main Step-Up Transformers (SUT) will use mineral oil. **107-19**

Section 2.4.1, p. 2-114, paragraph 2. The text notes that ongoing employment during solar farm operation would average 10 workers with a maximum of 15. First Solar would like to provide some clarity relative to employment during the operation of the Project. **107-20**

> First Solar will employ from 10-15 full time employees. A work week may be comprised of 7 or 8 employees working 10 hours per day. If night time work is required, the shifts will be adjusted to assign the required number of personnel to 10 hour evening shifts. Security would likely consist of 2 employees on day shift and 2 on night shift (12 hours each).

Section 2.6.1, p. 2-125, paragraph 2. The text notes that the potential Desert Center West alternative solar farm site is located within an area designated as Desert Tortoise Critical Habitat and would therefore likely have environmental impacts similar to or greater than those of the Project Study Area. Since this site is entirely within Desert Tortoise critical habitat, then it is incorrect to state that the Desert Center West impacts are likely to be "similar to" the Proposed Action. In other words, the Desert Tortoise impacts resulting from the Proposed Action would be substantially less than the Desert Center West alternative, given that the proposed Solar Farm site is not located entirely within Desert Tortoise critical habitat. In addition, the discussion of rejected alternative sites involving a smaller Project size should note that a smaller project would result in less generating capacity and less contribution to the State's renewable energy and GHG emissions reduction goals. **107-21**

Section 2.6.8, p. 2-127. The discussion of distributed PV states that a "distributed solar alternative would consist of PV panels that would absorb solar radiation and convert it directly to electricity." The text should be clarified to note explicitly that First Solar's technology (and all PV technologies) "absorb solar radiation and convert it directly to electricity." **107-22**

Section 2.6.8, p. 2-127 and 2-128. This section's treatment of distributed PV should stress that there will have to be a significant acceleration of installation of both distributed and non-distributed generation to meet the State's RPS goals and that large scale projects play an important role in that mix. The section should then include some discussion of the reasons for the decision to propose a large scale PV project at the Desert Sunlight site including: economies of scale, lower installation/transaction/maintenance costs, *potential* (rather than past) speed/efficiency of installation compared to distributed generation, availability of a suitable site, technological issues, technical expertise of the company, etc. First Solar would like to make it clear that the firm supports solar development in all forms, distributed as well as large scale, as necessary to meet important societal goals. **107-23**

<u>Chapter 3 – Affected Environment</u>

3.2 Air Resources

Section 3.2.1, Table 3.2-1, pp. 3.3-2 through 3.3-42. The references to ambient air quality standards, specifically, the references to CO, NO_2, SO_2, and PM10, should be revised to ensure they are current and up to date. See California Air Resources Board Ambient Air Quality Standards, at http://www.arb.ca.gov/research/aaqs/aaqs2.pdf **107-24**

3.3 Vegetation

Section 3.3.1, p. 3.3-1. The legal citation range for the ESA should be 16 U.S.C. §§ 1531-1544 and for the Clean Water Act should be 33 U.S.C. §§ 1251-1387. **107-25**

Section 3.3.2, pp. 3.3-5, paragraph 1 and 3.3-10, paragraph 2. Both of these passages discuss the study area and associated biological resources survey work as they have evolved over time. However, both passages need a clear statement that all of the Project areas currently under consideration have been fully surveyed (reference the Biological Resources Technical Report, DEIS Appendix H). The same clarification is needed in Section 3.4.2, Wildlife. **107-26**

Section 3.3.2, p. 3.3-10, paragraph 4. This paragraph refers to "…supporting guidance documents, such as the Rapanos guidance (USACE 2008b)." We suggest providing some context on what the "Rapanos guidance" is. We suggest rewording as follows: "and supporting guidance documents, such as the current guidance from EPA and USACE (2008) regarding CWA jurisdiction after the U.S. Supreme Court's decision in *Rapanos v. Unites States* regarding isolated, non-navigable, intrastate waters." The References section also should be corrected to include EPA as an author of the *Rapanos* guidance. **107-27**

Section 3.3.3, p. 3.3-12. The introductory paragraph to this section needs to be revised to accurately characterize what is in Table 3.3-2. We suggest the following language at the beginning of this paragraph: "After review of plant occurrence records, a list of 14 special status plant species that are present in the area and which might occur within the Project Study Area was developed. Table 3.3.2 lists each of these species and whether its presence was confirmed." **107-28**

Section 3.3.3, p. 3.3-14 to 3.3-16. We suggest that in all the species descriptions in this section, the phrase "It is historically known to occur" be changed to "It typically occurs" because these habitat descriptions apply to the current distribution of the species as well as its historical distribution. **107-29**

Section 3.3.6, p. 3.3-17, paragraph 3. The discussion of jurisdictional resources begins with **"**The Project Study Area is not within a floodplain, as defined by the Federal Emergency Management Agency (FEMA)." FEMA floodplain designation is not relevant to the determination of the extent of jurisdictional waters. Consider deleting this sentence or, at minimum, replacing it with the more accurate statement that the Project area is in an area that has not been classified/mapped by FEMA. **107-30**

Section 3.3.6, p. 3.3-17, paragraph 3, from third sentence to the end. This paragraph discusses project surveys in terms of jurisdictional waters classifications. We suggest the following replacement wording for clarity: **107-31**

> "During project surveys, no areas were found that met the USACE technical criteria for classification as wetlands. However, a number of active ephemeral drainages (locally known as desert dry

> washes) within the Project Study Area were found that meet the technical criteria to potentially be subject to CWA Section 404 jurisdiction as "other waters" of the U.S. This finding is based on the presence of an ordinary high water mark as defined by USACE regulations. However, based on current guidance from the EPA and USACE (2008), the ephemeral drainages within the footprint of the action alternatives are not expected to be subject to federal CWA jurisdiction because they are considered isolated, non-navigable, intrastate waters with no significant nexus to interstate or foreign commerce (Ironwood Consulting and Huffman-Broadway Group 2010)." **107-31 cont**

Section 3.3.6, p. 3.3-18. This paragraph states that ephemeral desert washes within the Project locations fall under the jurisdiction of the CDFG's Streambed Alteration Agreement Program but does not explain why this is so. Please provide this explanation. For more information on the definition of waters subject to CDFG SAA (CFGC Section 1602, bed and bank, etc.) and the areas delineated as jurisdictional please see First Solar's SAA Notification prepared and provided to the CDFG. **107-32**

3.4 Wildlife

Section 3.4.1, p. 3.4-1. The legal citation range for the ESA should be 16 U.S.C. §§ 1531-1544. **107-33**

Section 3.4.1, p. 3.4-1. The definitions of "take" in the Section 9 paragraph are not quite accurate and provide a lower standard than the law requires. The term "harm" actually means "an act which actually kills or injures wildlife" and requires significant impairment of "essential" behavioral patterns. Similarly, the term "harass" actually requires actions or omissions that "create the likelihood of injury to listed species by annoying it to such an extent as to significantly disrupt normal behavioral patterns," including breeding feeding and sheltering. Please amend the definition. **107-34**

Section 3.4.2, p. 3.4-13. The first sentence of the summary paragraph is not accurate because it gives the incorrect impression that one Project facility and associated components were not surveyed for wildlife. All Project areas and associated components currently considered were surveyed for wildlife. To correct this problem, we suggest combining the first two sentences to read as follows: "In summary, at a minimum, all Project facilities and associated Project components for the proposed and alternative Project features were surveyed for biological resources, except that the aeolian geomorphology evaluation only covered the Solar Farm site." **107-35**

Section 3.4.4, pp. 3.4-17, Table 3.4-2, and p. 3.4-22. The Palm Springs round-tailed ground squirrel has been removed from the list of candidates for federal listing because of recent evidence that the species is significantly more abundant and widespread than previously thought. This should be noted in the discussion of the species. See 75 Fed. Reg. 69222 (Nov. 10, 2010). **107-36**

3.5 Climate Change

Section 3.5.2, p. 3.5-12, paragraph 2. A sentence in the middle of this paragraph states: "The study authors did not note any significant change in vegetation cover during the two-year study, and thus concluded that net increases in vegetation could account for more than a small part of **107-37**

the estimated ecosystem carbon uptake." The sentence probably should read "...net increases in vegetation could account for **no** more than a small part…" 107-37 cont

3.6 Cultural Resources

General Comment. In general, this section should be updated to match the information presented in the Class III report provided to BLM in September 2010. This may address, or make moot, several of the other comments provided below. 107-38

General Comment. Information should be added indicating that the Native American Heritage Commission (NAHC) has been contacted regarding the Project and that a search was conducted of the NAHC sacred lands database. This information is discussed in both the Class I and Class III cultural resources reports. 107-39

Section 3.6.2, p. 3-6-8, paragraph 3. This paragraph says: "Hunting game was minimal due to the harsh desert terrain (Bee 1983)." This statement is inaccurate and might be found offensive by Native Americans. These groups all hunted game in all conditions. The Mojave traveled on foot from the Colorado River to the Pacific Ocean and other related groups also foraged in very challenging conditions. We suggest changing the sentence to read "Agriculture was supplemented with hunting of game." 107-40

Section, p.3.6-9, paragraph 1. This paragraph starts with a statement: "The Chemehuevi are one of 16 identified Southern Paiute groups". The statement should make clear that these are ethnolinguistic entities rather than other kinds of groups (e.g., tribelets, land holding groups). We suggest revising this to read "16 identified Southern Paiute ethnolinguistic groups". 107-41

Section 3.6.9, p. 3.6-11, paragraph 2. This paragraph says: "The Mohave had little political organization." The paragraph also says "the Mohave considered themselves one nation with a well-defined territory, enabling them to present a united front in warfare against all enemies. The Mohave had a system of patrilineal clans with names of totemic origin." This second statement appears to contradict the first statement that the Mohave were minimally organized politically. We suggest deleting the first statement (that the Mohave had little political organization). 107-42

Section, 3.6.9, p. 3.6-12, paragraph 1. The last sentence on the ethnohistory of the Mohave says: "Today, many of the Mohave people live on the Colorado River Reservation, with income from irrigated farms and leases of reservation land to non-Indians (Stewart 1983b)." This statement is nearly 30 years old, and should be updated. It is our understanding that in the 21st century, the Mohave have a more diversified economic base than irrigated agriculture and leasing land to non-Indians. We suggest changing the word "Today" to "By the mid- to late-1900s" and adding additional information on the economic activities of the Mohave in the present. 107-43

3.7 Paleontological Resources

No comments.

3.8 Geology and Soil Resources

Section 3.8.2, p. 3.8-3. The paragraph on topography states: "Sand dunes with native desert habitats comprise most of the Desert Center planning area." Please clarify that the Project only 107-44

overlaps with a small portion of the Desert Center Planning Area and that there are no sand dunes within the Project footprint. **107-44 cont**

3.9 Lands and Realty

Figure 3.9-1, Figure Label "SCE Access Road 1." Add lines showing SCE Access Road 1; the current figure only has study area boundary, which does not adequately show the entire route of the access road. Also add and label Access Road 2. **107-45**

3.10 Noise

Section 3.10 p. 3.10-1, paragraph 1. We recommend adding the following to the beginning of this introductory paragraph to better link the definition of "sound" to the definition of the "noise": "Noise is defined as loud, unexpected, or annoying sound." **107-46**

Section 3.10, p. 3.10-3, Table 3.10-1. The table states that the information source for this table of "Examples of Typical dBA levels" is "data compiled by Tetra Tech staff". Indicating the compiler of the information does not provide the source of the information content (i.e., the "typical noise levels"). The table should indicate the data sources or be replaced by a table from a properly documented source. Tables of typical noise levels provided by public agencies (Caltrans, for example) are readily available, would be sufficient for this document, and also would be properly documented. **107-47**

Section 3.10.1, pp. 3.10-4 to 3.10-10. This section, "Applicable Plans, Policies, and Regulations" includes many items that do not appear "applicable" to the proposed Project. For example, the section includes a list of facilities/activities that are exempt from the Riverside County Noise Ordinance (p.3.19-9). This list includes "facilities owned or operated by government agencies", "capital improvement projects of government agencies", and "discharge of firearms in compliance with all state laws"; these are not applicable the Sunlight Project. We suggest editing the section, as appropriate. **107-48**

Section 3.10.2, p. 3.10-11, paragraph 1. This paragraph notes that no ambient noise measurement data is available for the Project areas but characterizes expected noise levels based on "general land use conditions." While we do not disagree with the expected noise levels presented, the paragraph also should explicitly note the remote nature of the Project area and the limited number of noise-sensitive land uses in the vicinity. **107-49**

Section 3.10.2, p. 3.10-1, paragraph 2. This paragraph identifies the locations of noise sensitive land uses in the Project vicinity and refers to Figure 3.10-1 that illustrates their locations. The text should explicitly note the distances between the noise sensitive uses and the Project boundaries of noise-sensitive land uses because the County Noise Ordinance criteria for noise impact apply to activities within ¼ mile from an inhabited dwelling. **107-50**

Section 3.10.2, p. 3.10-1, paragraph 3. This paragraph refers to noise- and vibration- sensitive "locations". The rest of this Affected Environment section refers to noise and vibration-sensitive "land uses". Change this paragraph to refer to "land uses" to be consistent. **107-51**

3.11 Public Health and Safety/Hazardous Materials

Section 3.11.2, p. 3.11-4 to 3.11-5, overlapping paragraph. The discussion of the Project's Phase I Environmental Site Assessment (Phase I ESA) slightly misstates the findings of the Phase I ESA. The DEIS text states that one small portion of the Project area (the telecom site) **107-52**

was formerly part of a military reservation and should be assessed to determine the presence of unexploded ordnance (UXO), if that area would be used as part of the Project. However the Phase I ESA notes that the historical military reservation overlaps the Project area in two locations, not one as stated in the DEIS: GT-A-2 traverses the southwestern corner of the reservation, and the Telecom site is depicted within the northwestern corner of the reservation (see Phase I ESA, p. 1-2 and 5-3, and Fig. 4-4). Please revise the DEIS to be consistent with the Phase I ESA. **107-52 cont**

Section 3.11.2, p. 3.11-5, 2nd full paragraph. The text identifies the "Iron Mountain pumping station" as a permitted RCRA waste generator. We believe that the references should be to Eagle Mountain rather than Iron Mountain in accordance with the description on pages 5-2 to 5-3 in the Phase I ESA. **107-53**

3.12 Recreation

No Comments.

3.13 Socioeconomics and Environmental Justice

Section 3.13.2, p. 3.13-6, paragraph 2. The paragraph presenting Project construction employment information is inconsistent with the numbers provided in the Description of the Proposed Action (DEIS Section 2) and inconsistent with the Project Description in Chapter 2. We suggest providing overall average and peak numbers for the Sunlight components (Solar Farm, On-site Substation, and Gen-Tie Line) and the SCE component (Red Bluff Substation). These workforce values should be reviewed throughout the EIS document to ensure accuracy and consistency across all sections. **107-54**

3.14 Special Designations

General Comment. Unless for some reason they do not fall under the definition of "special designations," we would suggest adding a discussion of the Chuckwalla DWMA to this section. **107-55**

Section 3.14.1, p. 3.14-4. The heading "Wilderness Study Areas" (WSA) in the middle of the page is confusing and appears unnecessary. The discussions before and after the heading are about the relevant designated Wilderness Areas – the Joshua Tree Wilderness and Chuckwalla Wilderness. There is no mention of WSAs and none is needed because there are no WSAs in the Project vicinity. **107-56**

3.15 Transportation

Section 3.15, General Comment. The DEIS section is titled "Transportation and Public Access", but there is no Project-specific analysis of "public access" issues. A definition should be presented for "public access" and then the discussion of each action alternative should address "public access". **107-57**

Section 3.15.2, p. 3.15-4, paragraph 1. The text should be modified to indicate that the northern terminus of Kaiser Road is at the "Eagle Mountain Mine" (not the "Eagle Mountain Landfill"). **107-58**

3.16 Visual Resources

Section 3.16.1, p. 3.16-4. Text should be added to the section on the County General Plan to discuss that Riverside County recognizes that some Plan policies need to be updated to reflect the County's important solar resource. The current policies do not do so. This need has been acknowledged in environmental documents (e.g., Applications for Certification submitted to the CEC and the CEC's Staff Assessments) prepared for several solar projects along the I-10 corridor (e.g., Solar Millennium's Blythe and Palen Solar Power Projects). **107-59**

Figure 3.16-1, p. 3.16-7. This Figure should show the proposed Project (outlines of the Solar Farm, Gen-Tie route, and Red Bluff Substation). This addition would make the figure more useful because the reader could better connect the locations of the proposed facilities to the Interim VRM classes. **107-60**

3.17 Water Resources

Section 3.17.1, p. 3.17-1. The one sentence discussion of "Section 401" should be clarified with respect to its applicability being limited to "Waters of the U.S". We suggest rewording this sentence as follows: "Section 401 of the CWA requires the State to issue Water Quality Certifications for licenses or permits issued for, among other thing, the discharge of dredged or fill materials to 'waters of the United States' located within the State, including jurisdictional wetlands, headwaters and riparian areas." **107-61**

Section 3.17.1, p. 3.17-1. The discussion titled "Sections 301 and 402" should be modified to clarify issues with respect to state certification. We suggest rewording this paragraph as follows: **"**Sections 301 and 402 of the CWA prohibit the discharge of pollutants (except for dredged or fill material, which is regulated under Section 404 of the CWA) from point sources to 'waters of the United States," unless authorized under a National Pollution Discharge Elimination System (NPDES) permit, issued by the EPA or by agencies in delegated states. The NPDES permit program has been delegated in California to the State Water Resources Control Board (SWRCB). The Colorado River Basin Regional Water Quality Control Board (RWQCB) administers the NPDES permits under the CWA in the Project area." **107-62**

Section 3.17.1, p. 3.17-1. The discussion titled "Section 404" should put quotation marks around all references to "waters of the United States" and this term should be used consistently. More importantly, there has not yet been any definitive USACE jurisdictional determination for Sunlight and thus it is premature to make the statement (last sentence of the paragraph) that a jurisdictional delineation performed did not identify federal jurisdictional waters and that Section 404 does not apply to the Project. The Final EIS should incorporate the conclusions of the jurisdictional determination from the USACE, if it is released in time for the FEIS. If not, the language should be qualified to state that it is *expected* that there will be no federal jurisdictional waters on site based on the jurisdictional report prepared by Ironwood Consulting and the Huffman-Broadway Group, and that a Section 404 permit will not be needed. The jurisdictional delineation report is currently under review by the USACE. **107-63**

Section 3.17.1, p. 3.17-4. For the discussions of both "California Construction General Stormwater Permit" and "California Industrial Stormwater Program," language should be included that these apply only where there is a linkage to "waters of the United States," thereby establishing a federal nexus under the Clean Water Act (CWA). **107-64**

Section 3.17.2, p. 3.17-9, paragraph 1. This paragraph states that "all surface water (including water from the Project Study Area)" flows to Palen Dry Lake. This is incorrect based on jurisdictional reports submitted to CDFG and the USACE. These reports show no surface water flow or connection between the drainages on the Project site and Palen Dry Lake. **107-65**

Section 3.17.2, p. 3.17-11, paragraph 2. This paragraph states: "The maximum peak flow water depth was 2.2 feet, which occurs in Pinto Wash (Figure 5, AECOM 2010a; Appendix G)." This should be reworded as follows to be more accurate: "The maximum peak flow depth on site was 2.2 feet, occurring in locations in the eastern portion of the site, due to influence of the Pinto Wash, which is located immediately to the east of SF-B (Figure 5, AECOM 2010a; Appendix G)." The last sentence of the paragraph should also be reworded as follows: "The model results show that sheet flow occurs across the Solar Farm B to a maximum peak flow depth on site of 1.4 and 2.2 feet for the 10-year and 100-year storm events, respectively (Tables 3 and 4, AECOM 2010a; Appendix G)." **107-66**

Section 3.17.2, p. 3.17-11, paragraph 3. The Jurisdictional Delineation reference should be to the report prepared by Ironwood Consulting and the Huffman Broadway Group and submitted to the USACE on September 16, 2010. **107-67**

Section 3.17.2, p. 3.17-14. As with other possible future projects, referencing the Eagle Mountain Pumped Storage Project should be in the conditional ("would" rather than "will"). **107-68**

3.18 Cumulative Analysis

Section 3.18.1, 3.18-1, paragraph 5. This paragraph describes the cumulative project scenario as focused on projects "within the Project area." Instead, this should refer to projects "within the relevant geographic scope defined for each resource area." **107-69**

Section 3.18.2, 3.18-1, paragraph 6. The first sentence of this paragraph also should reference "present" and "reasonably foreseeable" projects, not only "past" actions. **107-70**

Section 3.18-3, p. 3.18-2. The discussion of the methodology and approach to cumulative analysis includes three steps: (1) define the geographic scope of analysis (for each resource area), (2) evaluate the Project in combination with past and present projects within the geographic area defined for analysis, and (3) evaluate the Project in combination with reasonably foreseeable future project within the defined geographic area. The discussion should make explicit a fourth step – present an overall cumulative impacts conclusion based on an analysis of whether the Project's impacts are cumulatively considerable when considered together with past, present, *and* reasonably foreseeable future projects in combination. We suggest ensuring that overall conclusions are included for all of the analyses in Chapter 4. **107-71**

Section 3.18-3, p. 3.18-2. The methodology/approach discussion identifies "the California desert (California Desert District area) as the largest area within which cumulative effects should be assessed for all disciplines, as shown in two maps and accompanying tables." However, Figure 3.18-1 shows the entire California Desert Conservation Area (CDCA), while Table 3.18-1 covers the CDD. The CDD includes ~300,000 acres of BLM-managed land that is not covered under the CDCA. The discussion should clarify whether it is the CDCA or the CDD that is the limit of the geographic scope for cumulative analysis and adjust the text, if needed. Also, whether the CDCA planning area or CDD is used, the chosen area should be consistently used as the maximum extent of the cumulative analysis. **107-72**

Section 3.18.3, p. 3.18-3, paragraph 3. This paragraph states that the cumulative scenario assumes that all listed projects are built and operating during the operating lifetime of the Sunlight Project. However, not all of the cumulative impact analyses in Chapter 4 are based on full buildout/operation of all projects in the applicable "list" for the applicable area of impact. This should be addressed in the substantive sections in Chapter 4. **107-73**

Section 3.18.3, p. 3.18-3, paragraph 4. The text states: "The impacts of the Proposed Project are evaluated for each discipline added to the current baseline; the past, present (existing) and reasonably foreseeable or probable future projects in the I-10 corridor project vicinity." We suggest rewording the text as follows: "The impacts of the proposed Project for each discipline are considered together with the impacts of past, present (existing), and reasonably foreseeable projects within the geographic scope determined for each discipline." **107-74**

Section 3.18.3, p. 3.18-3, paragraph 5. The text states: "reasonably foreseeable projects that could contribute to the cumulative effects scenario depend on the extent of resource effects, but could include projects in the immediate I-10 corridor area as well as other large renewable projects in the California, Nevada, and Arizona desert regions." On p. 3.18-2, the limit of cumulative geographic scope was defined as the "California desert (California Desert District area)". The inclusion of renewable projects in Nevada and Arizona appears inconsistent. We suggest rewriting the sentence as follows: "The geographic scope of reasonably foreseeable projects that could contribute to the cumulative effects scenario depends on the extent of the Project effects for each resource, but could include projects in the immediate I-10 corridor, as well as the larger California Desert District." **107-75**

Section 3.18.3, p. 3.18-3, paragraph 6. The text states: "The maps and tables in Section 3.17.4 show there are a number of projects in the immediate area around the I-10 corridor with impacts that could combine with those of the proposed Project." This sentence refers to the incorrect DEIS section and should be rewritten as follows: "Figure 3.18-2 and Tables 3.18-2 and 3.18-3 show there are a number of foreseeable projects in the immediate I-10 corridor in eastern Riverside County with impacts that could combine with those of the proposed Project." **107-76**

Section 3.18.4, p. 3.18-4. The subsection on potential cumulative renewable energy projects is titled "Renewable Energy Projects in California". Since Section 3.18 (including Figure 3.18-1 and Table 3.18-1)) notes clearly that the largest geographic boundary for cumulative impact analysis is the California desert, the subsection should be titled (and should discuss) only projects in the California Desert District. The title of the subsection should be changed and the references to projects "on state and private land throughout California" should be removed. **107-77**

Section 3.18.4, p. 3.18-6. As noted above, this DEIS section states that the cumulative analysis does not extend further than the boundaries of the California desert. The second sentence of the paragraph on "Incentives for Renewable Development" should remove the references to projects in all of California and Nevada. The sentence should be revised to state simply: "Incentives for renewable energy projects include: …" **107-78**

Section 3.18.4, p. 3.18-6/7. This section identifies incentives for development of renewable projects including Section 1703 of Title XVII of the Energy Policy Act of 2005. The section should mention Section 1705 of the Energy Policy Act of 2005 and also should add the timing restrictions for the 1703/1705 programs (start of construction by September 30, 2011). **107-79**

Section 3.18.4, Tables 3.18-2 and 3.18-3, pp. 3.18-9 through 3.18-21. These tables provide data on existing and foreseeable future cumulative projects. It would be useful to add a column indicating the distances to the Sunlight site for each project listed in the tables. **107-80**

Table 3.18-2, p. 3.18-9, Table 3.18-2. The description of DPV 1 notes that the line runs from the "Midpoint Substation to the SCE Devers Substation near Palm Springs". The Midpoint Substation was never constructed and has been replaced by the proposed Colorado River **107-81**

Substation, which has not been permitted by the CPUC or constructed. The table should be corrected. The same comment applies to the entry for DPV2 in Table 3.18-3. **107-81 cont**

Table 3.18-2, pp. 3.18-9 through 3.14-14. The table identifies the one corridor (West-side Section 368 Energy Corridor), but there are actually two corridors near the Project site, CDCA Utility Corridors E and K. See First Solar's Section 368 Corridor Conflict Analysis submitted to BLM on October 8, 2009. The table also shows the Kaiser Mine as an existing project; the table should state that the mine is no longer operating. **107-82**

Table 3.18-3, p. 3.18-11 to 21. The status of the projects in the table should be reviewed and updated based on BLM's database of active SF-299 application and exclude those projects for which applications have been denied or terminated and to accurately reflect changes in the size and scope of proposed and approved projects. For example, it is our understanding that the Bullfrog Green Energy Mule Mountain Solar and Chuckwalla Projects have been rejected by BLM based on deficiencies, the Blythe and Genesis projects have been approved, the disturbance area for the Palen project has been reduced to 2,970 acres, and the application for the Quartzite Project has been reduced to 7,272 acres. We also recommend providing both the right of way acreage and disturbance acreage of each of the projects on BLM land, since the disturbance acreage is the most relevant number for most of the cumulative analyses. **107-83**

Table 3.18-3, p. 3.18-13. This table uses "will" in describing characteristics of the proposed Eagle Mountain Pumped Storage Project. The descriptions of other future projects in the table use "would". The entry for the pumped storage project should be modified to also use "would". **107-84**

Chapter 4 – Environmental Consequences

4.2 Air Resources

Section 4.2.2, p.4.2-4, Tables 4.2-2 and 4.2-3. These two tables present South Coast AQMD and Mojave Desert AQMD emission significance thresholds for different air basins. However, the tables include significance criteria that are never used in the impact analysis. We suggest that the impact analysis be revised throughout the document to evaluate Project emissions by air basin (preferred approach) or that the portions of the Table be deleted that are not used in the analysis. **107-85**

Section 4.2.2, beginning on p. 4.2-4. The air impact analysis includes an extensive discussion of "localized significance thresholds" (LSTs) which is introduced in this subsection. LSTs are generally not used for projects over 5 acres in size. For projects over 5 acres in size, the SCAQMD recommends modeling analysis, which First Solar previously prepared and provided to BLM/Tetra Tech for the project construction activities. This subsection is the first to reference LSTs; however, there are other sections of the document that refer to them as well. To the extent requested by South Coast or other commenters, sections of the air impact analysis that refer to LSTs should be revised to use modeling analysis in lieu of LSTs. **107-86**

Section 4.2.3, Table 4.2-8, p. 4.2-11. This is a summary of estimated 2011 daily onsite construction emissions in pounds per day. The table presents emissions as daily averages. However, in the SCAQMD, peak (maximum) daily emissions (not daily averages) are the parameter that is used for comparison to the agency's impact significance thresholds. So for each phase of construction, the document should present maximum daily emissions. In addition, the table shows "Maximum Day Totals" which may be misleading as shown in the table because the values reflect the total of the average daily emissions. These two inconsistencies are included in almost every table that presents daily emissions throughout the air quality impact **107-87**

analysis and in the text that introduces the various tables. We recommend that these inconsistencies be corrected throughout the document. **107-87 cont**

Section 4.2.3, Table 4.2-12, p.2-14. The table presents "Average Daily 1-Way Trips", yet a table footnotes state that "the overall total number of workdays per year was not included in the analysis". This appears inconsistent, and should be explained. This apparent inconsistency is repeated in several other places in the analysis. **107-88**

Section 4.2.3, Table 4.2-14, p. 4.2-16. The table title indicates that the table presents maximum daily emissions, yet the values in the table are taken from average daily truck trips. This is repeated throughout the analysis and should be explained or corrected throughout. **107-89**

Section 4.2.3, p. 4.2-29, paragraph 3. This paragraph states that hourly wind speed for the Blythe Airport was not readily available, and that the closest location with a reasonable period of readily available hourly wind data was the Barstow-Daggett airfield in San Bernardino County (WebMet 2010)." In fact, Blythe Airport wind data are available and should be incorporated because it is much closer to the project site. This also applies to the information presented on p. 4.2-30. **107-90**

Section 4.2.3, p.4.2-30, paragraph 1. This paragraph presents precise values for "vegetation cover equivalence" for Project components for different wind directions. Although the discussion does note that "For analysis purposes, the solar panel arrays were assumed, . . . " to have the specific values presented, the assumptions are speculative and the analysis could make different reasonable assumptions and come to different conclusions. As a result, the results should be presented in a way that more fully acknowledges the high level of uncertainty. It might be helpful to revise the analysis to provide for a range of possible values for these "vegetation cover equivalence" factors, and present a range of emission estimates. **107-91**

Section 4.2.3, p.4.2-30, Table 4.2-31. This table includes "barren ground PM10 emissions". This data is not relevant to the analysis and should be removed. **107-92**

Section 4.2.3, p.4.2-35, paragraph 3. The text references Table 4.2-33 as presenting maximum daily emissions from construction activity, but there is a logical inconsistency in the table: the values shown for construction travel represent maximum daily emissions, but the values for onsite construction activity set forth average daily emissions. As noted in other comments, Project emissions should be "maximum daily" values for comparison to the SCAQMD significance thresholds. This inconsistency appears in most daily emission tables throughout the document. **107-93**

Section 4.2.3, p. 4.2-40. MM-AIR-3 states "Sunlight shall provide annual re-application of dust palliatives at the Solar Farm site to unpaved roads and parking areas and to the open areas between the rows of solar arrays." First Solar requests that this mitigation measure be deleted. Dust mitigation should only be required if the Project has demonstrated a significant adverse impact. Required dust mitigation would be accomplished by applying water or palliative, as needed to comply with SCAQMD requirements. As discussed elsewhere, although the wind erosion fugitive dust emission estimates presented in the DEIS exceed the SCAQMD significance threshold for PM10, First Solar believes that the estimates in the DEIS substantially overstate the fugitive dust emissions. More representative emission estimates would likely demonstrate less than significant impacts. Further, as proposed, the Project plan includes discing the soil between rows of solar panels following panel installation to encourage revegetation. In the long term, revegetation would reduce fugitive wind-blown dust emissions, and not require the annual re-application of chemical stabilizers. The application of palliatives annually would **107-94**

require use of a vehicle to traverse between rows which would jeopardize regrowth due to crushing of new vegetation. **107-94 cont**

Section 4.2.3, p. 4.2-41. The discussion of significance under Criterion AQ-4 states that "Daily construction-related emissions for SF-B would not exceed the SCAQMD optional local impact significance criteria for nitrogen oxides, carbon monoxide, PM10, or PM2.5." This statement is inconsistent with the impact analysis presented. To the extent the SCAQMD recommends not using LSTs and instead utilizing modeling (for sites over 5 acres), the text/this section should be changed accordingly. **107-95**

Section 4.2.3, p.4.2-41. The discussion of significance under Criterion AQ-5 states that "Daily operation and maintenance emissions for SF-B would be less than SCAQMD regional and local impact significance thresholds for all pollutants." This conclusion may not fully take into account wind erosion emissions. The wind erosion emission estimates should be evaluated against the appropriate significance criteria (i.e., the SCAQMD operations mass-daily significance threshold). If wind erosion emissions were included in the analysis, the operational emissions may exceed the significance threshold. However, as discussed elsewhere, although the wind erosion fugitive dust emission estimates presented in the DEIS exceed the SCAQMD significance threshold for PM10, First Solar believes that the estimates in the DEIS substantially overstate the fugitive dust emissions. More representative emission estimates would likely demonstrate less than significant impacts. **107-96**

Section 4.2.9, p.4.2-85, paragraph 5. The discussion of the cumulative impacts of the Project's "action alternatives" states that "long-term change in wind erosion conditions at the Solar Farm site could be mitigated to a less than significant level". However, the DEIS never actually reaches the conclusion that wind erosion emissions are significant. **107-97**

Section 4.2.9, p.4.2-87, paragraph 4. This paragraph focuses on the greenhouse gas benefits of the Project. However, this and related statements are included in the discussion of climate change in Section 4.5. This section of the DEIS does not require a conclusion about climate change. However, this section could provide a summary of how the Project will interact with other cumulative projects to impact ambient air quality with respect to criteria pollutants (if any). Similarly, a statement could be included that Project operation would also lead to avoided emissions of criteria pollutants when compared to generation of a similar amount of electricity from fossil fuels. Also, the phrase "alternative "Desert Sunlight projects" is potentially confusing and should be replaced with "implementation of the Project" wherever it appears in this subsection. **107-98**

4.3 Vegetation

General Comment, Updated Reports. The information contained in this section should be updated based on the Biological Assessment and supporting plans, and First Solar's U.S. Army Corps of Engineers Jurisdictional Delineation report and California Department of Fish and Game Streambed Alteration Agreement notification. First Solar is providing all of the above documents to BLM. **107-99**

Section 4.3.2, Table 4.3-3, p. 4.3-2. We suggest replacing the table entries that say "Several" with the numbers for special-status plant occurrences from Table 5 of the Biological Resources Technical Report (BRTR, EIS Appendix H). For the following species, this would be: **107-100**

Foxtail cactus: Alternative 1 - 8; Alternative 2 - 5; Alterative 3 – 7

Emory's crucifixion thorn: Alternative 3 – 33
California ditaxis: Alternative 2 – 1,997 **107-100 cont**

We also suggest adding a footnote to the Table which clarifies that, in order to be conservative, these are numbers of plant occurrences within the study area for each project component rather than the direct impact area. Please also ensure that the other numbers in the Table 4.3-3 are consistent with those provided in the BRTR.

Section 4.3.2, p. 4.3-3. We do not understand where the BIO-1 CEQA significance criteria comes from, because it is not a standard CEQA criterion taken from Appendix G of the CEQA Guidelines. It also appears to partially duplicate BIO-3. We believe that the criterion should be deleted. However, if it is retained, its precise derivation be explained with citations. In addition, the section should add the standard CEQA criterion from Appendix G regarding whether there is a conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional or state habitat conservation plan. **107-101**

Section 4.3.3, p 4.3-6. With respect to Policy DCAP 10.1 "Encourage clustering of development for the preservation of contiguous open space", the text states that SF-B is consistent "Because SF-B was sited to avoid pristine or biologically sensitive areas." More accurate and to the point, we suggest rewording the conclusion as follows: "The site of SF-B was chosen in part because of its proximity to existing development, particularly existing transmission and transportation infrastructure. Therefore, the Project is consistent with the above policy." This same modification should be made in Section 4.4, Wildlife in the discussion of local policies. **107-102**

Section 4.3.3, p. 4.3-18, paragraph 1. The text currently states: "At a minimum, mitigation ratios required in the NECO Plan/EIS are 1:1 for creosote bush scrub, 3:1 for desert dry wash woodland, and 5:1 for impacts to the Chuckwalla DWMA and Chuckwalla CHU." The 5:1 mitigation ratio from NECO applies only to the DWMA, not the CHU. This distinction is confirmed in the Habitat Compensation Plan submitted by First Solar to BLM. **107-103**

Section 4.3.3, p. 4.3-22. For the Construction Monitoring Provision MM-BIO-1, please see the relevant information provided in the Raven Management Plan and Desert Tortoise Translocation Plan. **107-104**

Section 4.3.3, p. 4.3-22, text on pages 4.3-22 to 4.3-26. For references to mitigation measures for BIO-4, please see the relevant information provided in the Habitat Compensation Plan. **107-105**

Section 4.3.3, p. 4.3-24. The statement in the third paragraph of the BIO-2 section that the loss of some sensitive plants "is not expected to affect the species' populations" should be clarified so it is not misinterpreted. In particular, this statement means that the loss of individual plants will not significantly adversely affect the health and abundance of the overall populations of these plant species. **107-106**

Section 4.3.9, p. 4.3-76, paragraph 1. This paragraph states: "populations of many of the desert's sensitive plants were considered relatively stable until recently, as the push for renewable energy development has placed many populations at risk." It then says that "Energy providers have submitted project applications that would collectively cover more than one million acres of the region." Finally, it says that project permitting and regional planning "rarely…conduct thorough cumulative effects analyses." What is the evidence for the statement that renewable energy development has "placed many populations at risk"? These statements appear speculative and unsupported, and could be misleading to the public. Since all of these energy projects have to go through environmental review and mitigate for impacts to special- **107-107**

status species, this assertion lacks factual backing. Is the "one million acres" statistic specific to the NECO planning area, which was defined earlier as the geographic extent of the cumulative analysis? Table 4.3-18 shows less than 400,000 acres would be affected. Also, some quantification should be provided concerning how many populations of sensitive plants are at risk within the NECO area and whether this is a significant percentage. Finally, the statement that project permitting in the region does not include "thorough cumulative analysis" is not accurate and undermines the rest of the analysis in this section, which is based on the cumulative analyses of other projects in the region. We suggest deleting. **107-107 cont** **107-108**

These same comments also apply to the identical passage in Section 4.4 (p. 4.4-40).

Section 4.3.9, Cumulative Impacts. An overall conclusion is needed on whether the impacts of the Project are cumulatively considerable when considered along with past, present, and foreseeable Projects within the NECO planning area. **107-109**

Section 4.3.9, Cumulative Impacts. Include brief discussion of the potential beneficial cumulative impacts of renewable energy development on native vegetation in the CA desert (and beyond), due to reduced impacts from climate change, which is expected to cause significant disruption to ecosystems in the desert and elsewhere. **107-110**

4.4 Wildlife

General Comment, Updated Reports. The information contained in this section should be updated based on the Biological Assessment and supporting plans and First Solar's U.S. Army Corps of Engineers Jurisdictional Delineation report and California Department of Fish and Game Streambed Alteration Agreement notification. First Solar is providing all of the above document to BLM. **107-111**

General Comment, Species Status. The Palm Springs round-tailed ground squirrel has been removed from the list of candidates for federal listing because of recent evidence that the species is significantly more abundant and widespread than previously thought. This should be noted in the discussion of the species. See 75 Fed. Reg. 69222 (Nov. 10, 2010). **107-112**

Section 4.4.1, p. 4.4-2, Table 4.4-2. The reference to the term "footprint" to define the area of presence for special status species should be clarified to make clear that this is the entire width of the requested Project right-of-way (e.g., for the Gen-Tie this is based on a 400 foot ROW rather than then the 160 foot corridor or the 18 acres of permanent disturbance). **107-113**

Please review the Biological Resources Technical Report (BRTR) prepared by Ironwood Consulting dated July 20, 2010 to be sure that all of the numbers in this table are consistent with the findings in the BRTR.

Section 4.4.1, 4.4-2 Table 4.4-3. Please review the final Habitat Compensation Plan for the accurate temporary and permanent acreage calculations. **107-114**

Section 4.4.2, p. 4.4-3. We do not understand where the WIL-1 CEQA significance criteria comes from because it is not a standard CEQA criterion taken from Appendix G of the CEQA Guidelines. A standard criterion would be a substantial adverse effect on any riparian habitat or other sensitive community identified by various plans or government agencies. We therefore suggest that it be deleted and the standard criteria used in its place or, if retained, to explain its derivation with citations. **107-115**

Section 4.4.3, p. 4.4-3, Table 4.4-3, Totals row. Since most of the impacted areas of the DWMA and CHU overlap with one another, it isn't accurate to present the total impact to Wildlife Management Areas as the additive total of the impacts to the two areas. We suggest recalculating the totals accordingly, accounting for the overlap. This also applies to the tables under each of the individual action alternatives that use same methodology. **107-116**

Section 4.4.3, pp. 4.4-6-4.4-7 and 4.4-14, last paragraph beginning on page 4.4-6 and in later locations in text. We believe that the potential project impacts on golden eagles are incorrectly stated in the DEIS, and need to be put in a proper scientific and regulatory perspective. The identified pages and paragraphs attempt to quantify the impact of the project on one identified golden eagle pair, but the assumptions and analysis do not appear scientifically sound and the analysis is speculative. Based on First Solar's golden eagle surveys and after BLM consulted with the U.S. Fish and Wildlife Service regarding the effects of many renewable energy projects on eagles, BLM prepared a memorandum dated August 26, 2010 to USFWS in which it summarized the agencies' initial determination relating to the Sunlight project: "No impact to breeding, Take Unlikely, no APP." Thus, it is important to emphasize in the Final EIS that the Project is unlikely to take or disturb golden eagles within the meaning of the Bald and Golden Eagle Protection Act. **107-117**

Section 4.4.3, p. 4.4-8, third paragraph of Wildlife Movement section. This text implies that desert dry wash woodland within the Project site (as distinguished from Pinto Wash) qualifies as a migratory wildlife movement corridor. Please see our comments on Section 3.4.5, p. 3.4-22. **107-118**

Section 4.4.3, p. 4.4-15, second paragraph of Mammals section. This paragraph gives the false impression that 4,505 acres of foraging and/or breeding habitat would be lost for each of the species listed in the preceding paragraph (five bat species, Palm Springs round-tailed ground squirrel, mountain lion, Colorado Valley woodrat, Nelson's bighorn sheep, burro deer, and American badger). In most cases, the presence of the species mentioned has not been confirmed within the footprints of the various alternatives. In other cases, only a portion of the Project area provides potentially suitable habitat for the species. The statement regarding loss of habitat should be qualified accordingly and should be consistent with the information presented in the BRTR. For example, the BRTR indicates that only two of the special-status bat species would be likely to roost on-site: pallid bat and California leaf-nosed bat. It would also be appropriate to modify the last sentence in this paragraph to state that with implementation of the Habitat Compensation Plan impacts would be less than significant. Moreover, since the Palm Springs round-tailed ground squirrel is no longer a federal candidate species, the parenthetical on this subject in the preceding paragraph should be deleted. **107-119**

Section 4.4.9, pp. 4.4-42-44, Cumulative Impact Analysis. This section should provide an overall conclusion of whether the Project's impacts are cumulatively considerable when considered with other past, present, and reasonably foreseeable projects within the geographic scope of the analysis. We also suggest adding more specific discussions of actual impacts. **107-120**

Section 4.4.9, pp. 4.4-42-44, Cumulative Impact Analysis. We suggest including a brief discussion of the potential beneficial cumulative impacts of renewable energy development on wildlife in the CA desert (and beyond), due to reduced impacts from climate change, which is expected to cause significant disruption to ecosystems in the desert and elsewhere. **107-121**

4.5 Climate Change

Section 4.5.3, p. 4.5-10, last paragraph. This paragraph discusses Changes in Greenhouse Gas Storage Potential of Desert Soils. The paragraph begins "As discussed in the Climate section of Chapter 3 (Section 3.5), desert ecosystems do not have a large capacity to store greenhouse gases. The few literature references claiming otherwise…" These literature references should be specifically identified. **107-122**

Section 4.5.3, p. 4.5-14, Table 4.5-16. This table (and other GHG emission summary tables) would be more user friendly if the summary tables had line items for the individual components of the emissions, e.g., instead of a single line item for Solar Farm C construction emissions, please provide a line for onsite construction and a line for transportation as well as a total. Expanding the various GHG emission summary tables as discussed here would make the impact discussion easier to understand. **107-123**

4.6 Cultural Resources

General Comment: In general, this section should be updated to match the information presented in the Class III report provided to the BLM in September 2010. **107-124**

4.7 Paleontological Resources

Section 4.7.9, p. 4.7-12. The first paragraph of the Cumulative Impacts discussion states: "The geographic extent for cumulative impacts analysis is limited to the immediate region of the physical disturbance and change in pedestrian traffic associated with the DSSF and other projects." This paragraph should identify the geographic extent for the "other projects" considered (the entire California Desert district? the I-10 corridor?) and explain the basis for defining this area. **107-125**

4.8 Geology and Soil Resources

Section 4.8.2, p. 4.8-7. The "Summary of Combined Impacts for Alternative 1" states: "The construction and decommissioning of Alternative 1 with SF-B, GT-A-1 and Red Bluff Substation A, would increase the exposure of people and/or property to seismic hazards and increase the erosion of soils from wind and water." However, information presented in Section 4.8 and in 4.17, Water Resources indicated that there was expected to be essentially no increase in water erosion outside the site with the implementation of the applicant proposed BMPs; therefore, this impact appears to be mitigated to less than significant. This conclusion should be provided to the reader. **107-126**

Section 4.8.9, p. 4.8-18. The Cumulative impacts "Overall Conclusion" should address potential cumulative erosion/stormwater impacts. **107-127**

4.9 Lands and Realty

Section 4.9.3, p. 4.9-4, last paragraph. This paragraph states that Access Road 1 to the Red Bluff A would be within the Chuckwalla DWMA and CHU. Since Alternative 1 includes Access Road 2, rather than Access Road 1, please replace the discussion of Access Road 1 with a discussion of Access Road 2 and its location with respect to the DWMA and CHU. **107-128**

Section 4.9.3, p. 4.9-9. In addition to emphasizing that that SF-B and GT-A-1 would have insignificant land impacts because the Project would be affecting generally undeveloped lands, it is also relevant that only a very small percentage of the existing undeveloped land would be affected. **107-129**

Section 4.9.4, p. 4.9-12. The section on Applicable Land Use Plans, Policies, or Regulations states: "According to the General Plan, 'structures and the pertinent facilities necessary and incidental to the development and transmission of electrical power and gas such as hydroelectric power plants, booster or conversion plants, transmission lines, pipe lines and the like' are allowed on land zoned W-2-10 by approval or by permit (Riverside County 2009)." Therefore, please modify the sentence as follows: "According to the County Zoning Code, 'structures and the pertinent facilities necessary and incidental to the development and transmission of electrical power and gas such as hydroelectric power plants, booster or conversion plants, transmission lines, pipe lines and the like' are permitted uses within the W-2-10 zone (Riverside County 2009)." **107-130**

Section 4.9.4, p. 4.9-13. The section on Applicable Plan, Policies, or Regulations says that certain facilities are allowed on land zoned W-2-10 zoning by "approval or permit". This is confusing: if the Substation (under CPUC jurisdiction) does not require local authorization (which is our understanding), the EIS should say so. Otherwise, the impression could be left that there is a discretionary permit required from the County that is not disclosed in the EIS. **107-131**

Section 4.9.5, p. 4.9-18. The subsection on Applicable Land Use Plans, Policies, or Regulations: "Approximately 1.5 miles of the private land is zoned agricultural." We suggest clarifying this statement by revising as follows: "Approximately 1.5 miles of the private land is zoned A-1 agricultural. Public utility facilities are permitted in the A-1 zone subject to the issuance of a plot plan by Riverside County (Riverside County 2009)." **107-132**

Section 4.9.5, p. 4.9-18. Please add the following sentence at the end of the first full paragraph under the heading Applicable Land Use Plans, Policies, or Regulations: "Structure heights within the A-1 and W-2-10 zones may exceed 50 feet subject to the issuance of a variance by Riverside County (Riverside County 2009)." **107-133**

Section 4.9.5, p. 4.9-28. The conclusion of significant adverse cumulative land use impacts appears inconsistent with the information stated previously in the section, which states that the impacts of the proposed Project would not be cumulatively considerable when considered with either existing or future foreseeable projects. The conclusion seems to be based on the combined impacts of the other future foreseeable projects analyzed, not on the cumulative contribution of the proposed Project's impacts. The overall conclusion should be based on whether the *Project's contribution* is cumulatively considerable when considered with past, present, and reasonably foreseeable projects and should be consistent with the information conclusions presented earlier in the section. **107-134**

4.10 Noise

Section 4.10.1, p. 4.10-2, Table 4.10-1. Many of the items and values in this table appear elsewhere in this DEIS and do not appear particularly relevant to Project noise issues. We recommend editing the table and keeping only those items that are more directly relevant noise considerations (e.g., distance to nearest residence). Also, confirm that the values in the table are consistent with those presented in Section 2. **107-135**

Section 4.10.3, p. 4.10-5, Table 4.10-2. This table is confusing. It presents noise levels as "increments" and the meaning of this term is unclear. Are the values presented in the table the expected additions to baseline noise values? Do these values represent the "with-project" noise levels at the various distances? Please clarify. If the data are showing the with-project addition **107-136**

to baseline noise levels, then please also indicate what the with-project resulting noise level would be. **107-136 cont**

Section 4.10.3, p. 4.10-5, paragraph 2. The paragraph notes that the closest residence is about 1,175 feet from the Solar Farm boundary and that all other homes are 0.5 mile or more from the Solar Farm boundary. Because the County Noise Ordinance threshold of applicability is ¼ mile, please indicate whether the closest residence is occupied and provide the distance in miles for comparison with the ordinance threshold. **107-137**

Section 4.10.3, p. 4.10-9, paragraph 1. This paragraph notes that almost all Project construction activities would occur within 2,000 feet of the nearest residence. Please indicate quantitatively how much of the Solar Farm is within ¼ mile of the nearest residence because that is the relevant distance for the County Noise Ordinance. **107-138**

Section 4.10.3, p. 4.10-9, paragraph 3. This paragraph notes that typical ambient baseline levels near the Solar Farm site are 35 to 50 dBA. Please indicate whether the dBA levels are Leq, CNEL, or instantaneous. **107-139**

Section 4.10.3, p. 4.10-42, AM-NZ-1. Since the County Noise Ordinance only pertains to construction activities within ¼ mile of a residence, this measure should be modified to indicate that the limitations noted would apply only to activities within ¼ mile from the nearest residence and not to construction work further away (i.e., the limitation would not apply to most Project construction activities). **107-140**

4.11 Public Health and Safety/Hazardous Materials

Section 4.11.3, p. 4.11-4, Tables 4.11-2 and 4.11-3. The discussion of hazardous materials/wastes during construction should acknowledge that there also will be de minimis quantities of batteries, paints, thinners, and cleaning solvents used on-site. These materials will be stored and wastes disposed according to federal, state and local requirements. It should also be noted that the transformer oil used by First Solar is vegetable-based and is non-toxic and biodegradable. **107-141**

Section 4.11.3, p. 4.11-3, last paragraph. The text states: "As explained, the risk of exposure to the cadmium telluride (CdTe) semiconductor material within the PV modules ranges from non-existent under normal conditions to negligible under foreseeable 'worst case' scenarios (wildfire and seismic events)." As noted in specific comments below, this text and the lengthy discussion of CdTe issues on pages 4.11-4 to 4.11-6 should be referenced subsequently in Section 4.11 in the discussion regarding potential impacts associated with Operations and Maintenance and Decommissioning. **107-142**

Section 4.11.3, p. 4.11-5, top of page. In order to provide additional support for the statement that the risk to human health and the environment from CdTe is minimal, the text should include additional detail regarding First Solar's product testing. We recommend adding at the end of paragraph the following text: **107-143**

> "First Solar's manufacturing facilities are ISO 14001 and 9001 certified. First Solar PV modules conform to Underwriters Laboratories Inc. (UL) and International Electrotechnical Commission (IEC) test standards. First Solar does additional accelerated life testing of its PV modules to evaluate reliability and long-term performance characterization. Based on the results of these tests and performance in the field, First Solar provides a 5-year workmanship warranty and

> a 25-year power output warranty. The company conducts routine monitoring of existing deployed panels to assess durability and longevity to meet its warranty obligations."

107-143 cont

Section 4.11.3, p. 4.11-5. An additional "worst case" scenario BLM may want to consider discussing is the potential for CdTe to be released to the environment due to flooding of SF-B. We propose adding the following text after the second full paragraph: 107-144

> "In addition, no significant release of CdTe from the PV modules is anticipated if SF-B is subject to a major rainfall event. As discussed in Section 4.17, SF-B is not located on a FEMA 100-year floodplain, although the County of Riverside designates the area as having "possible but undetermined flood hazards." Storm water modeling for a 100-year storm performed for SF-B indicated that construction would not substantially increase the amount of damage to the area that could result from flooding. Further, mitigation measures by the applicant, such as detention and retention of storm water flows and use of elongated posts in risk areas, reduce the potential for damage to SF-B from flooding. Thus, it is unlikely that flooding would occur, and if it did, that it would damage PV modules. Moreover, as discussed above, the risk that a significant amount of CdTe would be released from a damaged PV module in any event is insignificant due to the fact that the CdTe is encapsulated between glass panels and the CdTe within the glass is highly stable even if the glass breaks."

Section 4.11.3, p. 4.11-5, paragraph 3. The study conducted by Zayed and Philippe (2009), which First Solar submitted to BLM as part of its Plan of Development, indicates that that CdTe is less toxic than elemental cadmium. Accordingly, we propose that the following text be added after the second full paragraph (and after the text we proposed in the comment preceding this one): 107-145

> "Finally, even if a release of CdTe were possible in the natural environment of the Project, under normal operating conditions or under the realistic "worst case" evaluations of seismic, flooding or wildfire scenarios, recent studies indicate that the CdTe compound is significantly less toxic than elemental cadmium. (Zayed and Philippe 2009)."

Section 4.11.3, p. 4.11-6, 1st paragraph. The first two sentences of this paragraph state: "During standard operation of CdTe PV systems, there are no cadmium emissions to the environment. In the exceptional case of accidental fires or broken panels, scientific studies show that cadmium emissions remain negligible." The reference to "cadmium emissions" in both sentences should be changed to CdTe. CdTe does not dissociate into cadmium and tellurium in the environment under conditions reasonably expected to occur at the Project Site. In addition, the following sources should be cited after the second sentence to support the statement that "scientific studies show that cadmium emissions remain negligible": MEEDAT (2009), CENER (2010), BMU (2005). First Solar provided BLM with copies of these scientific studies as part of its Plan of Development. 107-146

In addition, the third sentence in this paragraph seems to contradict the first two sentences. The first two sentences state that cadmium (should be CdTe) emissions are negligible at most. However, the third sentence states that "Exposure to hazardous materials may **also** be caused by..." (emphasis added), which suggests that exposure to CdTe could in fact occur. Please revise the third sentence to clarify that it is referring only to other hazardous materials used during

construction, such as the following: "On the other hand, exposure to other hazardous materials could be caused by …" **107-146 cont**

Section 4.11.3, p. 4.11-6, 3rd paragraph. Additional detail could be added to the discussion of the potential for MEC to be present in the Project area. The text currently states: "Both the Phase I study and the Class I cultural inventory of the Project area indicated that the area was historically used as a military training facility and that there is potential for MEC to be present. During the Class III cultural resources survey, evidence of possible MEC was identified along two of the Gen-Tie Line alternatives." We propose adding the following sentence after "… Gen-Tie Line alternatives": "Due to historic military training activities associated with DTC-CAMA, there is also the potential for MEC to occur on other portions of the Project footprint." **107-147**

In addition, the last sentence in this paragraph appears to overstate the likelihood that MEC is present in the Project area, providing: "Implementing Mitigation AM-HAZ-2 would reduce these impacts." In our view, it would be more accurate to replace this sentence with the following: "Implementing Mitigation AM-HAZ-2 would reduce the potential impacts from MEC, if MEC are present within the Project area."

Section 4.11.3, pp. 4.11-6 to 4.11-7, overlapping paragraph. The text focuses on the risk related to increasing the likelihood that a wildfire could get started due to construction of the project, rather than the risks associated with the Solar Farm burning in a wildfire. We believe both should be considered and discussed. Consider adding a sentence referencing the discussion of the risk of CdTe release due to wildfire, such as the following: "As noted on page 4.11-5 above in the discussion of hazardous material impacts of construction of SF-B, a wildfire that impacted SF-B would not result in a significant release of hazardous materials from the PV modules." **107-148**

Section 4.11.3, pp. 4.11-10, last paragraph. The text focuses on the risk related to increasing the likelihood that a wildfire could get started due to operation of the project, rather than the risks associated with the Solar Farm burning in a wildfire. We believe both should be considered and discussed. Consider a sentence referencing the discussion of the risk of CdTe release due to wildfire, such as the following: "As noted on page 4.11-5 above in the discussion of hazardous material impacts of construction of SF-B, a wildfire that impacted SF-B would not result in a significant release of hazardous materials from the PV modules." **107-149**

Section 4.11.3, pp. 4.11-13, 5th paragraph. The text focuses on the risk related to increasing the likelihood that a wildfire could get started due to decommissioning of the Project, rather than the risks associated with the Solar Farm burning in a wildfire. We believe both should be considered and discussed. Consider a sentence referencing the discussion of the risk of CdTe release due to wildfire, such as the following: "As noted on page 4.11-5 above in the discussion of hazardous material impacts of construction of SF-B, a wildfire that impacted SF-B would not result in a significant release of hazardous materials from the PV modules." **107-150**

Section 4.11.3, pp. 4.11-18, AM-HAZ-2. Additional detail could be added to the description of AM-HAZ-2 to clarify that the Applicant will evaluate the entire Project footprint for the potential presence of MEC, consistent with the current understanding that the potential for MEC is not limited to the areas identified in the Phase I ESA. We propose that AM-HAZ-2 be revised to incorporate the following underlined text and delete the strikethrough text: **107-151**

> "Based on the preliminary information provided in the Phase I ESA and the Class I cultural inventory of the Project Site, the Applicant proposes to take the following steps to better determine the nature and extent of potential MEC issues

and then take appropriate corrective action measures. The first step is to better determine the history of military activities ~~at the specific~~ within the proposed Project ~~locations that may have been affected by those activities~~ footprint. This would include further research regarding prior MEC removals that may have been issued in the past for certain areas by military or other investigating entities, and may include consultations with Department of Defense personnel and archival research. Due to the historical occurrence of military training activities throughout the DTC-CAMA, potentially including the Project area, this MEC consultation and archival research will address the entire Project footprint, including the specific areas of concern identified by the Phase I ESA and cultural resource surveys." **107-151 cont**

Section 4.11.3, pp. 4.11-19, AM-HAZ-2. Consistent with Table ES-3, the DEIS should clarify that SCE is responsible for implementing AM-HAZ-2 with respect to the Red Bluff Substation A. **107-152**

Section 4.11.3, p. 4.11-19, Wildfire AM-HAZ-4. To clarify the scope of the fire prevention plan, we propose to add "and Gen-Tie Line" after "In compliance with County of Riverside requirements, a Project-specific fire prevention plan for both construction and operation of the Solar Farm …." **107-153**

Section 4.11.3, p. 4.11-35, 1st full sentence. The document would be clearer if it described the projects "concentrated near Blythe." We suggest that reference be made to Table 3.18-2 and Table 3.18-3, which identify projects near Blythe (and elsewhere). **107-154**

Section 4.11.3, p. 4.11-35, 1st full paragraph. The text mentions a number of existing cumulative projects that are too far away to contribute to a cumulative hazardous materials release-related impact from the Project. The document would be made clearer if the text referenced Table 3.18-2 and specified the distance of each project listed in Table 3.18-2 from the Project site. **107-155**

Section 4.11.3, p. 4.11-35. The "Past, Present and Future Foreseeable Projects" paragraph's conclusion of a possible cumulative public health-related impact is based in part on "response times," among other factors. However, Chapter 3.11 does not provide response time data to support this conclusion. We suggest that the text be revised to state more straightforwardly that if multiple projects were to experience a safety issue, given the sparse population of the affected area and limited available emergency personnel, there could be an impact. **107-156**

4.12 Recreation

Section 4.12.9, p. 4.12-12. This page contains two very brief statements about cumulative recreational impacts that conclude there would be less than significant cumulative impacts. We believe the section should be slightly expanded to explain why the Project considered *together with* other past, present, and reasonably foreseeable projects would not have cumulatively considerable impacts to recreation. **107-157**

Section 4.12.9. The cumulative impacts discussion should address the cumulative recreational impacts of the projects in the California Desert District (past, present, and reasonably foreseeable) in terms of removing recreational opportunities (hiking, ORV use). **107-158**

4.13 Socioeconomics and Environmental Justice

Section 4.13.9, pp.4.13-22 and 21. The Socioeconomics cumulative impact section makes several references to "Alternative 4" that don't seem to make sense, e.g., "Employment of construction personnel for both Alternative 4 and any or all of the cumulative projects…." (last paragraph of p. 4.13-22). Alternative 4 is one of the "no action alternatives" and thus there would be no Project employment under Alternative 4. . More appropriate wording might be to refer to "the action alternatives" in the above sentence rather than to "Alternative 4". **107-159**

4.14 Special Designations

Section 4.14.3, p. 4.14-2. The analysis of O&M phase impacts of SF-B should be qualified by noting that there would be a limited number of users from a limited area of the Wilderness that would experience impacts on solitude. **107-160**

Section 4.14.3, p. 4.14-3. The "Summary of Combined Impacts for Alternative 1" incorrectly refers to "permanent direct impacts on cultural resources within the Alligator Rock ACEC" from "constructing Kaiser Road." No Kaiser Road construction is planned; the correct reference should be to constructing the access road to Substation A. Moreover, the discussion on page 4.14-1 of Red Bluff Substation A impacts says "there would be no impacts during construction" for both the Substation and the access road. **107-161**

Section 4.14.4, p. 4.14-4 and 5. The discussion of "Summary of Combined Impacts for Alternative 2" says all impacts are similar to those described for Alternative 1. The increased distance between Substation B and the Alligator Rock ACEC compared to Substation A should be noted. The increased distance results in lower potential for impacts to the Alligator Rock ACEC compared to Alternative 1. **107-162**

Sections 4.14.6 and 4.14.7, p. 4.14-7. The discussions for Alternatives 4 and 5 about the impacts of other renewable energy projects at locations other than the proposed site correctly note that other projects elsewhere also would have impacts. However, to make this point more clearly, we suggest rewording the last sentence of both Sections 4.14.6. and 4.14.7 to state that construction of renewable projects elsewhere "would have similar impacts on other locations and could affect special designation areas in those locations. **107-163**

4.15 Transportation

Section 4.15.4, p. 4.15-12, paragraph 4. The text states that a portion of Kaiser Road and "an unnamed road" would be closed by construction and then reopened. This statement should be revised: No part of Kaiser Road would be closed. One open BLM route, labeled on BLM maps as "an unnamed road" will be closed or rerouted by the Project. **107-164**

Section 4.15.4, p. 4.15-21. The geographic extent portion of Cumulative Impacts needs to define the area that would be encompassed by the cumulative vehicular traffic analysis (e.g., is it the I-10 corridor, or a larger area?) **107-165**

4.16 Visual Resources

Section 4.16.3, pp. 4.16-12 through 14. The subsection is titled "Interim Visual Management Class," but there is no discussion about how the Project's impacts comply/conflict with the Classifications for the area of the Solar Farm. This is confusing and the subsection should either include discussion of impacts in terms of the Classifications or be retitled.VRM Class II and III **107-166**

objectives are not mentioned until the "Summary of Construction Impacts" at the very end of the subsection. This same comment applies to similar subsections on p. 4.16-18 and p. 4.16-22. **107-166 cont**

Section 4.16.3, p. 4.16-20. In discussing compliance with Riverside General Plan policies, the text does not indicate that the County General Plan policies do not yet reflect the County's solar resource and that the County understands this fact and the need to update the Plan policies. The text could acknowledge that there are issues with current policies but should also add that the County expects to update them. Same comment applies to the similar text on p. 4.16-22. **107-167**

Section 4.16.3, p. 4.16-20. The last paragraph of the "Summary of Operation and Maintenance Impacts" notes that "the size, compositing, style, color, and location of Project components during operation and maintenance are incompatible with Riverside General Plan policies," and then lists specific General Plan policies. The discussion of compliance with Riverside General Plan policies should indicate that the County acknowledges that General Plan policies do not yet reflect the County's solar resource and that the policies are currently being updated. **107-168**

Section 4.16, beginning on p. 4.16-25. The discussions of impact significance for the Gen-Tie Line should note that the Gen-Tie is the only Project component that is not entirely on BLM land and that only a small portion of the line is on non-BLM land. **107-169**

Section 4.16, p. 4.16-26, first paragraph. This paragraph notes that long-term impacts of GT-A-1 are less than significant with mitigation because GT-A-1 would occur only on about 0.6-mile of MWD land. This implies that who owns the land affects the visual impacts, which is not correct. This should be rewritten here and on P.4.16-27 where the same point is made the same way. **107-170**

Section 4.16, p. 4.16-29. The second paragraph under "Unavoidable Adverse Impacts" say that Alternative 1 is incompatible with Riverside County General Plan policies. As mentioned in previous comments, the subsection should indicate that while the Project may be incompatible with current Riverside County General Plan policies, the County recognizes that their policies do not reflect the County's solar resource and that the policies are currently being updated. **107-171**

Section 4.16, p. 4.16-40. The discussion of the geographic extent for the cumulative analysis is somewhat confusing. It would be clearer to state that say that project specific impacts are typically determined by the viewshed, but because the viewshed from the Sunlight Project site to mountain ridgelines is generally less than 15 miles and 15 miles is a typical distance for cumulative visual impact evaluations, "a larger ROI is used that extends 15 miles on both sides of I-10 corridor." **107-172**

Section 4.16, p. 4.16-41. An overall conclusion is needed to the Cumulative Impacts section. **107-173**

Section 4.16, p. 4.16-42, first paragraph. The cumulative analysis states that Project visual resources impacts are significant and permanent and that future foreseeable projects would have impacts similar to the proposed Project. It then says that mitigation is available to reduce the cumulative impacts (multiple projects), but it does not make similar statements about the Project. Please explain how mitigation measures are available to reduce cumulative impacts but are not also available to reduce Project impacts. **107-174**

4.17 Water Resources

General Comment, Updated Reports. The information contained in this section should be updated based on the First Solar's jurisdictional waters reports, including the U.S. Army Corps **107-175**

of Engineers Jurisdictional Delineation report (September 2010) and California Department of Fish and Game Streambed Alteration Agreement notification (November 2010). First Solar is providing both of these documents to BLM. **107-175 cont**

Section 4.17.3, p. 4.17.3. The Project's water supply will come from two new on-site wells or from nearby existing wells. The sentence should be reworded as "Project water demand would be met by local groundwater, either from nearby existing wells that are located in the Project Study Area or through two new, wells to be constructed on ~~closer to~~ the Solar Farm site." The same changes should be made to the discussions of water supply for Gen-Tie Line construction (p.4.17-9) and for Project operation (p. 4.17-14). **107-176**

Section 4.17.3, p. 4.17-6. The third sentence in the first paragraph of "Drainage and Surface Water" states: "The panels themselves would cause runoff to fall." This could be said more clearly as follows: "Although the panels are impervious, the panels are elevated on supports that allow the runoff to be directed to the bare ground underneath the panels and so the panels themselves do not affect the infiltration capacity of the soil." **107-177**

Section 4.17.1, p. 4.17-6, last paragraph. We suggest rewording this passage to read: "Maximum on site flow depth for this alternative for the 100-year storm with decompaction would be 2.2 feet, occurring in locations in the eastern portion of the site, due to influence of the Pinto Wash, which is located immediately to the east of SF-B (see Figure 3.17-3 and Figure 9 in AECOM 2010b; Appendix G)." **107-178**

Section 4.17.1, p. 4.17-7, paragraph 1. We suggest rewording the first sentence as follows: **"**The surface water and drainage impacts from construction of SF-B with decompaction are relatively small." **107-179**

Section 4.17.1, p. 4.17-8, first bullet at bottom of page. The sentence "This flow occurred east of SF-B, in the vicinity of Pinto Wash" should be reworded to say "The maximum potential flow depths occur in the east portion of SF-B, due to the influence of Pinto Wash." **107-180**

Section 4.17.1, p. 4.17-8, third paragraph. This paragraph should be modified as follows (deletions shown by strikeout; additions are underlined): **"**The solar arrays are constructed of thin-film cadmium telluride modules mounted on steel racks supported by steel posts. During the manufacturing process, the CdTe is bound to a glass sheet by vapor transport deposition, followed by sealing the CdTe layer with a laminate material and a second glass sheet. ~~The modules are covered by glass so that~~ Thus, ~~the~~ cadmium telluride ~~composition~~ is encapsulated and would not be in contact with rain water and would not contribute to surface water contamination. Moreover, as discussed in Section 4.11, the risk that a significant amount of CdTe would be released from a damaged PV module in any event is insignificant. **107-181**

Section 4.17.3, p. 4.17-12. Groundwater Supply section reference: The reference to 703 AFY in the summary of conclusions is inconsistent with other references to 650 AF. The proposed water demand is approximately 1330 AF over the entire 26-month construction, which translates to an annual average rate of 650 AF. **107-182**

Section 4.17.3, p. 4.17-14, first full paragraph. Please reword the text as follows: "Maximum flow depths for this alternative for the 100-year storm would be 2.2 feet, which would occur in the eastern portion of SF-B, due to the influence of Pinto Wash (see Figure 3.5-3 and Figure 9 in AECOM 2010b; Appendix G)." **107-183**

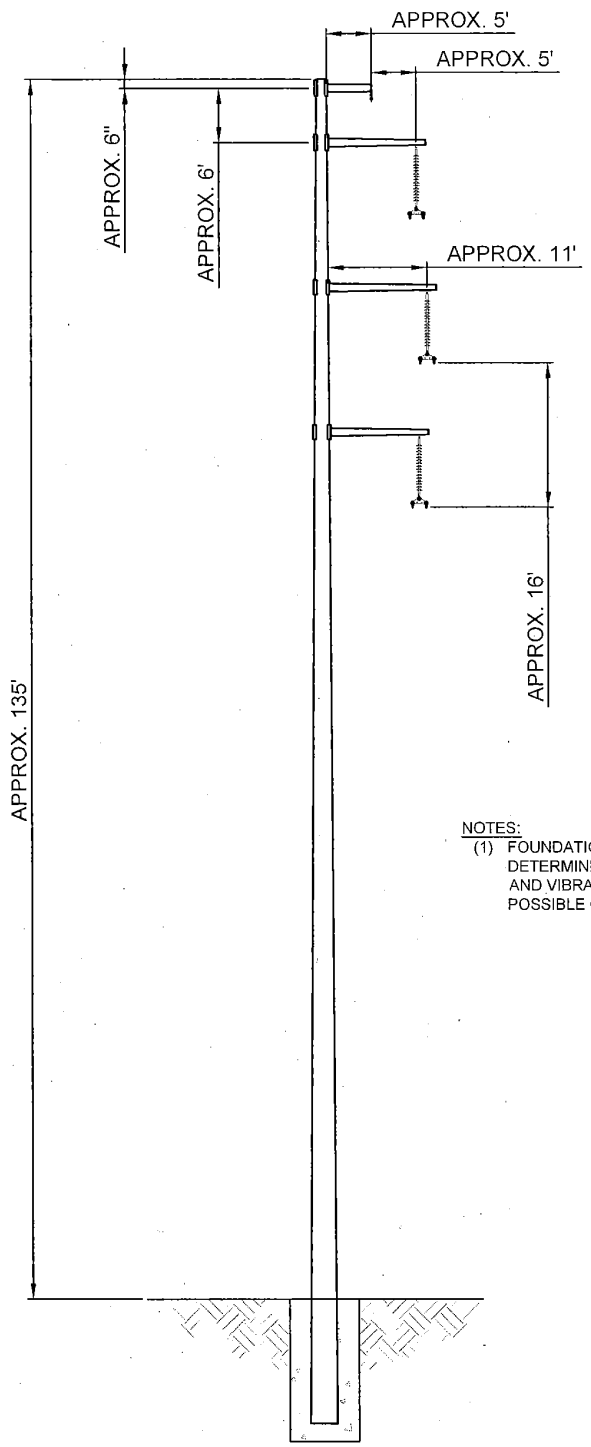
Section 4.17.4, p. 4.17-33. The paragraph on "geographic scope" of the cumulative impact analysis needs to correct the statement that that "The area is characterized by dry washes which convey stormwater flows to Palen Dry Lake and possibly to Ford Lake during storms." None of the washes in the Project area drain to these dry lakes. Please see USACE and CDFG jurisdictional waters reports. **107-183 cont**

Section 4.17.4, p. 4.17-34 through 37. The analysis of cumulative groundwater impacts should include the long-term impacts during the O&M stage. In general, the discussion lacks specific discussion of Sunlight. **107-184**

Section 4.17.9, p. 4.17-34. In discussing cumulative groundwater use, the text also should note that the proposed Eagle Mountain Pumped Storage Project by itself would represent 80 percent of the short-term cumulative construction water use and 39 percent of the long-term cumulative operational use. **107-185**

Section 4.17.9, p. 4.17-37 through 39. The Overall Conclusion with respect to cumulative groundwater resources impacts should make it more explicit that the Project would not contribute substantially to cumulative groundwater impacts. **107-186**

ATTACHMENT A



NOTES:
(1) FOUNDATION TYPE HAS NOT BEEN DETERMINED. DIRECT EMBED, DRILLED SHAFT AND VIBRATORY CAISSON FOUNDATIONS ARE POSSIBLE OPTIONS.

NOT TO SCALE

PRELIMINARY - NOT FOR CONSTRUCTION

Burns & McDonnell SINCE 1898

date 11/18/10

designed G. GONZALES

DESERT SUNLIGHT

CONCEPTUAL MONOPOLE SINGLE CIRCUIT TANGENT STRUCTURE 220kV LINE

project 54881

contract

dwg. no. **TAN-1** rev. **1**

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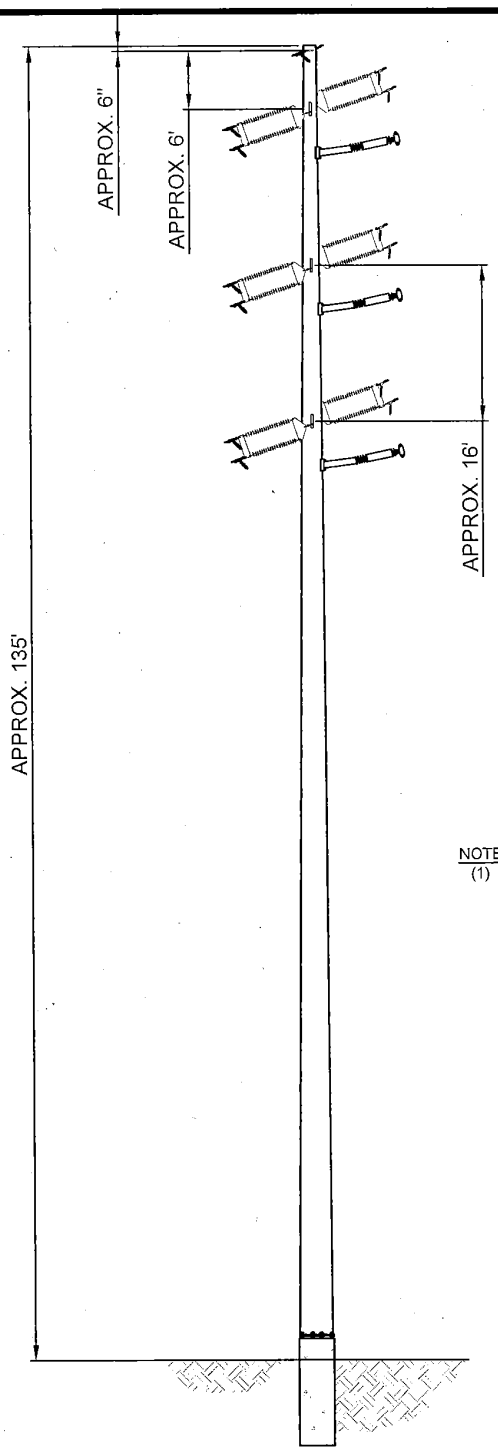

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Burns & McDonnell SINCE 1898

date 11/18/10

designed G. GONZALES

DESERT SUNLIGHT

CONCEPTUAL MONOPOLE SINGLE CIRCUIT DEADEND STRUCTURE 220kV LINE

project 54881

contract

dwg. no. **DE-1** rev. **3**

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11/24/2010 10:45 AM

To CAPSSolarFirstSolarDesertSunlight@blm.gov
cc Pete_Sorensen@fws.gov, Ken_Corey@fws.gov
bcc
Subject Attn: Allison Shaffer; FWS comments on DEIS

In Reply Refer To:
FWS-ERIV-08B0789-11I0113

This correspondence is in response to the Bureau of Land Management's Notice of Availability of the Draft Environmental Impact Statement for the Desert Sunlight Holdings, LLC Desert Sunlight Solar Farm Project and Possible California Desert Conservation Area Plan Amendment. Attached please find comments on the proposed project from the U.S. Fish and Wildlife Service's Carlsbad Fish and Wildlife Office for your consideration. If you have any questions regarding our comments, please feel free to contact me.

****
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20101124.Desert Sunlight DEIS CFWO Review.pdf

Desert Sunlight DEIS (FWS-ERIV-08B0789-11I0113)
Carlsbad FWO Review, November 24, 2010

Reviewer's Name: Jody Fraser **Reviewer's Organization**: USFWS

Reviewer's email address: jody_fraser@fws.gov **Reviewer's Telephone number**: 760.431.9440

DEIS Section	Page/Line	Comment/Suggested Revision	
ES	ES-2	FLPMA also states, "The California desert environment is a total ecosystem that is extremely fragile, easily scarred, and slowly healed . . . and its resources, including certain rare and endangered species of wildlife, plants, and fishes, and numerous archeological and historic sites, are seriously threatened by air pollution, inadequate Federal management authority, and pressures of increased use, particularly recreational use, which are certain to intensify because of the rapidly growing population of Southern California."	108-1
	ES-3	The project is in the "Sonoran" Desert – not the "Sonora".	108-2
ES and Abstract	ES-4	The summary of the six alternatives are inconsistent; in the abstract, the no action alternatives are 1, 2, and 3 and the action alternatives are 4, 5, and 6. On ES-3, the no action alternatives are 4, 5, and 6 and the action alternatives are 1, 2, and 3. Ensure consistency throughout the document.	108-3
	ES-5	Because of the long recovery periods in the desert, disturbances are generally considered permanent.	108-4
	ES-5-8	Please refer to figures for the descriptions of the various alternatives. Proposed action=4,391 ac perm dist; SF-B (4,245 ac BLM), GT-A-1 (12.1 mi; 256 ac w/ 18 perm), Sub A-2 (75 ac for stn+53 ac for other elements).	108-5
	ES-9	How will the overburden be disposed of or used after grading the site?	108-6
	ES-9-10	Many of the alternatives considered but eliminated seem technically feasible and would have fewer environmental impacts. The rationale for elimination seems vague.	108-7
	ES-15	Please include a discussion on potential noise impacts to wildlife.	108-8
	ES-16	Special designations: These areas will experience a permanent loss of acres in DWMA/CHU associated with transmission and SCE components.	108-9
	ES-18	Ground water monitoring should be required to ensure impacts to the system are not significant over the long-term.	108-10
	ES-22	The desert tortoise translocation plan, raven management plan, and ABPP should be reviewed and approved by the BLM as well as the FWS and CDFG. The versions of these documents contained in the DEIS are considered DRAFT and have not been approved by the agencies.	108-11
	ES-35	Special designations: Should BIO-1 be included in the mitigation column?	108-12

2.0		All agreed upon minimization, mitigation, and compensation measures should be included as part of the project description to ensure a comprehensive account of the proposed action. Also, all of these measures should be clearly itemized and described in enough detail to analyze how they will offset impacts to each of the resources from each of the project components.	108-13
	2-4: Transmission	We have been informally consulting with Eagle Crest Energy on the adjacent Eagle Crest Hydro-pumped Storage Project and have recommended that location of the 500-kV transmission required for that project be coordinated with that required for the proposed Desert Sunlight project. Because these two projects will be tying into the same substation, we recommend that, to the maximum extent possible, energy project facilities and associated infrastructure, including but not limited to transmission, substations, and access roads, be collocated to avoid unnecessary loss, fragmentation, and degradation of desert tortoise and other wildlife habitat.	108-14
3.3.2	3.3-10	CEC and CDFG recommend that fall surveys for sensitive plant species should be conducted. This is also consistent with CNPS protocols.	108-15
3.4	3.4-19	Please provide more detailed results of species and project-specific surveys.	108-16
	3.4-19; 3rd para	The data collected during the project-specific surveys do not provide sufficient information or inference to draw conclusions about the historic distribution of desert tortoises within the proposed project area; the project-specific surveys represent a one-time survey, with the entirety of the site surveyed over the course of 3 years.	108-17
3.4.4	3.4-22	Update the status of the species so that it is consistent with the recently released Candidate Notice of Review.	108-18
	3.4-23-24	Many conclusions are drawn about linkages/corridors and habitat use by Nelson's bighorn sheep and other species without citations to relevant data. Please provide appropriate data and citations or revise the text to acknowledge uncertainties.	108-19
3.4.5	3.4-24	Because desert tortoises are not migratory, it is important that any established linkage support resident tortoises and long-term home ranges that are connected to core/viable populations. Because of existing natural and man-made barriers to movement in this region, maintaining these linkages among all of the proposed and approved solar and wind energy projects is essential regardless of the current land status.	108-20
3.4.6	3.4-25; 2nd para	It is important to note that the entirety of the Chuckwalla DWMA (or any other DWMA/ACEC/CHU) is not 100 percent desert tortoise habitat. Conservative estimates based on the USGS habitat model indicate that approximately 70 percent of the Chuckwalla DWMA is suitable desert tortoise habitat with the remaining 30 percent unsuitable.	108-21
	3.4-25; 4th para	The document states that, "According to Appendix A of the NECO Plan/EIS, the proposed Solar Farm site, portions of the Gen-tie lines north of I-10, and the proposed Telecommunications Site are outside of	108-22

		the DWMA. These areas are listed as Category III habitat for desert tortoise and as a BLM moderate use class. Category III habitat is defined as areas that are not essential to maintenance of viable populations, that contain low to medium densities, and that are not contiguous with medium- or high-density areas and in which the population is stable or decreasing (BLM 1992).“ We are concerned that the analysis relies upon the landscape-level maps contained in Appendix A of the NECO Plan/EIS; these maps are very low resolution and should not be used exclusively as the data source for determining the land status/allocation of BLM lands in the DEIS. Also, relative to the applicant’s Gen-tie line, the statement contradicts that which is included in Appendix H and the Biological Assessment submitted to the agencies on November 19, 2010. All previous discussions the agencies have had with the applicant indicate that the Gen-tie line is proposed within the Chuckwalla DWMA and the proposed mitigation ratios (5:1) further substantiate this location. For the FWS to appropriately analyze this project component, this discrepancy needs to be resolved. Finally, the NECO Plan/EIS included many assumptions about Category III lands and their contributions to conservation of the desert tortoise (and other species), and very limited on-the-ground surveys were performed in support of the plan. One of those assumptions was that large-scale projects, such as the proposal, would not be constructed, since NECO did not specifically address this type of industrial land use. Based on the site-specific surveys for the proposed project, desert tortoises were documented on lands immediately adjacent to and within the DWMA; therefore, despite their designation as Category III lands and the proximity to the DWMA and critical habitat, these lands apparently play an important role in population connectivity and recovery.	**108-22 cont**
3.5		What is the net contribution of GHG emissions from the proposed project? Please consider manufacturing of project components, construction, operations and maintenance, and decommissioning.	**108-23**
3.5.2	3.5-13	While we appreciate the uncertainties in research relative to carbon storage capabilities in desert ecosystems, presenting the available information in an objective manner, rather than disregarding it as “unreliable” without substantiating these conclusions, would lend more credence to the environmental document.	**108-24**
3.14.2	3.14-3	The Chuckwalla DWMA/ACEC should also be mentioned here and the reader should be referred back to page 3.4-25.	**108-25**
4.4.3	4.4-5	The discussion of impacts to desert tortoise (and other species and habitats) should include specifics on the numbers of acres expected to be impacted by each alternative/each project component (including staging areas, lay down areas, and any incidental project impacts) and number of tortoises expected to be	**108-26**

		affected both from the project components as well as translocation activities (also refer reader to Appendix H). Please include a reference to the Applicant Measure WIL-1 (desert tortoise translocation plan, which is DRAFT in the DEIS) that is currently being reviewed by the agencies to minimize the impacts of taking the species. Also, a discussion of the impacts to designated critical habitat for desert tortoise, as well as any proposed offsets, should be included – reference relevant section of document. It is important to note that the number of tortoises observed during project-specific surveys is an estimate based on one moment in time and because of the size of the project, the direct and indirect impacts from development and operations will likely affect individuals and population dynamics well outside the project footprint.	108-26 cont
	4.4-6	Please ensure that Applicant Measure WIL-2 (raven management plan) is consistent with current FWS guidance. The plan included in the DEIS is DRAFT and does not address regional indirect impacts to desert tortoises from increased raven predation.	108-27
	4.4-7	Please ensure that Applicant Measure WIL-3 (avian and bat protection plan) is consistent with current FWS guidance. The plan included in the DEIS is DRAFT and additional guidance specific to the California/Nevada region of the FWS should be incorporated. Also, we recommend the proposed transmission line be built according to the Avian Power Line Interaction Committee recommendations (available at http://www.aplic.org/SuggestedPractices2006(LR-2watermark).pdf).	108-28
	4.4-9	See comment above for 3.4-25; 4th para re: Gen-tie location within designated critical habitat for desert tortoise.	108-29
	4.4-10	Replace the citation "Fraser 2010" with "U.S. Fish and Wildlife Service. 2009. Desert tortoise field manual. Ventura Fish and Wildlife Office, Ventura, California."	108-30
4.4.9	4.4-42: Impacts to Wildlife Habitat	Please articulate which approved and proposed reasonably foreseeable projects are included in the cumulative impacts analysis and contribute to the estimated 6.2 and 7.5 percent loss of Sonoran creosote bush scrub and desert dry wash woodland, respectively. Are these figures based on the project footprint or the entire project including transmission and ancillary facilities? Is the baseline acreage from which these figures are derived 5 million? Non-renewable energy projects should also be considered in the analysis.	108-31
	4.4-42: Impacts to Special Status Spp	Desert tortoise is the only special status species that will be actively translocated; this is a take minimization measure rather than a mitigation measure. As stated in the FWS translocation guidance, translocation should only be considered "when avoidance of these impacts is not feasible and adverse effects of the incidental take of desert tortoises associated with the proposed action need to be minimized. Prior to drafting a translocation plan, however, project proponents should identify, review, and consider all potential measures to avoid adverse effects to desert tortoises at the project site." Translocation has the	108-32

		potential to impact not only the tortoises located on the project site, but resident tortoises at the translocation sites, and in some cases, tortoises on control sites from transmittering, handling during health assessments (including drawing blood samples), and being physically removed from their home ranges. Disease is also a significant concern, especially at the cumulative level given the magnitude of impacts and number of desert tortoises expected to be affected by the renewable energy development program in the desert southwest.	108-32 cont
	4.4-43: Impacts to Wildlife Movement	As discussed above, desert tortoises are not migratory; therefore, conservation of habitat linkages with a resident population between conserved lands is necessary for viable populations of the species to persist.	108-33
	4.4-43: WMAs	Please reconcile the discrepancies regarding project impacts to DWMAs.	108-34

To add addition boxes, press tab.

Page _____

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JOHNNEY COON
<dcvine2@msn.com>
11/24/2010 05:30 PM

To <capssolarfirstsolardesertsunlight@blm.gov>
cc
bcc
Subject Comment for First Solar Desert Sunlight Solar Farm Draft EIS and Possible Plan Amendment

Allison Shaffer, Project Manager
Palm Springs South
Coast Field Office, BLM
1201 Bird Center Drive
Palm Springs, CA. 92262

11/24/2010

We appreciate the opportunity to comment on the proposed First Solar Desert Sunlight project located in the Eagle Mountain/Desert Center community. We would like to go on record as being opposed to this project and request the No Action Alternative be taken. **109-1**

I have lived in Desert Center for almost 35 years and my husband has been here over 20 years. We own a large piece of acreage, with a small grape farm and a desert wildlife pond that we developed for the native and migratory wildlife.

We are very concerned that this project will have a detrimental effect on the wildlife. 4,000 acres of public lands near Joshua Tree National Park will be destroyed. The desert land is to be cleared of native vegetation that helps sustain wildlife. This disruption of desert soil will impact both human and wildlife populations by releasing fine particulates that can cause respiratory ailments and release arsenic, known to be cancer causing. **109-2**

Also a concern is light pollution. Our night skies are very dark, a perfect location to view stars, planets and the milky way.There are very few communities these days with such few light sources as ours. **109-3**

Regarding the jobs that this project may provide, most people did not come here looking for a job. The residents in this community are either retired, commute to jobs, work in the area or are unable to work. There isn't a large unemployed work force here. The infrastructure is limited, so providing for a large out of area work force could be problematic. **109-4**

Our small desert community is burdened with the threat of over 30,000 acres of solar farms, a hydroelectric project, and the worlds largest garbage dump. I know if any one of these projects gets approval, my quality of life will be greatly reduced. My first and foremost concern is the environmental consequences this project will have, especially on the wildlife. **109-5**

The government is wrong to use our taxpayer dollars to destroy our public lands. I don't appreciate my hard earned tax dollars going to private corporations who will then destroy the place I call home. Give the people the funds to create local jobs in the manufacture, installation and maintenance of solar systems on each and every rooftop. We would love a system, but cannot afford the thousands of dollars, give me my tax dollars so that I might purchase a system.

Please say NO to this proposal that will destroy a fragile, pristine desert ecosystem.

Sincerely,
Johnney Coon & Timothy Anderson

110

November 24th, 2010

Allison Shaffer

Project Manager

Bureau of Land Management

1201 Bird Center Drive

Palm Springs, CA, 92264

CAPSSolarFirstSolarDesertSunlight@blm.gov

Dear Ms. Shaffer,

Please accept the following comments for the Draft Environmental Impact Statement for the First Solar, Desert Sunlight Solar Farm Project: CACA-48649

Project Right of Way: The preferred project site contains up to 4,400 acres of undeveloped land. The Right of Way is substantially larger. Will it expand? Will it be 19,000 acres eventually? **110-1**

Purpose and Need: All alternatives are now defined by a Need reflecting the recent Secretarial Order 3283: Enhancing Renewable Energy Development on Public Lands.

The goals of Section 4 in Secretarial Order 3283 clearly state a need for environmental responsibility: *"the permitting of **environmentally responsible** wind, solar, biomass, and geothermal operations and electrical transmission facilities on the public lands;*

As we will explain frequently in this letter, The Desert Sunlight Project is inconsistent with the Best Management Practices concerning the National Environmental Policy Act and the Endangered Species Act. The Desert Sunlight Project can, in no way, be considered environmentally responsible. **110-2**

Alternatives: Following the guidelines of the National Environmental Policy Act, the final EIS should present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decision maker and the public. In this section agencies shall: **110-3**

(a) Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.

(b) Devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits.

(c) **Include reasonable alternatives not within the jurisdiction of the lead agency.**

(d) Include the alternative of no action.

(e) Identify the agency's preferred alternative or alternatives, if one or more exists, in the draft statement and identify such alternative in the final statement unless another law prohibits the expression of such a preference.

(f) Include appropriate mitigation measures not already included in the proposed action or alternatives.

The BLM has failed to fully analyze the full scope of potential alternatives. **110-4**

Alternatives to consider in the FEIS:

Avoidance of Wildlife Connectivity Zone Alternative:

Due to the outstanding connectivity potential the area has for several species of wildlife, an off -site alternative that avoids wildlife connectivity corridors should be considered. **110-5**

Lower Tortoise Density Off-Site Alternative:

The BLM rejected the ***Direct Desert Tortoise Avoidance Alternative*** for the following reason***: "****During the biological surveys conducted for the Project Study Area, no active tortoise sign was found in the southwestern portion of the Solar Farm Study Area; however, just above this southwestern area the Applicant found the highest concentration of desert tortoise within the Solar Farm Study Area. The southwestern portion of the Solar Farm Study Area is located just to the north of the Chuckwalla DWMA. Siting of project arrays within this area would effectively eliminate the majority of the wildlife corridor between the DWMA and the area of the highest concentration of desert tortoise within the Solar Farm Study Area. This alternative was determined to have greater environmental impact than the currently proposed project alternatives due to the effective elimination of the wildlife corridor; therefore, this alternative was not carried forward"*

Do to the controversy associated with desert tortoise translocation, we would like to request that BLM consider an alternative away from the Proposed Alternative to a site that would not have such an impact to the desert tortoise *(Gopherus agassizii).* The **110-6**

below numbers from the Fish and Wildlife Service indicate 50 percent mortality from translocation of desert tortoise. 110-6 cont

-Tortoises handled for blood testing will have 5% mortality rate from handling.

- Tortoises translocated will have a 50% mortality rate.

- Resident Tortoises on the recipient site will also have a 50% mortality rate due to competition from translocated tortoises.

It is not appropriate for the BLM to choose the Desert Sunlight project site as its preferred alternative when it supports healthy population of desert tortoise in such an important connectivity zone. BLM needs to add a lower desert tortoise density alternative that occurs out of the region.

Alternative Away from Joshua Tree National Park:

An off -site alternative that avoids impairing the viewscape of southern Joshua Tree National Park should be considered. Construction of this project will result in a permanent visual intrusion to the view from the park. The project will assume the appearance of a very large rectangular body of water. This issue has been avoided by BLM. An alternative that will not at all be visible from the National Park should be developed. The cumulative impacts of the potential devastation that BLM is planning for the I-10 corridor will have irreversible impacts to the park and adjacent wilderness. 110-7

The Joshua Tree National Park General Management Plan: http://www.nps.gov/jotr/parkmgmt/gmp.htm makes the following conclusions about activities adjacent to the park that can have negative impacts:

"Developments and other land uses adjacent to the boundary threaten the integrity of the park's resources, views and wilderness values. Surrounding land use has changed significantly since creation of the monument. Subdivisions, utility corridors, mining, military facilities, and agricultural interests are, in some cases, right along the boundary. Eagle Mountain Landfill has been proposed near the southeast boundary. Concerns include impacts to the desert tortoise and other wildlife, trash blowing, leaks and air quality degradation. Development would intrude on the scene and diminish the naturalness and solitude of the wilderness. Other concerns include effects from air and water pollutants, invasion of non-native species from adjacent lands, and noisy overflights that effect wilderness solitude. The park's resources are also seriously threatened by illegal activities and uncontrolled access along the boundaries, such as off road vehicle use, theft of desert vegetation and archeological resources, wood cutting and dumping of hazardous and domestic wastes.

Fulfillment of the biosphere reserve concept and long-term protection of ecological units that extend outside the boundary are also made more difficult by land use and development around the park. The boundaries were revised in the early 1950's to

accommodate mineral extraction. The configuration that had been designed by biologists to protect the natural systems of two deserts has been destroyed in many areas. Consequently, wildlife and vegetation systems were fragmented by uses such as hunting and mining and other developments." **110-7 cont**

The BLM underestimates the impacts this project would have to Joshua Tree with the following statement form page 4.12.11 of the Environmental Consequences section.:

"Although the proposed Project area is nearly surrounded by Joshua Tree National Park, there are no roads or visitor access points into the park in that area, and little or no visitor use of that portion of the park. As such, this portion of Joshua Tree National Park surrounding the proposed Project area has little recreation activity."

You should be backing this statement up with National Park Service statistics. Many people use the Joshua Tree Wilderness from this southern access. Please provide numbers of visitation. Please provide NPS visitor use numbers as well as an analysis of how industrial solar will impact the view for the visitor to the wilderness. This is about more than number of visitors, it is about solitude and preserving wilderness values.

The DEIS needs more information concerning the impacts the Desert Sunlight project would have on Joshua Tree National Park. A full analysis will need to be included in the final EIS. A quote from the park superintendent should also be included.

Off Site Alternative on BLM Lands with Invalid Energy Applications:

Two years ago, BLM placed a moratorium on the flux of renewable energy applications due to the fact that there were applications coming in on top of one another. Senator Reid lifted this moratorium in an attempt to help streamline energy development on public lands. This resulted in a landslide of applications many of which are invalid. There are literally dozens of these applications along the I-10 corridor and hundreds throughout the California and Nevada deserts. BLM needs to review these applications, discard the many invalid ones and provide some of these as off site alternatives for the Desert Sunlight project. **110-8**

Reduced Acreage Alternatives:

Alternatives on smaller parcels of public and private lands outside of the area should be considered as they are more environmentally responsible. The amount of megawatts relating to the profit margin of the applicant should be considered the applicant's responsibility and that burden should not be placed on public land owners.. **110-9**

Alternative That Avoids Land Owners:

If the project is built, it will destroy the lives and even business of some adjacent property owners. BLM has neglected to adequately address the risks to public health, quality of life and property values that would be impacted by the approval of this Right of **110-10**

Way. Please provide an alternative that protects the health and property of adjacent land owners. 110-10 cont

Off-Site Private Land Alternative:

No private land alternatives outside of the Chuckwalla Valley were considered for a Private Land Alternative. There are plenty of abandoned agricultural fields in California's Central Valley as well as the Salton Sea area. By dismissing all private land alternatives, BLM is placing the burden and responsibility of providing a site for First Solar on tax- paying public land owners and this also places a burden on sensitive plant and wildlife species. 110-11

Distributed Generation Alternative:

The DEIS rejects the Distributed Generation Alternative because it does not fit in with the NEED defined in Secretarial Order 3283: Enhancing Renewable Energy Development on Public Lands. BLM. Due to the fact that NEED states that renewable energy should be "environmentally responsible", we feel that a Distributed Generation Alternative should fit in with the NEED. If Federal property must be involved, the BLM buildings in Palm Springs for example could be included in an MOU involving private properties. 110-12

Included in the guidelines of the National Environmental Policy Act are requirements to *"Include reasonable alternatives not within the jurisdiction of the lead agency."*

The DEIS also rejects the Distributed Generation alternative because: *" achievement of the California Renewables Portfolio Standard would be delayed well beyond the 2010 and 2020 deadlines. Even if distributed installation of 550 MW per year could be achieved, adding over 1 TWh of electricity generation capacity per year (equivalent to the size of the proposed Project), it would take over 50 years to obtain the level of electricity generation from renewable sources that will be required to meet California's 33 percent RPS deadline in 2020."*

This is not accurate and avoids the issue. According to the German Federal Agency ,Germany added 1.7 GW of Solar Energy in the month of June. This bring the cumulative installed capacity for 2010 to 3.4 GW capacity compared to the 3.8 GW capacity installed in the entire 2009.
http://www.reuters.com/article/idUSTRE66Q5G620100727?feedType=RSS&feedName=GCA-GreenBusiness&utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+reuters%2FUSgreenbusinessNews+%28News+%2F+U

Distributed generation in the built environment should be given much more full analysis, as it is a completely viable alternative. Desert Sunlight will need just as much

dispatchable baseload behind it, and also does not have storage. But environmental costs are negligible with distributed generation, compared with the Silver State project. Distributed generation cannot be “done overnight,” but neither can large transmission lines across hundreds of miles from remote central station plants to load centers. Most importantly, distributed generation will not reduce the natural carbon-storing ability of healthy desert ecosystems, will not disturb biological soil crusts, and will not degrade and fragment habitats of protected, sensitive, and rare species. **110-12 cont**
Alternatives should be looked at that are in load centers, not closest to the project site. There is a need to consider the “macro” picture, the entire state, to look at maximum efficiency.

A Master comprehensive plan should exist before large expensive inefficient solar plants are sited and built out in the wildlands. This plan should carefully analyze the recreational and biodiversity resources of the Nevada desert. A list of assumptions should be included detailing the plan for integrating various fuels mixes and technologies into each utility's plan, an overall state plan, and a national plan. Loads should be carefully analyzed to determine whether additional capacity is needed for peaking, intermediate, or baseload purposes. Unit size, which impacts capital and operating costs and unit capacity factors, has a direct bearing on the relative economics of one technology over another. A plan might recommend that smaller units built in cities and spaced in time offer a less risky solution than one large unit built immediately.

Right now there is no utility plan, no state plan, and no national plan. Large-scale central station solar plants have been sited very far from load centers out in remote deserts, with the only criterion being nearness to existing transmission lines and natural gas lines. Very little thought has been given to the richness of biological resources, the cumulative impacts on visual scenery to tourists, the proximity to ratepayers, or the level of disturbance of the site.

The California Energy Commission says there will be a need to build many new efficient natural gas peaker or baseload plants to back up the renewables planned. Instead, the renewables should be distributed generation in load centers, which will provide much more efficiency, rather than inefficient remote central station plants that reduce biodiversity and require expensive transmission lines. This reduces the risk, as distributed generation is a known technology and has been proven in countries like Germany where incentive programs have been tested. Incentive programs can be designed in an intelligent manner to vastly increase distributed generation. Incentives for large remote projects like Desert Sunlight are unproven to lower risk and may actually raise debt levels with runaway costs associated with poor sighting and higher-than-anticipated operating and maintenance costs.

Many renewable project developers have failed to consider reasonable or viable alternatives that could serve as solutions that everybody could live with. In the case of this particular project, conflicts with endangered species, cultural resources, storm water drainage erosion, viewscapes from National Parks and wilderness areas could all be

avoided with a distributed generation alternative. Thin film photovoltaic can be sited on developed areas using rooftops, parking lots and other urban vacant lots. The beauty of this is that there is essentially the same insolation in the cities of Banning, Palm Desert, Indio, Palm Springs, Riverside and Los Angeles, California as there is in the region of the project site. **110-12 cont**

Cultural Resources Avoidance Alternative: The entire project site has deep cultural significance to the Cahuilla, Chemehuevi, Mojave, and Serrano nations. 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. The site also contains very significant historical cultural resources. Please provide an alternative that avoids an area with such cultural significance. **110-13**

Preferred Alternative:

My preferred is similar to Alternative 5 which would be to deny the Right of Way to the applicant and designate the ENTIRE Right of Way consideration of 19,000 acres unsuitable for energy development. Due to the outstanding connectivity potential of the region for desert tortoise, bighorn sheep, burro deer, Palm Springs roundtail ground squirrel and other species as well as the occurrence of many rare plants, I also feel this area should be designated an Area of Critical Environmental Concern. Please discuss this in the final EIS. **110-14**

<u>Proposed Action, Affected Environment and Environmental Consequences:</u>

Air Quality:

It is difficult to imagine the impacts that the construction and removal of 4,200 acres of soil will have on the air quality of the Chuckwalla Valley. Recent upgrades and development located on the Creech Air Force Base in Indian Springs, Nevada have resulted in very poor air quality for the region and those living there. Inversion effects cause airbourne dust to linger for hours. Even the mitigation using water trucks has not been able to control the fugitive dust from this construction.

The FEIS does an inadequate job of analyzing the health impacts that airborne particulates from construction dust will have on the local residents of the area. **110-15**

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 FEIS should analyze the cumulative impacts on air quality that will result from the removal so much stabilized soil and biological soil crust. **110-15 cont**

Visual Resources:

The DEIS fails to adequately analyze the full impacts that this project would have on the region's visual resources. The Visual Resources section should have several details added to it.

The short term construction would not only create a visual contrast from soil disturbance, but erosion from the removal of soils would compromise the visual quality of the area by allowing dust to be stirred up whenever there are wind events. The short term construction would most likely result in long term visual disturbance due to the permanent removal of desert soils. This of course would impact adjacent National Parks, Wilderness and private property. **110-16**

The BLM has classified the project site as VRM Class II and Class III. Due to the sweeping desert views, the Desert Sunlight site could easily be classified as VRM Class I. **110-17**

Even under Class III standards, "*Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.*" The immense size of this project will not conform to this standard.

The Key Observation Point (KOP) simulations are deceiving because the angle and location of the photos were not selected from the most potentially graphic locations and angles. There are no dark sky simulations nor are there any simulations from high vantage points from Joshua Tree National Park. Most of the KOP photographs appear to have been taken at mid-day, from angles where the project would be least visible. These are deceiving photos that do not represent the most possibilities concerning lighting and time of day **110-18**

The KOP's developed for the DEIS do not show enough details to be an effective analysis of the visual impacts that will be caused by approval of the ROW. All of the KOP's are from a considerable distance from the project. More KOP's from higher vantage points at specific times of day regarding sun angles are required to complete this analysis. KOP's should also be developed from adjacent private land to analyze the impacts the project would have to property owners.

The following KOP's will need to be added to the Final EIS.

1. There should be 3 sets of at least 4 KOP simulations from vantage points no further than one half to one mile from the proposed project site. These should be

taken from 4 different directions and these KOP's should be repeated in morning, mid-day and late afternoon. **110-18 cont**

2. There should be 3 sets of two KOP's from higher vantage points in the Coxcomb Mountains in Joshua Tree National Park, two from higher elevations in the Eagle Mountains in Joshua Tree National Park, and three sets of two from higher elevations in the Chuckwalla Mountains Wilderness . All KOP simulations should accurately capture the polarized water effect that will be prevalent from higher vantage points.
3. Please provide two KOP simulations from adjacent private property.
4. Please provide four dark sky KOP simulations. Two of these should be from adjacent National Park or Wilderness Areas.

The above photo is taken from Highway 93, south of Boulder City, Nevada. It shows the 2,500 acre First Solar, Copper Mountain facility. None of the KOP simulations for Desert Sunlight capture the water effect. Not only does this disrupt the view, but threatens birds and aquatic insects. KOP's in the DEIS should capture this effect.

Night time lighting and disturbance: The DEIS does a poor job addressing the visual impacts that would occur from security lighting and maintenance lighting. How much lighting would be required for night time maintenance activity? **110-19**

How much lighting would be required for security? How bright would the lighting be? How visible would the lighting be from Joshua Tree National Park, the Chuckwalla Mountains Wilderness Area and adjacent private land? Are there OSHA requirements that do not allow shielding of lights? Some solar applicants are now providing night time Key Observation Point simulations for their proposed project. We would like the applicant for this project to be required to do the same. Please provide 4 night time Key **110-20**

Observation Point simulations from adjacent wilderness, parks and resorts with an analysis of the projects impacts to wilderness values and star gazing. 110-20 cont

The Visual Resources analysis does not have enough information on the impacts to the view-scape of Joshua Tree National Park. The park's General Management Plan is not referenced like it should be. Both the BLM and the NPS share the jurisdiction of the Department of the Interior. The DIES is very incomplete on this subject. 110-21

Problems associated with hundreds of workers:

Construction of this project would bring hundreds of new people to the area. With these people may come law enforcement problems. These problems may include illegal off-roading, vandalism to private property, harassment of wildlife and other undesired behavior. As BLM is aware, First Solar contractors were found trespassing and dumping illegal trash on private property. BLM did deal with this problem, but it is an example of what can happen when new construction workers are brought to an area. 110-22

Hazardous Materials:

From the Environmental Consequences section:

"The use of First Solar PV modules for the Solar Farm would not result in a significant risk of a release of hazardous materials that would be harmful to human health or the environment. Sources of information used to conclude that the proposed PV modules would not result in a significant risk of hazardous materials may be found as part of the Applicant's Supplement to the Plan of Development (16 June 2010) for the proposed Project (First Solar, Inc. 2010a). Hazardous materials are used in the manufacture of the PV modules, including CdTe. During the manufacturing process, the CdTe is bound to a glass sheet by vapor transport deposition, followed by sealing the CdTe layer with a laminate material and a second glass sheet (Fthenakis 2008). While CdTe itself is a hazardous substance in an isolated form (i.e., not embedded within a PV module), any risk to human health or the environment through the proposed Project is minimized by a combination of product design and testing, Project design, monitoring and replacement, and ultimately by the collection and recycling of PV modules in the event they become damaged or defective or upon Project decommissioning. CdTe contained within PV modules is highly stable and, even if the modules become broken or damaged, would not mobilize from the glass and into the environment except under very specific conditions, none of which constitute plausible exposure scenarios under actual or projected "worst case" Project conditions. One condition would be if glass modules are ground into an extremely fine powder and then subjected to agitation in an acidic environment (Golder Associates 2010). However, these conditions would not occur in the field during any Project operations or in a landfill. Even assuming an extreme seismic event that resulted in substantial damage to PV modules, the modules would not be destroyed to a fine powder and, even if this could happen, there still would not be a subsequent exposure to the acidic conditions necessary to mobilize CdTe, which is bound to the glass, into the environment. In addition, once in the environment, CdTe

would not migrate because it is insoluble in water and sorbs to soil particles (Golder Associates 2010, Lange 1973).

Another condition under which minor amounts of CdTe could be released from a PV module is if the module is subjected to a fire (Fthenakis 2005). Such conditions are unlikely to occur at the Project site because of the lack of fuel to support a sustained wildfire and the wildfire mitigation measures for the Project (Mitigation AM-HAZ-4). Grass fires are the most likely fire exposure for ground-mounted PV systems, and these fires tend to be short-lived due to the thinness of fuels. As a result, these fires are unlikely to expose PV modules to prolonged fire conditions or to temperatures high enough to volatilize CdTe, which has a melting point of 1,041 degrees Celsius. Moreover, even if a desert wildfire could reach that temperature, the actual loss of CdTe from a module would be insignificant (approximately 0.04 percent). For these reasons, the probability of sustained fires and subsequent emissions in adequately designed and maintained utility systems appears to be zero (Fthenakis 2005).

These insignificant impacts are further minimized by First Solar's operational and maintenance protocols used to identify and remove damaged or defective PV modules during annual inspections, routine power output performance checks and resultant array and panel inspections. In addition, the potential for exposures to CdTe at levels of concern is further minimized as First Solar would remove identified damaged or defective PV modules from the Solar Farm site, as well as PV modules at the time of decommissioning, and then collect and recycle them in accordance with First Solar's pre-funded PV module collection and recycling program. In 2005, the Applicant established a pre-funded PV module collection and recycling program so that the Applicant's modules may be returned to the company for recycling at no cost to the end user (First Solar 2010b). The program funds are independently managed as a trust to ensure that they will be available when they are needed in the future, regardless of the future financial status of the Applicant. Approximately 90 percent of all modules collected are recycled into new products, including new Applicant-produced modules (First Solar 2009). Finally, even if some modules were sent to landfills instead of being recycled, CdTe would not leach out even under landfill conditions (Golder Associates 2010).

During standard operation of CdTe PV systems, there are no cadmium emissions to the environment. In the exceptional case of accidental fires or broken panels, scientific studies show that cadmium emissions remain negligible. Exposure to hazardous materials may also be caused by discharge of disposal onto soils; or through upset or accidental release. Proposed development of the Solar Farm would include the following mitigations to reduce the impacts from hazardous materials used during construction and operation of the Project and hazardous waste temporarily stored on site prior to appropriate disposal. The Applicant would be responsible for the mitigations."

The DEIS undermines the potential risks of placing millions of photovoltaic panels that contain cadmium-telluride CdTe on public lands. It is not enough to simply claim that it **110-23**

is not likely that the panels can break. When 4,200 acres of topography is removed, the entire hydrology would be altered which may result in major flooding. Thin film solar PV panels can also burn from electrical fires. The following article documents such an event: http://www.sanluisobispo.com/2010/11/10/1363989/rooftop-solar-panels-catch-fire.html

110-23 cont

Is there a fire plan in the event of this happening?

The FEIS should outline the environmental consequences of a potential CdTe pollution event and how it could impact public health, water resources and flora and fauna.

Other issues:

When the fire studies were conducted, were the panels flat during the study so the glass wouldn't slide apart in a fire scenario? Another study should be conducted when panels are in a more diagonal position.

Under the current California Department of Toxic Substances Control regulations, the modules First Solar is using are considered hazardous waste when they reach the end of their life. It is not accurate to claim they are risk free.

The study does not talk enough about cadmium sulfide which also occurs in the First Solar module.

Please make available in the FEIS the breakage and failure rates from other CdTe power plants to get a better approximation of how often breakage occurs on site. First Solar had to recall almost 5% of their modules over some period in 2008 or 2009, so the breakage rate probably goes up when they all have to be taken down and tested.

If First Solar decides to sell the Desert Sunlight project, how would they be inspecting the panels for breakage? Since they have a track record of selling these off big projects, how often will they inspect? What are the criteria for determining that panels are broken?

The Norwegian Geotechnical Institute conducted recent tests on the leaching potential of CdTe from broken PV modules and PV placed in landfills. They conclude:

"The availability test on grounded CaTe PV module material shows a high leaching of both Cd and Te, thus the material exhibits a high maximum leaching release potential of these elements even at the solution's high PH level (P.H. 7.7)"

and

"All three conducted leaching tests show that when CdTe in the module was exposed to water, the thin film CdTe dissolves. The extent of the leaching is thus dependent on the "availability" of the CdTe film. Normally the CdTe is protected by glass layers in the PV module. Weathering and possible destruction of the modules during use or end disposal may lead to exposure of the CdTe film, and subsequent incrased leaching of CdTe into the environment." **110-23 cont**

A study from the Wuppertal Institute, Norway also concludes*:*

*"The conclusion of this paper is that recent independent laboratory analyses conducted on CdTe PV modules confirm that these present a threat to the environment and health if disposed of in an improper and unprofessional way. These analyses also hint at possible, though less probable, cadmium leakages during the use phase in case of shattered protective glass exposing the CdTe film to natural precipitations. The only way to rule out the risks associated with the use of cadmium in PV is to refrain from using cadmium in the first place. This requires non-toxic substitutes to be readily available, which they are (e.g. silicon-based photovoltaics). Cadmium should not spread in "green" solar technologies, but need to be disposed of safely." …*Appraisal of laboratory analyses conducted on CdTe
photovoltaic modules-Mathieu Saurat, Michael Ritthoff; Wuppertal Institute, August 2010

The California Division of Toxic Substance Control is also proposing new rules that would say that a cracked or damaged PV panel is not necessarily end of its life. That would allow First Solar, or whoever will own the project, to leave several damaged panels out on the site. This could create a situation where a damaged panel or several can leach CdTe into the environment.

Desert Pavement:

Desert pavements are found on alluvial fans and piedmonts below mountains in the Mojave and Sonoran Deserts. Stones over fine sediments may form a weak pavement, in the case of granitic stones at the Imperial Valley Solar Project site which decompose and weather more quickly, or if derived from volcanic or limestone sources, may be densely packed, inter-locking, and resistant. Wind-blown silts and sands collect in between and below the gravel pavement. Varnish usually colors the rock surfaces exposed to air a darker color, and can be useful for aging the pavement. Varnish is the result of surface evaporation of various salts on the rock, building up a crust.

Dr. Boris Poff, hydrologist at Mojave National Preserve, gave testimony at the Calico Solar Project evidentiary hearing held by the California Energy Commission on August 5, 2010. The rock surface of desert pavements stabilizes fine sediments underneath, and may potentially increase rainwater infiltration. When they are disturbed, desert pavements lose this function and surface run-off increases, as does erosion and downhill sedimentation.

Many desert pavements are extremely old, taking thousands of years to develop. North of the Calico project site, a desert pavement has been dated at 7,000 years old. There can be three feet of deep sand under the rocky cap that takes millennia to build up.

Small mining roads through desert pavements have yet to recover from this disturbance.

The National Resource Conservation Service has started a soil mapping program at Mojave National Preserve, and they have found that desert pavements have not been adequately analyzed and categorized. Much of the data is out-dated.

Conversely, other desert pavements may be younger and hide archaeological treasures. At the Calico Solar Project workshop held August 12, 2010, we learned from archaeologist Dr. David Whitley, that one cannot assume that subsurface archaeological materials are absent just because a desert pavement covers the ground. "This is a myth," he told the applicant, Tessera Solar. He explained that recently scientists have learned that some desert pavements can form quickly, and ceramics have been found underneath them.

http://www.energy.ca.gov/sitingcases/calicosolar/documents/2010-08-05_Transcript.pdf

The desert pavement on the Desert Sunlight site is over 20,000 years old. How will the removal of thousands of acres of desert pavement affect the flood potential of the region? How will this alter the local hydrology? Will existing groundwater aquifers see less recharge? Will new locations that catch water be created? How will this impact wildlife and populations of phreatophytes that depend on flood water drainage? **110-24**

Water Resources:

The DEIS states that "*as much as nearly 18 feet groundwater drawdown could occur, and "under the most extreme assumptions considered in Sunlight's groundwater modeling runs, a drawdown of one foot would occur at a distance of up to approximately one mile from the pumping well."*

There appears to be no mitigation plan or compensation plan for local land owners regarding the potential loss of their wells due to draw down. There should also be a comprehensive plan that addresses how draw down of the local aquifer would impact microphyll woodlands and phreatophytes in general. **110-25**

Biological Resources:

The following photograph was taken of the Copper Mountain, First Solar photovoltaic facility south of Boulder City, Nevada. The polarized, reflection assumes the appearance of a large body of water. This can potentially be a death trap in the Mojave

Desert. Birds and insects will use up energy to get to water and end up dying of dehydration.

Copper Mountain Thin Film Solar Farm, Boulder City, Nevada

The Nature Conservancy has just released their Mojave Desert Ecoregional Assessment. In the assessment, they discuss the impacts of polarized light pollution on birds and insects:

"Light and noise pollution associated with electrical power plants can be problematic for wildlife. Polarized light pollution from PV panels can attract aquatic insects and other species that mistake the panels for bodies of water, potentially leading to population decline or even local extinction of some organisms (Horvath et al. 2010). Nighttime lighting for security or other reasons may negatively impact a variety of Mojave Desert species, many of which have developed nocturnal behavior to escape the daytime heat of the desert. *(Mojave Desert Ecoregional Assessment September 2010, The Nature Conservancy of California 201 Mission Street, 4th Floor San Francisco, CA 94105)* p. 50"

In 2009, a study was conducted on the issue of polarized light pollution"

Polarized light pollution: a new kind of ecological photopollution Gábor Horváth1, György Kriska2, Péter Malik1, and Bruce Robertson3 Front Ecol Environ 2009; 7(6): 317–325, doi:10.1890/080129 (published online 7 Jan 2009)*

"It is not surprising that water-seeking insects use horizontally polarized light to locate water bodies – among the available visual cues, polarization is the most reliable

under variable lighting conditions (Schwind 1985; Horváth and Varjú 2004). Certain waterbirds are attracted to pools of oil, in which they drown, and they also try to forage on plastic sheeting laid on the ground, which appears to them as a small body of water (Bernáth et al. 2001a). Foraging on this type of inappropriate, artificial habitat wastes time and energy, but landing on artificial reflectors can be lethal for other species. (pg 320)

Obligate waterbirds, such as the ruddy duck (Oxyura jamaicensis), common loon (Gavia immer), dovekie (Alle alle), and brown pelican (Pelecanus occidentalis), are occasionally found dead or injured and stranded (unable to take off) in large asphalt parking lots (McIntyre and Barr 1997; Montevecchi and Stenhouse 2002), or on asphalt roads in the desert (Kriska et al. 2008b). Strandings commonly take place at night, when bright, downward-facing streetlights are reflected upwards by asphalt surfaces, creating a strong optical signature during a time of day when few cues for locating water bodies are available. Studying the possible role of polarization vision of these waterbirds in water detection is the task of future research. (pg 320)

"Many aquatic insects experience complete reproductive failure when they lay eggs on artificial polarizers. (pg 320)"

Navigation and orientation:

Many taxa (eg birds, reptiles, fish, insects, crustaceans, and echinoderms) use polarized light patterns in the sky or hydrosphere as an orientation cue (reviewed in Danthanarayana and Dashper 1986; Schwind 1995; Wehner 2001; Labhart and Meyer 2002; Horváth and Varjú 2004; Waterman 2006; Wehner and Labhart 2006). Artificial polarized light (eg reflected from glass buildings or scattered in water around fishing boats and undersea research vessels) could therefore disrupt evolved polarization-based navigation and orientation behaviors.

Because the advantages of sensitivity to polarized light in some taxa are still unclear, forecasting the importance of PLP to the survival of populations and the integrity and function of ecosystems remains largely speculative. Even so, the ever-increasing levels of PLP and its ability to negatively affect behaviors and to alter interspecific interactions constitute an important conservation problem, which requires increased attention from conservation professionals and researchers alike. (pg 324)

Would the polarized light pollution result in any Takes under the Bald and Golden Eagle Protection Act? **110-26**

The FEIS should discuss these impacts and possible mitigation measures in detail.

Bald and Golden Eagle Protection Act: The Bald and Golden Eagle Protection Act does not permit Take of these species. The loss of foraging habitat is considered a "Take" under the Bald and Golden Eagle Protection Act.

There are six active golden eagle nests within 20 miles of the site. The closest active territory is located one and a half miles from the project boundary, and one Golden Eagle was observed flying south of I-10 in Chuckwalla Valley in the vicinity of the proposed Red Bluff substation during surveys.

Direct Take would most likely occur at the Red Bluff Substation and the Gen-Tie Line. **110-27**

The applicant's Avian and Bat Protection Plan is very wordy and detailed, but provides no compensation for the loss of so much breeding and foraging habitat. There is not even any indication of where any possible mitigation land would be purchased to off – set the removal of so much habitat.

Bighorn Sheep *(Ovis canadensis nelsoni)* and **Burro Deer** *(Odocoileus hemionus eremicus).*

Bighorn sheep and burro deer are both BLM species of Special Concern.

Pg 3.3.14 of the DEIS states: "Large mammal species can use desert dry washes and include special status species, such as bighorn sheep (Ovis canadensis) and burro deer (Odocoileus hemionus eremicus). While sign for burro deer was observed during surveys, bighorn sheep, including tracks and scat, were not observed."

Local land owners have told us through personal communication that bighorn sheep have visited agricultural lands adjacent to the project site. **110-28**

Burro deer have also been seen on the site. The site represents an important connectivity zone for both of these species. Removal of 4,200 acres of this habitat will impair long term connectivity for both species.

The destruction of potential bighorn sheep foraging and migration corridor habitat is not adequately addressed in the DEIS.

Bighorn biologists Dr. John Wehausen and Dr. Vern Bleich have concluded that radio telemetry studies of bighorn sheep in various southwestern deserts, including the Mojave Desert of California, have found considerable movement of these sheep between mountain ranges.... Consequently, intermountain areas of the desert floor that bighorn traverse between mountain ranges can be as important to the long-term viability of populations as are the mountain ranges themselves.

Alluvial fans near steep rocky terrain can provide crucial foraging habitat for big horn sheep (Wehausen 2009)

For example, ewes at the end of gestation that need nutrients may come down from steep, rocky terrain looking for higher quality forage. They might use areas like the

project site for only three weeks, but those three weeks are critical. The Chuckwalla Valley might also provide important movement corridors for deer and bighorn sheep. Wildlife corridors are present through and adjacent to the First Solar, Desert Sunlight Site .

"Radio telemetry studies of bighorn sheep in various southwestern deserts, including the Mojave Desert of California, have found considerable movement of these sheep between mountain ranges (Bleich et al., 1990b). This is especially true of males, but also of ewes (Bleich et al., 1996). Within individual mountain ranges, populations often are small (Table 1). Levels of inbreeding could be high in such populations, but intermountain movements provide a genetic connection with a larger metapopulation, and this will counteract potential inbreeding problems (Schwartz et al., 1986; Bleich et al., 1990b). Intermountain movements also are the source of colonization of vacant habitat, which is fundamental to metapopulation dynamics and persistence. .Colonization by ewes is the slow link in this process, but has recently been documented in two Mojave Desert ranges in California (Bleich et al., 1996; Torres et al., 1996). Consequently, intermountain areas of the desert floor that bighorn traverse between mountain ranges are as important to the long term viability of populations as are the mountain ranges themselves (Schwartz et al., 1986; Bleich et al., 1990b, 1996)."

The FEIS fails to fully analyze impacts to bighorn, provide alternatives to avoid impacts, or provide measures to minimize impacts. **110-29**

The Society for the Conservation of Big Horn Sheep notes that a pre-construction baseline of big-horn sheep use should be established, followed by intensive monitoring during construction and follow-up post construction. They advocate a 1.5 mile buffer zone from the project border to the toe of the sloping mountain areas, to help connectivity of the local population and maintain the metapopulation dynamic at work with this sheep population. A wildlife corridor is absolutely essential for a healthy and viable population and for a healthy gene pool exchange, and that the buffer zone would establish a guideline or benchmark for any future development and additional loss of habitat.

The DEIS outlines no adequate mitigation measures to off-set impacts to Bighorn Sheep and Burro Deer. Please come up with a 2 to 1 land acquisition plan to offset impacts to these species. **110-30**

Palm Springs round-tailed ground squirrel (*Spermophilus tereticaudus chlorus*)

No adequate mitigation measures have been provided for the Palm Springs round-tail ground squirrel. The FEIS will need to outline a plan that provides avoidance and mitigation for this species. Has mitigation land been identified yet? **110-31**

Desert Leafcutting Ant (*Acromyrmex versicolor*)

The project site is the only know location for California's only Leafcutter ant species. A full analysis of the impacts to this species concerning habitat loss should be provided in the final EIS.. 110-32

Biological Soil Crusts

Soil biological crust is a mix of organisms that occupy and protect the surface of the soil in most desert ecosystems. The organisms often include filamentous and non-filamentous cyanobacteria, mosses, lichens, liverworts and fungi.

The following publication should be reviewed by the BLM and the applicant's consulting biologists:

A Field Guide to Biological Soil Crusts of Western U.S. Drylands ;Common Lichens and Bryophytes. Roger Rosentreter, Matthew Bowker, Jayne Belnap

They say the following concerning biological soil crusts:

"Biological Soil Crusts are found on almost all soil types. Green algae are favored on more acidic and less salty soils, whereas cyanobacteria are favored on alkaline soils and soils with high salt content. Within a given climate zone, the cover of lichens and mosses generally increases with higher clay and silt content and lower sand content, as this also increases the stability and water-holding capacity of the soil. However, BSC cover and development is limited on clay soils with a high shrink-swell coefficient. Habitats within a site that are more moist (e.g., under plant canopies and thin plant litter or on north/northeast exposures) generally support a greater cover of lichens and mosses."

And:

"Ecological function:

The presence of these organisms on the soil surface increases soil stability. Because they are photosynthetic they also contribute carbon to the underlying soils. Free-living and lichenized cyanobacteria can also convert atmospheric nitrogen into bio-available nitrogen, and thus are an important source of this often limiting nutrient. All these organisms also secrete compounds that increase the bio-availability of phosphorus. Lichen morphological types with a more discontinuous cover (crustose, squamulose) allow water, gases, and seedlings to pass through to the soil surface, whereas mosses

and lichens with a more continuous cover (foliose, fruticose) often block the flow of materials to the soil surface."

And:

Biological soil crusts (BSC) are formed by living organisms (algae, bacteria, mosses, and lichens) and their byproducts over geologic time. Due to their low rate of formation, these biotic soil crusts are extremely vulnerable to environmental disturbances, such as fire, and anthropogenic impacts, such as grazing, hiking, biking, off-highway vehicle (OHV) use, and military activities. Biological soil crusts are found throughout the desert southwest; however, this soil type and associated vegetation was not identified within the Proposed Project area during field surveys (CH2M Hill 2009c; Sycamore Environmental Consultants, Inc. 2009). Without laboratory analysis the presence of BCS cannot be determined. Biological soil crusts were not found on site possibly because the site has been heavily disturbed by human activity; because they were immature; or difficult to discern."

The below photo was taken on the Desert Sunlight site in Aptil, 2010:

Damage to intact desert soils with biotic crusts and the resulting increased siltation during flooding and dust are not adequately analyzed in the DEIS. Biological crusts protect the soil and hold weeds at bay. **110-33**

What mitigation measures will be utilized to insure survival of the biological soil crusts on the site? Below is the described mitigation measures for damage to biological soil crusts for the Ivanpah Solar Electric Generating System: "Soil biological crust shall be preserved by collecting the upper 1/4 inch of topsoil from areas to be graded. Applicant may flag specific areas known to contain biological crust organisms or collect upper soil from the entire area. BLM or its designated representative must concur that the correct areas have been flagged if collections are to include less than the entire area over which the soil surface will be disturbed."

"There are multiple approaches to the monitoring of BSCs, depending on the monitoring goals. Areas dominated by cyanobacteria can be divided into categories based on the darkness of the soil surface (p. 10, Belnap et al. In press), as darkness is an indicator of cyanobacterial biomass and soil stability. The number of categories chosen depends on how easily the categories can be distinguished from one another and the level of resolution needed to meet monitoring goals. For lichens and mosses, it is best to record cover by species if sufficient expertise is available. When this is not possible, recording the morphological group (e.g., crustose/squamulose/foliose/fruticose lichens, short/tall mosses) is best, as this provides information on soil stability, seedling establishment, hydrology, and carbon fixation. It is also useful to record phycolichens and cyanolichens separately, as this gives information on nitrogen contributions. If recording by species or by morphological group is not possible, the next best option is recording cyanobacterial darkness, as well as the presence of lichens and mosses (lichens are easily distinguished from mosses: when wetted, mosses turn brown or green, whereas lichens do not change much in color). It is also useful to record the morphological type of BSCs being monitored."

The FEIS should outline a mitigation plan to offset damage to the biological soil crusts located on the project site. **110-34**

Plant Communities and Rare Plants:

Approval of this project would in the removal of 4,200 acres of Creosote Bush-White Bursage and Blue Palo Verde-Ironwood-Smoke Tree communities.

There are no mitigation measures outlined for avoidance of rare plants or enhancement of habitat for these plants. Surveys were conducted during the peak of the spring blooming season in 2010, however, many plants bloom during the fall. More surveys will need to be conducted during the fall. More time is needed to evaluate what plants are actually occurring on the site. **110-35**

There are no mitigation measures outlined for avoidance of rare plants or enhancement of habitat for these plants. If plant surveys were not carried out in for summer-rain germinating species, than some plant types may have been missed or under-represented.

Mitigation measures for several California renewable energy projects with a similar sized destructive footprint outline plans to form a "halo" of construction avoidance around rare plant species that have been located on the site. This mitigation measure has not been analyzed in the DEIS

Foxtail cactus *Coryptantha alversonii*,

Emory's crucifixion thorn (*Castela emoryi*),

Las Animas colubrina (*Colubrina californica*),

California ditaxis (*Ditaxis serrata* var. *californica*),

Desert unicorn plant (*Proboscidea althaeifolia*),

Slender-spined allthorn (*Koeberlinia spinosa* ssp. *tenuispina*),

Invasive Weeds:

Even with the best management practices, the blading, scraping and additional development of new roads, transmission, etc. will create a very large opportunity for non-native plants to colonize the project site. Problems will arise with the following species:

Russian thistle (*Salsola tragus)*

Sahara Mustard *(Brassica tournifortii)*

Red brome (*Bromus rubens)*

Orchardgrass (*Dactylis glomerata)*

September 29, 2010 - At a California Energy Commission workshop for the Palen Solar Power Project located near Desert Center, California on September 27, CEC botanist Carolyn Chaney Davis told Solar Millennium, the project applicant, that there was a big concern over weeds taking over newly disturbed desert ground at both the Blythe Solar Power Project and at Palen. Chaney Davis had spent much time out in the field at the Blythe project site with preeminent tortoise biologist and desert ecologist Dr. Kristin Berry, who worried over the spread of the rampaging weed Sahara mustard (*Brassica tournefortii*).

The big concern at Blythe was the spread of weeds along the new "linears," the transmission lines needed to tie the giant solar thermal project to the grid. Berry was emphatic that Sahara mustard spread must be taken much more seriously. Transmission lines act as superhighways for its expansion into desert habitat.

Chaney Davis explained that revegetation after disturbance, such as when the power plant is decommissioned in 30 years, does not usually work in this arid region. So she stressed weed management from the start. Instead of imprinting or planting creosote, the desert should be restored by preserving the topsoil and seedbank. Disrupting biotic soil crusts allows weeds to gain a foothold and increase.

The companies need to manage outbreaks of weeds that happen after initial soil disturbance. A revegetation plan would also include mulching temporary roads after use so the off-roaders do not use them, further spreading weed seeds on tires. The Energy Commission was worried about spread of Sahara mustard into the tortoise Critical

Habitat in Chuckwalla Desert Wildlife Management Area. The weeds can grow so densely that the reptiles cannot move through them, and the mustards displace more palatable native wildflowers.

California Department of Fish and Game recommends a 10-year monitoring period to make sure revegetation is progressing. A 2 or 3 year period is not long enough, as only pioneer plants would be colonizing the disturbed ground. A trend towards climax vegetation would longer to see.

A similar situation will be created by the rushed schedule for the Desert Sunlight Project.

From the Integrated Weed Management Plan:

"Herbicides used will be limited to those approved by the BLM. Currently, only glyphosate compounds such as RoundUp™, a post-emergent herbicide, are recommended by the Desert District of the BLM (Anthony Chavez, personal communication, 2010). Post-emergent herbicides are applied to growing plants. Because they are effective whenever the plant is present, timing is not as critical for these herbicides. It is important, however, that they are applied before the plants flower and set seed."

While this should be in the hazardous materials section, it is dangerous to use such a dangerous herbicide on such a large project. The project will cover 5 square miles. That would require a lot of Roundup. The following hazards are reported from the use of the herbicide, Roundup:

Problems with Roundup Weed Control

Subject: The 10 reasons, roundup.
From: "John A. Keslick, Jr." treeman@pond.com
Date: Tue, 29 Apr 2000 06:49:46

Compiled by Caroline Cox, Northwest Coalition for Alternatives to Pesticides- (NCAP)

Roundup, and related herbicides with glyphosate as an active ingredient, are advertised as products that can "eradicate weeds and unwanted grasses effectively with a high level of environmental safety." However, an independent, accurate evaluation of their health and environmental hazards can draw conclusions very different from those presented in the ads. Consider these facts:

1. Glyphosate can be persistent. In tests conducted by Monsanto, manufacturer of glyphosate-containing herbicides, up to 140 days were required for half of the applied glyphosate to break down or disappear from agricultural soils. At harvest, residues of

glyphosate were found in lettuce, carrots, and barley planted one year after glyphosate treatment.

2. Glyphosate can drift. Test conducted by the University of California, Davis, found that glyphosate drifted up to 400 meters (1300 feet) durng ground applications and 800 meters 12600 feet) during aerial applications.

3. Glyphosate is acutely toxic to humans. Ingesting about 3/4 of a cup can be lethal. Symptoms include eye and skin irritation, lung congestion, and erosion of the intestinal tract. Between 1984 and 1990 in California, glyphosate was the third most frequently reported cause of illness related to agricultural pesticide use.

4. Glyphosate has shown a wide spectrum of chronic toxicity in laboratory tests. The National Toxicology Program found that chronic feeding of glyphosate caused salivary gland lesions, reduced sperm counts, and a lengthened estrous cycle (how often an individual comes into heat). Other chronic effects found in laboratory tests include an increase in the frequency of lethal mutations in fruit flies, an increase in frequency of pancreas and liver tumors in male rats along with an increase in the frequency of thyroid tumors in females, and cataracts. (ne fruit fly study used Roundup; the other studies used glyphosate.)

5. Roundup contains toxic trade secret ingredients. These include polyethoxylated tallowamines, causing nausea and diarrhea, and isopropylamine, causing chemical pneumonia, laryngitis, headache, and bums.

6. Roundup kills beneficial insects. Tests conducted by The International Organization for Biological Control showed that Roundup caused mortality of live beneficial species: a Thrichgramma, a predatory mite, a lacewing, a ladybug, and a predatory beetle.

7. Glyphosate is hazardous to earthworms, Tests using New Zealand's most common earthworm showed that glyphosate, in amounts as low as 1/20 of standard application rates, reduced its growth and slowed its development.

8. Roundup inhibits mycorrhizal fungi. Canadian studies have shown that as little as 1 part per million of Roundup can reduce the growth or colonization of mycorrhizal fungi.

9. Glyphosate reduces nitrogen fixation. Amounts as small as 2 parts per million have had significant effects, and effects have been measured up to 120 days after treatment. Nitrogen- fixing bacteria shown to be impacted by glyphosate include a species found on soybeans and several species found on clover.

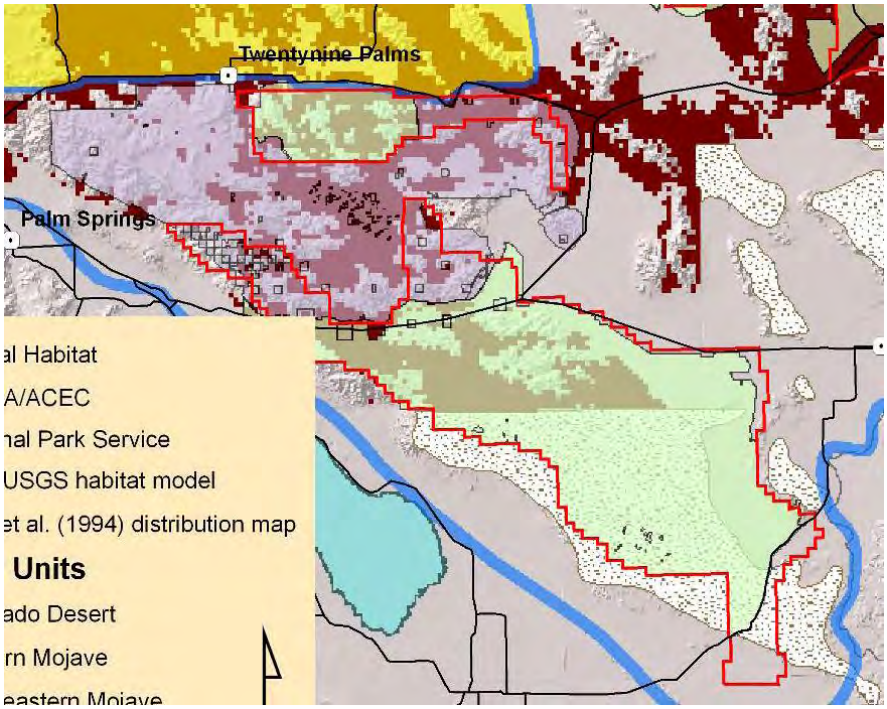
10. Roundup can increase the spread or severity of plant diseases. Treatment with roundup increased the severity of Rhizoctonia root rot in barley, increased the amount and growth of take-all fungus, a wheat disease), and reduced the ability of bean plants to defend themselves against anthracnose.

These facts about Roundup are taken From a two-part article about the health and environmental hazards of glyphosate published in NCAP's Journal of Pesticide Reform. Copies of the article, with complete references for all of .the information presented, are available from NCAP for $2.00. NCAP, PO Box 1391; Eugene, OR 97440; (541) 344-5044.

The Integrated Weed Management Plan does a very poor job of analyzing the impacts that Roundup and other herbicides will have on public health, water resources and biological resources. The FEIS will have to do a lot better than this. Remember-this project will surround private property! Why would BLM approve an action that would endanger the lives and property of adjacent land owners? **110-36**

Desert Tortoise *(Gopherus agassizii)*

The proposed project site will remove 4,200 acres of an important connectivity corridor of desert tortoise habitat. The site represents a linkage between the Fish and Wildlife Service designated Colorado Recovery Unit and the West Mojave Recovery Unit. It also represents an important connectivity habitat between the Chuckwalla Desert Wildlife Management Area (DWMA)/Critical Habitat and the Joshua Tree Desert Wildlife Management Area/Critical Habitat. The proposed project site was also recommended to be designated Critical Habitat in the 1994 Desert Tortoise Recovery Plan. (pg 39).



^From the revised Fish and Wildlife Service Desert Tortoise Recovery plan showing how the proposed project site lies right between the Chuckwalla Critical Habitat and the

Joshua Tree Critical Habitat, as well as between the Colorado Recovery Unit and the West Mojave Recovery Unit.

The revised recovery plan also makes the following statement concerning the importance of gene-flow in Recovery Units:

"(a) Genetic variation. *Gene flow is the result of dispersal accompanied by successful reproduction and incorporation of genes in a population. Ultimately, gene flow governs the amount of genetic connectivity among populations. A lack of gene flow will allow populations to differentiate over time by means of genetic drift and natural selection. Desert tortoises possess characteristics that potentially allow for high levels of gene flow among populations. For example, individuals have the ability to move long distances (Berry 1986; Edwards et al. 2004a). The capability for long-distance dispersal, combined with longevity and opportunities to reproduce annually throughout adulthood, indicates high potential for gene exchange outside of local areas. Free genetic exchange will be constrained, however, by the large distributional range of the tortoise given the relatively much smaller home range size and dispersal ability (isolationby-distance phenomenon; see Allendorf and Luikart 2007:209). Topographic features (e.g., mountain ranges) and other potential barriers (e.g., impassable habitat types, extreme climate conditions) can structure regional populations and lead to variable exchange of migrants among populations."* (pg 55)

The project site should be preserved as a connectivity corridor to maintain gene-flow, not developed for solar energy. **110-37**

The following study indicates that the Chuckwalla Valley populations of desert tortoise will need to have a connectivity zone maintained in order to move up in the event of rising temperatures due to anthropogenic climate change. Approval of this Right of Way would block a substantial portion of this connectivity zone:

Niche modeling and implications of climate change on desert tortoises and other selected reptiles within Joshua Tree National Park , Cameron W. Barrows, University of California, Riverside, 28th September, 2009

Suitable desert tortoise habitat under current climate conditions was mapped in all but the highest elevation and or most rugged regions of Joshua Tree National Park .Under increasing summer temperatures and reduced annual precipitation scenarios, that suitable habitat initially increases However under more extreme climate shifts the models indicate that suitable habitat for tortoises would become reduced and more fragmented, with much of the central and southern portions of the Park no longer supporting suitable habitat. (pg 7)

Of the species analyzed, the threatened desert tortoise has been a focus of protection and conservation related research throughout the Mojave Desert (Doak et al. 1994, Chaffee and Berry 2006, Wallace and Thomas 2008). Desert tortoises occur in the

Mojave and Sonoran Deserts; within the Sonoran Desert, the majority of their distribution is associated with regions typified by summer monsoon rain patterns; whereas the Mojave Desert's highly variable colder winter-dry summer climate may be a source of stress to the tortoises, and be a contributor to recent population declines (Curtin et al. 2009). Within Joshua Tree National Park, the Colorado Desert subdivision of the Sonoran Desert is drier and hotter still and so may constitute an even more marginal climate for tortoises. With this as a framework for current conditions, a climate shift toward a still more variable, hotter-drier condition would likely further stress the Park's tortoise population. An important component of that stress could be more frequent drought (Parmesan et al. 2000), reducing the availability of annual plants (Wallace and Thomas 2008), which are the tortoises' primary food (Jennings 2002). (pg 17)

While resilient to the evaluated least severe climate change increment, under more severe climate shifts the tortoise niche model indicated a reduction of 9-49% in suitable habitat within the Park. There was also increasing fragmentation; and assuming that a sustainable tortoise population would require at least 1000-5000 ha of contiguous suitable habitat, there could be a more biologically relevant reduction of 76-83% less in available habitat than the current condition.

Desert tortoises within this region rarely range below 500 m elevation. . In extremely arid deserts variation in annual precipitation is high; long periods of drought are often broken with rare pulses of wet conditions (Noy-Meir, 1973; Bell, 1979; MacMahon, 1979), so as the region gets drier drought frequency will likely increase. For annual plant-eating tortoises this would mean extended periods with no food available, and in part would explain the tortoises' absence from lower elevations. Chuckwallas more often forage on perennial trees and shrubs (Kwiatkowski and Sullivan 2002), plants with deeper root systems and so less impacted by short term variation in rainfall. (pg 17,18)

Barrows recommends maintaining these connectivity zones:

1. Maintaining connectivity to regions outside the Park, especially to the cooler wetter northwest, may provide genetic connections to larger populations outside the Park and so improve the sustainability of those populations inside the Park.

2. Taking a longer temporal view, these corridors could provide linkages for reestablishment of species once anthropogenic climate warming is abated.

3. Focus management efforts within the Park on maintenance of areas identified in this study as climate change refugia in order to provide the best potential habitat for those at-
risk species. These manage efforts may include controlling exotic vegetation and fires (see E. Allen and colleagues).

5. *Finally, the development of a monitoring program that will provide empirical data on how species and communities within the Park are responding to changes in habitats, including those catalyzed by climate, will be extremely valuable for*

reinforcing management actions. Such a monitoring program could be implemented through a citizen science outreach program (i.e. Sullivan et al. 2009, Howard and Davis 2009). These programs have the potential to provide quality data and relatively low costs, and to strengthen a public support cadre for the Park in the face of increasing challenges to the Park from surrounding development proposals. (pg. 18,19)

Please take the advice of Dr. Barrows and preserve this site to maintain wildlife connectivity.

The Red Bluff Substation and a large detention basin will be built in the Chuckwalla Critical Habitat. The revised Desert Tortoise Recovery Plan recommends against this:

"Development of alternative energy sources has also recently come to the forefront as a necessary and congressionally mandated use of public lands that could have largescale impacts to desert tortoise habitat. Pursuant to the Bureau of Land Management land use plans, solar project facilities will be sited outside Desert Wildlife Management Areas and Areas of Critical Environmental Concern. Current proposals for energy projects within these land allocations should be relocated so that impacts to these areas are avoided. A cumulative impacts assessment should be conducted and appropriate areas and mitigation measures for this type of activity should be identified. (pg 66, Revised Desert Tortoise Recovery Plan)"

At the DEIS public meeting in Desert Center, First Solar made the claim that there are only 6 desert tortoises on the site in the reconfigured Alternative C. In reality, this is the number of actual tortoises found on the surveys. This number has jumped around dramatically during the history of this project. The current reconfiguration of the project now indicates a lower density population. They claim that their reconfiguration of the project will only require movement of 12 desert tortoise. This number is based on the actual 6 found in the preliminary surveys and a statistical population estimate. They claim to have avoided the best habitat. Our review is that the habitat on the site is favorable for desert tortoise. **110-38**

As BLM is aware, the Ivanpah Solar Electric Generating System is now being constructed and BrightSource presented deceivingly low numbers to the BLM and the public concerning their predictions for the total amount of tortoises on the site. At first, they were telling everybody there would only be a total of 25 tortoises for the entire project site which is approximately 3,600 acres. After much scrutiny from biologists and environmental groups, the final number went up to 36 right before construction. In a personal communication with Dr. Larry LaPre, BLM biologist for the California Desert District. said 40 tortoises were founds on only the first of three phases of the project, although he said the number is "speculative" because a couple might have been in

deep burrows.

23 tortoises are considered "in" the project, 14 "out." A couple were in burrows and Larry said it was too late to dig them out, they did not want to disturb them. The tortoises that were considered out were judged so because they were headed out to burrows outside the project (I don't know how they could know this??). The tortoises considered in were said to be headed to known burrows inside the project.

9 juveniles are included in the 40 count. Some were 180 mm and under, some were "tiny" he said.

Of the 40, there were two mortalities. One was run over. One predated by a coyote, the carcass was found 2 miles from the original site and had been torn apart

As a former desert tortoise field biologist, with over 800 hours of survey experience, mostly in the Mojave National Preserve, I can confirm that juvenile desert tortoises are very hard to find. I can also confirm that most estimates of desert tortoise populations are undercounts. More fossorial animals are always found under the ground than expected.

First Solar plans to move the tortoises that they excavate onto the Chuckwalla Desert Wildlife Management Area which is designated Critical Habitat for the recovery of the species. This will endanger this protected population. Moving desert tortoises onto a Critical Habitat has only been tried on Ft. Irwin with disastrous results. **110-39**

The following numbers are quoted from the Fish and Wildlife Service and the California Department of Fish and Game guidance given at the Evidentiary Hearing for the Calico Solar Project on September 25th, 2010:

Tortoises handled for blood testing will have 5% mortality rate from handling (they stick a needle in to draw blood, stressful).

Tortoises translocated will have a 50% mortality rate.

Resident Tortoises on the recipient site will also have a 50% mortality rate due to competition from translocated tortoises.

Section 7(a)(2) of the ESA requires federal agencies to "insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the adverse modification of habitat of such species . . . determined . . . to be critical . . .." 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.14(a). To accomplish this goal, agencies must consult with the FWS whenever their actions "may affect" a listed species. 16 U.S.C. §

1536(a)(2); 50 C.F.R. § 402.14(a). Section 7 consultation is required for "any action [that] may affect listed species or critical habitat."

50 C.F.R. § 402.14. Agency "action" is defined in the ESA's implementing regulations to "mean all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies in the United States…." 50 C.F.R. § 402.02.

In 2008, over 40 percent of translocated desert tortoise died from drought and predation as a result of the disastrous Ft. Irwin Desert Tortoise Translocation Project. The first phase of the translocation was begun in March 2008, when about 770 tortoises were moved from Fort Irwin to areas south of the installation that already had desert tortoise populations. Almost immediately, coyotes began killing both relocated and resident desert tortoises. This resulted in an effort to exterminate natural predators from the ecosystem in an attempt to make the project more successful.

Dr. Kristin Berry, of US Geological Survey-Biological Resources Division, said Fort Irwin expansion translocations resulted in a large mortality. Spring 2008 translocation at her plots of 158 tortoises resulted in 65 known still alive as of April 2010. Coyotes and ravens were a problem predating tortoises on both recipient sites and control sites, as well as on nearby study areas. Two tortoises were run over on roads. Berry concluded translocation is a very risky endeavor. (California Energy Commission workshop May 3, 2010, for Ridgecrest Solar Power Project).

Desert Tortoise are long lived, slow adapting animals. They do not adapt to change very well. Translocation was not meant to be used on such a wholesale scale. It was developed as a mitigation measure for much smaller development project. At a recent workshop held in Ridgecrest, California concerning a proposed solar energy project of a different design which also has a significant desert tortoise population, there was a very long debate on translocation. Solar Millennium, the project applicant, has hired Dr. Alice Karl to oversee the tortoise surveys and relocation of desert tortoise. Dr. Karl has been hired to oversee many translocation projects. She stated that even under the best conditions using the most qualified biologists, some tortoises will die when they are translocated.

Cutaneous dyskeratosis:

Cutaneous dyskeratosis is a shell disease that has unknown implications on desert tortoise populations. In advanced cases, exposed areas become infected with bacteria, fungus, and exposed tissue and bone may become necrotic (Homer et al. 1998, Homer

et al. 2001). Cutaneous dyskeratosis was initially identified on the Chuckwalla Bench Desert Wildlife Management Area, Riverside County, California, USA (Jacobson 1994). Hypotheses for the cause of the disease include auto-immune diseases, exposure to toxic chemicals (possibly from mines, or air pollution), or a deficiency disease (possibly resulting from tortoises consuming low-quality invasive plant species instead of high-nutrient native plants) (Jacobson et al. 1994, USFWS 2008). We are concerned that destructive events such as flash flooding will release cadmium telluride into the ecosystem, thus having the potential to intensify this problem. We would like to request a study on the impacts of heavy metals and other toxins potentially released by the proposed project would have on desert tortoise populations relating to the disease cutaneous dyskeratosis. The project applicant proposes to use thousands of thin film panels which contain the heavy metal cadmium telluride for this project. There is absolutely no information on the durability of panels, what would happen if flood or seismic events break panels and cadmium is released into the ecosystem. Would there be impacts to desert tortoise from exposure to this heavy metal? **110-40**

Mitigation Lands and Adaptive Management:

Please provide a list of all of the mitigation land that is being considered as compensation lands to off-set impacts. Specifically, list what parcels are available and if the owner or owners have indicated a willingness to sell. **110-41**

It also sets a very dangerous precedent to simply approve this project before mitigation lands are identified. Adaptive Management, in general, is a slippery slope for the agencies to go down. I would like to urge the BLM to shy away from all Adaptive Management plans.

Cultural Resources: **110-42**

At the October 20th DEIS meeting, I was told that there are probable geoglyphs on the site that have been fragmented by the General Patton tank activity. The fact is, there are very plentiful cultural sites located on the Desert Sunlight site. The tank tracks themselves are historical because they are well over 50 years old.

The other information that was provided is quite significant.

A total of 435 cultural resources were recorded. At least 27 sites are of prehistoric origin. Scatters of lithic waste, ceramic sherds, four habitation sites, and trail segments which operated as part of the Coco-Maricopa trans-desert transportation system were found. Two other sites contained evidence of both prehistoric and historic activity.

Eighteen historic period sites related to actions of the World War II Desert Training Center have been identified as “potentially eligible for the CRHR (California Register of Historical Resources)” pending further investigation (Final Draft, Class III Cultural

Resources Inventory of the Desert Sunlight Solar Farm Project, 6-3). Two historic dumps, one containing refuse dated from the late 1920s to the 1980s and probably related to the community of Desert Center, and the other consisting of scattered concentrations of primarily World War II era refuse, are both considered potentially eligible for the CRHR. **110-42 cont**

Nearly all of the sites recorded 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 associated with the area (Cahuilla, Chemehuevi, Mojave, Serrano), resource exploitation 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.

The BLM will need to do a better job consulting with the Cahuilla, Chemehuevi, Mojave, and Serrano nations to address their concerns. Many of these people feel the entire region is a “cultural site” including the view-scape, the water and the biological resources.

Conclusion:

There is no need to place 4,200 acres of photovoltaic panels and new transmission in this remote valley. The project will impact important biological and cultural resources as well as ruin the lives of adjacent landowners. The Fast Track schedule is also very unreasonable and First Solar can not even meet a December, 2010 deadline.

The cumulative scenario that has resulted from the tragedy of the Interior Department’s new energy policy will remove thousands of acres of biological, cultural and visual resources on public lands. In fact, well over 100,000 acres would be forever destroyed in the Chuckwalla Valley if all of the applications are granted. As you should know, photovoltaic technology works best in the distributed environment. Power will be lost in the long journey in transmission-as much as 20 percent. There are plenty of rooftops in Coachella Valley. Start advocating distributed generation!! The project will also ruin the lives of adjacent land owners. BLM appears very unsympathetic to these people by constantly dodging this issue. BLM has an opportunity to save some habitat and help some people by denying the applicant the Right of Way and designation the region unsuitable for solar energy development.

Thank you,

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atomictoadranch@netzero.net

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U.S. Fish & Wildlife Service

Recovery Plan for the Mojave Population of the Desert Tortoise *(Gopherus agassizii)* 1994

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Terry Cook
<terry@kaiserventures.com>
11/24/2010 12:07 PM

To "CAPSSolarFirstSolardesertsunlight@BLM.gov" <CAPSSolarFirstSolardesertsunlight@BLM.gov>
cc
bcc
Subject Desert Sunlight Draft EIS Comments

Ms. Shaffer: Attached is Kaiser's comments on the draft environmental impact statement for the Desert Sunlight Solar Project. Kaiser supports the project. However, Kaiser believes that few items require clarification and correction. A hard copy of the attached letter is also being sent to you in the mail.

Terry L. Cook, Esq.
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desert sunlight comment lt on EIS.doc

November 24, 2010

VIA E-MAIL
(CAPSSOLARFIRSTSOLARDESERTSUNLIGHT@BLM.GOV)
U.S. MAIL

Ms. Allison Shaffer, Project Manager
Palm Springs South Coast Field Office
U.S. Bureau of Land Management
1201 Bird Center Drive
Palm Springs, CA 92262

RE: COMMENTS ON THE DRAFT EIS/EIR FOR THE DESERT SUNLIGHT (BLM CASE FILE NUMBER CACA #48649)

Dear Ms. Shaffer:

By this letter Kaiser Eagle Mountain, LLC and Mine Reclamation, LLC (collectively "**Kaiser**") are submitting comments regarding the draft environmental impact statement/environmental impact report (herein after "**DEIS**") for the Desert Sunlight Solar Farm Project and Possible California Desert Conservation Area Plan Amendment to be located near Desert Center, California (the "**Project**").

At the outset it should be understood that Kaiser supports the Project. Thus, Kaiser's limited comments should not be viewed in any manner as opposition to the Project but rather the comments are being provided for purposes of clarification, requesting further information and to correct inaccuracies in the DEIS. 111-1

1. PROJECT SIZE AND SIZE OF BLM RIGHT-OF-WAY

The power generation site for the preferred alternative consists of approximately 4,245 acres but the BLM right-of-way application covers approximately 14,000 acres (the "**BLM Site**"). Given the size of the BLM Site, concerns have been raised that perhaps the Project is the first of several solar projects at the BLM Site. Kaiser understands that the Project is the only project that would be built and operated location. However, to avoid any concerns regarding project splitting or the need for further cumulative impacts studies for other reasonable foreseeable projects at such site, the DEIS needs a better explanation as to why the excess BLM acreage would be necessary or appropriate once a Project alternative is selected. Additionally, First Solar, in consultation with the BLM, should consider as an alternative modifying the right-of-way to cover only such property as is reasonably necessary for the Project. 111-2 111-3

2. EXISTING USES

Riverside County adopted specific plans for the Eagle Mountain area in connection with the approvals related to the Eagle Mountain landfill project. Figure

3.9-4-Riverside County Zoning-reflects the adoption of such specific plans. However, those specific plans are not effective until the Development Agreement with Riverside County for the Eagle Mountain landfill project is effective. Due to outstanding litigation involving the landfill project, the Development Agreement is not effective. Accordingly, the specific plans are not currently in effect although they have been properly approved. Thus, Kaiser suggests an explanatory footnote or other appropriate designation that shows that the specific plans are approved but are not currently in effect. 111-4

3. GROUNDWATER

RESOURCES AND IMPACTS. First Solar is to be commended for the Project's efforts to limit the amount of groundwater to be used in in connection with the construction and operation of the Project. However, there is no doubt that the proposed use of groundwater is a significant concern that must be thoroughly analyzed. Particular care must be taken in analyzing the cumulative impacts on groundwater of the Project with other projects such as the solar energy projects and the proposed Eagle Mountain pumped-storage project. Kaiser is concerned that there may be insufficient explanation and discussion of why certain assumptions were used in the groundwater analysis in the DEIS. Additionally, there are apparent inconsistencies among other recent groundwater analyses prepared for the Chuckwalla Groundwater Basin. A number of these projects have released information and provided their own respective analysis of the Chuckwalla Groundwater Basin and impacts of their and other projects on water in the basin. It appears that these other studies often have differing assumptions, analysis and conclusions. Some of these differences appear to be material. It would be beneficial to the public and the BLM for there to be a review all of the recently published groundwater reports/analyses for the Chuckwalla Basin and to provide a report and a summary table showing the material differences among the different studies including the different methodologies used in evaluating the groundwater impacts, differences in assumptions such as groundwater recharge, amount of groundwater in the basin, the rate of transmissivity, etc. Additionally, a narrative and chart that seeks to harmonize, if possible, these various studies with the information in the DEIS would be useful. 111-5 111-6

Additionally, the DEIS should provide a better description and explanation of First Solar's responsibility for Project impacts to water levels and water wells in the vicinity of the Project. Such explanation should include a more detailed discussion of the mitigation measures that would be implemented by First Solar to address the impacts to the water wells owned by others (including those owned by Kaiser) at or near the vicinity of the Project. Among other locations in the DEIS, such matter should be summarized in Table ES-3-Applicant Measures (AMs) and Mitigation Measures (MMs). 111-7

The first bullet point under the summary description of water resources for GT-A-1on p. C-9 of the DEIS does not make complete sense. Under GT-A-1, the bullet point reads in part: "…but less water than GT-A-1." This does not make sense as the alternative being described is GT-A-1. Please clarify. 111-8

HISTORICAL USAGE. P. 3.17-14 briefly discusses major historical groundwater uses. The final EIS should also reflect that the Eagle Mountain mine and town were also major users of water during large-scale mining operations with up to approximately 7,300 annual acre feet used in connection with the mine and the town of Eagle Mountain. **111-9**

4. CORRECTIONS REGARDING THE EAGLE MOUNTAIN MINE

The DEIS incorrectly describes the status of the Eagle Mountain Mine is several locations. For example, p.1-2 of the DEIS incorrectly states that: "The inactive Eagle Mine is approximately one mile west of the Project Study Area." The Eagle Mountain Mine is not inactive and this statement should be appropriately corrected. Another example is that Table 3.18.2 incorrectly describes the status of the "Kaiser Mine." Mining activities at the "Kaiser Mine" (i.e., Eagle Mountain Mine) did not stop in 1983 as stated in the DEIS. While large-scale iron ore mining was suspended beginning in 1983 due to market conditions, mining and mining activities including the shipment of rock and reclamation activities have continued since that time. There is a vested and continuing mining permit for the Kaiser Mine. Additionally, the owner of the mine site is Kaiser Eagle Mountain, LLC, a subsidiary of Kaiser Ventures LLC. **111-10**

5. LAND OWNERSHIP

Table 3.9-1-Land Ownership in the Project Area is described as providing information about private land ownership in the Project Area. However, there appears to be at least one error in the listing of the assessor parcel numbers. Assessor parcel number 80717005 is listed by the Riverside County Assessor's Office as being property owned by the U.S. Department of Interior and not by a private party. **111-11**

Additionally, there appears to be a conflict among various descriptions in the description of the private land ownership that will be traversed by GT-A-1 and GT-A-2. For example, p. 2-40 describes that the approximate 12 mile GT-A-1 would traverse approximately 11.4 miles of BLM land and .6 acres of private land that is owned in fee by Metropolitan Water District of Southern California. Yet, table 3.9.1 would show that Kaiser's private land is being traversed by GT-A-1 by the listing of a parcel number for Kaiser owned land. Several of the maps/depictions would also lead the reader to believe that GT-A-1 as well as GT-A-2 traverses Kaiser land. Please also clarify the Riverside County Kaiser Road right-of-way referenced on p. 2-17 of the DEIS and what consents/approvals will be required by Riverside County to approve use of the right-of-way. **111-12**

5. CPUC ENVIRONMENTALLY SUPERIOR ALTERNATIVE VS. PREFERRED ALTERNATIVE

The California Public Utilities Commission environmentally superior alternative identifies GT-A-2 as the best alternative. However, the preferred alternative for the generation tie-in line identifies the use of GT-A-1. Please explain the reasons for the apparent different conclusions and clarify how the decision will be made as to which generation tie-in line alternative will be selected. **111-13**

6. THE DEIS DOES NOT ADEQUATELY DISCUSS THE WILDERNESS EXPERIENCE

While the DEIS does discuss wilderness areas near the Project, it only summarily discusses in one sentence the possible impact on the wilderness experience resulting from the power generation site. The DEIS needs to more fully and appropriately analyze and discuss the Project's impact and the cumulative impact that other projects along with the Project may have on the wilderness experiences of visitors to Joshua Tree National Park ("**JTNP**"). For example, the certified Eagle Mountain Landfill EIS/EIR concluded that because people's experience of wilderness are so different, and that the full impact of the wilderness experience cannot be fully known, it had to be considered a significant impact. Because it has been found to be significant impact in a certified EIS/EIR for a project in the same area, after appropriate analysis it likely to be found to be a cumulatively significant impact or unavoidable adverse result. **111-14**

We thank you for the opportunity to provide comments on the DEIS. If you should have any questions about these comments, please do not hesitate to contact the undersigned.

Very truly yours,

Terry L. Cook, Vice President
Kaiser Eagle Mountain, LLC
Mine Reclamation, LLC

cc: California Public Utilities Commission

TLC:jpk
terry10\desert sunlight comment ltr on eis

112

Allison Shaffer

Project Manager

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Comments on the DRAFT ENVIRONMENTAL IMPACT STATEMENT for First Solar Desert Sunlight Solar Farm Project, Riverside County, California

Soils:

An estimated 20 to 30 percent of the overall site has moderate to strong desert pavement, with an additional 5 to 15 percent of the overall site having weakly developed desert pavement (p. 3.2-19). This is very important to preserve, especially since the area is in state non-attainment for PM10. 112-1

Vegetation: 112-2

Existing vegetation at the solar farm site provides an estimated 15 percent canopy coverage, with little or no stable biological or mineral crusts in the open areas between desert shrubs (p. 3.2-19 to 20). We have found biological soil crusts relatively common on the western areas of the project site in our own site visits.

For chollas (*Cylindropuntia* spp.), the plant must be less than three feet in height to require salvaging, as all plants greater than three feet in height will not be salvaged but left on-site to be destroyed by clearing activities. The larger chollas thus become part of a natural desert mulch, which provides a seedbank for regeneration of these species. (p. 3.3-4). Mulching and destroying habitat will not result in any reseeding of cholla, tall chollas should also be salvaged.

The open space policy relevant to vegetation is defined in the Desert Center Area Plan (DCAP) within the Riverside County General Plan as follows: DCAP 10.1 - Encourage clustering of development for the preservation of contiguous open space. (p. 3.3-4). The project goes against the area plan in that it reduced open space with vast sprawl development.

Rare Plants:

On p. 4.3-20, the DEIS says that pre-construction Special Status Plant Species Surveys will be undertaken, plants flagged for transplantation. Transplanting rare plants has not been shown to save plants, and what is needed is rare plant habitat conserved *in situ*. Transplantation is an unacceptable mitigation strategy, not supported by California 112-3

Native Plant Society: "Transplantation is not a successful mitigation practice for desert vegetation - especially rare plants - since current knowledge of conditions favorable to plant survival are incomplete."[1] 112-3 cont

Avoidance of rare plants should be a considered mitigation strategy.

Biological Soil Crusts:

Biological soil crusts are an essential component of arid ecosystems that prevent desertification and perform a myriad of ecological functions including soil stability, porosity and water retention[2]. They stabilize soils and prevent erosion, decreasing fugitive dust[3]. They are easily disturbed and slow to regenerate[4]. The disturbance of these types of soil crusts will greatly increase many factors that can affect the nearby ecological functions of the region including increased amounts of PM-10 emissions from the proposed project site, alteration in hydrology and water retention. The final EIS must estimate the impact to these essential components of the landscape. 112-4

Desert Tortoise:

The DEIS says: "Figure 3.4-5 shows where the Chuckwalla DWMA intersects with the Project location, and Figure 3.9-2 shows the Multiple Use Classes within the Project component location. According to Appendix A of the NECO Plan/EIS, the proposed Solar Farm site, portions of the Gen-Tie lines north of I-10, and the proposed Telecommunications Site are outside of the DWMA. These areas are listed as Category III habitat for desert tortoise and as a BLM moderate use class. Category III habitat is defined as areas that are not essential to maintenance of viable populations, that contain low to medium densities, and that are not contiguous with medium- or high-density areas and in which the population is stable or decreasing (BLM 1992). Red Bluff Substation A and portions of the Gen-Tie Lines south of I-10 are within the DWMA and Category I habitat for desert tortoise and are given a Limited Use designation. Category I habitat is defined as areas that are essential to maintenance of large viable populations, that contain medium to high densities or are contiguous with medium- to high-density areas, and in which the population is increasing, is stable, or is decreasing (BLM 1992)." (p. 3.4-25).

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[1] http://www.energy.ca.gov/sitingcases/ivanpah/documents/others/2009-11-16_CNPS_Prelim_PHC_Statement_TN-54189.pdf, page 5.
[2] Belnap, J. 2006. The potential roles of biological soil crusts in dryland hydrologic cycles. Hydrologic Processes 20: 3159-3178.
[3] Belnap, J. 2001. Biological Soil Crusts and Wind Erosion. Chapter 25 in Ecological Studies Vol. 150. J. Belnap and O.L. Lange (eds.) Biological soil crusts: structure, function and Management. Springer-Verlag, Berlin Heidelberg. Pg. 9.
[4] Belnap, J. and D. Eldridge 2001. Distrurbance and Recovery of Biological Soil Crusts. Chapter 27 in Ecological Studies Vol. 150. J. Belnap and O.L. Lange (eds.) Biological soil crusts: structure, function and Management. Springer-Verlag, Berlin Heidelberg. Pg. 21.

Category III tortoise habitat does not mean that the land should not be managed for tortoise recovery; it is habitat that is still good and should disturbance to tortoises needs to be minimized. 112-5

Both Red Bluff Substation alternatives A and B are within the tortoise Chuckwalla Critical Habitat Unit. This is unacceptable due to the large declines in tortoise populations rangewide. Developing even small areas of this CHU does not meet the definition of "special management" for habitat that is "essential for the conservation of the desert tortoise." 112-6

On p. 4.4-6 the DEIS claims that the Fort Irwin Land Expansion Project caused only a maximum 25% mortality among translocated tortoises. Other recent evidence indicates mortality has been much higher. 112-7

At the August 18, 2010 California Energy Commission evidentiary hearing for the Calico Solar Project[5] by Tessera Solar, which would be located in prime Desert tortoise habitat 40 miles east of Barstow, San Bernardino County, new guidance from the California Department of Fish and Game was presented, and worked into the tortoise translocation plan: 50% of all tortoises moved would be estimated to die, due to stress and predation. Also, 50% of resident tortoises at the recipient sites would also die, due to competition with the moved tortoises, and stress. Even 5% of tortoises at control sites would die due to the stress of handling (equal numbers of tortoises must be radio-telemetered in the translocation group, host group, and control groups to compare a population that was not subject to translocation activities). To top it off, the juvenile tortoise population would suffer an 85% mortality rate, because they are difficult to find and move out of harms' way. This would happen at every project site where tortoises had to be translocated.

At the August 25 hearing[6], premier tortoise biologist Dr. Kristin Berry, of United States Geological Survey-Biological Resources Division, was invited by the Energy Commission to clarify the biology of tortoise translocation. She has been studying the Desert tortoise since 1970, helped list the California population of the tortoise in 1990, and has several study plots in the Mojave Desert where she carries out research on tortoise diseases and translocation impacts.

At the August 25 Calico Solar Project evidentiary hearing with the California Energy Commission, Defenders of Wildlife testified as to the impacts that translocating large numbers of tortoises has had during expansion of the Fort Irwin National Training Center. This translocation was very well-studied. In one part of the translocation process, Dr. Kritin Berry was in charge of moving 158 tortoises in March 2008: By December

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[5] http://www.energy.ca.gov/sitingcases/calicosolar/documents/2010-08-18_EH_Transcript.pdf
[6] http://www.energy.ca.gov/sitingcases/calicosolar/documents/2010-08-25_Transcript.pdf

2008, 43 tortoises were dead or dying and 15 were missing. By December 2009, 27 more tortoises died, and 20 were missing. The death rate so far was 44.7%. In January 2010 only 68 tortoises were alive, 20 missing. 8 died in 2010 up to August, and a total of 23 missing; the mortality rate was 11.6%. The grand total of all years was 49% dead by August, and 23 missing (where often a predator tore off the radio transmitter).

Dr. Berry stated that this was a very high death rate, mostly due to coyote and raven predation. Drought years such as 2007 exacerbated coyote predation. Even adult tortoises were being killed by ravens flipping the reptiles over and pecking at their cloaca and hindlegs. Feral dogs also are a problem. Two tortoises were killed by vehicles on dirt roads. One tortoise was bitten by a rattlesnake, and another was killed by a Golden eagle. A few died of hyperthermia (over-heating). One died of gout.

She had another study plot in the area, at Daggett, to research epidemiology. From January to August 2010 the plot had only 2.5% mortality out of 78 tortoises. Another study site in the Soda Mountains has had no deaths. Having studied the Desert tortoise since 1970, Berry said she has seen several populations with high density decline markedly due to disease and other threats. We no longer have high density populations in the state. So the Calico site, formerly considered of low to moderate density, now becomes more important, especially since it is remote from towns. With the continued decline of the tortoise in California, and our inability to stabilize populations, the Calico population becomes more important. She would not have said this 15 to 20 years ago. Now she does, she stated. Dr. Berry stressed the need for a very sound study plan for translocation, with quantitative and qualitative information. There are many types of creosote bush communities, we need to know the ages of alluvial fan surfaces -- some are 100-500 years old, others are 500,000 years old. This affects vegetation and burrows. The plans need more careful treatment of disease as well.

The Mojave population of the Desert tortoise was federally listed in 1990, and by 1994 Critical Habitat was designated and published in a Recovery Plan, based on information available at the time, and the state of the populations at the time. Dr. Berry said that 20 years later, populations have declined greatly, and the West Mojave population crashed. So now the Critical Habitat design sometimes no longer has viable habitat. Areas outside such Critical Habitat now become more important.

The project site it located in the Eastern Colorado Recovery Unit of the desert tortoise – a recovery unit that is showing a large decline, having population decreases of 37% between 2005 and 2007[7] which is the most recent data publicly available.

Translocating tortoises should not be undertaken in a population that is declining so precipitously. The Desert Renewable Energy Conservation Plan (DRECP) Independent Science Advisor Report states that "One action that we generally do ***not*** endorse as **112-8**

[7] U.S. Fish and Wildlife Service (USFWS) 2009. Range-wide monitoring of the Mojave population of the Desert Tortoise: 2007 Annual Report. Report by the Desert Tortoise Recovery Office, U.S. Fish and Wildlife Service, Reno, Nevada. P. 77

mitigation per se—except perhaps under certain rare circumstances where scientific evidence suggests it may be warranted—is animal translocations out of proposed development areas into reserve areas. This is often done but rarely effective—a 'feel-good' measure that has dubious ecological benefits and potential to do more harm than good."[8]

The Independent Science Advisors also offer the specific recommendation that desert tortoises should not be translocated - "As with the Mohave ground squirrel, the advisors do ***not*** recommend translocation of desert tortoise as effective mitigation or conservation action, in part because translocated tortoises suffer high mortality rates."[9] This important recommendation is additionally noteworthy because the two desert tortoise advisors on this report were both independent researchers on the Fort Irwin translocation effort, as well as other translocations. Their recommendation strongly suggests that translocation may do more harm than good.

If tortoises are to be translocated, in addition to a Raven Management Plan, a Canid Predation Management Plan should be developed and funded to minimize coyote and feral dog impacts to tortoises in the region of the project site, recipient sites, and control sites. **112-9**

Mojave fringe-toed lizards:

The DEIS states that, "According to the aeolian geomorphology study (Kenney 2010), within the Solar Farm, only very minor aeolian deposits were identified, most of which represent relict (old, inactive) aeolian sediments. The relict deposits, which by definition are no longer receiving active sand transport, consist of sand sheets and small coppice dunes (i.e., mounds at the base of plants). The sand sheets are stabilized with vegetation and often exhibit a wind abrasion lag on the surface composed of very coarse sand and small gravel. The relict coppice dunes (mounds at the base of plants) were observed to be strongly degraded via bioturbation and other processes. These types of dune deposits are known for zones characterized by relatively minor aeolian sand migrating fluxes and likely were deposited in the mid to late Holocene (past 5,000 years). The only aeolian deposits identified within the site that receive active sand transport consist of moderately active coppice dunes within some of the active alluvial washes. These deposits are likely associated with minor aeolian sand fluxes derived from the local washes within a few months after they flow. Based on the evidence evaluated during this study, aeolian sand transport across the site is very low to low. Winds appear to be sufficiently strong across the site to entrain and transport sand; however, there is a paucity of sand source(s) to support more than low to very low sand transport; most of the potentially available sand is from the local active washes and this sand quickly deposits within local coppice dunes

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[8] Independent Science Advisors (ISA) 2010. Recommendations of Independent Science Advisors for the California Desert Renewable Energy Conservation Plan (DRECP). Prepared For Renewable Energy Action Team. Prepared By The DRECP Independent Science Advisors. DRECP-1000-2010-008. August 2010. P. 172
[9] ISA 2010 at pg. 75

within or in the proximity of the washes from which the sand derived." (p. 3.3-11). Mojave fringe-toed lizards (*Uma scoparia*) will use these types of sand habitats, including stabilized dunes, sand sheets, and sand coppices around vegetation. Therefore, these areas should be investigated as potential movement and connectivity corridors for these lizards, which we found on dunes to the eastern edge of the Project Study Area. **112-10**

Golden Eagle:

The DEIS states: "According to the BLM's golden eagle database and the golden eagle surveys performed for the Proposed Project, there are or were 20 potential golden eagle nests, associated with eight territories, within a 10-mile (16-kilometer) radius of the Proposed Project. Of the eight territories, six are considered active, and two are historic. The closest active territory is in the southwest portion of the Coxcomb Mountains within the Joshua Tree National Park (referred to as the Coxcomb Mountain Southwest Territory), approximately two miles (3.2 kilometers) from the proposed Solar Farm site boundaries. While there is no suitable nesting habitat for the golden eagle within the Project locations, the species may forage there during nesting, wintering, or migration. Given the proximity of the Coxcomb Mountains Southwest Territory, it is highly likely that the Project site overlaps the territorial foraging area of this pair of eagles. One observation of a golden eagle flyover of the Chuckwalla Valley was also recorded during surveys conducted for the Proposed Project." (p. 3.4-20 to 21).

The draft Avian and Bat Protection Plan should be finalized before approval of the project. The adaptive manangement approach used in the draft plan does not address how "take" of Golden eagles will be avoided. **112-11**

Burrowing owl:

Burrowing owl mitigation requirements fail to require long-term monitoring of passively relocated burrowing owls. Burrowing owls populations in the eastern deserts are currently at low densities[10]. Data are available on burrowing owls in eastern Riverside County from the California Burrowing Owl Survey – 2006-2007[11]. The last stronghold for burrowing owls in California, the Imperial Valley, has had a recently documented decline of 27% in the past 2 years[12], resulting in an even more dire situation for burrowing owls in California. Because burrowing owls are in decline throughout California, and now their stronghold is in severe decline, it is important to mitigate burrowing owl habitat at higher levels. Mean burrowing owl foraging territories are 242 **112-12** **112-13**

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[10] Wilkerson R.L. and R.B. Siegel. 2010. Assessing changes in the distribution and abundance of burrowing owls in California, 1993-2007. Bird Populations 10: 1-36.

[11] Institute for Bird Populations (IBP) 2008. Breeding Burrowing Owl Survey Newsletter, Spring 2008. pg. 4.

[12] Manning, J.A. 2009. Burrowing owl population size in the Imperial Valley, California: survey and sampling methodologies for estimation. Final report to the Imperial Irrigation District, Imperial, California, USA, April 15, 2009. Pg. 193.

hectares in size[13]. The DEIS relied on guidance from CDFG from 2003, but that guidance is now out of date in light of identified population declines, and a more thorough census of burrowing owls throughout the state and additional research on the species habitat is needed to keep this species from being listed under the Endangered Species Act. 112-14

Palm Springs Round-tailed Ground Squirrel:

For the Palm Springs round-tailed ground squirrel (*Spermophilus tereticaudus chlorus*) the DEIS says, "Habitat loss is the primary risk for the decline of this species, which has been observed within the north end of the GT-A-1 and GT-B-2 corridors within Alternatives 1 and 2 (Figure 3.4-4). It was not found in or near any of the other Project locations, but suitable habitat appears to be present throughout most of the Project Study Area." (p. 3.4-22).

Habitat compensation to replace destroyed habitat for this species should be identified now, not at some later point, to make sure that the ground squirrels are actually present at mitigation lands. Studies need to be undertaken to map locations of squirrel populations in the region. 112-15

Bighorn Sheep:

Nelson's bighorn sheep (*Ovis canadensis nelsoni*) have been seen by local residents on the flat valley floor near the project site, and in other areas Bighorn sheep use alluvial fans and flats for foraging after rains cause green-up. Thus the project site should be considered potential Bighorn sheep habitat. 112-16

Burro Deer:

Burro deer (*Odocoileus hemionus eremicus*) require Ironwood wash habitats for foraging, especially in winter, and removal of this habitat on the project site will negatively impact this Colorado Desert endemic subspecies. Cumulative impacts need to be analyzed from all the large-scale solar projects in Chuckwalla Valley that will remove Ironwood-Palo verde woodland, including Palen Solar Power Project and Blythe Solar Power Project. In addition these projects have the potential to lower groundwater due to pumping, and this cumulative impact to phreatophytes needs to be considered. 112-17 112-18

Wildlife Corridors:

Connectivity for Desert tortoise would be disrupted by the project between Chuckwalla CWMA and Joshua Tree National Park, as well as between the Eastern Colorado Desert Recovery Unit and West Mojave Recovery Unit. 112-19

Connectivity for Bighorn sheep and Burro deer would also be disrupted.

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[13] USFWS 2003. Status Assessment and Conservation Plan for the Western Burrowing Owl in the United States. Biological Technical Publication BTP-R6001-2003. Pg 120.

Water Resources:

The DEIS says, "a number of areas did meet the USACE technical criteria for other waters of the U.S. due to the presence of an ordinary high water mark. These areas are locally known as desert dry washes. While these areas meet the criteria for other waters of the U.S., they are potentially not subject to USACE jurisdiction under the Clean Water Act. This is based on guidance provided by the EPA and USACE and is due to their lack of a surface water connection to the following: a traditional navigable waterway, an intrastate commerce connection with the ephemeral surface water flows, and ponding that infrequently occurs in localized areas within the desert dry washes within the proposed Solar Farm site (Ironwood 2010). The Applicant has requested an official verification of this finding by the USACE, which is pending. However, ephemeral desert washes within the Project locations do fall under the jurisdiction of the CDFG's Streambed Alteration Agreement Program." (p. 3.3-17 to 18) We have never heard of guidance that requires a connection to navigable waters of other criteria to get around USACE jurisdiction. Other solar projects in the California and Nevada desert, such as Imperial Valley Solar Project and Amargosa Farm Road Solar Project, have very similar dry desert washes, and ACE has determined these to be US jurisdictional waters. We feel that First Solar is stretching the definition to try to avoid mitigating these waters of the US. **112-20**

Page 4.17-5 and 6 states that as much as nearly 18 feet groundwater drawdown could occur, and "under the most extreme assumptions considered in Sunlight's groundwater modeling runs, a drawdown of one foot would occur at a distance of up to approximately one mile from the pumping well…." And, "the total volume of water that would be used (1,400 AF or approximately 650 AFY) over the 26-month construction period is substantially less than the approximately 2,600 to 3,300 AFY of net inflow to the Chuckwalla Valley groundwater basin calculated from the water balance studies performed for the Palen Solar Power Project and the Genesis Solar Energy Project (BLM and CEC 2010; WorleyParsons 2009). Impacts to nearby wells would be low, with projected drawdown in these wells due to pumping for the proposed Project generally less than one foot, with an aquifer saturated thickness of 500 feet. Palen Dry Lake is approximately six miles from the Project Study Area, and Ford Dry Lake is approximately 12 miles from the Project Study Area. Impacts to these water bodies would be negligible, due to their distance from the Project Study Area and the short distance over which the cone of depression from pumping the Sunlight groundwater well dissipates."

How will the impacts to nearby property owners' wells be monitored and mitigated? **112-21**

At the September 27, 2010 workshop for Palen Solar Power Project, the California Energy Commission botanist Carolyn Chaney Davis was most concerned about groundwater pumping to phreatophytes, arid-adapted trees with deep roots to access groundwater. Honey mesquite groves (*Prosopis glandulosa*) surround much of Palen Dry lake about a mile from the proposed project. Other deep-rooted desert trees in the area include Ironwood (*Olneya tesota*), blue palo verde (*Parkinsonia florida*), and smoke tree (*Psorothamnus spinosus*).

A special plan community, the Alkali Sink Scrub, is even more endangered because the shrubs have shallower roots. This community is dominated by Iodine bush (*Allenrolfea occidentalis*) and Bush seepweed (*Suaeda moquinii*). These are wetland indicators of playa depressions with a shallow aquifer.

Scientists are not sure of the tolerance of these plants to chasing a lowering groundwater table down. Many phreatophytes have a dimorphic root system, with a shallower root area that can absorb brief rain runoff, and a deep root system to tap into groundwater during most of the year.

Hours were spent during the workshop in a debate between Solar Millennium and CEC, as Chaney Davis wanted a monitoring program to be carried out to see whether the Palen Solar Power Project's well's would impact the trees and alkali scrub nearby. Solar Millennium argued that the dry lake where the phreatophytes and alkali scrub grew was on a shallow perched water table in a playa clay layer, that was completely unconnected to the 150-foot deep groundwater on the alluvial fan under their project site, there fore they could not possibly draw down water in the plant communities of concern. Chaney Davis responded that the hydrology was speculative and she wanted monitoring as part of the project's certification. These valuable desert communities have been long ignored, and this time she wanted studies to see if the trees died over the next 30 years.

First Solar should be required to set up piezometers in the region, including local farms and Palen Dry Lake, in areas of Dry was woodland and rare plant habitats. Monitoring should be undertaken for several years and a mitigation plan developed for impacts such as tree death or local well lowering. **112-22**

The DEIS says on page 4.17-6: “this alternative includes decompacting the soil in the area between the rows of the solar panel arrays after they are installed, in order to increase storm water infiltration and promote vegetation regrowth. Results of storm water modeling performed by Sunlight (discussed in more detail in the Drainage and Surface Water and Flooding subsections) indicated that the total surface water outflow volume from SF-B would increase by 2.5 percent (168 AF) during a 100-year storm without the soil decompaction, and would increase by 1.2 percent (81 AF) during a 100-year storm with the soil decompaction…” We fail to see how any healthy vegetation would be allowed to regrow between the panel rows, as vehicle traffic would continue for maintenance, as well as herbicides applied to prevent weeds and fire fuel build-up. Therefore soil disturbance will still remain, along with increase flood runoff potential. These increases in floods could negatively impact wildlife, plant habitat, and structures and private property off-site. What mitigation measures will be undertaken to prevent damage? If retention basins are installed upstream, a new environmental review process must be initiated for public review, as these will take up large amounts of tortoise habitat, impact potential rare plants and cultural sites, and harm wildlife if not designed properly. **112-23**

Better analysis of how the large increase in impervious surfaces (panels) will increase **112-24**

rain runoff and cause more erosion and greater peak flows during flood events. 112-24 cont

More thorough analysis of cadmium toxins entering the groundwater or leaving the site during floods should be done, as the panels could wear down and crack from weathering, and fires could release large amounts of cadmium. 112-25

For the Red Bluff substation, a possible detention basin would measure approximately 120 feet by 200 feet (about one-half acre in area), and this basin would also discharge to the channels around the Substation in order to reduce peak flows. No analysis is given of how this would impact desert tortoise Critical Habitat and the Chuckwalla DWMA, both in terms of habitat destruction by the footprint of the basin and the flow discharge changes that would occur downstream in tortoise habitat. "The preliminary engineering studies indicate that construction of Substation A may alter the existing drainage pattern of the area" (page 4.17-11). How will this impact tortoises, rare plants, connectivity habitat, and other resources? 112-26

For cumulative water resource concerns the DEIS admits that "in addition to lowering the groundwater table in the basin and reducing the amount of water in storage, outflow from the Chuckwalla Valley Basin to the Palo Verde Mesa Basin would be reduced" (page 4-17-38). First Solar should be required to put in perimeter wells to monitor groundwater drawdown, as the Chuckwalla Valley is part of the Colorado River Basin in its connected underflow, and thus Desert Sunlight could potentially impact Colorado River groundwater directly. During California Energy Commission workshops for Palen Solar Power Project and Blythe Solar Power Project, the interconnectivity of Colorado River water with Palo Verde Mesa groundwater and Chuckwalla Valley groundwater was shown (September 27, 2010). Colorado River water is adjudicated and permits would be needed. 112-27

Climate Change:

The DEIS states, "…desert ecosystems have a low capacity for organic matter carbon storage that could buffer climate change effects due to increasing GHG concentrations." (p. 3.5-11). The DEIS goes on to debate against the findings of Wohlfahrt, et al. (2008)[14] that desert soils store high amounts of carbon.

Yet other studies support the evidence that desert biological soil crusts do store large amounts of carbon. Jayne Belnap (U.S. Geological Survey) and Otto Lange (Wurtzburg University, Germany) say that sweeping conclusions about CO2 storage in soils cannot yet be made due to limited knowledge available about how arid ecosystems operate. But many studies have shown around the world that biological soil crusts fix carbon and deliver it to the soil ecosystem. Many free-living lichenized cyanobacteria and microalgae possess photosynthetic CO2-concentrating mechanisms.

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[14] Wohlfahrt, Georg, et. al. 2008. Large Annual Net Ecosystem CO2 Uptake at a Mojave Desert Ecosystem. Global Change Biology 14: 1475-1487.

Belnap did field measurements in Utah that showed biological soil crusts having an exchange from atmosphere to soil of 1.5 micro-mols of CO2 per square meter per second, a high rate of carbon intake.[15]

They say, "There is another important aspect to understanding the carbon exchange of soil crusts. As the dominant ground cover in arid and semiarid areas, soil crusts cover a substantial proportion of the Earth's surface. Thus, they may play a substantial role in the CO2 fluxes between the ground and the atmosphere. Discussion about the causes of the present global increase in atmospheric CO2 concentration, and possible mitigation measures, need to include the role of biological soil crusts during their different successional stages. Thus, future measurements and modeling work need to include large-scale estimates of how biological soil crusts contribute to the global carbon budget."[16] **112-28**

Belnap and Lange also note that disturbance of biological soil crusts results in reduced carbon intake. Severely disturbed crusts can take decades or centuries to recover.

I have seen common biological soil crusts on the Desert Sunlight Solar Farm project site in 2010.

Habitat Compensation Plan

On p. 4.3-17 the DEIS states that a draft Habitat Compensation Plan has been prepared. We request that a final plan be made public before approval of the project, as many questions remain about where enough habitat land would be found to acquire, or whether only enhancement measures would be undertaken such as fencing of roads. Many habitat enhancement measures have not been shown yet to increase tortoise populations and are unproven. Restoration of ecosystems in the desert can be difficult, slow, or in many cases not possible. Paying into SB 34 mitigation bank funds does not guarantee similar habitat will be acquired or improved, and for tortoise, this may be in a different Recovery Unit, not benefitting local tortoise populations. We want a full and detailed analysis of what mitigation measures will be undertaken. Please identify where lands to be acquired or restored for desert dry wash woodland, Chuckwalla DWMA, Chuckwalla CHU, burrowing owl habitat, and golden eagle foraging habitat are located, for public review. **112-29**

Restoration:

A habitat Restoration Plan should be finalized before approval of the project so that the public may review it. **112-30**

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[15] P. 236, Otto Lange, Photosynthesis of Soil-Crust Biotaas Dependent on Environmental Factors. *In*, Ecological Studies Vol. 150, 2003, Biological Soil Crusts: Structure, Function, and Management. Springer-Verlag: Berlin and Heidelberg.
[16] Belnap and Lange, Structure and Functioning of Biological Soil Crusts: A Synthesis, in, Belnap and Lange. *In*, Ecological Studies Vol. 150, 2003, Biological Soil Crusts: Structure, Function, and Management. Springer-Verlag: Berlin and Heidelberg. p. 475.

Conclusion:

Alternative 5 – No Issuance of a Right-of-Way Grant with Land Use Plan Amendment to Exclude Solar Energy Development on the Site (No Action with Plan Amendment) should be chosen. 112-31

Laura Cunningham

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Beatty NV 89003

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Public Comment Card for Scoping Process

First Solar Desert Sunlight Solar Farm Project

Commentor Name: MS MARY E. ZEILER Date: NOV. 2010

Address: 25950 RICE ROAD, P.O. BOX 135, DESERT CENTER, CA. 92239

Comment: I HAVE BEEN A RESIDENT OF DESERT CENTER SINCE 1970. I OWN AND MANAGE GREEN ACRES MOBILE PARK, LOCATED AT 25950 RICE ROAD, DESERT CENTER, CAL.

I AM WHOLLY IN FAVOR OF FIRST SOLAR DESERT SUNLIGHT SOLAR FARM PROJECT. 113-1

IT WILL DECREASE OUR DEPENANCY ON FOREIGN OIL AND COAL. IT WILL REDUCE THE AMOUNT OF POLLUTANTS THAT ENTER OR ENVIRONMENT DAILY.

THE PROJECT WILL PROVIDE MANY JOBS AND HELP THE LOCAL ECONOMY AND THE LOCAL BUSINESSES.

MY CONCERN IS ABOUT THE ROUTING OF THE TRANSMISSION LINES TO THE SUBSTATION. 113-2

I DO NOT BELIEVE THE KAISER ROAD ROUTE IS MOST FAVORABLE. IT WOULD NECESSITATE CROSSING RESIDENTIAL PROPERTIES.

AT THE PRESENT TIME; POLE LINE ROAD, TRAVELS EAST FROM PROPOSED SOLAR SITE. IT CROSSES RICE ROAD, NORTH OF DESERT FLATS. EAST OF DESERT FLATS, THE LINE COULD GO SOUTH, CROSS I-10 AND REACH THE PROPOSED SUB-STATION, SOUTH OF I-10, EAST OF DESERT CENTER.

GOOD LUCK

RECEIVED
NOV 12 2010
BLM - PALM SPRINGS - SOUTH FIELD OFFICE
PALM SPRINGS, CA

By submitting a scoping comment you will receive a copy of the EIS. Please indicate the format you would prefer:

☐ Compact Disk (CD) or ☒ Hardcopy

October 20, 2010 Lake Tamarisk Community Center, 26251 Parkview Drive, Desert Center, CA 92239

How to Comment:

Hardcopy: Use the form on the other side of this sheet. Please fold and staple this form and mail to the address below

Email: CAPSSolarFirstSolarDesertSunlight@blm.gov Make sure subject line reads "First Solar Desert Sunlight Solar Farm Project"

Comments must be postmarked/emailed by November 26, 2010

☐ Public comments, including names and street addresses of respondents, will be available for public review at Bureau of Land Management, 1201 Bird Center Drive, Palm Springs, CA 92262, during regular business hours (8:00 a.m. to 4:30 p.m.), Monday through Friday, except holidays. Individual respondents may request confidentiality. **If you wish to withhold your name or street address from public review or from disclosure under the Freedom of Information Act, you MUST check this box.** Such requests will be honored to the extent allowed by law. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public inspection in their entirety.

Ms. Mary E. Zeiler
PO Box 139
Desert Center, CA 92239-0139

SAN BERNARDINO CA 924

Bureau of Land Management
c/o Allison Shaffer, Project Manager
1201 Bird Center Drive
Palm Springs, CA 92262

First Solar Desert Sunlight Solar Farm Project

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National Park Service
U.S. Department of the Interior

Pacific West Region

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PACIFIC WEST REGIONAL OFFICE FAX

DATE: November 24, 2010

TO: Allison Shafer, Project Manager, BLM

FAX: (760) 833-7199

FROM: Christine Lehnertz, Regional Director, NPS

 # PAGES FOLLOWING: Eight (8)

COMMENTS: Review of: Draft EIS Desert Sunlight

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United States Department of the Interior

NATIONAL PARK SERVICE
Pacific West Region
1111 Jackson Street, Suite 700
Oakland, California 94607-4807

IN REPLY REFER TO
L7619 (PWR-P)

24 NOV 2010

Allison Schaffer, Project Manager
Palm Springs South Coast Field Office
Bureau of Land Management
1201 Bird Center Drive
Palm Springs, California 92262

RE: *First Solar-Desert Sunlight Solar Farm Project, Draft Environmental Impact Statement*

Dear Ms. Schaffer:

The National Park Service has reviewed the subject draft document and offers the following comments and suggestions for preparing the final document.

Overall Comments

We believe that the Desert Sunlight Draft Environmental Impact Statement (DEIS) fails to adequately analyze the foreseeable environmental consequences and cumulative impacts of the proposed utility-scale solar power project on the resources and values of Joshua Tree National Park. We are available to work with project planners on addressing our concerns as the development of the Final Environmental Impact Statement (FEIS) gets underway. 114-A

Joshua Tree National Park (Joshua Tree NP) was originally set aside as a National Monument in recognition of its historic and prehistoric resources and to afford protection of natural resources of the Colorado and Mojave Deserts. The natural resource preservation emphasis was so strong that the original name contemplated for the monument was Desert Plants National Park. The monument was also recognized as a biosphere reserve by the United Nations under its Man and the Biosphere Program. In 1994, the Desert Protection Act (PL 103-433) added 234,000 acres to the Monument and changed its status from National Monument to National Park; an additional 163,000 acres was designated Wilderness.

Today, Joshua Tree NP's nearly 800,000 acres protect the unique assembly of superlative natural resources brought together by the junction of two of California's ecosystems. The Colorado Desert, a western extension of the vast Sonoran Desert, influences the southern and eastern parts of the park. It is characterized by stands of spike-like ocotillo plants and "jumping" cholla cactus. The southern extent of the Mojave Desert reaches across the northern part of the park. It is the habitat of the park's namesake: the Joshua tree.

TAKE PRIDE IN AMERICA

Unfortunately the DEIS fails to adequately characterize and analyze many potential impacts to park resources associated with development of the project, as currently proposed. Although attributes such as visual resources, natural sounds, night skies, and effects on Wilderness are referred to in the DEIS, the fundamental importance of these resources to the desert setting and sensitive areas such as Joshua Tree NP are either understated or overlooked in the analysis. 114-B

The close proximity of the proposed utility-scale solar project to Joshua Tree NP suggests that many of the same impacts which would be experienced directly at the solar development site will also carry over to nearby lands and resources within Joshua Tree NP. The interconnection of natural, cultural, and historical resources inside and outside of the park boundaries is not addressed in this DEIS. Therefore the capability of the draft analysis to clearly inform the public or the decision maker of the potential for significant levels of impact associated with solar facility development is insufficient. As a result, we urge that information and analysis related to the area of potential effect, factoring in the potential cumulative impacts to Joshua Tree NP, be refined as the FEIS is developed.

While the cumulative impacts analysis acknowledges both the significant amount of solar project development proposed adjacent to the park (see Table 3.18-3) and the context that the proposed Desert Sunlight project area is surrounded on three sides by the park, the DEIS downplays adverse impacts to the park. In some cases, statements in the draft appear to be either misleading or inaccurate; these must be refined in preparing the FEIS. 114-C

For example, on page 4.12-11, Section 4.12.9, the DEIS states that "*. . . there are no roads or visitor access points into the park in that area, and little or no visitor use of that portion of the park. As such, this portion of Joshua Tree National Park surrounding the proposed Project area has little recreation activity.*" This statement is incorrect. Included below are specific comments for suggested language to rectify the environmental impact analysis on this point.

Additionally, the fact that the portion of Joshua Tree NP surrounding the proposed Desert Sunlight project is Congressionally designated Wilderness (Coxcomb Mountain Wilderness) is also dismissed as an area that is only a "*. . . site for the occasional hiker who may use this remote and relatively inaccessible portion of the park.*" Moreover, analyses of impacts to Wilderness are deemed "indirect." We believe this position is misleading and inadequately analyzes the intrinsic values that Wilderness areas embody. Statements about indirect impacts to Wilderness should be rewritten; provided below are specific suggestions for revisions.

The photo simulation of the proposed project (Figure 4.16-3) clearly depicts the close proximity of the proposed project to the park and the park's designated Wilderness. The visual impact is clear, yet the DEIS fails to adequately consider the full effect of the proposed project location (one of many) only 1.4 miles from the park's boundary. NPS resources and values will be adversely affected by construction and operational activities at the facility as currently proposed.

Joshua Tree NP reiterates our request that was submitted through the Solar Energy Development Programmatic EIS (dated 11/30/09), that the area west of the Palen Mountains be removed from consideration for public utility scale development projects. These projects cumulatively are

incompatible with maintaining the existing experiences that visitors to the eastern portions of the park have in regards to air quality, viewsheds, wilderness values, and night sky qualities. 114-C cont

In our previous comments, we commended the Bureau of Land Management (BLM) for its cooperative approach with the State of California Energy Commission (CEC) to jointly evaluate the environmental implications of the Genesis Solar Power Project and the Palen Solar Power Project. Joshua Tree NP is supportive of the proposed land use plan alterations proposed in Appendices B to the Northern and Eastern Colorado Desert Coordinated Management Plan (NECO) in the Pinto-Basin-Chuckwalla Desert Wildlife Management Area (DWMA), Palen Dunes Exclusion Area, and Palen Wilderness-Chuckwalla DWMA Wildlife Linkage Area. The NPS endorses the objectives to preserve connected physical attributes and habitat to link populations of a wide diversity of organisms, both flora and fauna. These areas, as noted in the DEIS, could also offset some of the cumulative effects from the numerous projects proposed for the area. Yet the removal of these proposals from the Desert Sunlight's analysis, the project closest to the park of any of the solar projects, is unexplained. 114-D

The FEIS needs to fully analyze impacts to protected park resources and values adjacent to the proposed project area, and provide for further development and implementation of corresponding mitigation measures. The DEIS states that the "*impacts on air resources, cultural resources, and visual resources cannot be reduced to less than significant and are unavoidable*" – however, this statement describes only the proposed project, without full consideration of the foreseeable impacts that would directly affect nearby Joshua Tree NP. Until the FEIS more fully explains and analyzes all environmental consequences and revises the impact mitigation strategies (our suggestions noted below), the NPS endorses Alternative 4 – No Action. Furthermore, we recommend the completion of regional land use planning for the greater area through the Programmatic EIS and Desert Renewable Energy Conservation Plan as soon as practicable. 114-E

Specific Comments

Chapter 1: Introduction – Considering the close proximity of the proposed Desert Sunlight Project to Joshua Tree NP, the potential for construction and operational activities to affect the resources and values of the park, and the fact that NPS is a "sister agency" to BLM under the Department of the Interior, we suggest that DEIS Section 1.3.3, Relationship to Other Federal Plans, Policies, Programs, and Laws (page 1-13) include reference to the Secretary of the Interior's duties and responsibilities under the 1916 Organic Act to protect units of the National Park System. The NPS Organic Act (16 U.S.C. §1) states that "[t]*he National Park Service thus established shall promote and regulate the use of the Federal areas known as national parks, monuments and reservations hereinafter specified . . ., by such means and measures as conform to the fundamental purposes of the said parks, monuments, and reservations, which purpose is to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.*" 114-1

Additionally, the 1978 Amendments to the 1916 Organic Act (16 U.S.C. § 1a-1) state that "[C]*ongress further reaffirms, declares, and directs that the promotion and regulation of the*

various areas of the National Park System, as defined in [16 U.S.C. § 1c], shall be consistent with and founded in the purpose established by [16 U.S.C. § 1], to the common benefit of all the people of the United States. The authorization of activities shall be construed and the protection, management, and administration of these areas shall be construed in light of the high public value and integrity of the national park System and shall not be exercised in derogation of the values and purposes for which these various areas have been established, as may have been or shall be directly and specifically provided by Congress."

Chapter 2: Description of the Proposed Action and Alternatives, Project Description – The Desert Sunlight proposal is located in an area of notable night sky quality which is very sensitive. NPS data indicates that the eastern end of Joshua Tree NP possesses the highest quality night sky measured in the park. The DEIS does not adequately describe the affected environment, the potential adverse impacts to the night sky resource, and measures that will be required in order for the applicant to mitigate those impacts to avoid "*creating a new source of substantial light, glare, or adversely affect nighttime views of the area.*" The FEIS should incorporate an adequate analysis of the adverse impacts to the park's night sky resources and propose measures to mitigate those impacts. The NPS is interested in collaborating with BLM to expand the analysis and suggest mitigation measures that could be readily implemented. Please contact Chad Moore, NPS Night Sky Program Manager at (970) 491-3700. 114-2

In addition, BLM should require the applicant to develop and implement an Outdoor Lighting Plan, as was done for the Silver State Solar facility near Mojave National Preserve. This would allow detailed articulation of lighting specifications to mitigate and meet the DEIS objectives of not creating significant adverse impact to the nighttime environment. Such a plan would further enable accurately assessing environmental impacts and provide for adaptive management if needed. The NPS has special expertise in this area, and we are available to assist in the development of an Outdoor Lighting Plan. Please contact Chad Moore (per contact info above). 114-3

Chapter 2: Description of the Proposed Action and Alternatives, Lighting and Perimeter Features – The DEIS indicates that lighting at the electrical substation and most other lights will be normally off, and only switched on during temporary needs. The FEIS should clarify specifically which lights will be normally off and only switched on during temporary needs. The final document should also clarify whether any lights are operated from dusk-to-dawn, as this was mentioned during the public meeting in the town of Joshua Tree. 114-4

As written currently, it appears that there will be no continuous roadway lighting through the project area, only roadway lighting at the entrance of the project access road. Is this an accurate assessment of roadway lighting? The Final EIS should provide information addressing this issue. 114-5

The term "fully shielded" should be clarified in the FEIS with either "emits no light above the horizontal" or "meets the criteria of a full cut-off luminaire." There can be some ambiguity between "shielded," "fully-shielded" and other definitions. Given the world-renowned dark sky resource of nearby Joshua Tree NP, the FEIS needs to clarify whether all lighting will be fully shielded or just those above a certain lumen output threshold. 114-6

The project description indicates that some lights will be high-pressure sodium lamps (HPS). Is this true for all lighting? LPS or amber LED lighting is the environmentally preferred lighting source as it causes less skyglow, less glare, and is less likely to attract or disorient wildlife. 114-7

White lighting (e.g., metal halide) should only be used when necessitated by work tasks. This source should not be used for general security lighting nor for dusk-to-dawn lighting. White lighting should be less than 3500 Kelvin color temperature (warm white). Blue- white lighting (cool-white) has a much greater environmental impact. 114-8

We request that the FEIS and resulting right-of-way permit stipulate that outdoor lighting be less than 3500 Kelvin color temperature (warm white). Blue-white lighting (cool-white) has a much greater environmental impact. Additionally, there are ample commercial solutions in warm-white applications. Because the plan provides ample latitude for the operation to use non-LPS lighting if deemed necessary, the use of white light needs some additional mitigation. 114-9

The FEIS should present a total estimated outdoor lighting footprint, expressed as lumens or lumens per acre. 114-10

If portable truck-mounted lighting is to be utilized frequently, it could have a significant visual impact if pointed in the direction of a natural area. We recommend that such lighting be aimed within 45° of nadir (straight down) when utilized to minimize offsite impacts and reduce glare for workers, or alternatively be pointed away from park lands and wilderness areas. This mitigation should be included in the FEIS. 114-11

Chapter 3: Affected Environment, Section 3.1, Introduction – We suggest that the heading entitled "Recreation" be changed to "Recreation/Wilderness." 114-12

Chapter 3: Affected Environment, Section 3.10.1 Applicable Plans, Policies, and Regulations -- Discussion of federal agency noise policies includes EPA, OSHA, and FAA, but excludes the NPS. The FEIS should add information about NPS Management Policies (http://www.nps.gov/policy/mp/policies.html). These Policies address noise impacts in Section 4.9 and also in Section 8.2.3, which states that the "*natural ambient sound level—that is, the environment of sound that exists in the absence of human-caused noise—is the baseline condition, and the standard against which current conditions in a soundscape will be measured and evaluated.*" Further guidance can be found in NPS Director's Order #47 (http://www.nps.gov/policy/DOrders/DOrder47.html). 114-13

Chapter 3: Affected Environment, Section 3.10.2, Existing Conditions, Noise – The discussion of noise sensitive land uses does not yet include Joshua Tree NP – the park should be added to this paragraph, along with a discussion of the Wilderness area in the park. 114-14

Chapter 3: Affected Environment, Section 3.12, Recreation – We suggest that the heading entitled "Recreation" be changed to "Recreation/Wilderness." The section should also mention the BLM Palen/McCoy Wilderness to the east. 114-15

We also urge revising the last sentence of the section, which refers to access to the park and Wilderness from the project site. Although the park has limited ability to follow visitors to see whether, and from where, they access adjacent areas (the NPS does receive permit requests and queries about camping and hiking in this portion of the park), there is no conclusive evidence indicating whether people do or do not travel between the project site location and the park. 114-16

Chapter 3: Affected Environment, Section 3.14, Special Designations – This section should also include a description of the BLM Palen/McCoy Wilderness to the east of the project site. The FEIS should include a map showing proximity of all Wilderness areas to the site. 114-17

The inferential sentence "*However, the steep terrain and lack of trails severely limit public access to this area.*" should be edited. There are other limited access areas within the park that as equally steep, yet visitors do access those areas. We have no conclusive evidence to show that visitors are not using the Coxcomb Mountains. Being situated fairly close to Highway 177 actually encourages use of that area, relative to other park locales. 114-18

Chapter 3: Affected Environment, Section 3.16, Visual Resources – The description of the affected visual environment analysis process does not adequately capture the impact of light pollution. Both direct forms of light pollution (e.g., glare) and indirect (e.g., skyglow) cause impact to the visual environment. A development need not be within a line of sight as described in order to cause a visual impact via skyglow. This factor becomes increasingly important in darker environments, where even ground reflection from well-shielded lights can have an adverse impact. The visual resources analysis procedure is therefore incongruent with the need to protect dark night skies, though it may be adequate for daytime visibility issues. 114-19

The setting as articulated in the Affected Environment section does not describe the high quality night skies that exist in and near the project site. Data taken from Pinto Wells in Joshua Tree NP indicates that this area is the darkest measured in the park and is representative of the darkest sites found in the Mojave Desert. The site, which is periodically monitored by the NPS, is located approximately seven miles north of the project site. 114-20

Regarding the last paragraph in the section, the inferential concluding sentence should be edited, since it does not accurately describe the Affected Environment. Vistas from the park are of critical import to those visitors who explore remote areas expecting pristine Wilderness conditions and the surrounding views. Wilderness visitors, anticipating an untrammeled setting, may be more likely to take the time to look around and appreciate the existing conditions as viewed from those higher elevations. Thus the experiential response to distant views from the higher elevations is as important as the closer views for those visiting the lower elevations. 114-21

Chapter 4: Environmental Consequences, Section 4.2.3, Air Resources, Alternative 1 – Proposed Action, Operation and Maintenance – There are two different references about the amount of desert pavement that is present on the site. On page 4.2-30, there is a reference to desert pavements being present on 35 percent of the Solar Farm site. On page 4.8-3, there is a reference that approximately 20 percent of the site has desert pavements. The differences between these two numbers could have affected the calculations of the amount of fugitive dust 114-22

and subsequent impacts to air quality and visibility. Clarifying which number is correct and verifying the calculations is necessary for assuring accurate assessment of impacts. 114-22 cont

Chapter 4: Environmental Consequences, Section 4.10, Noise and Vibration – Actual ambient sound levels from Joshua Tree NP (or surrogates from the NPS Natural Sounds and Night Skies Division) should be used to ascertain noise impacts to the park and the Wilderness areas due to on-site construction activity and construction-related traffic for the various alternatives. 114-23

Chapter 4: Environmental Consequences, Section 4.12.3, Recreation, Alternative 1 – Proposed Action, Summary of Construction Impacts - There is a reference to "*Joshua Tree National Monument*". This should be corrected to "Joshua Tree National Park" and the remainder of the document checked for consistency. 114-24

Chapter 4: Environmental Consequences, Section 4.12.9, Recreation, Cumulative Impacts, Existing Cumulative Conditions – The last paragraph of this section states that "*. . . there are no roads or visitor access points into the park in that area, and little or no visitor use of that portion of the park. As such, this portion of Joshua Tree National Park surrounding the proposed Project area has little recreation activity.*" The statement should be changed to read: "...there are no roads or visitor access points into the park in that area, and the number of visitors to that area, while unknown, is likely to be low." 114-25

Chapter 4: Environmental Consequences, Section 4.14, Special Designations - This section discusses the "*indirect*" impacts to Wilderness areas during construction from fugitive dust, noise, and lighting. We believe that these impacts are not "indirect" but directly impact the intrinsic values that Congressionally designated Wilderness areas embody. This project (and all the others proposed in the area) will be directly visible from Wilderness areas and will impose evidence of humans, which is currently much more limited, into the viewshed. 114-26

Chapter 4: Environmental Consequences, Section 4.14.3, Special Designations, Alternative 1 - Proposed Action, Construction, Solar Farm Layout B states "*SF-B is within two miles of the Joshua Tree Wilderness Area administered by the National Park Service. Fugitive dust from construction would create a temporary visual distraction for users of this wilderness.*" In addition to fugitive dust directly diminishing the visitor experience in park Wilderness, noise, traffic, and lighting would also have discernable effects. 114-27

Chapter 4: Environmental Consequences, Section 4.16, Visual Resources – Throughout this section, there is analysis missing with regards to the perspectives from the higher elevation points surrounding the Project Site. On three sides of the project, higher elevations will afford the visitor to the National Park a view of the valley with this, and other proposed projects, in it. The view analysis does include KOP 2 as a representative site from the park, but this appears to be a low level site equal in elevation to the other sites. For a thorough analysis, we suggest additional perspectives from other peaks in the area. 114-28

A more thorough cumulative assessment of expected impacts from this initiative and other foreseeable future projects would provide a more representative assessment of possible future scenarios and the significant impacts that installation, as currently proposed, would have on visitors to the area, both from high and low locations. 114-28 cont

Chapter 7: Glossary

The DEIS describes the Secretary of the Interior as "*US Secretary of the Interior – The US Department of the Interior is in charge of the nation's internal affairs. The Secretary serves on the President's cabinet and appoints citizens to the National Park Foundation board.*" 114-29
We suggest re-writing the description of the U.S. Secretary of the Interior to acknowledge the full and relevant spectrum of responsibilities of the Secretary, including the protection and conservation of the nation's natural and cultural heritage, and overseeing the stewardship and management of the country's vast public lands exercised through the Department's eight bureaus.

Conclusion

Thank you for this opportunity to provide comments. Addressing each of these topics in depth, and with reassessment of the nature of the impacts to nearby Joshua Tree National Park is necessary for assuring the utmost protection of resources and visitor experience. If you have any questions regarding our comments or concerns, or need additional information, please contact the Joshua Tree National Park superintendent's office at (760) 367-5502, or Andrea Compton, Chief of Resources at (760) 367-5560, Andrea_Compton@nps.gov.

Sincerely,

Christine S. Lehnertz
Regional Director, Pacific West Region

Cc:
JOTR-S
GRD
PWR-LP

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Dear Ms Shaffer, Nov 22, 2010

RECEIVED
BUREAU OF LAND MANAGEMENT
10 NOV 24 PM 12:13
PALM SPRINGS-SOUTH COAST
RESOURCE AREA

I am a resident of Desert Center in strong support of the proposed building of First Solar Desert Sunlight. This is a solar farm to be built on Kaiser Rd. 115-1

With our nations constant battle for economic power, Solar Energy has risen as an enormous plus. Especially to consider the significant reduction not only in pollutants, but it further releases the restraints of foreign oil. A subject that strangleholds us all. Solar energy utilization, especially where such energy is so obviously abundant seems beyond question the wiser choice.

Our community would also greatly gain through generated business, jobs and other local avenues.

All in all, it should be considered, and approved

Sincerely

PATRICK POOLE

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c/o ALLISON SHAFFER, PROJECT MANAGER
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(FIRST SOLAR - DESERT SUNLIGHT)

92262\$8001

116

November 24th, 2010

Delivered via electronic mail (CAPSSolarFirstSolarDesertSunlight@blm.gov)

Allison Shaffer, Project Manager
Palm Springs/South Coast Field Office
Bureau of Land Management
1201 Bird Center Drive
Palm Springs, CA 92262

Re: Comments on the Desert Sunlight Solar Farm Project Draft Environmental Impact Statement

Dear Ms. Schaffer:

Please accept and fully consider these comments on the Draft Environmental Impact Statement for the proposed Desert Sunlight Solar Farm Project on behalf of The Wilderness Society.

Clearly, our nation's growing addiction to fossil fuels, coupled with the unprecedented threats brought about by global warming, imperil the integrity of our wildlands as never before. To sustain both our wildlands and our human communities, the undersigned believe the nation must transition away from fossil fuels as quickly as possible. To do this, we must eliminate energy waste, moderate demand through energy efficiency, conservation, and demand-side management practices, and rapidly develop and deploy clean, renewable energy technologies, including at the utility-scale. Renewable energy development is not appropriate everywhere on the public lands, however, and thorough review under the National Environmental Policy Act is an essential part of determining which of the many proposed utility-scale projects should be permitted to go forward.

We strongly believe that long-term, environmentally responsible success of the Bureau of Land Management's solar energy program depends on developing policy and guidelines that guide projects to the most appropriate locations, thus limiting environmental impacts and reducing obstacles to construction of the most appropriate projects.

We support the recommendations of Defenders of Wildlife, Natural Resources Defense Council, and Sierra Club included in their attached November 22, 2010 letter (**attached** as Attachment A). We recommend that the BLM follow the recommendations outlined in Attachment A.

Thank you for your thorough consideration of these comments.

Sincerely,

Alex Daue, Renewable Energy Coordinator
The Wilderness Society – BLM Action Center
1660 Wynkoop St. Suite 850
Denver, CO 80202

DEFENDERS OF WILDLIFE

NATURAL RESOURCES DEFENSE COUNCIL

SIERRA CLUB

November 22, 2010

Allison Shaffer, Project Manager
Palm Springs/South Coast Field Office
Bureau of Land Management
1201 Bird Center Drive
Palm Springs, CA 92262

(Via email to: CAPSSolarFirstSolarDesertSunlight@blm.gov)

Re: Comments on Draft Environmental Impact Statement and Proposed Amendment to the California Desert Conservation Area Plan for the Proposed First Solar Desert Sunlight Solar Farm Project, Riverside County, CA (BLM Case File Number CACA 48649)

Dear Ms. Shaffer:

Thank you for the opportunity to review and comment on the Draft Environmental Impact Statement (DEIS) and Proposed Amendment to the California Desert Conservation Area Plan for the Proposed First Solar Desert Sunlight Solar Farm Project. These comments are submitted on behalf of Defenders of Wildlife ("Defenders"), the Natural Resources Defense Council ("NRDC"), and Sierra Club, all of which are non-profit public interest conservation organizations with offices in California as well as elsewhere in this country.

Defenders has 950,000 members and supporters nationally, 145,000 of whom reside in California. Defenders is dedicated to protecting all wild animals and plants in their natural communities. To this end, we employ science, public education and participation, media, legislative advocacy, litigation, and proactive on-the-ground solutions in order to impede the accelerating rate of extinction of species, associated loss of biological diversity, and habitat alteration and destruction.

NRDC has over 1.2 million members and online activists nationwide, 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. NRDC has worked to protect wildlands and natural values on public lands and to promote pursuit of all cost-effective energy efficiency measures and sustainable energy development for many years.

The Sierra Club is a national nonprofit organization of approximately 1.3 million members and supporters (approximately 250,000 of whom live in California) 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 public lands, wildlife, air and water while at the same time rapidly increasing our use of renewable energy to reduce global warming.

As we transition toward a clean energy future, it is imperative for our future and the future of our wild places and wildlife that we strike a balance between addressing the near term impacts of large scale solar development with the long-term impacts of climate change on our biological diversity, fish and wildlife habitat, and natural landscapes. To ensure that the proper balance is achieved, we need smart planning for renewable power that avoids and minimizes adverse impacts on wildlife and wild lands. These projects should be placed in the least harmful locations, near existing transmission lines and already disturbed lands.

We strongly support the emission reduction goals found in the Global Warming Solutions Act of 2006, AB 32, including the development of renewable energy in California. However, we urge that in seeking to meet our renewable energy portfolio standard in California, project proponents design their projects in the most sustainable manner possible. This is essential to ensure that project approval moves forward expeditiously and in a manner that does not sacrifice our fragile desert landscape and wildlife in the rush to meet our renewable energy goals.

We strongly support renewable energy production and utilization, but we do not consider the construction of large-scale projects, and especially the very large solar energy projects proposed on undisturbed public lands in the California Desert Conservation Area (CDCA), to be the primary way to meet our renewable energy goals. We believe such large scale solar projects should be located on degraded or disturbed land such as abandoned agricultural fields, industrial sites, and near existing structures before public lands containing natural plant and animal communities are considered.

The proposed project would entail the exclusive use of approximately 4,400 acres of public land managed by the Bureau of Land Management (BLM). The proposed project consists of a photovoltaic solar electrical generating facility with a rated power output of approximately 550 MW; a generation transmission interconnection line (gen-tie line); and a new Red Bluff Substation. Three alternatives to the proposed project are identified and analyzed in the DEIS: 1) No action; 2) Two alternative gen-tie line alignments; and 3) Two reduced solar farm footprints.

Our comments are presented below by subject:

I. National Environmental Policy Act (NEPA)

Purpose and Need: Federal agencies must "specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action." 40 C.F.R. § 1502.13. Courts "have interpreted NEPA to preclude agencies from defining the objectives of their actions in terms so unreasonably narrow that they can be accomplished by only one alternative." *Colorado Environmental Coalition v. Dombeck*, 185 F.3d 1162, 1165, 1174 (10th Cir. 1999), at 1174 (*citing Simmons v. United States Corps of Eng'rs*, 120 F.3d 664, 669 (7th Cir. 1997)).

BLM Purpose and Need: According to the DEIS, the stated purpose and need for the proposed project is to "…respond to Sunlight's application under Title V of the Federal Land Policy and Management Act (FLPMA) (43 U.S.C. 1761) for a right-of-way (ROW) grant to construct, operate, maintain, and decommission a utility-scale 550-MW PV solar energy facility (Solar Farm, Gen-Tie Line, and a 500/220-kV substation) on public lands, in compliance with FLPMA, BLM ROW regulations, and other applicable federal laws." (DEIS at 1-7). In addition, "[T]he BLM will decide whether to approve, approve with modifications, or deny issuance of a ROW grant to Sunlight for the proposed DSSF Project and the related assignment of any ROW grant for the substation to SCE. The BLM's actions will also include concurrent consideration of amending the CDCA Plan of 1980, as amended." *Id*.

BLM Authorities: In addition to authorities granted to BLM through FLPMA(43 U.S.C. 1701), the DEIS states that the Energy Policy Act of 2005 "…requires the Department of the Interior (BLM's parent agency) to approve at least 10,000 MW of renewable energy on public lands by 2015." (DEIS at 1-8).

Comment: Instead of the current purpose and need statement which declares that BLM is simply responding to a right of way application under Title V of FLPMA, we recommend that the purpose and need statement address the need to generate greater amounts of electrical energy from renewable energy sources so that dependency on carbon-based fuels is reduced, and to contribute to the generation of certain minimum amounts of renewable energy to comply with State and federal standards. By providing a broader statement of purpose and need, BLM will help ensure that its NEPA documents comply with all applicable legal requirements. **116-1**

Comment: By so radically narrowing the scope of the project's purpose, BLM has impermissibly constricted the range of alternatives considered. *See Carmel by the Sea v. U.S. DOT*, 123 F.3d 1142, 1155 (9th Cir. 1995). Further, BLM has misinterpreted the intent of Congress in the Energy Policy Act in stating that the law "requires" BLM to approve at least 10,000 MW of renewable energy from public lands by 2015. Rather, the Act encourages the **116-2**

Secretary of the Interior to approve a minimum of 10,000 MW of renewable energy from the public lands by the year 2015. **116-2 cont**

Project Alternatives: In addition to properly defining the purpose and need of an agency action, agencies must consider a range of reasonable alternatives to the agency action in the EIS. *See* 42 U.S.C. § 4332(2)(E). The range of alternatives is "the heart of the environmental impact statement." 40 C.F.R. § 1502.14. NEPA requires BLM to "rigorously explore and objectively evaluate" a range of alternatives to proposed federal actions." *See* 40 C.F.R. §§ 1502.14(a) and 1508.25(c). The purpose of this requirement is "to insist that no major federal project should be undertaken 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." *Environmental Defense Fund v. Corps of Engineers*, 492 F.2d 1123, 1135 (5th Cir. 1974); *see also Methow Valley Citizens Council v. Regional Forester*, 833 F.2d 810 (9th Cir. 1987), rev'd on other grounds, 490 U.S. 332 (1989) (agency must consider alternative sites for a project).

Comment: We are pleased that several alternatives to the proposed project were considered, and that a reduced project size alternative (Solar Farm Boundary, Alternative C) was carried forward for analysis as a means of avoiding or reducing potential impact to the threatened Desert Tortoise and other species of concern, both plants and animals. This reduced project size alternative would provide a greater habitat linkage between the upper Pinto Wash and the designated Desert Wildlife Management Area/Desert Tortoise Critical Habitat located immediately west of the Kaiser Road (which generally forms the western boundary of the proposed project). **116-3**

Comment: The gen-tie transmission line alternatives that would connect with the proposed Substation A appear to minimize impacts to the Desert Tortoise and Critical Habitat within the Chuckwalla DWMA to a greater extent than those associated with proposed Substation B (Gen-Tie Line B-2. Although proposed Substation A is located within the Chuckwalla DWMA, it would affect far fewer Desert Tortoises and burrows than proposed Substation B, which is not within the DWMA. Overall, we consider the Gen-Tie Line A-2 Alternative to be environmentally superior. **116-4**

Comment: While we are pleased that private land alternatives were considered by both the BLM and the applicant, the BLM summarily dismissed the alternatives, noting "…they would be no better than the proposed Project area and would result in greater environmental impacts." (DEIS at 2-125). Although that may be the case, the veracity of this conclusion is weak because it is unsubstantiated - private land alternatives were not analyzed in the DEIS. We recommend that BLM carefully consider analyzing a full range of alternatives including those on private lands or a combination of private and adjacent public lands. This would strengthen the document with regard to NEPA adequacy. **116-5**

The range of public land alternatives appears to be rather limited as well, focused on the I-10 Freeway corridor from Devers to Blythe due to transmission line capacity in the existing Devers Palo Verde I transmission line. The DEIS indicates the applicant searched for alternative sites within the service area of the Southern California Edison Company that had nearby transmission line capacity and, after consultation with the BLM, concluded the most appropriate region was adjacent to the Devers Palo Verde I transmission line and submitted a right of way application to the BLM that included public lands within the proposed project area. **116-6**

Comment: Due to the inherent flexibility in project size and configuration using photovoltaic technology, a wider range of alternatives may be justified, including a combination of disturbed private lands and adjacent public lands in addition to the two public land sites considered. We recommend the FEIS include a more robust analysis of existing transmission line capacities within all appropriate regions that exhibit the minimum insolation ratings necessary for efficient electrical generation using PV technology. This would potentially increase the number of viable locations for the proposed project and also provide for a critical review and strengthen the justification of the rationale for limiting project consideration to the I-10 Corridor. **116-7**

Cumulative Impacts Analysis: Cumulative impact is defined as the impact on the environment which results from the incremental impacts of the action when added to other past, present, and reasonably foreseeable future action regardless of what agency 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.

Comment: Although the DEIS identifies a substantial number of existing and proposed land use activities that have and would add to the cumulative loss of significant cultural and biological resources, we urge BLM to be confident that the depth of the cumulative impact analysis to be included in the FEIS is sufficient to establish the condition and trend of various at-risk species and their habitats in the region. We believe this level of analysis is necessary to determine whether or not, on a regional scale, the biological resources are being managed consistent with the mandates of FLPMA, including maintenance of environmental quality. **116-8**

FLPMA mandates that 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; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will pro-vide for outdoor recreation and human occupancy and use;" (Sec. 102(8)). FLPMA also addresses management of public lands within the CDCA: "the California desert environment is a total ecosystem that is extremely fragile, easily scarred, and slowly healed. (Sec. 601(a)(2)); and "the California desert environment and its resources, including

certain rare and endangered species of wildlife, plants, and fishes, and numerous archeological and historic sites, are seriously threatened by air pollution, inadequate Federal management authority, and pressures of increased use, particularly recreational use, which are certain to intensify because of the rapidly growing population of southern California; (Sec. 601(a)(3)); and lastly, " It is the purpose of this section to provide for the immediate and future protection and administration of the public lands in the California desert within the framework of a program of multiple use and sustained yield, and the maintenance of environmental quality. (Sec. 601(b)).

II. Biological Resources

Identification of General Impacts and Mitigation: The organization of the DEIS with respect to impact mitigation (avoidance, minimization and compensation) appears somewhat unconventional, making it difficult to track and evaluate how impacts to biological resources will actually be avoided, minimized or compensated for. For example, the mitigation proposed for habitat losses for the Desert Tortoise and other species of concern is contained in the vegetation section, which then refers to a habitat compensation plan in Appendix H (Biological Resources: Technical Reports). The proposed habitat loss compensation plan is a general framework that will guide development of a project-specific habitat compensation plan. Furthermore, the plan lacks details, and simply states, "The precise details of the mitigation will be established in the BLM Right of Way Grant, FWS Biological Opinion, and CDFG 2080.1 Consistency Determination. (Habitat Compensation Plan, page 1)."

Comment: Analysis of the cumulative impacts to biological resources, and mitigation of those impacts, on a regional scale, is absent from the DEIS. We believe this expanded level of analysis and mitigation is needed due to the number and size of solar energy projects in the I-10 corridor of eastern Riverside County and their likely cumulative impacts on significant and fragile populations of plants and animals that are at-risk. Currently, the impacts to biological resources within this region, and the corresponding mitigation of those impacts, are addressed on a project-by-project basis. This piecemeal approach will not provide the mitigation necessary to achieve meaningful and effective reduction and offsets of impacts on a regional scale. **116-9**

Comment: The habitat compensation plan that is specific to this proposed project is a form of mitigation, and should be affiliated directly with the environmental consequences presented in Chapter 4. For each impact to each biological resources component, the specific impact mitigation proposed should follow, comprised of impact avoidance, minimization and compensation (in priority order). **116-10**

Comment: The large public land area (approximately 19,000 acres) within the applicant's right-of-way application that has been excluded from the footprint of the proposed project and the reduced acreage alternatives should be excluded from future renewable energy development. **116-11**

This area contains significant at-risk resources, such as the Desert Tortoise, and drainages in the Pinto Wash that support microphyll woodlands. Furthermore, these undeveloped public lands provide foraging habitat for Golden Eagles that nest in nearby mountain ranges. Any proposed amendment of the CDCA Plan for this area should include the provision that the undeveloped lands within the original right-of way application would be excluded from future renewable energy development and any other land use that would result in loss of natural biological communities **116-11 cont**

Comment: Minimization of impacts due to habitat loss through acquisition of similar or equal habitat should include permanent protection and enhancement actions tied to the acquired habitat so that the net impacts are minimized to the greatest extent practicable. We urge BLM to carefully consider whether or not habitat loss compensation for the Desert Tortoise will be sufficient to mitigate the impacts to Desert Tortoise and other wildlife movements within the Chuckwalla Desert Wildlife Management Area and Critical Habitat Unit, as indicated on page 4.4-43 of the DEIS. Given the critical importance of maintaining habitat connectivity and wildlife movements, we recommend a greater level of analysis be performed to determine the adequacy of habitat loss compensation in minimizing the effects of the proposed project on wildlife movements. We believe that greater specificity is required to identify specific compensation habitats for their contribution in maintaining wildlife movements and habitat linkages. **116-12**

Desert Tortoise: Desert Tortoises are not evenly distributed over the proposed project footprint, and appear to be concentrated mainly in the northwestern portion of the proposed solar farm, and north of the MWD transmission line and access road.

Comment: The most appropriate strategy for mitigating the impacts to the Desert Tortoise is to avoid or minimize those impacts through project configuration flexibility. In this case, we think the reduced acreage alternative, termed the Solar Farm Layout C, is superior and should be adopted as the BLM preferred alternative. This reduced acreage alternative is consistent with our recommendations for minimizing impacts for this proposed contained in our issue scoping letter, and given to the project applicant in face-to-face meetings. We appreciate the applicant's attempts to minimize the environmental impacts of its project by revising its initial project proposal in a manner that avoided some of the more concentrated occurrences of sensitive biological resources, such as the Desert Tortoise, Foxtail Cactus and microphyll woodlands in the main section of Pinto Wash. As a result, the applicant proposed Solar Farm Layout B, which BLM adopted as its preferred alternative. However, we continue to believe that Solar Farm Layout C provides a greater degree of impact avoidance that is consistent with BLM's policy for management of Special Status Species (Manual 6840) and the overall intent of public land management in the CDCA. **116-13**

Golden Eagle: The DEIS indicates there are 20 potential Golden Eagle nests within a 10-mile radius of the proposed project, comprising eight territories, six of which are considered active. The closest active territory is located approximately two miles from the project solar farm boundary, and one Golden Eagle was observed flying south of I-10 in Chuckwalla Valley in the vicinity of the proposed Red Bluff substation during surveys. (DEIS at 3.4-20, 21).

Comment: Mitigation to reduce the impacts due to the loss of potential Golden Eagle foraging habitat resulting from the proposed project is identified on page 4.4-7 of the DEIS: "Implementation of the *Habitat Compensation Plan* required in Applicant Measure BIO-1 discussed in Section 4.3, Vegetation, would reduce these impacts." For this measure to be effective, the habitat to be acquired must be located within foraging-territories associated with active nesting sites and in a natural condition suitable for supporting prey species. The goal should be to fully offset foraging habitat loss in order to achieve the "no net loss" standard of the U.S. Fish and Wildlife Service for this species. We urge BLM to establish a compensation ratio for lost Golden Eagle foraging habitat in coordination with the U.S. Fish and Wildlife Service so that impacts are fully offset. Golden Eagle habitat loss compensation should be fully analyzed and identified in the FEIS. **116-14**

III. Ecological Processes

Maintaining drainage flow and sediment transport within the upper Chuckwalla Valley is essential in sustaining sand-based habitats downstream within Chuckwalla Valley, which are critical to the long-term viability of the southernmost populations of the Mojave Fringe-toed Lizard and other dune-dependent species. The southernmost populations of this species in the greater Chuckwalla Valley are essential to the long-term persistence of the entire species because this population is adapted hotter and drier environmental conditions than populations found elsewhere in the California Desert. Hotter and potentially drier conditions expected to occur within the region as a consequence of climate change necessitate that the populations of this species in the Chuckwalla Valley region be protected, primarily through habitat protection and maintenance of ecological processes necessary for persistence of dune systems. The DEIS appears to be silent on this issue.

Comment: The proposed project would affect three blue-line ephemeral drainages; a portion of Eagle Creek, and two unnamed tributaries to Big Wash. The DEIS does not address the issue of impact to these natural drainages and their contribution to sand transport within Chuckwalla Valley. Rather, the DEIS appears to limit the discussion of drainage impacts to the subject of flood control as a means of protecting the solar farm. We are particularly concerned that debris basins and check-dams, upgradient from the project, may be required and thus included in future final design of the project. (DEIS @ 4.17-7). **116-15**

Comment: The FEIS should include a full analysis of the effects of the proposed project and each of the alternatives on natural drainages and fluvial sand transport. The FEIS should also disclose whether or not the proposed project includes debris basins or check dams upgradient from the solar farm field, and what impact such facilities would have on the biological and physical environment, and ecological processes such as seasonal water flow and sand transport in naturally occurring drainages. The location and size of the debris basins and check dams that may become part of the project should be described and mapped. **116-16**

IV. Climate Change

The DEIS address the effects of climate change largely through reduction of greenhouse gases and development use of renewable energy sources. It does not analyze the impacts climate change will have on species, and the effects of climate change on habitats that would be required to sustain viable populations of at-risk species.

Comment: The "hard look" requirement of NEPA requires federal agencies to consider climate change in NEPA documents. BLM must consider the effect of the proposed action on climate change, the effect of climate change on the proposed action and the effect of climate change on the affected environment. Climate change considerations are relevant throughout the NEPA process, from the scope of the environmental document and the description of the affected environment to the design of the proposed action, its alternatives and their environmental impacts. *See also* Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources, Secretarial Order 3289 (Feb. 22, 2010) (directing DOI agencies to consider and analyze climate change impacts when making major decisions affecting DOI resources). **116-17**

Comment: Analysis of the potential impacts of climate change on a proposed action and the environment is necessary to assess and reduce the vulnerabilities of the proposed action to climate change, to integrate climate change adaptation into the proposed action and alternatives and to produce accurate predictions of environmental consequences of the proposed action and alternatives. It will aid BLM in adequately preparing the proposed action or planning area for the inevitability of climate change. *See, e.g.*, Letter from Kathleen M. Goforth, Environmental Review Office, EPA, to Ramiro Villalvazo, Forest Supervisor, Eldorado National Forest (Oct. 26, 2009), *available at* http://yosemite.epa.gov/oeca/webeis.nsf/(PDFView)/20090313/$file/20090313.PDF?OpenElement. **116-18**

Comment: BLM should expand the analysis of the effects of the proposed project and each alternative on biological resources and their ability to adapt to climate change, such as occupation and use of habitat on a regional scale that may be essential in sustaining at-risk **116-19**

species. Such an expanded analysis should include cumulative effects and mitigation measures, including those associated with climate change.[1] **116-19 cont**

Thank you for considering our comments. If you have any questions, please contact us at our address or by email as shown below.

Sincerely,

Jeff Aardahl
California Representative
P.O. Box 1413
Gualala, CA 95445
Email: jaardahl@defenders.org

Barbara Boyle
Senior Representative, Clean Energy Solutions
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801 K Street
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Johanna Wald
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Natural Resources Defense Council
111 Sutter Street, 20th floor
San Francisco, CA 94104
Email: jwald@nrdc.org

[1] *See* Secretarial Order 3226, *Evaluating Climate Change Impacts in Management Planning* § 4 (January 16, 2009) ("Each bureau and office of DOI shall, in a manner consistent and compatible with their respective missions: Consider and analyze potential climate change impacts when undertaking long-range planning exercises, setting priorities for scientific research and investigations, and/or when making major decisions affecting DOI resources"); Council on Environmental Quality, *Considering Cumulative Effects under the National Environmental Policy Act* 24, 42 (1997) (including documentation and analysis of global warming in the affected environment and effects), *available at* http://ceq.eh.doe.gov/nepa/ccenepa/ccenepa.htm (last visited Apr. 20, 2010).

~~Barbara Boyle~~
~~Senior Representative, Clean Energy Solutions Sierra Club, Suite 2700~~
~~801 K Street~~
~~Sacramento, CA 95814~~

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117

thunderchild266@aol.com
11/24/2010 03:00 PM

To CAPSSolarFirstSolarDesertSunlight@blm.gov
cc
bcc
Subject support of solar projects

To whom it may concern,

My name is Victor Stewart. I just recently completed a course in solar energy at Palo Verde Community College. I took this course to enhance my value as a prospective employee for the solar projects slated to begin construction in and around the Blythe, Ca. area. I, along with my fellow classmates, are counting on the approval of said projects. The economy is at a low point now, and employment opportunities are limited. **I fully support** the anticipated projects. Not only from an economical stimulation point of view, but also as a safe, clean source of energy. As everyone knows, we must find and use alternative sources of energy for our futures. **117-1**

Thank You, Victor Stewart

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Western Lands Project
P.O. Box 95545 Seattle, WA 98145-2545
(206) 325-3503 / www.westernlands.org

Allison Shaffer, Project Manager
Palm Springs South Coast Field Office
Bureau of Land Management
1201 Bird Center Drive
Palm Springs, CA 92262

November 24, 2010

Re: First Solar Desert Sunlight DEIS

Dear Ms. Shaffer:

I am writing on behalf of the board and members of Western Lands Project to express our support for Alternative 5, which would deny First Solar's application for right of way on public land and would declare the site unsuitable for solar energy development. **118-1**

Our organization works to prevent the privatization of public land and monitors federal land sales, exchanges, and conveyances throughout the West and even beyond. We have become involved in the issue of remote, utility-scale solar energy development on public lands because we consider these projects to entail virtual privatization.

Although leased rather than sold to the developer outright, these solar energy sites will be utterly transformed, completely converted to an industrial use. The sites will no longer serve non-industrial, multiple-use functions, and will be off-limits to the public. In essence, public land used for these plants will no longer be public. **118-2**

Moreover, even beyond the 30- to 50-year duration of virtual privatization (the average lifetime of the projects), conversion to industrial use is probably permanent. The environmental impacts are likely to be such that restoration to or recovery of previous ecological function cannot occur. The sites may be permanently relegated to industrial uses. Having been stripped of the special qualities and functions we value in public lands, they will in effect become private industrial land. **118-3**

This is unacceptable, particularly given the fact that there are effective, efficient, and practical alternatives that could spare public lands from this damage—including better energy efficiency; solar energy installations in the built environment (parking lots, rooftops); development on degraded private land, and only as a last resort, solar facilities on degraded public land. **118-4**

The Western Lands Project opposes any proposal that would place industrial-scale solar facilities on public land, with the possible exception of sites that demonstrably offer no habitat value or which have been heavily altered from their native state.

Unfortunately (and conversely), the Interior Department is pursuing an irrational and damaging policy that, as Secretary Salazar states, "puts a bulls-eye" for solar development on some of the most biologically-rich, fragile, and endangered habitat in our country. The *appearance* of progress on renewable energy, no matter how costly, inefficient, or environmentally damaging—has clearly taken precedence over real progress.

There are at least two large studies, yet to be completed and thus unavailable, that are essential to evaluating the merits of the First Solar proposal and to leading the BLM to a better-informed decision. Without benefit of this information, we do not believe it is possible to accurately evaluate the cumulative impacts of this proposal combined with others, nor to assess the potential that whatever mitigation is proposed will succeed.

Solar Programmatic EIS

The Programmatic Solar Energy Development EIS (Solar PEIS), which is now in progress through the BLM and DOE and will include the project area for this application, represents the first serious policy-level attempt at identifying the most suitable public lands for potential solar development, and eliminating unsuitable lands.

We broadly object to the use of public lands for remote, industrial-scale solar and attendant transmission infrastructure. Nevertheless, any hope we may have at this time for a better policy and approach is pinned on the quality and thoroughness of the PEIS analysis and, we hope, its elimination of all but the most damaged public land from further consideration for solar development.

The Solar PEIS has yet to be released even in draft form—and if a decision on First Solar is issued before the Solar PEIS decision, this project can circumvent any requirements, such as mitigation standards, that come out of the Solar PEIS process. We believe it would be a huge mistake to proceed with approval of this project and/or a finding of suitability without the benefit of the completed Solar PEIS.

Desert Renewable Energy Conservation Plan

The Renewable Energy Action team, a joint effort of the California Department of Fish and Game, U.S. Fish and Wildlife Service, and BLM, was formed to oversee a Desert Renewable Energy Conservation Plan (DRECP) that seeks, among other things, to formulate a strategy for conserving Mojave and Colorado desert habitat and identify suitable mitigation measures in the face of large-scale solar energy development. Part of the DRECP process is to look at land ownership and other factors that could limit conservation opportunities.

The most disturbing issue in our view regarding the First Solar proposal and analysis— and one highly pertinent to the DRECP task— is highlighted in the 3-page Habitat Compensation Plan (Appendix H), which consists essentially of a "menu" of possibilities regarding how First Solar might mitigate impacts to biologically sensitive species and habitats. One of the main methods by which First Solar suggests it will mitigate impacts is through acquisition of land or conservation easements. **118-5**

Even if one accepts the legitimacy of off-site mitigation, which we do not, one has to wonder where and how much land is available that (a) would provide suitable replacement habitat, (b) is on private land, and (c) is owned by willing sellers. The California Desert District is comprised of 81 percent public land, with 19 percent private land including cities and towns and developed or cultivated areas.[1] We presume that finding any available private land to acquire for mitigation —let alone, with suitable characteristics—is going to be extremely difficult. Add to that the cumulative effect of numerous solar projects in the same deserts needing to acquire suitable habitat, and it simply doesn't seem possible that off-site mitigation is physically achievable. **118-5 cont**

The DRECP process could provide critical information to evaluate proposals for solar sites and whether there is any actual potential for mitigation in any form, but the DRECP has yet to complete the first step in its strategy, which is determining which species will be covered.[2] **118-5A**

However, one resource from the DRECP that offers important perspective on the mitigation question is a report submitted by the DRECP Independent Science Advisors.[3]

While agreeing that the California deserts have a high potential for solar energy development and that renewable energy must be pursued, the report states:

> Desert species and ecological communities are already severely stressed by human changes to the landscape, including urbanization, roads, transmission lines, invasive species, and disturbances by recreational, military, mining, and other activities. Additional stress from large-scale energy developments, in concert with a changing climate, portends further ecological degradation and the potential for species extinctions.
>
> Some of the [Advisors'] recommendations will take significant time and effort to address. This should not be used as an excuse to ignore recommendations or to delay the Plan to implement all recommendations. The planning team should determine which recommendations can and should be implemented immediately, and which should be implemented incrementally during planning or implementation. **We also strongly advocate using "no regrets" strategies in the near term—such as siting developments in already disturbed areas—as more refined analyses become available to guide more difficult decisions.**

The Science Advisors' report includes much more information that directly applies to the First Solar proposal and to any solar developments in these deserts, including its strong statement that <u>translocation and transplantation of species</u>, such as proposed by First Solar, is not a successful strategy.

> In most cases, translocations and transplantations have been used as "feel good" actions that are generally not effective at sustaining populations. Moreover, the practice has the potential to do more harm than good to populations of rare

[1] Email communication with David Briery, BLM California Desert District, November 24, 2010.
[2] Telephone conversation with Armand Gonzales, CDFG, November 22, 2010.
[3] http://www.energy.ca.gov/2010publications/DRECP-1000-2010-008/DRECP-1000-2010-008-F.PDF

species by increasing mortality rates and decreasing reproductive rates and genetic diversity.[4]

Conclusion

A near-tragic aspect of all of this is that there seems to be no dispute regarding the depth and breadth of the impacts industrial-scale solar factories will have on our desert ecosystems, whose ecological functions and native species already hang in tenuous balance. Our ultimate hope is that the Administration, with leadership coming from Interior and DOE, will make a hard turn away from the headlong, mistaken policy it is now pursuing—purporting to save the planet in the act of destroying critical pieces of it. Until that wiser policy is adopted, BLM can at least elect not to destroy this piece, and decline the right-of-way application by First Solar and find the site unsuitable for any future energy development.

Thank you for your consideration of these comments.

Sincerely,

Janine Blaeloch
Director

[4] Recommendations of Independent Science Advisors for The California Desert Renewable Energy Conservation Plan (DRECP), page 82. DRECP-1000-2010-008-F, October 2010. See footnote 3 for Web location.

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November 26, 2010

Allison Shaffer
Project Manager
Bureau of Land Management
1201 Bird Center Drive
Palm Springs, CA, 92264
CAPSSolarFirstSolarDesertSunlight@blm.gov

Dear Ms. Shaffer,

Please accept the following comments for the Draft Environmental Impact Statement for the First Solar, Desert Sunlight Solar Farm Project: CACA-48649

My name is Chris Clarke. For the last two decades I have been an environmental journalist and natural history writer, with a strong emphasis on the deserts of the American southwest. I am currently employed as Communications Consultant for the Desert Protective Council, a 501(c)3 desert advocacy organization based in San Diego. I serve on the Board of Directors of the Mojave National Preserve Conservancy, another a 501(c)3 which acts as the "friends of" group for the Mojave National Preserve.

These comments are my own, however, and are not offered on behalf of either of those organizations.

I have significant concerns over the medium- and long-term impacts of all three configurations of the Desert Sunlight Solar Farm (DSSF) as described in the DSSF Draft EIS and CDCA Plan Amendment, which concerns I feel remain unaddressed in the document. These concerns center around the impact to the desert ecosystem and the species it comprises as that ecosystem reacts to anthropogenic climate change of the type the project purports to address.

If political boundaries were drawn according to ecosystem lines, the Chuckwalla Valley would be included within the boundaries of Joshua Tree National Park (JTNP). As noted in the DEIS, the valley is surrounded on three sides by JTNP, tucked in between the main body of the Park to the west and the Coxcomb Mountains extension. Though the Chuckwalla Valley was excluded from the National Park due to historic settlement and industrial land use in the Eagle Mountain area, the DSSF site remains essentially undeveloped, with thriving habitat of both creosote shrubland and dry-wash microphyll woodland types. Significantly, the site's vegetative types are configured in bands with a generally north-south orientation that follow the channels of the southern reaches of the Pinto Wash drainage; bands of woodland alternate with bands of creosote shrubland.

As the earth's climate warms due to human use of fossil fuels, desert species will contend with increased heat, prolonged and accentuated drought, and wholesale changes in the ecosystems they depend on. Though the precise nature of those changes in any particular region are difficult to anticipate, the effect generally

will be that the boundaries of ecosystem types along the boundary between the Mojave and Sonoran deserts will shift northward.

Of the wildlife species in the JTNP region potentially sensitive to climate change, many will face the threat of depletion or extinction unless they can find either refugia at higher elevations in the park, or corridors for long-term migration northward.[i]

The Chuckwalla Valley is a critical linkage for those species in the eastern reaches of the JTNP, especially for those species associated with alluvial edaphic regimes or to which mountain ranges pose obstacles to long-term migration. Big Wash offers a relatively unobstructed route for such species from the Smoke Tree Wash/Cottonwood area of JTNP to the southwestern section of the Chuckwalla Valley, as - to a lesser extent - does the next wash north, between Big Wash and Buzzard Spring. The Chuckwalla Valley then in turn offers connective passage through the Pinto Wells area into the Pinto Basin within JTNP's northeastern extension, and thence from Clarks Pass northward into the Cadiz Valley and beyond.

More broadly, the Chuckwalla Valley similarly offers the corridor of least resistance by which species might migrate northward from the Colorado Delta area via the largely undeveloped alluvial plains within the Chocolate Mountains Aerial Gunnery Range and, perhaps to a lesser extent, via the heavily developed Salton Trough/Coachella Valley.

The Pinto Wells pass thus constitutes a bottleneck through which species might migrate from thousands of square miles of deserts to the south to the Cadiz-Bristol area in the southern Mojave Desert, from which a wide range of corridors are available for subsequent migration.

All three proposed configurations of the DSSF would permanently alter the majority of the undisturbed land remaining between Eagle Mountain and Desert Center,. This would in effect close the critical corridor for migration of individual organisms and thus of populations and species. The construction of DSSF could thus conceivably worsen long-term regional effects of the very climate change the project is intended to address. Additional corridors for movement do exist in the valleys to the east surrounding the Palen, McCoy, Big- and Little Maria mountains; however, it is worth noting that each of these potential corridors is similarly under review for expansive solar generating projects. The cumulative impact of all these sites on the desert's future adaptation to climate change may be truly devastating. **119-1**

The DEIS does not address this long-term issue. The document does address short-term migration issues in a handful of brief "Wildlife Movement or Nursery Sites" statements, but the importance of the site's footprint to wildlife is treated entirely in the present-tense, discussion of wildlife use of the area limited to whether a species currently frequents the site or may do so in the near future. As populations shift in response to climate change, the worst impact of the DSSF's construction may not be felt for decades, as species not heretofore using the site **119-2**

find their northward movement blocked and their populations languish along the southern edge of the project. Large mammal species, birds, and some reptiles may well be able to circumnavigate the site, but for some species mentioned in the DEIS such as the Colorado Valley woodrat (*Neotoma albigula venusta*), whose territories are generally less than a few acres and whose migration rates may thus be measured in miles per century, such a blockage could prove ultimately impassable. **119-2 cont**

The "Reduced Footprint Alternative" (Alternative 3) indeed lessens but in no way eliminates disruption of this important migration linkage. Were there no other options for siting the generation the DSSF would provide, this alternative might in fact prove the best course. But as the DSSF would generate electricity using thin-film photovoltaic (PV) solar cells, which can as efficiently be mounted on rooftops and in other places in the built environment, destroying even a smaller amount of the Chuckwalla Valley's intact habitat is on the face of it unacceptable. The DEIS describes the direct ground coverage by the PV cells of 1400 acres for the first two alternatives and 1037 acres for the second. Adequate potential sites for the same or greater surface area of PV exists within the built environment in Southern California, closer to demand for the power generated and thus avoiding the need for additional land disturbed for transmission lines. By way of example, the paved parking lot at the "Fairplex" (Los Angeles County Fairgrounds) in Pomona covers 250 acres, which could feasibly and conveniently be covered with the PV shade structures becoming increasingly common in Southwestern urban environments, not only generating power but reducing energy used for air-conditioning to cool autos that would have been parked in direct sun. Six such parking lots would exceed the surface area available for PV cells in Alternatives 1 and 2, and five would far exceed the area planned for Alternative 3. Suitable surface area for PV cells abounds in the Southwest's built environment: area sufficient to duplicate DSSF's planned 550-megawatt peak output could easily be covered with PV generation without making much of a dent in the total available rooftop area. Such an alternative would not destroy a single acre of desert wildland. **119-3**

As page 4.4-30 of the DEIS says,

Potential harm to individual special status wildlife species, including the desert tortoise; chuckwalla and rosy boa; bird nests, eggs, and young; roosting bats; and fossorial mammals such as the Palm Springs round-tailed ground squirrel, Colorado Valley woodrat, and American badger; during construction and decommissioning activities would be adverse and significant.

Given the completely feasible alternative of siting the precise technology DSSF would use in the built environment rather than in the Chuckwalla Valley, that adverse and significant harm to the above-mentioned species becomes unwarranted. It is for this reason that I urge the adoption of Alternative #5 as described in section 4.2.7 of the DEIS, the so-called "No Action with Plan Amendment [to bar future development]" alternative. Denying the project right-of-way and protecting this critical long-term species linkage is the only option **119-4**

that will adequately address the issue of climate change and its effects on the desert without damaging the very desert it is supposed to protect. Alternative 5 would prevent such harm to the above-mentioned species and to those species who might use the Chuckwalla Valley for future migrations critical to their survival. **119-4 cont**

Chris Clarke
1326 N. Vista St., #5
Los Angeles, CA 90046
(213) 254-5382

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[i] Analyses of Climate Change Sensitivity for the Reptiles of Joshua Tree National Park, Cameron Barrows, PhD.
Center for Conservation Biology, University of California, Riverside
http://www.wr.usgs.gov/workshops/ccw2010/posters/P35_climate%20change%20poster.pdf

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November 26, 2010

Bureau of Land Management, Palm Springs South Coast Field Office
1201 Bird Center Dr, Palm Springs, CA. 92262
CO: Allison Shaffer, Project Manager
CAPSSolarFirstSolarDesertSunlight@blm.gov

Re: Draft Environmental Impact Statement, Desert Sunlight Solar Farm, CACA 48649

Dear Ms. Shaffer:

My name is Javier DeLaGarza and I am the Southwest Solar Development Manager for enXco, a global energy developer of wind and solar resources. I am writing to enter a comment for public record on the Draft Environmental Impact Statement for the First Solar Desert Sunlight Solar Farm.

EnXco has an application CACA 049491 (Desert Harvest), adjacent to Desert Sunlight; enXco completed requisite studies to enter the EIS process in 2010 and is awaiting a Notice of intent to move forward. With the encouragement of BLM, enXco has worked with First Solar on a shared gen-tie line, in the route marked "GT-A-1" in the Desert Sunlight Draft EIS. Our pursuit of a shared gen-tie route will minimize cumulative impacts and ensure delivery of power for both companies. This letter is not an endorsement or an objection to the Desert Sunlight project; it is an update on our negotiation progress. **120-1**

EnXco first approached First Solar to consider a shared gen-tie at the request of BLM; the route we discussed is labeled "GT-A-1" in Desert Sunlight's Draft EIS and is currently described as a 220-kv single-circuit generation tie-line. The approved GT-A-1 line (Figure 2-19) will require an amendment to the California Desert Conservation Area (CDCA) Plan and will be subject to evaluation criteria on this basis. In light of permitting guidelines (eg. CDCA amendments) and policies governing transmission in the area, EnXco's analysis of Desert Sunlight alternatives suggests that the best opportunity to ensure the combined success of our projects is a shared gen-tie line. The benefits of mitigated land and visual impacts provided by our project's proximity and shared, existing road access encourages us to work diligently with First Solar and we look forward to signing a shared-use agreement in the future. We continue to seek input from First Solar, with encouragement from BLM and other stakeholders in the EIS process to find a mutually beneficial solution. **120-2**

Policies Supporting Shared-Use Agreements for Gen-Tie Agreements

In direct discussions and reading other firms' Draft EIS[1], enXco believes BLM's interest is to have energy projects on public lands co-locate and/or share gen-tie lines. In the Solar Millennium Blythe (BSPP) Draft EIS, BLM asked the applicant to provide connectivity analyses around the project site, for use by other proposed projects. Although we have not seen a request for Desert Sunlight, we encourage BLM to request the same analysis from First Solar. Meanwhile, enXco will submit corridor analyses of the GT-A-1 route for its own Draft EIS, which the company is ready to begin in 2011. **120-3**

The Western Electricity Coordinating Council (WECC) also has a policy related to co-location, stipulating that separate transmission lines should be separated by a distance no less than the longest span length between two poles. In the case of Desert Sunlight, a proximate, WECC-conforming gen-tie line would be

[1] From BLM's Blythe Solar Power Plant Draft EIS, Section 4.6-5, Impacts on Land and Realty

900 – 1,100 ft away. Within the GT-A-1 route, that distance does not exist and without a shared gen-tie agreement, EnXco may not be able to pursue this least-cost, best-fit alternative for its own project.

EnXco and its Desert Harvest team continue to work with First Solar, BLM and state and federal resource agencies, to ensure our project is successful and minimizes cumulative impacts. Our negotiations on a shared gen-tie line are an example of that commitment and work. We appreciate the opportunity to comment on the Desert Sunlight project and look forward to continuing our important work with the BLM South Coast Field Office.

Kind Regards,

Javier DeLaGarza
Solar Development Manager
enXco – an EDF Energies Nouvelles Company
4000 Executive Parkway, Ste 100 | San Ramon, CA | 94583
t: 925.242.0168

121

Jared Fuller
<jgillenfuller@yahoo.com>
11/26/2010 07:35 PM

To CAPSSolarFirstSolarDesertSunlight@blm.gov
cc
bcc
Subject First Solar Desert Sunlight DEIS comment

This solar energy project is not necessary due to the habitat fragmentation and ecological disturbance it would cause. Because the project plans call for photovoltaic technology, an alternative using a more distributed approach located on disturbed lands in private or other ownership should be well within the range of feasibility. 121-1 121-2

First, the northwest portion of the project area is in higher quality desert tortoise habitat. This habitat should not be destroyed unnecessarily. The project should be more narrowly tailored to avoid any such habitat. 121-3

Second, the project area is located within the immediate vicinity of Joshua Tree National Park. Development of the project would place an industrial landscape within the direct view of areas within the park. 121-4

Third, and perhaps most importantly, the project area is home to some of the westernmost populations of Koeberlinia spinosa and Castela emoryi, two species of crucifixion thorn. These populations are likely relictual and spread only slowly, if at all. The project would likely result in a permanent loss of this valuable habitat resource. Use of such habitat area where there area other areas without such sensitive populations does not seem to be the best use of the land. 121-5

In sum, the potential benefits of this project, particularly when a similar project could be located in a less sensitive area, are greatly outweighed by ecological and other environmental considerations. Any extra expense of distributed generation would be well worth the cost to preserve the ecological qualities of the area and prevent habitat fragmentation. 121-6

Thank you,

Jared Fuller
636 W. 200 S.
Provo, UT 84601

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Western Watersheds Project

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Working to protect and restore Western Watersheds

November 24, 2010

By Email

Allison Shaffer, Project Manager
Bureau of Land Management
Palm Springs-South Coast Field Office
1201 Bird Center Drive
Palm Springs, CA 92262

< CAPSSolarFirstSolarDesertSunlight@blm.gov >

Re: Draft Environmental Impact Statement and California Desert Conservation Area Plan Amendment for the Proposed First Solar Desert Sunlight Solar Farm Project, Riverside County, California. August 2010.

Dear Ms. Shaffer:

On behalf of Western Watersheds Project and myself, please accept the following comments Draft Environmental Impact Statement and California Desert Conservation Area Plan Amendment for the Proposed First Solar Desert Sunlight Solar Farm Project.

Western Watersheds Project works to protect and conserve the public lands, wildlife and natural resources of the American West through education, scientific study, public policy initiatives, and litigation. Western Watersheds Project and its staff and members use and enjoy the public lands, including the lands at issue here, and its wildlife, cultural and natural resources for health, recreational, scientific, spiritual, educational, aesthetic, and other purposes.

Western Watersheds Project recognizes that global climate change poses new challenges to our already stressed public lands. While climate change threatens biodiversity and entire fragile ecosystems, our response to climate change also threatens our public lands and their wildlife. Accordingly, Western Watersheds Project supports responsible development of renewable energy projects. Responsible development requires the use of comprehensive, ecologically sound, science-based analysis in determining where renewable energy projects should be sited. Energy developments should focus on private or severely altered lands that are located close to points of use to minimize new disturbance or further fragmentation of fragile, native ecosystems. Ecological impacts from renewable energy project development should be fully mitigated with significant and lasting actions such as land/habitat acquisition, habitat restoration, and the reduction of existing negative impacts including the permanent retirement of grazing permits.

As we reiterated in our February 12, 2010 scoping comments, this solar photovoltaic generating facility project will have direct, indirect and cumulative impacts on some of the desert's most sensitive resources including species listed under the Endangered Species Act such as desert tortoise, air quality, biological resources, recreation, cultural resources, water resources, geological resources, special management areas, land use, noise, paleontological resources, public health, socioeconomic, soils, traffic and transportation, and visual resources. We offer the following specific comments on the DEIS that need to be addressed by the BLM.

(1) Purpose and Need. 122-1

The BLM's statement of purpose and need for this project so narrowly defined that it severely constrains any analysis of meaningful alternatives that would have fewer environmental impacts than constructing the proposed power plant on public lands. The DEIS at 1-7 states,

> The BLM's purpose and need for the Proposed Action is to respond to Sunlight's application under Title V of the FLPMA (43 USC 1761) for a right-of-way (ROW) grant to construct, operate, maintain, and decommission a utility-scale 550-MW PV solar energy facility (Solar Farm), Gen-Tie Line, and a 500/220-kV substation on public lands, in compliance with FLPMA, BLM ROW regulations, and other applicable federal laws. The BLM will decide whether to approve, approve with modifications, or deny issuance of a ROW grant to Sunlight for the proposed DSSF Project and the related assignment of any ROW grant for the substation to SCE. The BLM's actions will also include concurrent consideration of amending the CDCA Plan of 1980, as amended.

The BLM buttresses its purpose and need by claiming that "The Energy Policy Act of 2005...requires the DOI (BLM's parent agency) to approve at least 10,000 megawatts of non-hydropower renewable energy power on public lands by 2015." DEIS at 1-8. But the Energy Policy Act does not <u>require</u> this at all but expresses the sense of Congress that Secretary "should seek" to do so. It is an encouraged not a mandated. 122-2

(2) Range of Alternatives. 122-3

The NEPA implementing regulations specify that NEPA documents must analyze a full range of alternatives including "reasonable alternatives not within the jurisdiction of the lead agency" (40 C.F.R. § 1502.14). Based on the information and analysis presented in the sections on the Affected Environment (40 C.F.R. § 1502.15) and the Environmental Consequences (40 C.F.R. § 1502.16), the NEPA document should present the environmental impacts of the proposed action and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public

In our scoping comments, we had asked the BLM to consider alternatives that meet the project goals and not simply propose "straw man" alternatives that can then be dismissed from

further consideration in order to comply with the spirit and letter of NEPA. We suggested the following reasonable alternatives in addition to any proposed action: 122- 3 cont

(a) No Action Alternative as is required by NEPA.
(b) Public lands that are not desert tortoise habitat.
(c) A private lands alternative under which the project is built on private lands only.
(d) A distributed energy alternative using "roof top" solar to avoid the need for construction of a power plant.

We suggested these alternatives to clarify the need for the proposed project, to provide a baseline for identifying and fully minimizing resource conflicts, to facilitate compliance with the BLM's FLPMA requirement to prevent the unnecessary and undue degradation of public lands and its resources, and to provide a clear basis for making an informed decision.

The BLM has illegally dismissed our alternatives (c) and (d) from further consideration. 122-4 These alternatives are meant to achieve the goals of the project. For the private lands alternative, BLM argues that the applicant would have to buy the land and acquire multiple parcels which would be costly and time-consuming. But by that token, the BLM will never consider private land alternatives for projects.[1] This is not in keeping with the spirit or intent of NEPA. BLM provides no logical rationale for dismissing the distributed energy alternative. Use of distributed energy to produce the 550-MW is an alternative to building this specific project and should be analyzed as such. Whether or not distributed energy can meet California's entire Renewables Portfolio Standard is irrelevant. The proposed action will not to meet California's Renewables Portfolio Standard either. Use of distributed energy would eliminate the impacts of both the proposed power project and the transmission infrastructure needed to support it.

(3) The Description of Alternatives 5 and 6 is Unclear.

The description of Alternatives 5 and 6 is unclear and must be clarified. Chapter 2 122-5 describes these alternatives as:

> Alternative 5—No Issuance of a Right-of-Way Grant with Land Use Plan Amendment to Identify the Area as Unsuitable for Solar Energy Development (No Action with Plan Amendment); and
> Alternative 6—No Issuance of a Right-of-Way Grant with Land Use Plan Amendment to Identify the Area as Suitable for Solar Development (No Action with Plan Amendment) DEIS at 2-6.

The term "Area" for alternatives 5 and 6 is further defined on DEIS page 2-61 as the "Project Study Area" ("the CDCA plan would be amended to make the Project Study Area unavailable for large-scale solar energy development" etc). The Project Study Area consists of 19,516 acres. DEIS at 3.3-5.

[1] It also raises questions over the feasibility of acquisition of replacement habitat to actually mitigate impacts to biological resources.

However, in chapter 4 (DEIS at 4.4-39 and 4.4-40) the alternatives are described as: 122- 5 cont

> Alternative 5 – No Issuance of a Right-of-Way Grant with Land Use Plan Amendment to Exclude Solar Energy Development on the Site (No Action with Plan Amendment)
>
> Alternative 6 – No Issuance of a Right-of-Way Grant with Land Use Plan Amendment to Allow Solar Development on the Site (No Action with Plan Amendment)

The description of Alternatives 5 and 6 here relates to the project site not to the Project Study Area. Indeed, the analysis that is presented for Alternative 6 concludes "this No Action Alternative could result in biological impacts similar to the impacts under the Proposed Project." The area of disturbance in the proposed project is 4,391 acres. If this proposed project disturbance area is the only area within the Project Study Area that is proposed for exclusion or allowance of solar energy development then the cumulative effects analysis must reflect potential impacts posed by development in the rest of the Project Study Area.

(4) Desert Tortoise.

122-6

The proposed action will directly, indirectly and cumulatively impact the federally listed desert tortoise. Although the species has been listed for over 20 years and desert tortoise populations are declining throughout its range, the DEIS failed to consider any alternative location for this project that would avoid desert tortoise habitat.

122-7

The proposed project site is in California's Colorado Desert within the Eastern Colorado Desert Tortoise Recovery Unit. Although this area was proposed for inclusion in the Joshua Tree DWMA in the 1994 Desert Tortoise Recovery Plan (see Figure 7), the BLM excluded it in the 2002 NECO Plan. The project site is immediately adjacent to the Chuckwalla Desert Wildlife Management Area (DWMA) and lies between the BLM's DWMA and Joshua Tree National Park. The proposed project site provides habitat connectivity between the Chuckwalla DWMA and Joshua Tree National Park. The proposed project site also provides connectivity between the Eastern Colorado Recovery Unit and West Mojave Recovery Unit's Pinto Basin. Disruption of this connectivity could reduce gene flow and impair desert tortoise recovery. The DEIS pays lip-service to connectivity (see 3.4.5 Wildlife Corridors) but provides no site specific analysis. Although the DEIS admits the proposed action may impact connectivity, it provides no mitigation for this. Despite specific requests to do so, the DEIS fails to address the importance of the habitat connectivity provided by this site in the context of climate change.

122-8

In fact, the entire mitigation package for desert tortoise and all affected wildlife is vague. The desert tortoise section references the vegetation section "removal of 4,245 acres of potential habitat for the species (creosote desert scrub and desert dry wash woodland) would have direct effects on the local desert tortoise population. Implementation of the Habitat Compensation Plan required in Applicant Measure BIO-1 discussed in Section 4.3, Vegetation, would reduce these impacts." DEIS at 4.4-6. However, Section 4.3 is not illuminating – it states, "The precise details of the mitigation, including mitigation ratios, will be established in the BLM ROW grant,

USFWS Biological Opinion, and CDFG 2080.1 Consistency Determination. The draft plan is provided in Appendix H." DEIS at 4.3-17 - 4.3-18. 122-8 cont

Despite specific requests to do so, the DEIS does not estimate the number of tortoises on the site, in the project study area, or at any relocation sites that would be impacted. 122-9

The project will directly, indirectly and cumulatively impact desert tortoises. These impacts include habitat loss; habitat disturbance; fragmentation of habitat and decreased viability of fragmented populations; loss of connectivity; potential increases in predators such as ravens and coyotes; introduction, establishment and spread of invasive plants and weeds; increased fire risk; increased human presence; and increased use of roads. 122-10

(5) Desert Bighorn Sheep.

The proposed project will have direct, indirect, and cumulative effects on Nelson bighorn sheep that use the site on a seasonal basis for foraging, drinking, and movement. The proposed project site is located between the Eagle Mountains and Coxcomb Mountains bighorn sheep demes and provides connectivity for bighorn sheep moving between them. The NECO Plan has a biological goal of maintain habitat connectivity within and between bighorn sheep demes and requires "Installation of new roads, fences and other linear projects will be mitigated to consider passage of bighorn sheep" [NECO Plan at 2-44]. 122-11

The DEIS concludes, "Implementation of the Habitat Compensation Plan required in Applicant Measure BIO-1 discussed in Section 4.3, Vegetation" would reduce impact to bighorn sheep and other species." DEIS at 4.4-15. But as discussed above, the draft Habitat Conservation Plan does not even specify the mitigation ratio for habitat acquisition let alone propose specific mitigations to offset the loss of connectivity. 122-12

(6) Palm Springs Round-tailed Ground Squirrel.

The proposed project site is occupied habitat for the Palm Springs round-tailed ground squirrel (Spermophilus tereticaudus chlorus). The Palm Springs round-tailed ground squirrel has been eliminated from much of its range by development and habitat disturbance. Primary habitat for the Palm Springs round-tailed ground squirrel is the dunes and hummocks associated with Prosopis glandulosa var. torreyana (honey mesquite). Honey mesquite is sensitive to ground water depletion. The USFWS[2] identifies both development and lowering of ground water levels as threats to this species. 122-13

The DEIS fails to address impacts to honey mesquite from localized groundwater withdrawal and the effects on Palm Springs round-tailed ground squirrel.

The Palm Springs round-tailed ground squirrel was not a considered species in the NECO Plan. Despite this, the DEIS has failed to analyze the cumulative effects all activities authorized 122-14

[2] Federal Register Vol. 75, No. 217 Wednesday, November 10, 2010 at 69228.

under the NECO Plan on the squirrel. This is required to ensure that BLM comply with its own sensitive species policies to avoid propelling the listing of special status species. 122-14 cont

(7) Burrowing Owl, Golden Eagle and Raptors.

The proposed project site is occupied habitat for burrowing owl (Athene cunicularia). The NECO Plan requires the BLM to "Limit construction activity period to September 1 – February 1 if burrowing owls are present in a project area" (NECO Plan at 2-56). 122-15

The DEIS indicates that there are six active golden eagle territories within a 10-mile radius of the proposed project with the closest only 1.5 miles from the proposed solar power plant boundary, and an eagle was seen flying over the Red Bluffs substation site (DEIS at 3.4-20, 21). The proposed solar power plant will reduce foraging habitat and prey availability for these eagles. Yet again the DEIS references the incomplete Habitat Compensation Plan. The DEIS must describe the specific strategy by which impacts to golden eagle and other raptors are minimized and mitigated. 122-16

(8) Other Special Status Species.

The NECO sensitive, CRPR List 2.2 Harwood's milk-vetch (Astragalus insularis var. harwoodii) occurs in scoured washes (at Corn Springs for example). The DEIS should outline the surveys that were conducted for Harwood's milk-vetch in the major washes within the proposed site. 122-17

A number of other special status species of wildlife and rare plants occur on the project or in the vicinity including the Coachella Valley Milkvetch (Astragalus lentiginosus var. coachellae), crucifixion thorn (Castela emoryi), California ditaxis (Ditaxis serrata var. californica), foxtail cactus (Coryphantha alversonii), desert devil's claw (Proboscidea althaeifolia), Mojave fringe-toed lizard (Uma scoparia), chuckwalla (Sauromalus ater), California leaf-nosed bat (Macrotus californicus), mountain lion (Puma concolor), prairie falcon (Falco mexicanus), mountain plover (Charadrius montanus), LeConte's thrasher (Toxostoma lecontei), Loggerhead Shrike (Lanius ludovicianus), and burro deer (Odocoileus hemionus eremicus). 122-18

The DEIS should provide an outline of the specific mitigations that will offset impacts to each of these species.

(9) Desert Washes, Ephemeral Streams, and Water.

Desert washes, drainage systems, and washlets are critical habitat components for wildlife and plants in arid lands. Water concentrates in such places, creating greater cover and diversity of shrubs, bunch grasses, and annual grasses and forbs. The topography is often more varied, as are soil types and rock types and sizes, creating diverse sites for burrows, caves, and 122-19

other shelters. The resulting "habitats" tend to attract more birds, mammals, reptiles, and invertebrates. For example, desert tortoises spend disproportionately more time in washes than they do on "flat" areas.[3] Soil erosion on low fill slopes and steeply graded areas could result in sedimentation of water bodies. Changes in hydrology, soil and sand movements may impact rare plants and habitats for sensitive species, and may impact burrowing species such as the desert tortoise. 122-19 cont

A portion of Eagle Creek and two tributaries to Big Wash cross the project site. The DEIS does not describe and analyze the effects of the project on these desert washes and their functionality within the drainage and watershed. Although the applicant will be required to complete a stream bed alteration agreement, the DEIS fails to even summarize the mitigation apparently because this has not been agreed to. The FEIS should include a full analysis of the effects of the proposed project and each of the alternatives on natural drainages. This can then provide the basis for determining the adequacy of proposed mitigations. 122-20

Sunlight's groundwater flow modeling results indicated that drawdown at the pumping well could range from about 5 feet to 17.8 feet, depending on the characteristics of the aquifer. DEIS at 4.17-5. The BLM should explain the consequences of these scenarios on important local habitats including honey mesquite and microphyll woodlands. 122-21

(10) Global Climate Change.

Department of the Interior Order No. 3226 mandates that the BLM must consider the impacts of each proposed alternative with respect to global climate change in its NEPA reviews. We had recommended that the BLM use the recently released USGS desert tortoise habitat model to determine likely changes in desert tortoise habitat quality in the area and the importance of the desert tortoise habitat with respect to climate change. The DEIS did not analyze the impacts climate change on any species or their habitats. This must be addressed in the FEIS. 122-22

(11) Cumulative Effects.

The BLM must address the cumulative effects of loss of habitat for sensitive species due to the proposed project and the many other projects that use and degrade habitat, and their ability to respond to climate change. This is required if BLM is to comply with FLPMA. The FEIS should also analyze the cumulative effects to the other solar energy zones of approving or disapproving of this project with is located in one of the possible solar energy zones in the BLM's yet to be completed Programmatic Environmental Impact Statement to Develop and Implement Agency-Specific Programs for Solar Energy Development. 122-23

[3] Jennings, B.J. 1997. Habitat Use and Food Preferences of the Desert Tortoise, Gopherus agassizii, in the Western Mojave Desert and Impacts of Off-Road Vehicles. Proceedings: Conservation, Restoration, and Management of Tortoises and turtles—An International Conference, pp. 42–45. New York Turtle and Tortoise Society.

Western Watersheds Project thanks you for the opportunity to comment on the DEIS for this proposed solar power plant project. If we can be of any assistance or provide more information please feel free to contact me by telephone at (818) 345-0425 or by e-mail at <mjconnor@westernwatersheds.org>.

Yours sincerely,

Michael J. Connor, Ph.D.
California Director
Western Watersheds Project
P.O. Box 2364
Reseda, CA 91337

123

barbara daddario
<barbied718@optonline.net>
11/27/2010 02:43 PM

To CAPSSolarFirstSolarDesertSunlight@blm.gov
cc
bcc
Subject Desert Sunlight Solar project

Dear Ms. Shaffer;

I am writing to voice my concerns and disapproval for the proposed "Desert Sunlight" solar energy project. There is no justification for destroying undisturbed, pristine desert habitat for this project. Many alternative sites are available which would utilize blighted or overgrazed land tracts, and avoid permanent destruction of this pristine desert tortoise habitat near the Joshua Tree National Park. Many recent surveys of endangered desert tortoise populations for these projects have been seriously underestimating tortoise numbers, and it would be advisable for the BLM to do a thorough assessment of tortoise numbers before selecting a preferred project layout. These decisions are too important, and the consequences too long-lasting, to rely upon hasty or poorly conducted research. I urge you to please consider carefully, and to reject the proposed plan for this ill-conceived "Desert Sunlight" project. 123-1 123-2

Thank you kindly for your time and consideration.

Best Regards,
Barbara Daddario
Mamaroneck, NY

124

Claudia Sall
PO Box 37
Pioneertown, CA 92268

November 26, 2010

Allison Schaffer, Project Manager
Bureau of Land Management
1201 Bird Ave
Palm Springs, CA 92262

Dear Ms. Schaffer

Re: First Solar Desert Sunlight

I welcome the opportunity to provide public comments on this project and to influence the environmental processing of this project's application.

BLM staff has acknowledged that this project will adversely affect residents and their quality of life and that the department is at a loss of how to mitigate the human impacts. Moreover, the BLM as a participating member of the Desert Renewable Energy Conservation Plan [DRECP] impaneled independent science advisors to offer sound scientific guidance for renewable energy planning. These advisors produced a report now published on the DRECP website and disclosed that there is lack of a comprehensive and dependable land use core base and maps of rare, localized and unique communities. Subsequently, the advisors urged members of the DRECP to site renewable energy projects on already disturbed and degraded lands and to consider a "no regrets" strategy for the near term in deciding which and where renewable energy projects should be approved.

Concerns that have emerged about this project's effects of wildlife, air quality and night skies have been exacerbated by its near proximity to a federal wilderness area, the Joshua Tree National Park. This solar plant falls within what is the Park's natural buffer zone and will create human edge effects onto that same Park. 124-1

With the project being sited more than several miles from existing transmission, several new avenues of secondary transmission are being proposed: one that would bisect the Chuckwalla DWEMA with new poles and accompanying roads and another through an undisturbed wash. Transmission lines as noted in the DRECP report come with a variety of unsavory effects on wildlife: unwelcomed ravens nesting on the poles and predating on wildlife in the DWEMA, esp. Desert Tortoise, and interruption of wildlife in their travel corridors by the accompanying service roads which in turn induce unauthorized off road travel. Golden eagles have been observed near the siting of this project. The DRECP science panel noted that golden eagles are a protected species and recommended that they should be added to the DRECP protected list as "they are susceptible to disturbance by humans and is vulnerable to collisions with power lines" and will be competing with the introduced ravens for food sources.

Joshua Tree National Park enjoys the reputation as one of the top worst air quality national parks in the nation and Park staff has been challenged to reverse the problem. It is known that the project sited so near the Park boundary will further denigrate the air quality but it is not known whether that effect will be lasting. Surely, the BLM should be a partner in protecting the designated wilderness of their sister agency and should avoid worsening the Park's air quality. I refer again to the DRECP report cautioning a "no-regrets" strategy and the advice to avoid de-vegetating native landscape and the air quality problems that accompany that practice. **124-2**

Similarly, the protection of the Park's night skies is a choice within the hands of BLM. The project is sited near the darkest part of Joshua Tree National Park and it is known that at least while construction is on going, night skies will be affected, but what is not known is whether the nighttime glint of the project will introduce a permanent source of light during full moon periods. However it is strongly suspected that this glint will adversely affect avian migration in the Pacific flyway and possibly other wildlife migration. **124-3**

Additionally, I would like to see a few small but significant changes in the general EIR documents for renewable energy project. First, I recommend that the mis-application of the term "farm" be dropped when describing solar installations and replaced with the more appropriate term of "plant", i.e. solar plant. The misnomer of "solar farm" trades on **124-4**

the public's appreciation of farms and is likened to the value of growing of crops, while "solar plant" more accurately describes an installation for energy production. Such misuse is sinister and may be overlooked when employed by corporations to lobby a more favorable, innocuous view of solar installations, but BLM should reject such an inaccurate and inappropriate label. BLM's use of "solar farm" rather than "solar plant" suggests that the department is compromised in its ability to conduct an objective NEPA process. Secondly, I would also like to see the department include the number of miles in parenthesis next to the number of acres of a project: e.g. 4500 acres [7 sq. miles], because the public is familiar with the scale of traditional energy generation plants but is unfamiliar with the scale of the renewable energy projects. **124-4 cont** **124-5**

In closing, I am deeply concerned about the siting of this project and the report of the DRECP substantiates my concerns. I recommend that the selection of Alternative 5, or the no action alternative because this project will be detrimental to Joshua Tree National Park and to its mission: it will significantly adverse wildlife, air quality and dark skies. **124-6**

Sincerely,

Claudia Sall

RIVERSIDE COUNTY FIRE DEPARTMENT

IN COOPERATION WITH
THE CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION

John R. Hawkins ~ Fire Chief
210 West San Jacinto Avenue ~ Perris, CA 92570
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PROUDLY SERVING THE UNINCORPORATED AREAS OF RIVERSIDE COUNTY AND THE CITIES OF:

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DISTRICT 4

MARION ASHLEY
DISTRICT 5

November 26, 2010

Bureau of Land Management
Palm Springs South Coast Field Office
Allison Shaffer
1201 Bird Center Drive
Palm Springs, CA 92264

Re: Draft Environmental Impact Statement and California Desert Conservation Area Plan Amendment for the Proposed First Solar Desert Sunlight Solar Farm Project, DOI Control No. FES 10-39, NEPA Tracking # DOI-BLM-CA 060-0009-0033-EIS, BLM Case File Number CACA # 48649

Dear Ms. Shaffer,

Thank you for providing the Riverside County Fire Department the opportunity to review the Environmental Impact Statement for the proposed First Solar Desert Sunlight Solar Farm project.

With respect to the referenced project, the Riverside County Fire Department has the following comments.

The proposed project will have a cumulative adverse impact on the Fire Department's ability to provide an acceptable level of service. These impacts include an increased number of emergency and public service calls due to the increased presence of structures, traffic, population and construction activity . The proponents/developers shall participate in the Development Impact Fee Program as adopted by the Riverside County Board of Supervisors to mitigate a portion of these impacts. This will provide funding for capital improvements such as land, equipment purchases and fire station construction. The Fire Department reserves the right to negotiate developer agreements associated with the development of land and/or construction of fire facilities to meet service demands through the regional integrated fire protection response system. **125-1**

Mitigation measures, as defined by the County of Riverside, should be considered in order to help reduce these impacts to a level below significance. Examples of mitigation measures might include: **125-2**

- Developer participation in land acquisition and fire facility construction;
- Equipment upgrade and/or purchase; ***(i.e. "Type 1" Fire Engine and a 100' Aerial Ladder Truck)***.
- Participation in a fire mitigation fee program which would allow one-time capitol improvements such as land and equipment purchases, and construction development.
- Participation in the cost of adding additional personnel.

Costs necessary to maintain the increased level of service may be at least partially offset by taxes acquired by the new construction; however additional funding sources may have to be identified to cover any shortfalls. **125-3**

It is expected that costs will change over time and therefore each funding mechanism employed shall include a method for adjusting the amount of funding to reflect current costs at the time of construction.

All water mains and fire hydrants providing required fire flows shall be constructed in accordance with the appropriate sections of Riverside County Ordinance No. 460 and/or No. 787, subject to review and approval by the Riverside County Fire Department. **125-4**

Fire flow requirements within commercial projects are based on **square footage and type of construction** of the structures. The minimum fire flow for **any** commercial structure is **1500** gallons per minute, at a residual operating pressure of 20-psi, and can rise to **8000** gallons per minute, (per Table A-lll of the California Fire Code). **125-5**

The proposed project land use would be a Category 4 – Outlying. The 3 nearest Fire Stations that would respond to an incident are: **125-6**

RCO Station # 49, Lake Tamarisk, 43880 Lake Tamarisk, Desert Center, CA 92239

RCO Station # 45, Blythe Air Base, 17280 W., Hobson Way, Blythe, CA 92225

RCO Station # 43, Blythe , 140 West Barnard Street, Blythe, CA 92225

All the above mentioned RCO Fire Stations are staffed full-time, 24 hours/7 days a week, with a minimum 3 person crew, including Paramedics, operating "Type-1" structural fire fighting apparatus.

Based on the adopted Riverside County Fire Protection Master Plan, the Category 4 – Outlying specifies that a full alarm assignment be operating on the fire ground within thirty (30) minutes and the fire station to be located within eight (8) miles. The primary station serving this area would ***not*** be within the 8 mile objective. From the above listed fire stations, the first unit should arrive within 16-18 minutes after dispatch, the second within 55-57 minutes and the third between 61-63 minutes. These times are approximate and currently ***do not*** meet the Outlying Land Use protection goals. **125-7**

Current minimum staffing levels of 3 persons per responding unit presently meet existing demands. As with any additional construction within a response area, a **"cumulative"** increase in requests for service will add to the Fire Department's ability to provide adequate service. **125-8**

Based on the adopted Riverside County Fire Protection Master Plan, one new fire station and/or engine company is recommended for every 2,000 new dwelling units and/or 3.5 million square feet of commercial/industrial occupancy. Given the project's proposed development plan, up to ___ONE__ fire station MAY be needed to meet anticipated service demands. The Fire Department reserves the right to negotiate developer agreements associated with the development of land and/or construction of fire facilities to meet service demands through the regional integrated fire protection response system. **125-9**

FLAG LOTS WILL NOT BE PERMITTED BY THE FIRE DEPARTMENT. **125-10**

In the interest of Public Safety, the project shall provide an Alternate or Secondary Access(s) as stated in the Transportation Department Conditions. Said Alternate or Secondary Access(s) shall have concurrence and approval of both the Transportation and Fire Departments, and shall be maintained through out any phasing. **125-11**

The California Fire Code outlines fire protection standards for the safety, health, and welfare of the public. These standards will be enforced by the Fire Chief. **125-12**

If I can be of further assistance, please feel free to contact me at (951) 940-6349 or e-mail at jason.neumann@fire.ca.gov.

Sincerely,

Jason Neuman

Fire Captain
Strategic Planning

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To whom it may concern:

After attending the First Solar, BLM presentation in Desert Center, CA we, the officers of the Desert Center Area Chamber of Commerce, were surprised by some of the changes. We do not support the primary route they are choosing for their power lines. Their primary route (A1) runs straight down Kaiser road on the West side from the curve, past Lake Tamarisk down to just before Desert Center, then takes a left (east) across Kaiser behind Chavez tire (cell tower) property across the tip of the triangle across 177 behind the east side of Ragsdale property and Coyote Springs trailer park, then across the freeway to the relay station. **126-1**

Their other option (B1) was down Eagle Mountain road and across the freeway. That was stopped by the ecologist and archeologist because they want to transplant turtles to the area between Kaiser and Eagle Mountain Road, and it cuts across a Patton camp site.

We do not approve of where they are choosing to transplant the turtles either. It is used too much by locals and tourists and is not as conducive for successful turtle safety. We feel any location south of the freeway is safer and provides better food and water supplies for the turtles. **126-2**

(A2) runs down the existing power line road on the east side of Lake Tamarisk through Jojoba fields out to the freeway, which in my opinion is the most practical solution. We realize there are concerns with private property that it runs through, but we are more than willing to help in that regard in order to reroute the power lines to a path that is in the best interest of the community and economy of our valley. **126-3**

1) It runs along the most densely populated area in the valley which can raise health and safety issues. **126-4**

   There are residual effects that we have experienced when riding our bikes and off road vehicles along these power line roads, causing electrical shocks. They do put off a low hum that for those living closest to them could cause some noise concerns. With the potential of micro bursts during our summer monsoon, it could cause a line to be severed and create safety issues. We have walkers, hikers, bike riders, and off road riders who could be affected by these issues, especially our senior visitors who walk and ride their bicycles along that path daily.

2) It runs in front of and across our only commercial property on the west side of the valley which could have a long term effect on future commercial and industrial growth, affecting the long term economy of the valley. 126-5
What available commercial property is very limited and contained along our main roads Kaiser and Hwy 177. You limit the commercial value and use of the land by blocking the entrance with these excessively large power lines, destroy the visual appeal of the property, and place the long term economy of the valley in jeopardy by cutting through our most valuable commercial property. By placing it along the A2 route it runs along an existing power line road through farm land that is accustom to power lines being there and have no major populations running along it.

3) Our largest selling point is our unadulterated view of the desert valley. 126-6
The location of the powerlines would cut the view in half and could affect long term tourism growth, affecting the long term economy of the valley. When driving down the freeway there is a long undisturbed view of the desert valley. This is our most valuable asset. The current telephone poles blend into the scenery, but the size and makeup of the power lines you wish to place will cut the view in half. All you will notice is the tall medal monstrosities that divide the valley in half. There is no way to disguise them. By moving the line to the A2 location along the existing power line road, you reduce the effect of this. It runs at a lower point in the valley floor helping to reduce the effect on the surrounding mountains and is along an existing power line road that will not create any new roads in the desert scenery disturbing the plant and animal life.

We cannot in good conscious support your project as long as the power lines run down Kaiser Road. If they were moved to the secondary route A2, We would be more willing to lend our support to this project. We understand you are a business whose goals are to make money. We asThe Desert Center Area Chamber of Commerce are in the same business for this valley. Your route threatens the long term growth and economy of our valley and we are pleading to you as the representatives of local business owners to please change your route to A2.

Sincerely,

Renee W. Castor

Chairman of Desert Center Area Chamber of Commerce

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Hamid.Arshadi@sce.com
11/24/2010 09:32 AM

To capssolarfirstsolardesertsunlight@blm.gov
cc Allison_Shaffer@blm.gov, Angela.Whatley@sce.com, CAPSSolarFirstSolarDesertSunlight@blm.gov, Daniel.Duke@sce.com, Gary.Dudley@sce.com,
bcc
Subject Re: SCE Comments to DEIS/CDCA for DSSF Project, BLM Case File # CACA 048649

History: This message has been replied to.

Dear Ysmael,

Again, my apologies for any inconveniences it might have caused.

Please note attached a pdf version of the Southern California Edison's comments to the Draft Environmental Impact Statement (DEIS) and Draft Plan Amendment to the California Desert Conservation Area (CDCA) for the Desert Sunlight Solar Farm (DSSF) Project. Please let me know if you would have problem opening the attached document. I would also forward a copy via facsimile and via overnight delivery.

Regards,

Hamid Arshadi, CPM
Major Project Organization
Renewables and Generator Interconnections
Southern California Edison
Direct: (626) 302-7151 PAX: 27151
hamid.arshadi@sce.com

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From: capssolarfirstsolardesertsunlight@blm.gov
To: Hamid.Arshadi@sce.com
Cc: Angela.Whatley@sce.com, CAPSSolarFirstSolarDesertSunlight@blm.gov, Daniel.Duke@sce.com, Gary.Dudley@sce.com, Kenneth.Spear@sce.com, Rubria.Wilson@sce.com, Allison_Shaffer@blm.gov, Holly_Roberts@blm.gov
Date: 11/24/2010 08:48 AM
Subject: Re: SCE Comments to DEIS/CDCA for DSSF Project, BLM Case File # CACA 048649
Sent by: Ysmael_Wariner@blm.gov

Hamid Arshadi,
The Word document file you have attached to this email is corrupted and some of your table information were missing. Please repair the document file and/or remove any coded security functions that may have been added to the document, and try to re-send it. Please contact us if you have any questions.

Thank you.

Ysmael Wariner
Business Support Assistant
BLM Palm Springs / South Coast Field Office
1201 Bird Center Drive
Palm Springs, CA 92262
Phone: 760-833-7151

Hamid.Arshadi@sce.com

11/23/2010 11:56 AM

To CAPSSolarFirstSolarDesertSunlight@blm.gov
cc Daniel.Duke@sce.com, Angela.Whatley@sce.com, Gary.Dudley@sce.com, Kenneth.Spear@sce.com, Rubria.Wilson@sce.com
Subject SCE Comments to DEIS/CDCA for DSSF Project, BLM Case File # CACA 048649

Allison Shaffer
Project Manager, Palm Springs South Coast Field Office
Bureau of Land Management,

Dear Ms. Shaffer,

Enclosed for your review and consideration are Southern California Edison's comments to the Draft Environmental Impact Statement (DEIS) and Draft Plan Amendment to the California Desert Conservation Area (CDCA) for the Desert Sunlight Solar Farm (DSSF) Project.

Should you have any questions or comments, please feel free to contact me at (626) 302-7151 or by email at hamid.arshadi@sce.com.

Regards,

Hamid Arshadi, CPM
Major Project Organization

Renewables and Generator Interconnections
Southern California Edison
Direct: (626) 302-7151 PAX: 27151
hamid.arshadi@sce.com

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Think Green - Not every email needs to be printed. [attachment "SCE Comments on DEIS-CDCA for DSSF project_11-23-10.doc" deleted by Ysmael Wariner/CASO/CA/BLM/DOI]

SCE Comments on DEIS-CDCA for DSSF project_11-23-10.pdf

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TABLE 1

FIRST SOLAR/RED BLUFF DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)
SCE COMMENTS & SUGGESTED REVISIONS

No	Section/ Appendix	Page	DEIS Text Revision	Justification	
1.	ES	ES-4 Paragraph 4 3rd Bullet	Change to include the underlined phrase:“ 500/220-kV Substation (Red Bluff Substation) and supporting facilities, including a separate telecommunications site (the Desert Center Telecommunications Site), an electric distribution line to the substation, drainage facilities, an access road, <u>a staging area, a water well and a septic system</u>	Correct to current configuration	127-1
2.	ES	ES-5 Table ES-1	Table ES-1: Project Component/Element — Alternative 1: Proposed Action Red Bluff Substation A Red bluff Substation- related features -Drainage/Sideslopes ~~20~~ <u>30</u> -Access Road(3a) ~~19~~ <u>15</u> -Transmission System ~~5~~ <u>10</u> Total Acreage ~~4,391~~ <u>4,402</u> Red Bluff Substation B — Alternative 2: Alternate Action Red bluff Substation- related features -Drainage/Sideslopes ~~11~~ <u>20</u> Total Acreage ~~4,347~~ <u>4,356</u>	Correct to current configuration	127-2
3.	ES.3	ES-6 Paragraph 4 Line 4	….an additional ~~53~~ <u>58</u> acres.	Correct to current configuration	127-3

M-590

No	Section/ Appendix	Page	DEIS Text Revision	Justification	
4.	ES.3	ES-7 Paragraph 2 Line 4	….require an additional ~~16~~ 24 acres.	Correct to current configuration	127-4
5.	2.2.3	2-23 Paragraph 1, Line1 located under Bullet – Access Road	Add "Additional project components for both substation sites include a staging area, a water well, and a septic system."	Correct to current configuration	127-5
6.	2.2.3	2-34 New heading and paragraph inserted before Lighting and Perimeter Features paragraph	Add "Staging Areas Additional temporary land disturbance (up to approximately 10 acres) may be necessary for temporary equipment storage and material staging areas associated with transmission lines and related structures. The location of the staging area is not known at this time but it is expected that it will be located either on or adjacent to the substation site."	Correct to current configuration	127-6
7.	2.2.4	2-34 New heading and paragraph inserted before Operations and Maintenance paragraph	Add "Additional Features: A water well will be drilled on or adjacent to the substation site. The final location of the well will be determined by future testing. Water will be used for dust control during construction and as potable water during the life of the substation. A septic system will also be installed on the substation site.	Correct to current configuration	127-7

No	Section/ Appendix	Page	DEIS Text Revision	Justification	
8.	2.2.4	2-35	Table 2.2-1 Project Component/Element — Alternative 1: Proposed Action Red Bluff Substation A Red bluff Substation- related features -Drainage/Sideslopes — ~~20~~ 30 -Access Road(3a) — ~~19~~ 15 -Transmission System — ~~5~~ 10 Total Acreage — ~~4,391~~ 4, 402	Correct to current configuration	127-8
9.	2.2.4	2-37 Table 2.2-2	Table 2.2-2 Project component — Construction Peak daily (gpd) — Operation Annual(acre-feet) Red Bluff Substation A — ~~38,000~~ 120,000 to 300,000 — 0.02 TOTAL — ~~330,000~~ 457,000 to ~~1.378 million~~ 1.678 million — ~~0.2~~ 0.22	Correct to current configuration	127-9
10.	2.2.4	2-43 Beginning of paragraph 1 after the last bullet titled "Telecommunications Facilities"	Add "Additional project components for both substation sites include a staging area, a water well, and a septic system."	Correct to current configuration	127-10

No	Section/ Appendix	Page	DEIS Text Revision	Justification	
11.	2.2.4	2-45 Table 2.2-5 and 2-83 Table 2.3-9 and 2-86 Table 2.3-11	Table 2.2-5 PROJECT ELEMENT SUBSTATION SITE A (acres) PERMANENT Substation System ~~114.00~~ 120.00 Transmission System ~~5.10~~ 10.00 Total Disturbance ~~127.57~~ 139.00	Correct to current configuration	127-11
12.	2.24	2-47 Table 2.2-6 and 2-83 Table 2.3-9 and 2-86 Table2.3-12	Table 2.2-6 Red Bluff Substation B : Red bluff Substation- related features Alternate Action -Drainage/Sideslopes ~~11~~ 20 Total Acreage ~~4,347~~ 4,356	Correct to current configuration	127-12
13.	2.2.4	2-52	Table 2.2-9 PROJECT ELEMENT SUBSTATION SITE B (acres) PERMANENT Substation System ~~87.30~~ 96 Total Disturbance ~~89.56~~ 100	Correct to current configuration	127-13
14.	2.2.4	2-54 Table 2.2-10	Table 2.2-10 Red Bluff Substation A Red bluff Substation- related features -Drainage/Sideslopes ~~20~~ 30 -Access Road(3a) ~~19~~ 15 -Transmission System ~~5~~ 10 Total Acreage ~~3,196~~ 3,207	Correct to current configuration	127-14

No	Section/ Appendix	Page	DEIS Text Revision	Justification	
15.	2.2.4	2-54 Table 2.2-11	Table 2.2 -11 Project component / Construction / Operation Peak daily (gpd) / Annual(acre-feet) Red Bluff Substation A ~~38,000~~ 120,000 to 300,000 / 0.02 TOTAL ~~330,000~~ 457,000 to ~~1.378 million~~ 1.678 million / ~~0.2~~ 0.22	Correct to current configuration	127-15
16.	2.2.7	2-63 Table 2.2-14	Table 2.2-14: Project Component/Element — Alternative 1: Proposed Action Red Bluff Substation A Red bluff Substation- related features -Drainage/Sideslopes ~~20~~ 30 -Access Road(3a) ~~19~~ 15 - Transmission System ~~5~~ 10 Total Acreage ~~4.391~~ 4,402 Red Bluff Substation B — Alternative 2: Alternate Action Red bluff Substation- related features -Drainage/Sideslopes ~~11~~ 20 Total Acreage ~~4,347~~ 4, 356	Correct to current configuration	127-16
17.	2.3.2	2-96, 2-97, 2-98	Replace existing Table 2.3-16 with Attached Table 2.3-16	Correct to current configuration	127-17
18.	2.3.2	2-99, 2-100,2-101, 2-102	Replace existing Table 2.3-17 with Attached Table 2.3-17	Correct to current configuration	127-18

No	Section/ Appendix	Page	DEIS Text Revision	Justification	
19.	Affected Environment, Wildlife	3.4-21	The closest active territory is in the southwest portion of the Coxcomb Mountains within the Joshua Tree National Park (referred to as the Coxcomb Mountain Southwest Territory), approximately ~~two~~ five miles from the proposed Solar Farm site boundaries.	The Avian & Bat Protection Plan, prepared by Ironwood Consulting Inc. , dated August 3, 2010, states that there is "one active but non-reproductive nest located in the Joshua Tree Wilderness Area approximately 5 miles from the Solar Farm boundary.."	127-19
20.	4.2	4.2-39	~~AM-AIR-6~~	Please considering deleting as this is a regulation that SCE has to abide by.	127-20
21.	4.2	4.2-40	~~AM-AIR-7~~	Please consider deleting as SCE would not implement this measure if there is not a significant GHG or transportation impact.	127-21
22.	4.2	4.2-40	MM-AIR-1: Sunlight ~~and SCE~~ shall give preference to construction contractors who have newer equipment with lower emission rates or who have retrofitted their equipment with supplemental emission control devices (diesel particulate filters and catalytic controls for nitrogen oxide emissions). This measure might have economic consequences in terms of construction costs.	Please consider deleting SCE from this MM since SCE is required to use CARB required equipment and is not able to give preference to bidders.	127-22
23.	Environmental Consequences, Vegetation	4.3-8	Clearing and grading activities to construct the Red Bluff Substation A and all of its associated improvements…would cause the direct loss of ~~several~~ four foxtail cactus and ~~two~~ one Las Animas colubrina…Revise (Table 4.3-7) to reflect change.	Biological Resources Technical Report, dated July 20, 2010, prepared by Ironwood Consulting inc. states that four foxtail cactus and one Las Animas colubrine were found within Red Bluff Sub A (page 30).	127-23
24.	Environmental Consequences, Vegetation	4.3-18	At a minimum, mitigation ratios required in the NECO Plan/EIS are 1:1 for permanent impacts to creosote bush scrub, 3:1 for permanent impacts **to** desert dry wash woodland, and 5:1 for permanent impacts to the Chuckwalla DWMA and Chuckwalla CHU (see Section 4.4, Wildlife, for a discussion of impacts on wildlife). Mitigation ratios may be greater based upon the requirements of the USFWS and CDFG.	A restoration plan has been prepared and will serve as guidance for mitigation to compensate for temporary impacts; therefore, habitat acquisition at the mitigation ratios required in the NECO Plan/EIS should serve as mitigation for permanent impacts only.	127-24

No	Section/ Appendix	Page	DEIS Text Revision	Justification	
25.	Environmental Consequences, Vegetation	4.3-32	Fourth line under heading: Impact BIO-2 Please revise as shown in the following: "Construction would also directly impact several individuals of foxtail cactus distributed over ~~an eight-acre area~~ a five-acre area…"	Page 4.3-8 and Table 4.3-7 says the cactus is distributed over a five-acre area. However, this is inconsistent with Ironwood Consulting's July 2010 BRTR (see above comment).	**127-25**
26.	Environmental Consequences, Vegetation	4.3-35	Under heading Special Status Plant Species – First sentence. Please revise as shown in the following: "Clearing and grading activities to construct the Red Bluff Substation B and all of its associated improvements would cause the direct loss of ~~several~~ two foxtail cactus and **522** California ditaxis…(Table 4.3-11)."	Biological Resources Technical Report, dated July 20, 2010, prepared by Ironwood Consulting inc. states that two foxtail cactus and 522 California ditaxis were found within Red Bluff Sub B (page 30).	**127-26**
27.	Environmental Consequences, Vegetation	4.3-47	Under heading Impact BIO-2, first sentence. Please revise as shown in the following: "Construction of Red Bluff Substation B would directly impact ~~several~~ two individuals of foxtail cactus and would directly impact 522 individuals of California ditaxis which would be considered significant."	Biological Resources Technical Report, dated July 20, 2010, prepared by Ironwood Consulting inc. states that two foxtail cactus and 522 California ditaxis were found within Red Bluff Sub B (page 30).	**127-27**
28.	Environmental Consequences, Vegetation	4.3-54	Under Red Bluff Substation A, subheading Special Status Plant Species, first sentence. Please revise as shown in the following. "Clearing and grading activities to construct the Red Bluff Substation A and all of its associated improvements…would cause the direct loss of ~~several~~ four foxtail cactus and ~~two~~ one Las Animas colubrina..(Table 4.3-15)."	Biological Resources Technical Report, dated July 20, 2010, prepared by Ironwood Consulting inc. states that four foxtail cactus and one Las Animas colubrine were found within Red Bluff Sub A (page 30).	**127-28**
29.	Environmental Consequences, Vegetation	4.3-71	Under Red Bluff Substation A, subheading Impact BIO-2, second sentence. Please revise as shown in the following. "The direct loss of ~~two~~ one individual Las Animas colubrine and ~~several~~ four California ditaxis during construction of Red Bluff Substation A…would also directly impact ~~several~~ four individuals of foxtail cactus and one Las Animas colubrine.	Biological Resources Technical Report, dated July 20, 2010, prepared by Ironwood Consulting inc. states that four foxtail cactus and one Las Animas colubrine were found within Red Bluff Sub A (page 30).	**127-29**

No	Section/ Appendix	Page	DEIS Text Revision	Justification	
30.	Environmental Consequences, Wildlife	4.4-7	Under heading: Birds, as discussed in Section 3.4, second paragraph, second sentence. Please revise as shown in the following: "An active territory of a pair of golden eagles is located approximately ~~tOK wo~~ five miles from the boundary of the Solar Farm site."	The Avian & Bat Protection Plan, prepared by Ironwood Consulting Inc. , dated August 3, 2010, states that there is "one active but non-reproductive nest located in the Joshua Tree Wilderness Area approximately 5 miles from the Solar Farm boundary.."	127-30
31.	4.4	4.4-27	If monitoring data shows a potential increase in raven roosting or nesting behavior within the Sunlight Project components, additional measures will be implemented by Sunlight to minimize the attractiveness of the Project site to the species, including one or more of the following: 1. Bird spikes installed on top of potential perches designed to prevent birds from gaining a foothold on the perch because of their porcupine design; 2. Repellant coils installed on top of potential perches to deter birds from gaining footholds because of their destabilizing coil design; 3. Bird control wire designed so that a line or grid of variable height posts is interconnected by a wire. This creates a confusing landing area in the same spirit as trip wires used for unsuspecting people; 4. Bird netting; and/or 5. Electric shock deterrents with low voltage pulses.	Additional text to make it clear that Sunlight will be responsible for implementing these measures and not SCE.	127-31
32.	Environmental Consequences, Wildlife	4.4-28	Under subheading AM-WIL-3, second bullet:. Please revise as shown in the following: "All active burrowing owl nests will be avoided with a buffer of ~~100 meters (330 feet)~~ 75 meters (250 feet) during the nesting season (February 1 – August 31st)." Please add the following: Initial protective buffers may be modified by a biological monitor based on the type of construction activity and bird species following approval by CDFG and USFWS.	According to the CDFG Staff Report on Burrowing Owl Mitigation (1995), page 6, "no disturbance should occur…within 75 meters (approx. 250 ft.) during the breeding season of February 1 through August 31. However, these protective buffers may be modified based on site conditions and species.	127-32

No	Section/ Appendix	Page	DEIS Text Revision	Justification	
33.	Environmental Consequences, Wildlife	4.4-28	Under section AM-WIL-3, third paragraph, first bullet. Please revise as shown in the following: "Pre-construction surveys will be completed in the Project locations and in adjacent habitat areas and any nests observed will be identified and clearly marked. For passerines, an exclusion area where construction will not be allowed to commence will be established approximately 100 meters (330 feet) from any active nest. For raptors (other than golden eagles), the exclusion area will be established approximately ~~1.6 kilometer (1 mile)~~ 170 meters (500 feet) from any active nest (excluding nests of the common raven). For golden eagles, the exclusion area will be established approximately 1.6 kilometers (one mile) from any active nest." Initial protective buffers may be modified by a biological monitor based on the type of construction activity and bird species following approval by CDFG and USFWS.	Protective buffers for specific species are not detailed in the fish and game code. Typical protective buffers required by CDFG are generally 500-feet for raptors. However, these protective buffers may be modified based on site conditions and species.	**127-33**
34.	4.5	4.5-16	MM-AIR-1: Sunlight ~~and SCE~~ shall give preference to construction contractors who have newer equipment with lower emission rates or who have retrofitted their equipment with supplemental emission control devices (diesel particulate filters and catalytic controls for nitrogen oxide emissions). This measure might have economic consequences in terms of construction costs.	Please consider deleting SCE from this MM since SCE is required to use CARB required equipment and is not able to give preference to bidders.	**127-34**
35.	4.6	4.6-9	*MM-CUL-7.* Archaeological monitoring shall be conducted by a qualified archaeologist familiar with the types of historical and prehistoric resources that could be encountered within the project area for earth-moving activities, and under direct supervision of a principal archaeologist. All cultural resources personnel will be approved by the BLM through the agency's Cultural Resource Use Permitting process. A Native American monitor may be required at culturally sensitive locations specified by the BLM following government-to-government consultation with Native American tribes. The monitoring plan shall indicate the locations where Native American monitors will be required and shall specify the tribal affiliation of the required Native American monitor for each location. The Applicant shall retain and schedule any required Native American monitors.	Please consider adding language that monitoring would only occur during earth-moving activities.	**127-35**
36.	Figure 4.16-7	4.16-9	Revise the visual simulation for KOP 6 by removing 2 single-circuit towers and replace them with 2 double –circuit loop-in towers (Double-circuit towers are shown in DEIS Figure 2-16)	Correct to current configuration	**127-36**

M-598

No	Section/ Appendix	Page	DEIS Text Revision	Justification	
37.	4.16	4.16-23	*Mitigation MM-VR-1: Revegetation:* Revegetation of Temporarily Disturbed Areas. The Applicant and SCE shall prepare and implement a revegetation plan to restore all areas subject to temporary disturbance to pre-Project grade and conditions and shall be consistent with AM-BIO-5, described in Section 4.3. Temporarily disturbed areas within the Project area include all proposed locations for linear facilities, temporary access roads, construction work temporary lay-down areas, and construction equipment staging areas. ~~The revegetation plan shall include a description of topsoil salvage and seeding techniques and a monitoring and reporting plan and shall identify performance standards. Cactus and yucca shall be salvaged and transplanted out of harm's way but still within ROWs.~~	The revegetation requirements for the project should be consistent.	127-37
38.	4.16	4.16-23	*Mitigation MM-VR-2: Litter and Trash Control.* During construction, all trash and food-related waste shall be placed in self-closing containers and removed ~~daily~~ weekly as needed from the site. Vehicular traffic would be confined to existing routes of travel to and from the Project site, and cross country vehicle and equipment use outside designated work areas would be prohibited.	Please consider change that trash will be removed weekly instead of daily. Please clarify second sentence to explain relevance to litter and trash control.	127-38
39.	4.16	4.16-24	*Mitigation MM-VR-3: Fugitive Dust Control.* The speed limit when traveling on dirt access routes shall not exceed 25 miles per hour and shall be incorporated into the Fugitive Dust Control Plan. BLM- approved dust suppressant shall be used to control fugitive dust.	Please consider deleting as SCE is required to abide by AQMD Rule 403 as stated in the Air Quality section.	127-39
40.	4.17.3	4.17-10 Paragraph 1, Line 1 under heading - Red Bluff Substation A, Groundwater	Change to "Approximately 303 acre-feet of ~~G~~groundwater would ~~not~~ be used for construction or operation of the Red Bluff Substation A~~, and therefore this alternative would not substantially deplete groundwater or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or the water table would be lowered.~~	Groundwater use updated.	127-40

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No	Section/ Appendix	Page	DEIS Text Revision	Justification	
41.	4.17.3	4.17-12 Paragraph 1, Line 4 under heading-Summary of Construction Impacts, Groundwater Supply	Change the following to include the underlined phrase: "… demand would be on the order of ~~703~~ 1006 AFY (703 AFY for the solar farm and 303 AFY for Red Bluff Substation) for the 26-month construction period, or approximately ~~25~~ 34 percent of the available surplus inflow to the groundwater basin. Therefore this alternative would not substantially deplete groundwater or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or the water table would be lowered.	Groundwater use updated	127-41
42.	4.17.3	4.17-14 Paragraph 1, Line 2 under heading-Solar Farm Layout B, Groundwater	Change the following to include the underlined phrase: "…order of a couple of hundred gallons per day, approximately ~~0.2~~ 0.22 AFY (0.20 for the solar farm and 0.02 for the Red Bluff Substation)."	Update to current configuration.	127-42
43.	4.17.3	4.17-20	BMPs would be implemented as part of the Construction Storm Water Pollution Prevention Plan ~~program~~	Please consider revision.	127-43
44.	Appendix H, Habitat Compensation Plan	Page 123 of 293 of Appendix H PDF Document	The Applicant would compensate for the identified impacts to sensitive biological resources either by acquiring mitigation land or conservation easements in areas agreed to and approved by the relevant agencies, or by providing funding for land acquisition, endowment, restoration, and management actions under one of several programs, including the recently approved mitigation program created by California Senate Bill 34 (SB 34). The precise details of the mitigation will be established in the BLM Right of Way Grant, FWS Biological Opinion, and CDFG 2080.1 Consistency Determination.	Confirmation that the Habitat Compensation Plan includes mitigation required for the development of the Red Bluff Substation and associated components.	127-44

TABLE 2.3-16

RED BLUFF SUBSTATION EASTERN SITE "A"

CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY TO CONSTRUCT NEW 500 KV LOOP-IN LINES OF THE DEVERS-COLORADO NO 1 LINE FOR FIRST SOLAR

Work Activity				Activity Production			
Primary Equipment Description	Estimated Horse-Power	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Schedule (Days)	Duration of Use (Hrs/Day)	Estimated Production Per Day
Survey (1)				**4**	**4**		**0.5 Miles**
3/4-Ton Pick-up Truck, 4x4	200	Gas	2		4	8	1 Mile/Day
Temporary Equipment & Material Staging Area (2)				**4**			
1-Ton Crew Cab, 4x4	300	Diesel	1		Duration of Project	2	
30-Ton Crane Truck	300	Diesel	1			2	
Water Truck	350	Diesel	1				
10,000 lb Rough Terrain Fork Lift	200	Diesel	1			5	
Truck, Semi, Tractor	350	Diesel	1			1	
Roads & Landing Work (3)				**5**	**5**		**0.5 Miles & 8 Pads**
1-Ton Crew Cab, 4x4	300	Diesel	2		5	2	0.5 Miles/Day & 0.66 Structure Pads/Day
Road Grader	350	Diesel	1		5	4	
Backhoe/Front Loader	350	Diesel	1		5	6	
10-cu. yd. Dump Truck	350	Diesel	2		5	8	
Drum Type Compactor	250	Diesel	1		5	4	
Track Type Dozer	350	Diesel	1		5	6	

TABLE 2.3-16

RED BLUFF SUBSTATION EASTERN SITE "A"

CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY TO CONSTRUCT NEW 500 KV LOOP-IN LINES OF THE DEVERS-COLORADO NO 1 LINE FOR FIRST SOLAR

Work Activity				Activity Production			
Primary Equipment Description	Estimated Horse-Power	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Schedule (Days)	Duration of Use (Hrs/Day)	Estimated Production Per Day
Lowboy Truck/Trailer	500	Diesel	2		2	2	
Install LST Foundations (4)				**9**	**12**		**8 LSTs**
1-Ton Crew Cab Flat Bed, 4x4	300	Diesel	2		12	2	
30-Ton Crane Truck	300	Diesel	1		10	5	
Backhoe/Front Loader	200	Diesel	1		12	8	0.50 LST/Day
Auger Truck	500	Diesel	1		10	8	
10-cu. yd. Dump Truck	350	Diesel	2		10	8	
10-cu. yd. Concrete Mixer Truck	425	Diesel	4		10	5	
LST Steel Haul (5)				**6**	**8**		**8 LSTs**
1-Ton Crew Cab Flat Bed, 4x4	300	Diesel	2		8	2	
10,000 lb Rough Terrain Fork Lift	200	Diesel	1		8	6	1 LST/Day
40' Flat Bed Truck/ Trailer	350	Diesel	1		8	8	
LST Steel Assembly (6)				**7**	**64**		**8 LSTs**
3/4-Ton Pick-up Truck, 4x4	300	Diesel	3		64	4	0.25 LST/Day
1-Ton Crew Cab Flat Bed, 4x4	300	Diesel	2		64	4	

TABLE 2.3-16

RED BLUFF SUBSTATION EASTERN SITE "A"

CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY TO CONSTRUCT NEW 500 KV LOOP-IN LINES OF THE DEVERS-COLORADO NO 1 LINE FOR FIRST SOLAR

Work Activity				Activity Production			
Primary Equipment Description	Estimated Horse-Power	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Schedule (Days)	Duration of Use (Hrs/Day)	Estimated Production Per Day
10,000 lb Rough Terrain Fork Lift	200	Diesel	1		64	6	
30-Ton Crane Truck	300	Diesel	2		64	8	
Compressor Trailer	350	Diesel	2		64	6	
LST Erection (7)				**8**	**47**		**8 LSTs**
3/4-Ton Pick-up Truck, 4x4	300	Diesel	2		47	5	
1-Ton Crew Cab Flat Bed, 4x4	300	Diesel	2		47	5	0.25 LST/Day
Compressor Trailer	120	Diesel	1		47	6	
80-Ton Rough Terrain Crane	350	Diesel	1		47	6	
Guard Structure Installation (8)				**6**	**2**		**8 Structures**
3/4-Ton Pick-up Truck, 4x4	300	Gas	1		2	6	
1-Ton Crew Cab, 4x4	300	Diesel	1		2	6	
Compressor Trailer	120	Diesel	1		2	6	
Auger Truck	500	Diesel	1		2	6	4 Structures/Day
Extendable Flat Bed Pole Truck	350	Diesel	1		2	6	
30-Ton Crane Truck	500	Diesel	1		1	8	
80ft. Hydraulic Man-lift/Bucket Truck	350	Diesel	1		1	4	
Install Conductor & OPGW (9)				**16**	**27**		**1.5 Circuit Miles**

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TABLE 2.3-16

RED BLUFF SUBSTATION EASTERN SITE "A"

CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY TO CONSTRUCT NEW 500 KV LOOP-IN LINES OF THE DEVERS-COLORADO NO 1 LINE FOR FIRST SOLAR

Work Activity				Activity Production			
Primary Equipment Description	Estimated Horse-Power	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Schedule (Days)	Duration of Use (Hrs/Day)	Estimated Production Per Day
3/4-Ton Pick-up Truck, 4x4	300	Diesel	2		27	8	
1-Ton Crew Cab Flat Bed, 4x4	300	Diesel	2		27	8	
Wire Truck/Trailer	350	Diesel	2		27	2	
Dump Truck (Trash)	350	Diesel	1		27	2	
20,000 lb. Rough Terrain Fork Lift	350	Diesel	1		27	2	
22-Ton Manitex	350	Diesel	1		27	8	
30-Ton Manitex	350	Diesel	2		27	6	
Splicing Rig	350	Diesel	1		24	2	
Splicing Lab	300	Diesel	1		24	2	0.25 miles/day
Spacing Cart	10	Diesel	1		24	8	
Static Truck/ Tensioner	350	Diesel	1		27	2	
3 Drum Straw line Puller	300	Diesel	1		27	4	
60lk Puller	525	Diesel	1		27	3	
Sag Cat w/ 2 winches	350	Diesel	1		27	2	
580 Case Backhoe	120	Diesel	1		27	2	
D8 Cat	300	Diesel	1		24	3	
Lowboy Truck/Trailer	500	Diesel	1		4	2	
Restoration (10)				**7**	**4**		**0.5 Miles**
1-Ton Crew Cab, 4x4	300	Diesel	2		4	2	0.5 Mile/Day
Road Grader	350	Diesel	1		4	6	

TABLE 2.3-16

RED BLUFF SUBSTATION EASTERN SITE "A"

CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY TO CONSTRUCT NEW 500 KV LOOP-IN LINES OF THE DEVERS-COLORADO NO 1 LINE FOR FIRST SOLAR

Work Activity				Activity Production			
Primary Equipment Description	Estimated Horse-Power	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Schedule (Days)	Duration of Use (Hrs/Day)	Estimated Production Per Day
Backhoe/Front Loader	350	Diesel	1		4	6	
Drum Type Compactor	250	Diesel	1		4	6	
Track Type Dozer	350	Diesel	1		4	6	
Lowboy Truck/Trailer	300	Diesel	1		4	3	

Notes to Table 6: Crew Size Assumptions:

#1 Survey = one 4-man crew
#2 Temporary Equipment & Material Staging Area = one 4-man crew; note this information is duplicated on the 220 kV Loop-in & 500kV & Gen-Tie WF & E Tables
#3 Roads and Landing work = one 5-man crew
#4 Install Foundations for LSTs = one 9-man crew
#5 LST Steel Haul = one 4-man crew
#6 LST Steel Assembly =one 7-man crews
#7 LST Erection = one 8-man crew
#8 Guard Structure Installation = one 6-man crew
#9 Conductor & OPGW Installation = two 8-man crews
#10 Restoration = one 7-man crew
Note: All data provided in this table is based on planning level assumptions and may change following completion of more detailed engineering, identification of field conditions, availability of labor, material, and equipment, and any environmental and permitting requirements.

TABLE 2.3-17

RED BLUFF SUBSTATION WESTERN SITE "B"

CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY TO CONSTRUCT NEW 500 KV LOOP-IN LINES OF THE DEVERS-COLORADO RIVER NO 1 LINE FOR PALEN

Work Activity				Activity Production			
Primary Equipment Description	Estimated Horse-Power	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Schedule (Days)	Duration of Use (Hrs/Day)	Estimated Production Per Day
Survey (1)				**4**	**4**		**0.5 Miles**
3/4-Ton Pick-up Truck, 4x4	200	Gas	2		4	8	1 Mile/Day
Temporary Equipment & Material Staging Area (2)				**4**			
1-Ton Crew Cab, 4x4	300	Diesel	1		Duration of Project	2	
30-Ton Crane Truck	300	Diesel	1			2	
Water Truck	350	Diesel	1				
10,000 lb Rough Terrain Fork Lift	200	Diesel	1			5	
Truck, Semi, Tractor	350	Diesel	1			1	
Roads & Landing Work (3)				**5**	**2**		**0.5 Miles & 4 Pads**
1-Ton Crew Cab, 4x4	300	Diesel	2		2	2	0.5 Miles/Day & 0.66 Structure Pads/Day
Road Grader	350	Diesel	1		2	4	
Backhoe/Front Loader	350	Diesel	1		2	6	
10-cu. yd. Dump Truck	350	Diesel	2		2	8	
Drum Type Compactor	250	Diesel	1		2	4	
Track Type Dozer	350	Diesel	1		2	6	
Lowboy Truck/Trailer	500	Diesel	2		2	2	

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TABLE 2.3-17

RED BLUFF SUBSTATION WESTERN SITE "B"

CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY TO CONSTRUCT NEW 500 KV LOOP-IN LINES OF THE DEVERS-COLORADO RIVER NO 1 LINE FOR PALEN

Work Activity				Activity Production			
Primary Equipment Description	Estimated Horse-Power	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Schedule (Days)	Duration of Use (Hrs/Day)	Estimated Production Per Day
Install LST Foundations (4)				**9**	**8**		**4 LSTs**
1-Ton Crew Cab Flat Bed, 4x4	300	Diesel	2		8	2	0.50 LST/Day
30-Ton Crane Truck	300	Diesel	1		8	5	
Backhoe/Front Loader	200	Diesel	1		6	8	
Auger Truck	500	Diesel	1		6	8	
10-cu. yd. Dump Truck	350	Diesel	2		8	8	
10-cu. yd. Concrete Mixer Truck	425	Diesel	4		6	5	
LST Steel Haul (5)				**6**	**6**		**6 LSTs**
1-Ton Crew Cab Flat Bed, 4x4	300	Diesel	2		6	2	1 LST/Day
10,000 lb Rough Terrain Fork Lift	200	Diesel	1		6	6	
40' Flat Bed Truck/ Trailer	350	Diesel	1		6	8	
LST Steel Assembly (6)				**7**	**21**		**6 LSTs**
3/4-Ton Pick-up Truck, 4x4	300	Diesel	3		21	4	0.28 LST/Day
1-Ton Crew Cab Flat Bed, 4x4	300	Diesel	2		21	4	
10,000 lb Rough Terrain Fork Lift	200	Diesel	1		21	6	

TABLE 2.3-17

RED BLUFF SUBSTATION WESTERN SITE "B"

CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY TO CONSTRUCT NEW 500 KV LOOP-IN LINES OF THE DEVERS-COLORADO RIVER NO 1 LINE FOR PALEN

Work Activity				Activity Production			
Primary Equipment Description	Estimated Horse-Power	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Schedule (Days)	Duration of Use (Hrs/Day)	Estimated Production Per Day
30-Ton Crane Truck	300	Diesel	2		21	8	
Compressor Trailer	350	Diesel	2		21	6	
LST Erection (7)				**8**	**15**		**6 LSTs**
3/4-Ton Pick-up Truck, 4x4	300	Diesel	2		15	5	
1-Ton Crew Cab Flat Bed, 4x4	300	Diesel	2		15	5	0.4 LST/Day
Compressor Trailer	120	Diesel	1		15	6	
80-Ton Rough Terrain Crane	350	Diesel	1		15	6	
Guard Structure Installation (8)				**6**	**2**		**8 Structures**
3/4-Ton Pick-up Truck, 4x4	300	Gas	1		2	6	
1-Ton Crew Cab, 4x4	300	Diesel	1		2	6	
Compressor Trailer	120	Diesel	1		2	6	
Auger Truck	500	Diesel	1		2	6	4 Structures/Day
Extendable Flat Bed Pole Truck	350	Diesel	1		2	6	
30-Ton Crane Truck	500	Diesel	1		2	8	
80ft. Hydraulic Man-lift/Bucket Truck	350	Diesel	1		2	4	
Install Conductor & OPGW (9)				**16**	**13**		**1.5 Circuit Miles**
3/4-Ton Pick-up Truck, 4x4	300	Diesel	2		13	8	0.11 miles/day

TABLE 2.3-17

RED BLUFF SUBSTATION WESTERN SITE "B"

CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY TO CONSTRUCT NEW 500 KV LOOP-IN LINES OF THE DEVERS-COLORADO RIVER NO 1 LINE FOR PALEN

Work Activity				Activity Production			
Primary Equipment Description	Estimated Horse-Power	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Schedule (Days)	Duration of Use (Hrs/Day)	Estimated Production Per Day
1-Ton Crew Cab Flat Bed, 4x4	300	Diesel	2		13	8	
Wire Truck/Trailer	350	Diesel	2		13	2	
Dump Truck (Trash)	350	Diesel	1		13	2	
20,000 lb. Rough Terrain Fork Lift	350	Diesel	1		13	2	
22-Ton Manitex	350	Diesel	1		13	8	
30-Ton Manitex	350	Diesel	2		13	6	
Splicing Rig	350	Diesel	1		13	2	
Splicing Lab	300	Diesel	1		13	2	
Spacing Cart	10	Diesel	1		13	8	
Static Truck/ Tensioner	350	Diesel	1		13	2	
3 Drum Straw line Puller	300	Diesel	1		11	4	
60lk Puller	525	Diesel	1		11	3	
Sag Cat w/ 2 winches	350	Diesel	1		11	2	
580 Case Backhoe	120	Diesel	1		11	2	
D8 Cat	300	Diesel	1		11	3	
Lowboy Truck/Trailer	500	Diesel	1		4	2	
Restoration (10)				**7**	**3**		**0.5 Miles**
1-Ton Crew Cab, 4x4	300	Diesel	2		3	2	0.5 Mile/Day
Road Grader	350	Diesel	1		3	6	

M-609

TABLE 2.3-17

RED BLUFF SUBSTATION WESTERN SITE "B"

CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY TO CONSTRUCT NEW 500 KV LOOP-IN LINES OF THE DEVERS-COLORADO RIVER NO 1 LINE FOR PALEN

Work Activity				Activity Production			
Primary Equipment Description	Estimated Horse-Power	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Schedule (Days)	Duration of Use (Hrs/Day)	Estimated Production Per Day
Backhoe/Front Loader	350	Diesel	1		3	6	
Drum Type Compactor	250	Diesel	1		3	6	
Track Type Dozer	350	Diesel	1		3	6	
Lowboy Truck/Trailer	300	Diesel	1		3	3	

Notes to Table 6: Crew Size Assumptions:

#1 Survey = one 4-man crew
#2 Temporary Equipment & Material Staging Area = one 4-man crew; note this information is duplicated on the 220 kV Loop-in & 500kV & Gen-Tie WF & E Tables
#3 Roads and Landing work = one 5-man crew
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#7 LST Erection = one 8-man crew
#8 Guard Structure Installation = one 6-man crew
#9 Conductor & OPGW Installation = two 8-man crews
#10 Restoration = one 7-man crew
Note: All data provided in this table is based on planning level assumptions and may change following completion of more detailed engineering, identification of field conditions, availability of labor, material, and equipment, and any environmental and permitting requirements.

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Gary.Dudley@sce.com
11/24/2010 03:41 PM

To CAPSSolarFirstSolarDesertSunlight@blm.gov
cc Allison_Shaffer@blm.gov, Angela.Whatley@sce.com, CAPSSolarFirstSolarDesertSunlight@blm.gov, Daniel.Duke@sce.com, Holly_Roberts@blm.gov,
bcc
Subject SCE Comments to DEIS/CDCA for DSSF Project, BLM Case File # CACA 048649

Please note attached a pdf version of Southern California Edison's (SCE) second set of comments to the Draft Environmental Impact Statement (DEIS) and Draft Plan Amendment to the California Desert Conservation Area (CDCA) for the Desert Sunlight Solar Farm (DSSF) Project. The enclosed comments were inadvertently left out of SCE's initial submittal that was transmitted to you earlier today. Please let me know if you have a problem opening the attached document. I would also forward a copy via facsimile and via overnight delivery.

Gary Dudley
Environmental Coordinator
Supporting Corporate Environment, Health & Safety
ACT Environmental, Inc.
Available At:
Phone: (626) 302-4866, PAX 24866
Cell: (562) 375-0761
FAX: (626) 302-9130

gary.dudley@sce.com Red BluffSCE Final Comments Table 2 onBLMDEIS 11-24-10.doc

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TABLE 1

FIRST SOLAR/RED BLUFF DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)
SCE COMMENTS & SUGGESTED REVISIONS

No	Section/ Appendix	Page	DEIS Text Revision	Justification	
1.	ES	ES-4 Paragraph 4 3rd Bullet	Add the following sentence: An emergency diesel powered generator will also be installed at the substation.	Correct to current configuration	128-1
2.	2.2.3	2-23 Paragraph 1, Line1 located under Bullet – Access Road	Add "An emergency diesel powered generator will also be installed at the substation.	Correct to current configuration	128-2
3.	2.2.4	2-34 New heading and paragraph inserted before Operations and Maintenance paragraph	Add the following underlined sentence after the last sentence of SCE's comment on this section to the "First Solar/Red Bluff DEIS/and CDCA Amendment" submitted o the BLM on 11-23-10: An emergency diesel powered generator will also be installed at the substation.	Correct to current configuration	128-3

No	Section/ Appendix	Page	DEIS Text Revision	Justification	
4.	2.2.4	2-43 Beginning of paragraph 1 after the last bullet titled "Telecommunications Facilities"	Add the following underlined sentence after the last sentence of SCE's comment on this section to the "First Solar/Red Bluff DEIS/and CDCA Amendment" submitted to the BLM on 11-23-10: <u>An emergency diesel powered generator will also be installed at the substation.</u>	Correct to current configuration	128-4

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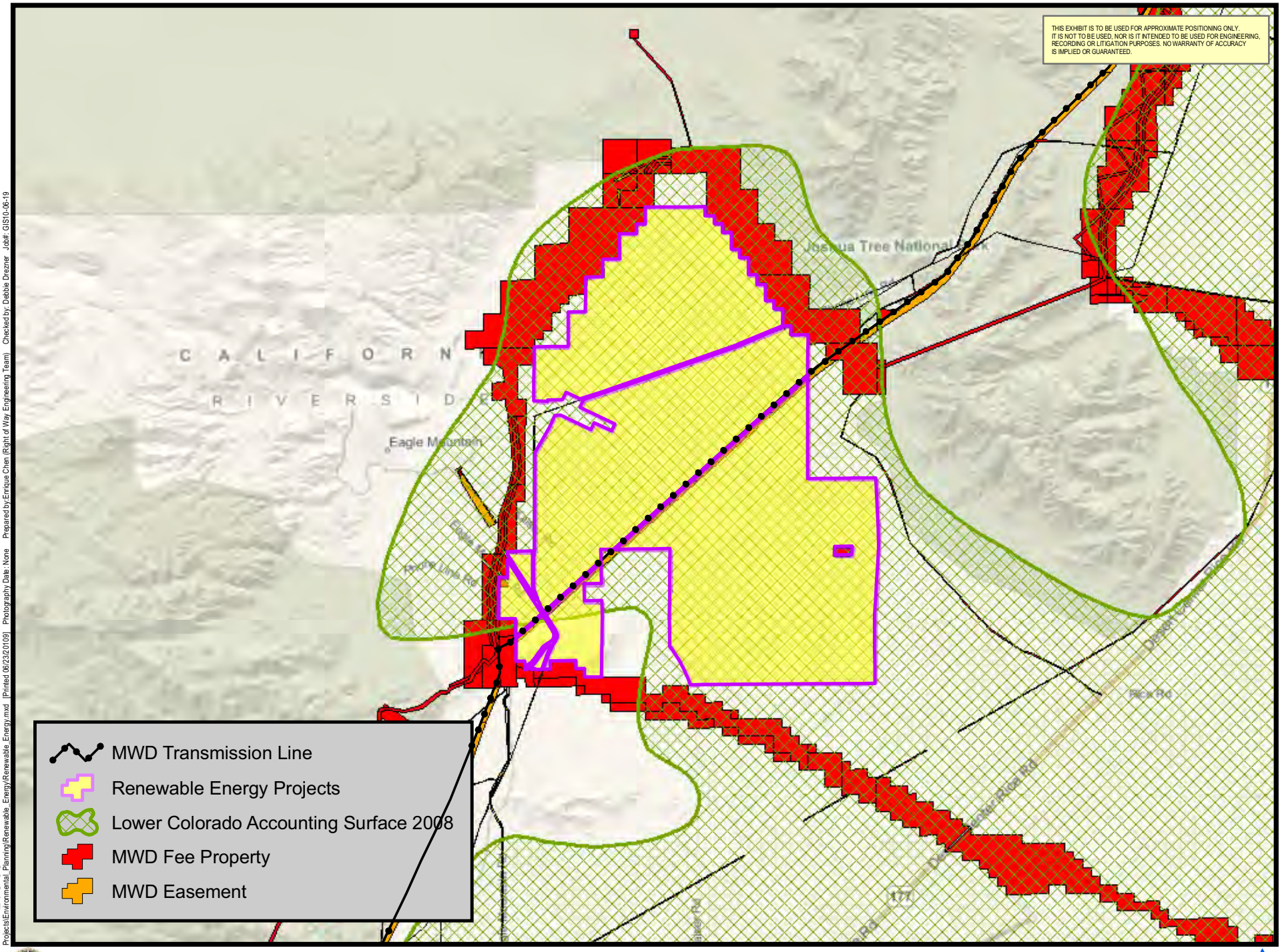
"De Leon,Rebecca A"
<rdeleon@mwdh2o.com>
11/23/2010 03:33 PM

To <public.advisor@cpuc.ca.gov>,
<CAPSSolarFirstSolarDesertSunlight@blm.gov>
cc <crb@crb.ca.gov>
bcc
Subject First Solar Desert Sunlight Solar Farm Project - Comments

Attached are the comments from The Metropolitan Water District of Southern California for the Notice of Availability of the Draft EIS and California Desert Conservation Area Plan Amendment for the Proposed First Solar Desert Sunlight Solar Farm Project (NEPA tracking number DOI-BLM-CA-060-0009-0033-EIS).

Rebecca De Leon
Engineering Systems Planning
The Metropolitan Water District
Of Southern California
(213) 217-6337

Final - First Solar Desert Sunlight Solar Farm Project.pdf
Renewable_Energy_Fast_Track.pdf
Renewable_Energy_Fast_Track_Desert_Sunlight.pdf



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M-615

The Metropolitan Water District of Southern California
Corporate Resources Group

Renewable Energy Projects

First Solar - Desert Sunlight

Miles
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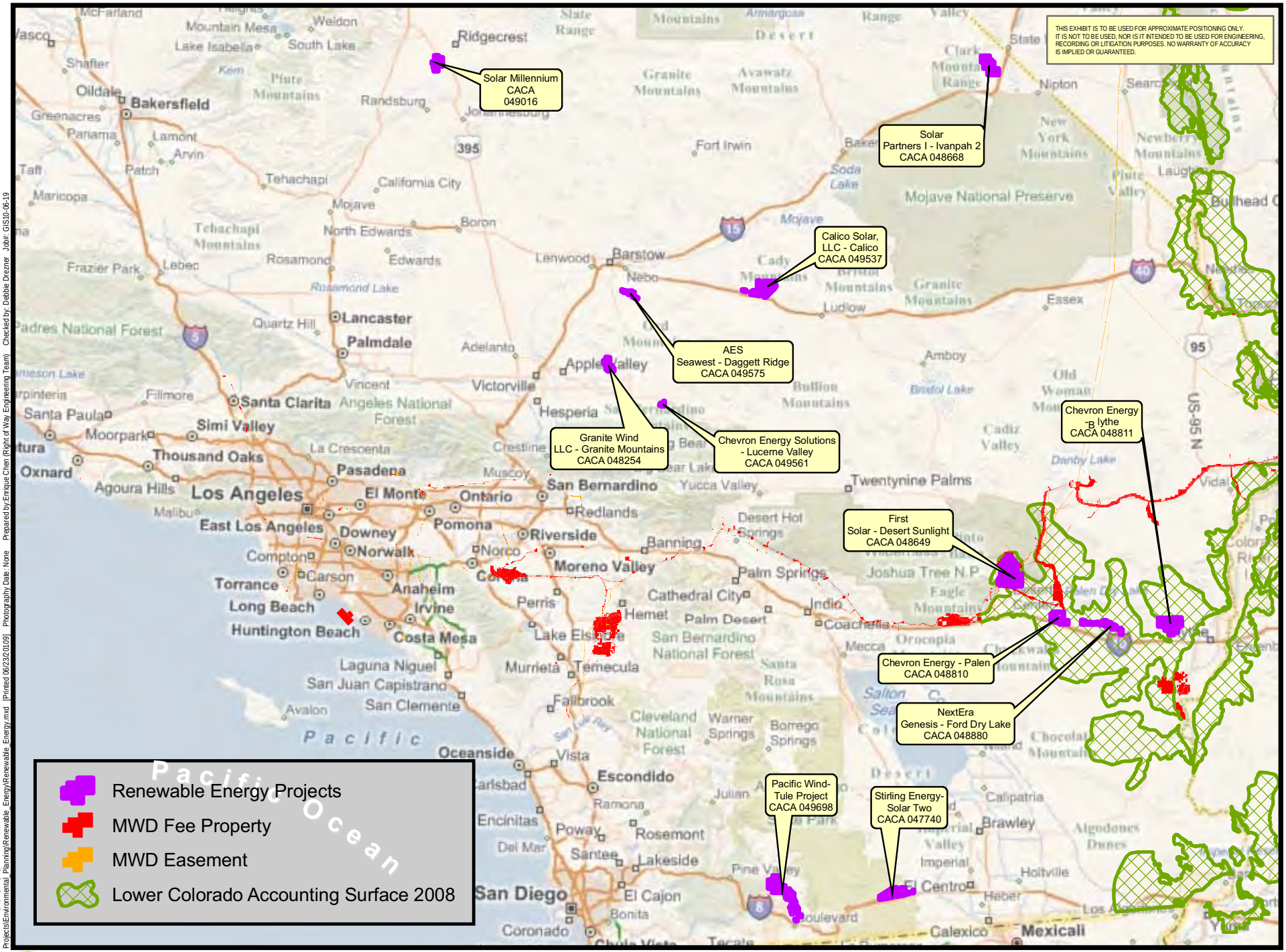

The Metropolitan Water District of Southern California
Corporate Resources Group

Renewable Energy Projects
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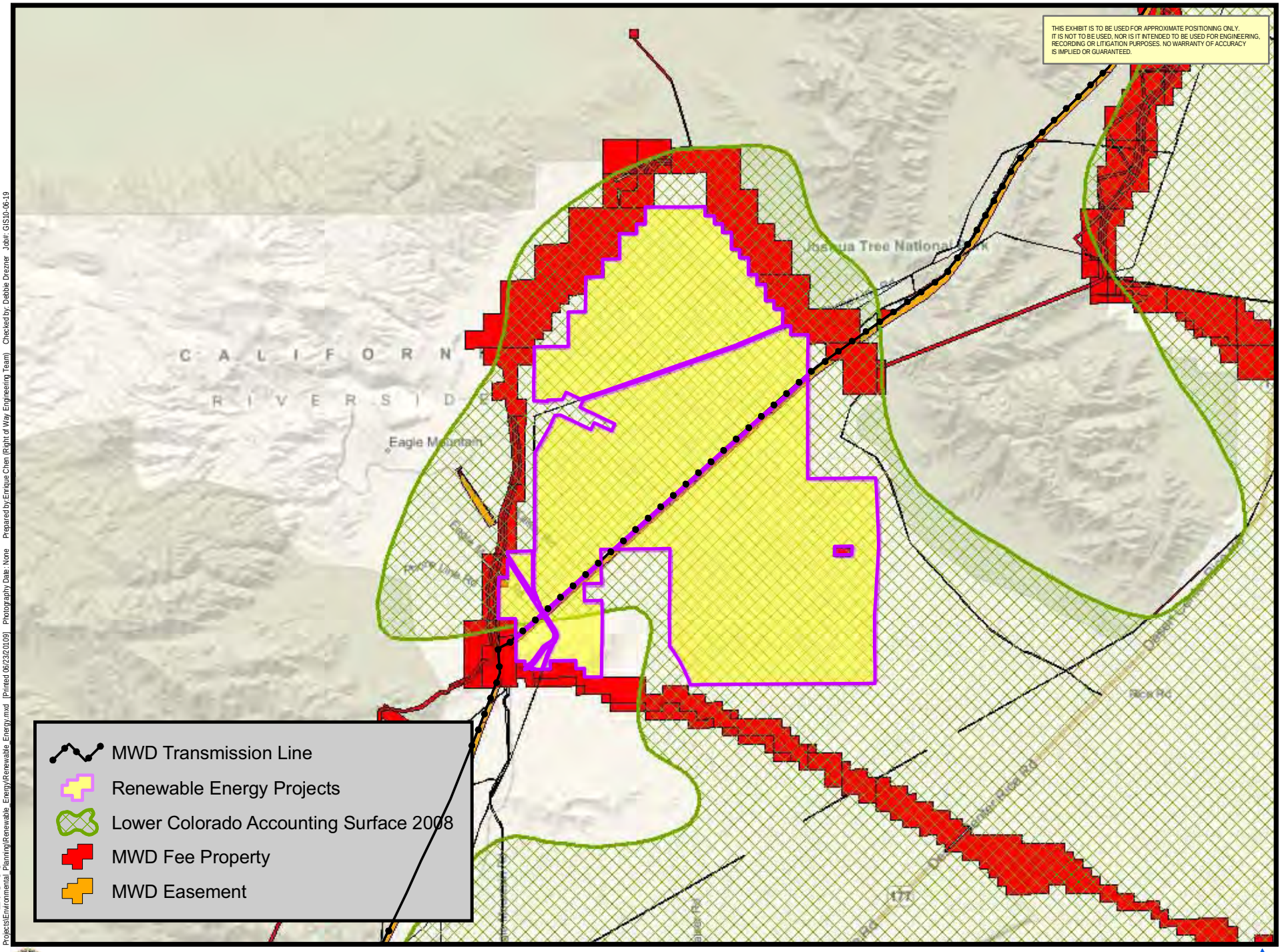

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The Metropolitan Water District of Southern California
Corporate Resources Group

Renewable Energy Projects

First Solar - Desert Sunlight

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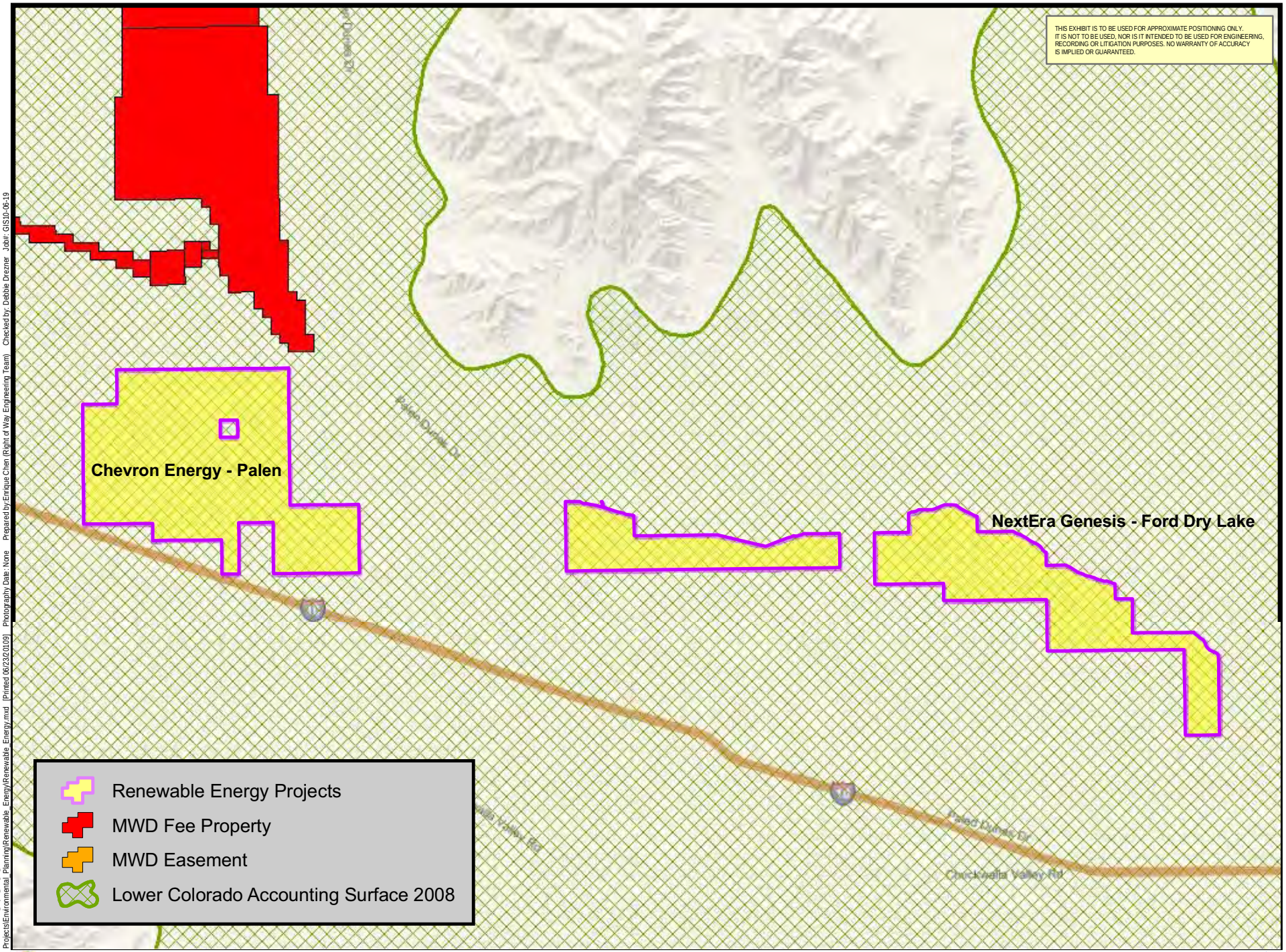

Projects\Environmental Planning\Renewable_Energy\Renewable_Energy.mxd [Printed 06/23/2010] Photography Date: None Prepared by:Enrique Chen (Right of Way Engineering Team) Checked by: Debbie Drezner Job#: GIS10-06-19

The Metropolitan Water District of Southern California
Corporate Resources Group

Renewable Energy Projects

Palen & Genesis

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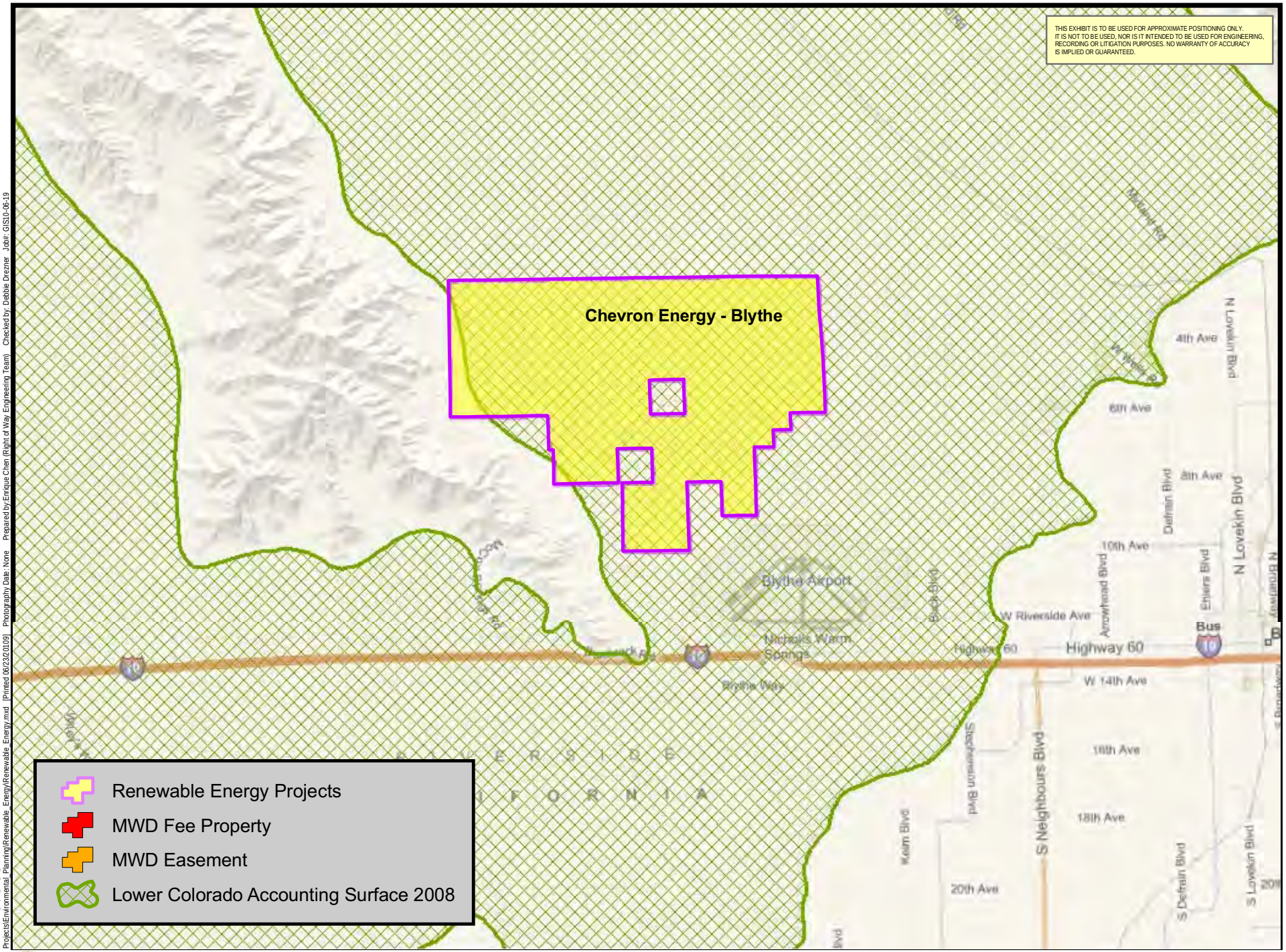

Projects\Environmental Planning\Renewable_Energy\Renewable_Energy.mxd (Printed 06/23/2009) Photography Date: None Prepared by:Enrique Chen (Right of Way Engineering Team) Checked by: Debbie Drezner Job#: GIS10-06-19

The Metropolitan Water District of Southern California
Corporate Resources Group

Renewable Energy Projects

Chevron Energy - Blythe

Miles 0 1 2

THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

November 23, 2010 **Via Electronic & U.S. Mail**

CPUC Public Advisor 505 Van Ness Avenue, Room 2103 San Francisco, CA 94102 public.advisor@cpuc.ca.gov	Allison Shaffer Project Manager Palm Springs South Coast Field Office Bureau of Land Management 1201 Bird Center Drive Palm Springs, California 92262 CAPSSolarFirstSolarDesertSunlight@blm.gov

Notice of Availability of the Draft Environmental Impact Statement and California Desert Conservation Area Plan Amendment for the Proposed First Solar Desert Sunlight Solar Farm Project (NEPA tracking number DOI-BLM-CA-060-0009-0033-EIS)

To whom it may concern:

The Metropolitan Water District of Southern California (Metropolitan) reviewed the Draft Environmental Impact Statement (collectively, DEIS") for the California Desert Conservation Area Plan Amendment for the Proposed First Solar Desert Sunlight Solar Farm Project (Project). The U.S. Bureau of Land Management (BLM) is the lead agency under the National Environmental Policy Act (NEPA) for the DEIS. In addition, because the California Public Utilities Commission (CPUC) has discretionary authority to issue the Permit to Construct (PTC) for the proposed Southern California Edison (SCE) substation at Red Bluff, and CPUC is a cooperating agency with BLM in the preparation of the DEIS, this document has been prepared in accordance with the California Environmental Quality Act (CEQA). CPUC intends to use this DEIS to provide environmental review required for its consideration of SCE's PTC application under CEQA.

Metropolitan is pleased to submit comments for consideration by BLM and CPUC during the public comment period for the DEIS, for consideration in preparing the final EIS. In sum, Metropolitan provides these comments to ensure that any potential impacts on it facilities in the vicinity of the Project and on the Colorado River water resources are adequately addressed.

Background

Metropolitan is a public agency and regional water wholesaler. It is comprised of 26 member public agencies serving more than 19 million people in six counties in 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 the Los Angeles basin. 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 U.S. Department of Interior, Bureau of Land Management (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

Desert Sunlight Holdings, LLC (Sunlight or Applicant), a wholly owned subsidiary of First Solar Development, Inc. (First Solar), proposes to construct and operate a 550-megawatt (MW), nominal capacity, alternating current (AC), solar photovoltaic (PV), energy-generating project known as the Desert Sunlight Solar Farm (DSSF). The Project consists of the PV generating facility (Solar Farm), most of the corridor for the associated 220-kilovolt (kV) generation interconnection transmission line (Gen-Tie Line), and one of two potential sites being considered for a new substation. The Project would be located on lands administered by the US Department of the Interior (DOI), Bureau of Land Management (BLM), Palm Springs-South Coast Field Office. The Project would develop a new 500- to 220- (500/220) kV substation (referred to as the Red Bluff Substation), where the PV generating facility would interconnect with the Southern California Edison (SCE) regional transmission system. While the Red Bluff Substation is included as part of the Project for planning and environmental considerations, it would be constructed, owned, and operated by SCE, not the Applicant. In addition to approvals sought by Sunlight from federal, state, and local agencies for implementing the DSSF, SCE will seek approvals from the California Public Utilities Commission (CPUC) and other state agencies to develop the Red Bluff Substation. Under California Environmental Quality Act (CEQA) Guidelines, Section 15221, this EIS will satisfy the CEQA requirements for those Project components that require entitlements from state and local agencies.

The Environmental Impact Statement analyzes six alternatives: (1) No Action, in which the Applicant's application would be denied and current management of the site would be

maintained; (2) the Applicant's application would be denied and the CDCA Plan would be amended to declare the site suitable for solar development; (3) the Applicant's application would be denied and the CDCA Plan would be amended to declare the site unsuitable for solar development; (4) BLM would grant the Applicant a right-of-way (ROW) for the project as proposed; (5) BLM would grant the Applicant a ROW for a modified project design; and (6) BLM would grant the Applicant a ROW for a smaller project. Alternatives 4, 5, and 6 include an amendment to the CDCA Plan as part of the Proposed Action and that amendment would find the project area as suitable for solar development.

Project water demand would be met by local groundwater from a new well or wells to be constructed on the Solar Farm Site. Sunlight proposes to construct two wells, one for project construction and one for operation. Both wells would be available for use during construction to provide flexibility in the event of a well malfunction. Historically, local wells within the Project Study Area produced almost 6,000 acre-feet per year. The water usage during that period dwarfs expected use by the DSSF, both during construction and operation. Nearby active wells have a production capacity of between 800 and 2,200 acre-feet per year (AFY) (First Solar 2009), and alternatively, Sunlight may explore acquiring water from those wells. Large stationary temporary water storage tanks (stand tanks) would be used to store the water and water trucks would be filled from these tanks.

During the approximately 26-month construction period, an estimated total of between 900 and 1,400 acre-feet of water would be needed for such uses as soil compaction, dust control, and sanitary needs for construction of the Solar Farm, depending on the configuration selected. The majority of the construction water use would occur during site grading operations. The daily water demand during construction of the Solar Farm is estimated to range from a low of 251,000 gallons per day (gpd) to a peak of approximately 1.3 million gpd. The Project's maximum well extraction rate over any 24-hour period is not expected to exceed 880 gallons per minute. Stand tanks would be located in the water truck station areas and used to store water during construction in order to meet expected daily demand. The stand tanks would be charged with/connected to the wells with existing or temporary piping. Water would be transferred directly to trucks from the stand tanks, as needed for dust control and compaction during construction.

The Applicant would perform the necessary studies and secure the necessary permissions to install the well(s). In addition, sampling and analysis in accordance with established protocols and with appropriate analytical test methods would be performed to assess water sufficiency and quality at each active well of appropriate capacity.

The Project site would be located on a largely vacant, undeveloped, and relatively flat land area located in the Chuckwalla Valley of the Sonora Desert in eastern Riverside County. The area proposed for the Solar Farm is approximately six miles north of Interstate 10 (I-10) and the rural community of Desert Center and four miles north of Lake Tamarisk, between the cities of Coachella (to the west) and Blythe (to the east). The Project Area contains existing transmission lines, telephone lines, and pipelines, as well as dirt roads. Joshua Tree National Park is north, east, and west of the area; at its closest point, the Solar Farm site is approximately 1.4 miles southwest of the national park boundary. The inactive Eagle Mountain Mine is approximately one mile west of the Project Study Area. Metropolitan's Colorado River Aqueduct (CRA) is located approximately one mile west of the solar farm site and the Eagle Mountain Pumping Plant of the CRA is located approximately 3 miles southwest of the solar farm site.

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 facilities. 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 supplemental water distribution system. Maps of the Project in relation to Metropolitan's Facilities are enclosed for reference. Metropolitan is concerned with potential direct or indirect impacts that may result from the construction and operation of any proposed solar energy project on or near our Facilities. In order to avoid potential impacts, Metropolitan requests that the final EIS and staff assessment include an assessment of potential impacts to Metropolitan's Facilities with proposed measures to avoid or mitigate significant adverse effects. **129-1**

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. Metropolitan's Eagle Mountain Pumping Plant is one of five pumping plants along the CRA that receives power from Metropolitan's 230-kV transmission system. This power is needed to energize the pumps that supply water to Metropolitan's service area. Metropolitan is concerned the proposed Project may adversely impact its ability to deliver water if the proposed Project causes a disruption to Metropolitan's electric system. Construction activities and operation of any new facilities resulting from the proposed Project should not impede or increase the cost of any electrical operation or maintenance activities on the CRA and its related transmission system. From a reliability and safety aspect, Metropolitan is concerned with development of any proposed projects and supporting transmission or distribution systems that would cross or come in close proximity with Metropolitan's transmission system. Metropolitan requests that the final EIS and staff assessment analyze and assess any potential impacts to Metropolitan transmission system and include any detailed transmission line crossing **129-2**

discussion similar to the paragraph in Section 2-26 describing the FPL Buck – Julian Hinds 230kV line crossing. 129-2 cont

Please correct the title for the paragraph in Section 3.6-22 from "Blythe-Eagle Mountain Transmission Line and Power Line Road" to "MWD's 230kV transmission line and Power Line Road". Refer to item 1 in Figure 3.9-6. The Blythe-Eagle Mountain 161kV transmission line is owned by SCE and has a separate ROW as shown as item 7 in Figure 3.9-7. 129-3

Additionally, the DEIS mentions the Project is located within approximately one mile from the Desert Center airfield, but the arrays are also very close to Metropolitan's private Eagle Mountain airfield. Metropolitan requests that the final EIS address any potential impacts to Metropolitan's airfield and pilots, including any consideration of whether the tall microwave tower or the solar lighting glare may impact Metropolitan's airfield or pilots, and if so, what mitigation will be adopted to address any issues. 129-4

Water Resources: Potential Impacts on 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 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. §§ 1501, et seq.; Arizona v. California, 547 U.S. 150 (2006). 129-5

As noted above, the Project proposes to use up to 1,400 af of water during construction and 0.2 afy for long-term operations, using groundwater within an area that is hydrogeologically 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 an on-going 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 Investigative Report No. 2008-5113. To the extent the Project uses Colorado River water, it must have a documented right to do so. In the event either the accounting surface is determined to be at a different elevation, or the static water levels below the project's wells begin significantly to drop toward the accounting surface; groundwater production by the project could result in an unauthorized diversion of Colorado River water to the detriment of Metropolitan. 129-6

Table 4.17-3 Summary of Groundwater Usage for Cumulative Project Impacts on page 4.17-35 of the DEIS indicates that average annual construction water use for the projects listed would approach 10,000 AFY and that average annual O&M water use would exceed 4,000 AFY.

California is using its full entitlement of Colorado River water, meaning that all water is already contracted for and no new water entitlements are available in California. Project proponents would have to obtain any rights to entitlements from existing contract holders. **129-7**

Metropolitan requests that BLM assess the potential cumulative impacts of the use of the scarce Colorado River and local groundwater supplies in light of other pending renewable energy projects within the Colorado River Basin and the local groundwater regions. Metropolitan requests that the final EIS address the Applicant's water supply rights and any potential direct, indirect, or cumulative impacts from this use. Metropolitan proposes that as a mitigation measure, the project annually report the static water levels beneath each of the project's production wells, along with a reference either to the accounting surface as proposed by USGS in 2008 or to a valid accounting surface methodology set forth in future legislation, rule-making, or applicable judicial determination. **129-8**

The proposed O&M facility includes a septic system and leach field. The impacts of this facility to groundwater basin quality have not been evaluated. The Chuckwalla Basin has previously been considered by Metropolitan, and may be considered in the future, for a conjunctive use water resource project and that maintenance of existing groundwater quality would be critical for future projects. The EIS should specify that all groundwater monitoring data and associated technical reports be made available to Metropolitan, if requested, in the future for assessment of the Chuckwalla Basin groundwater quality. Metropolitan requests that the groundwater quality impacts of this facility be further evaluated in the final EIS. **129-9**

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,

John Shamma

John Shamma
Manager, Environmental Planning Team

:rdl
(J:\Environmental Planning&Compliance\JOB COMPLETED\November 2010\Job No. 2010112301)

Enclosures: Maps

cc: Gerald R. Zimmerman, Executive Director
Colorado River Board of California

130

Public Comment Card for Scoping Process

First Solar Desert Sunlight Solar Farm Project

Commentor Name: CHRIS CROW Date: 11- 2010

Address: 8697 Rockhaven Road - Joshua tree CA 92252

Comment:

What is the wind project shown upper left on "The Path of Electricity" poster? 130-1

Is this part of the proposed project?

By submitting a scoping comment you will receive a copy of the EIS. Please indicate the format you would prefer:

☐ Compact Disk (CD) or ☐ Hardcopy

October 21, 2010, University of California- Riverside, Palm Desert Campus, 75080 Frank Sinatra Drive, Palm Desert, CA 92211

131

Public Comment Card

First Solar Desert Sunlight Solar Farm Project

Commentor Name: _____ Date: _____

Address: _____

Comment: _____

Paul Smith
6847 Adobe Rd.
Twentynine Palms, CA 92277

760 361 8566
pfclaw29@gmail.com

cdpajournal.com

By submitting a scoping comment you will receive a copy of the EIS. Please indicate the format you would prefer:

☒ Compact Disk (CD) or ☐ Hardcopy

→ MAIL TO

132

Public Comment Card

First Solar Desert Sunlight Solar Farm Project

Commentor Name: Rebecca Unger Date: 11-4-2010

Address: 48727 Manzanita Drive, Johnson Valley Cal 92285

Comment: We all know how vital it is to use sources of power & energy that are less polluting, more efficient, less invasive, and more sustainable.

However, when Gov. Swarzenegger calls the Mojave - our home - "a goldmine," we shudder in fear of being left a sacrifice zone for some one else's green.

Our property values have sunk so low already, covering the area with towers, wires, panels, bright lights, heavy equipment corridors, noise, blight, and industrial waste will kill us. 132-1

We have fought & won against LADWP's GreenPath, but how can we prevail against the Feds?

All life is precious & precarious here. The ground has a fragile crust, and we are sitting on one of the world's largest fault lines. 132-2

Please continue to consider these projects very carefully. Remember, people, plants, and threatened species live here. Don't crowd us out. 132-3

By submitting a scoping comment you will receive a copy of the EIS. Please indicate the format you would prefer:

☒ Compact Disk (CD) or ☒ Hardcopy Both please

133

Public Comment Card

First Solar Desert Sunlight Solar Farm Project

Commentor Name: SOUTHERN CALIFORNIA DESERT VIDEO ASTRONOMERS Date:

Address: TOM O'KEY

Comment: see attached email response to BLM Meeting announcement

By submitting a scoping comment you will receive a copy of the EIS. Please indicate the format you would prefer:

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Re: BLM responds to request for J Tree Meeting on solar project--Thurs Nov 4

Southern California Desert Video Astronomers [scdvainfo@gmail.com]

Sent: Tuesday, November 02, 2010 1:17 PM

To: Stephanie Weigel

Hi Stephanie,

Unfortunately we are out of town at the time of this meeting. The following note states our thoughts about concepts concerning developments such as these.

To whom is may concern,

The Southern California Desert Video Astronomers and the Joshua Tree Astronomy Arts Theater have a vested interest in defending the quality of our night sky in the California Desert and everywhere that is being affected in a negative way by the impact of various kinds of development. 133-1

Under current conditions, a fast paced drive to create new and innovative means of sustainable energy supplies and other urban development has become an issue. We believe that the conceptual models related to some kinds of development of various sorts are flawed and though relatively new, they are outdated. Insight into the cost benefit relationships and the service needs of developing communities is not comprehensively understood in view of future impacts and the reasoning for such projects.

The constant pressure to create jobs is not a reason to destroy the environment. Environmental impact and the long term practicality of a project should not be based on job related issues. Rather, jobs should be related to the truly sustainable concepts that will reflect the true needs of the future. In other words. no more Hummers and more e-cars! Most of the mechanics who were trained to work on Hummers are out of work, today. That is unless they are learning how to fix energy efficient vehicles, now. Please realize, they have stopped building Hummers!

It is our belief that small, point of use concepts of electrical supply is the trend of the future. Solar systems at the point of use that utilizes gaged systems on existing buildings and structures are smart. The blade and grade large scale projects that reflect ideas that reject efforts for conservation and wisdom in energy production and use are dinosaurs in the making. Systematic destruction of things that cannot be replaced to create projects that are not sustainable in the long term is a concept of the past and is no longer viable in our view. Hummers simply don't make sense in 2010 and beyond and those who disagree with this will find themselves mistaken!

It does not take a genius to figure out the impact of self serving glut and support for projects that will prove to diminish the quality of our environment and the ability to enjoy a dark night sky with a chance to absorb the important effects of a brilliant Milky Way view that is a right for all to enjoy. Those projects that diminish these natural resources and make them unimportant are hurting the human condition in ways that are not fully understood and will prove to be detrimental to the well being of society. The message that comes from such disregard is consistent with all of the negative impact that creates much illness and depression in ways unmeasured in human culture. The pace that has defined our past has built what is happening in the world today and that seems to be unacceptable. At least in terms commonly regarded as a measure of the quality of life as we experience it, now.

To look clearly at the problems we face and to make the correct decisions, as history will record, is an important and a needed thing to do immediately. Listening to all of candidates in the current election restate in their campaign ads "California is in serious trouble"! Well, we wonder why? Maybe the old school concepts are the foundation for a better understanding of this. If jobs building Hummers is the way to go, we can't see how, and don't understand concepts like these, at all! 133-1 cont

Small, high efficiency energy systems that direct themselves at point of use with careful consideration to conservation and waist is the path that will prove to work. It will create a sustainable job base and support the establishment for a creative and competitive economic situation that will be truly sustainable.

Giant solar projects such as the one being suggested here is really just another great big Hummer, don't you see? We all know they aren't making Hummers any more! And, we all knew that would be the case, didn't we?

Team SCDVA
www.scdva.org
Tom O'Key

On Tue, Nov 2, 2010 at 10:29 AM, Stephanie Weigel <sweigel@sonoraninstitute.org> wrote:

The **Desert Sunlight Solar Energy Project**, a fast track solar project just outside the southern boundary of Joshua Tree National Park, is currently in the Draft EIS review stage. BLM is making the rounds with public meetings. At the request of the National Park Conservation Association and others, BLM added a **public meeting this Thursday, November 4, from 5:30 – 8 PM at the Joshua Tree Community Center** (the original meetings were only scheduled for the Coachella Valley).

The meeting format will allow for input at various stations that will be set up in the community center, so you can make comments and ask questions when it works in your schedule between 5:30 and 8 – *you don't need to attend for the entire meeting time.*

While the project itself is not in the Morongo Basin, impacts on the park and our night skies and precedents for the ways in which solar is developed in the desert has a bearing on us all.

The attached pdf file contains a project map from the BLM Draft EIS, some talking points developed by NPCA, and the BLM press release on the meeting. Project impacts that you may wish to discuss with BLM staff include wilderness impacts, air quality, night skies, wildlife impacts, and cumulative impacts.

Written comments on the project are being accepted until November 26, 2010. The BLM website link is:

http://www.blm.gov/ca/st/en/fo/palmsprings/Solar_Projects/Desert_Sunlight.html

Please pass this on to others who may be willing to turn out.

Best,

Stephanie

Stephanie J. Weigel

sweigel@sonoraninstitute.org

Regional Land Use Planner, Sonoran Institute

Morongo Basin Open Space Group

http://www.mbopenspacegroup.org

c/o Joshua Tree National Park

74485 National Park Drive

Twentynine Palms, CA 92277

760.367.5567 (phone) 760.927.6078 (mobile) 760.367.6392 (fax)

--
Team SCDVA
□□ □□

No virus found in this message.
Checked by AVG - www.avg.com
Version: 10.0.1153 / Virus Database: 424/3233 - Release Date: 11/02/10

134

Public Comment Card for Scoping Process

First Solar Desert Sunlight Solar Farm Project

Commentor Name: Jammie Dye Date: 11/24/10

Address: 43611 Tamarisk / PO BOX 578 Desert Center CA 92239

Comment:

Solar power is America's way of ending our dependence on foreign oil. 134-1

The proposed solar project in Desert Center, California, has my full support.

The A1 transmission line does not have my support. I do not agree with the proposed A1 plan because it is planned to pass near/through the only area which is populated. The A2 transmission line would be a preferred alternative. 134-2

The proposed project will bring jobs to ~~the~~ our economically disadvantaged area. I understand the argument against the solar project, but the advantages to our community outweigh the disadvantages. With the rising costs of electricity and foreign oil, we need to take steps forward to become less dependent on non-renewable resources. 134-3

RECEIVED BUREAU OF LAND MANAGEMENT 2010 NOV 29 AM 11:00 PROJECT OFFICE

By submitting a scoping comment you will receive a copy of the EIS. Please indicate the format you would prefer:

☒ Compact Disk (CD) or ☐ Hardcopy

October 20, 2010, Lake Tamarisk Community Center, 26251 Parkview Drive, Desert Center, CA 92239

135

Public Comment Card for Scoping Process

First Solar Desert Sunlight Solar Farm Project

Commentor Name: Richard Delashmit Date: 11/26/10

Address: PoBox 231 Desert Center CA. 92239

Comment: I support the Solar farm out on Kiser RD. But I don't the A1 Line down Kiser Road the A2 is the best. 135-1 135-2

RECEIVED BLM DESERT DISTRICT 10 NOV 29 AM 11:01 BLM DESERT DISTRICT SOLAR STUDY AREA

Richard Delashmit

By submitting a scoping comment you will receive a copy of the EIS. Please indicate the format you would prefer:

☑ Compact Disk (CD) or ☐ Hardcopy

October 20, 2010, Lake Tamarisk Community Center, 26251 Parkview Drive, Desert Center, CA 92239

136

RECEIVED
BUREAU OF LAND MANAGEMENT
10 NOV 29 AM 11:00
PALM SPRINGS-SOUTH COAST
RESOURCE AREA

26 November 2010

Allison Shaffer, Project Manager
Bureau of Land Management
Palm Springs South Coast Field Office
1201 Bird Center Drive
Palm Springs CA 92262

Subject: Support for First Solar's Desert Sunlight Solar Farm at Desert Center CA
Reference: Draft Environmental Impact Statement (DEIS) dtd. 8-27-10

Dear Ms. Shaffer:

I have lived in the community of Desert Center and Lake Tamarisk for many years, and during that time have served on the County Service Area 51 advisory board. From 1975 to 1982, when the Kaiser Mine at Eagle Mountain closed, I managed the Eagle Mountain Shopping Center and a number of associated businesses. I currently own and operate McGoo's Country Market on Rice Road (SR-177), a short distance from Lake Tamarisk.

Eagle Mountain was a Kaiser company town of 4000 residents. After the mine closed the people moved away, and except for a period when there was a private prison located on the property, there have been very few jobs in this area. Without jobs it is hard to attract new residents, and the few local businesses still in operation have a small customer base. The economy here badly needs a shot in the arm. The hundreds of construction jobs expected from the solar project, and the dozen or so permanent jobs after that, will set us on the road to recovery. **136-1**

Some people say that the BLM land that would be used for the Desert Sunlight solar farm is pristine desert and First Solar should not be given a right-of-way. That's not true. Possibly any given acre may appear to be in its natural state, but in total, the area has been affected by man. Not only did General Patton have hundreds of thousands of men training in the Chuckwalla Valley during World War II, but the town of Eagle Mountain with 4000 residents was just down the road from the solar farm site. Also, there has been farming in the area in the past, and just across Kaiser Road are a number of old buildings, including some abandoned houses. It's also possible to find trash going back eighty years on the site, and while it may not be much, it's still proof that the area has been impacted by man's presence. This site is a good location for a solar farm because it has been disturbed over the years. More remote areas of the desert that have been untouched are much better choices for leaving the way they are. **136-2**

First Solar knows that the environment has to be protected and has plans to mitigate impacts from construction and operation of the Desert Sunlight solar farm. For example, it's important to protect the desert tortoise and relocation will mitigate losses in the population. It's not a perfect solution, but our country must break its dependence on fossil fuels, especially foreign oil, and utility-scale solar power is a crucial step in that direction. In a perfect world, everyone could have everything they want, but the reality is that we all have to make compromises. **136-3**

I want to close with a comment against the proposed A1 gen-tie route, which would go south along Kaiser Road and then turn east across Kaiser and SR-177 just north of Desert Center. A better route would be A2 because it wouldn't cut our community in two. But A1 would be less objectionable if part of it could be put underground. 136-4

Sincerely,

Ken Statler

McGoo's Country Market
26401 Rice Road (SR-177)
Desert Center CA 92239
760-227-3155

Ken Statler
McGoo's Country Market
26401 Rice Road (SR-177)
Desert Center CA 92239

USPS
NOV. 26. 10
DESERT CENTER, CA

U.S. POSTAGE
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POSTALIA 344153

Allison Shaffer, Project Manager
Bureau of Land Management
Palm Springs South Coast Field Office
1201 Bird Center Drive
Palm Springs CA 92262

92262$8001

137

Page 1/2

Public Comment Card

First Solar Desert Sunlight Solar Farm Project

Commentor Name: Jean Date: Nov 23, 2010

Address: Joshua Tree

Comment: This proposed solar project will be located too close to Joshua Tree National Park, wilderness areas and areas of critical Environmental concern. So are other pending renewable energy projects. 137-1

Biological resources, both animal and plant, will be eliminated for the site, access roads, new transmission lines -"gen-tie" with the new 135 foot towers to mar the vista and affect bird species. 137-2

Relocated tortoises don't do well as it has been found by projects using these mitigation measures and so many of this threatened species is being eliminated by endless projects. 137-3

No great use of water will be used during operations - BUT for 26 months during construction, a low of 251,000 gallons per day to a peak of approx. 1.3 million gallons per day usage is estimated (BLM Water Resources). And how many other projects planned in adjacent areas will be drawing from this water table and wells? The aqueduct does flow through there but it wasn't mentioned. 137-4

The technology of these photovoltaic cells seems better than other methods. Recyclable materials and program for doing so is good, but where will the recycling plant be located and what environmental concerns are associated with it? 137-5

The downplay of the risks of cadmium getting into the environment through fires, breakage, or leaching is disturbing. This location is near a major fault zone. Maybe some of those glass panels won't break falling 8 feet but being over/near wells and water table and the statement - 137-6

CONTINUED Next page

By submitting a scoping comment you will receive a copy of the EIS. Please indicate the format you would prefer:

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Public Comment Card

First Solar Desert Sunlight Solar Farm Project

continued 2/2

Commentor Name: Jean Date: Nov 23, 2010

Address: Joshua Tree

Comment: about worst case scenario contamination levels of cadmium being no higher than those allowed for German drinking water -exactly what are those? Lower than U.S. limits hopefully? Does this cover the length of time it would take to remove the broken pieces over 4,000 acres following a large earthquake when workers and equipment are able to access the area? 137-7

Lighting is a big concern. There shouldn't be any. When asked about it, a simulation was showed with no light pollution and a simplified diagram of a building with a light at each How many corners? corner. Lights set high on a pole, even with a shield, radiate light out from the sides somewhat and reflect it back from the ground - and can be seen for miles. JTNP is a place for astronomers and others to go where we can still see the Milky Way. The addition of lights for all of these projects and building adds up to an overall glow of light pollution. In fact, the CUMULATIVE EFFECT of all projects on our resources MUST be taken into consideration. Solar power uses such large areas of land, in this case 4000 acres to power only 160,000 homes. This technology belongs on our rooftops. 137-8 137-9

By submitting a scoping comment you will receive a copy of the EIS. Please indicate the format you would prefer:

☐ Compact Disk (CD) or ☑ Hardcopy

138

RIVERSIDE COUNTY
PLANNING DEPARTMENT

Carolyn Syms Luna
Director

RECEIVED
10 NOV 30 PM 2:17

DATE: **November 24, 2010**

TO: Allison Shafer
Bureau of Land Management
Palm Springs South Coast Field Office
1201 Bird Center Drive
Palm springs, CA 92264
CAPSSolarFirstSolarDesertSunlight@blm.gov

FROM: Riverside County Planning Department
Raymond Juarez, Planner IV

RE: Riverside County Comments on the Draft Environmental Impact Statement (EIS) and California Desert Conservation Area Plan Amendment for the proposed First Solar Desert Sunlight Solar Project – BLM Case File Number CACA #48694

Allison:

On November 1, 2010, the Riverside County Planning Department received a request from First Solar to review the DRAFT EIS in anticipation of filing an application for a Public Use Permit and encroachment permits from the County of Riverside for portions of the proposed Gen-Tie Line that will cross unincorporated land or encroach into the County Road Right of Way. The request was made to ensure the environmental review in the Final EIS will satisfy the County's environmental review requirements in connection with the anticipated applications. Below are the comments from the County of Riverside:

1. The County's role and permitting authority should be clearly spelled out in the executive summary and all other relative areas in the EIS/EIR, similar to the way the California Public Utilities Commission's (CPUC) role has been discussed; (It is anticipated that a Public Use Permit and Encroachment Permits will be required to comply with applicable County Ordinances) **138-1**
2. Maps, exhibits, and narrative should be included in the executive summary and all other relative areas in the EIS/EIR clearly defining the area of County Impact; **138-2**
3. Tables and supporting discussion should be provided illustrating a comparative analysis of how this joint EIS/EIR document complies with both NEPA and CEQA requirements – see Attachment E for an example; **138-3**
4. A copy of the County's Environmental Assessment form has been provided as Attachment C. This document should be considered to ensure all questions can be answered in the EIS/EIR. **138-4**
5. The Executive Summary Mitigation Tables should be updated to include the following information: **138-5**
   a. Description of Anticipated Impact
   b. Proposed Mitigation Measures
   c. Milestone to Trigger Mitigation Compliance
   d. Entity to Determine Mitigation Compliance

Riverside Office · 4080 Lemon Street, 12th Floor
P.O. Box 1409, Riverside, California 92502-1409
(951) 955-3200 · Fax (951) 955-1811

Desert Office · 38686 El Cerrito Road
Palm Desert, California 92211
(760) 863-8277 · Fax (760) 863-7555

"Planning Our Future… Preserving Our Past"

Thank you for the opportunity to comment. Please contact me at rjuarez@rctlma.org or at 951-955-9541 if you have any questions.

Sincerely,

Raymond Juarez, Planner IV

CC: First Solar
Monica Lamb
Director, Business Development
1111 Broadway, 4th Floor
Oakland, CA 94607

Attachments:
Attachment A: Letter dated November 1, 2010 from First Solar and Exhibits requesting the County's review of the DRAFT EIS for Desert Sunlight Project (Sheets 1-10)
Attachment B: Letter dated August 27, 2010 from BLM announcing the availability of the DRAFT EIS (Sheets (1-2)
Attachment C: Blank County Environmental Assessment Form (Sheets 1-25) – Contact the County for Electronic Files
Attachment D: Comments as a result of the Planning Department's Cultural Resource and Environmental Program sections, and Transportation Department review of the EIS (Sheets 1-5)
Attachment E: NEPA/CEQA Comparative Analysis sample

F:\Solar Facilities\Non-County Solar Projects\Desert Sunlight - BLM\Desert Sunlight.doc

First Solar, Inc.
1111 Broadway, 4th Floor
Oakland, California 94607 USA
Phone: +1 (510) 625-7400
Fax: +1 (510) 835-1274
info@firstsolar.com
www.firstsolar.com

November 01, 2010

Raymond Juarez
Riverside County Planning Department
4080 Lemon Street, 12th Floor
Riverside, California 92502-1409

RE: Submittal of Pre-application Review Application and Submittal of a Draft Environmental Impact Statement for County Review

Dear Mr. Juarez,

Desert Sunlight Holdings, LLC (the Applicant) is submitting this Pre-application Review Application and Draft Environmental Impact Statement (DEIS) to Riverside County (the County) in anticipation of submitting an application for a Roadway Encroachment Permit and, subject to anticipated changes to the County ordinance, an application for a Public Use Permit to Riverside County for the Desert Sunlight Solar Farm Project (the Project). As discussed with the County, the Applicant proposes to construct and operate a 550 MW solar photovoltaic energy generating facility. The majority of the Project will be located on federal lands managed by the Bureau of Land Management, Palm Springs-South Coast Field Office; however, a portion of the Project's generation interconnection line (Gen-Tie Line) may cross or encroach on County roadway easements on federal land or cross land owned in fee by the Los Angeles Metropolitan Water District (MWD) or by private parties. The Roadway Encroachment Application and Public Use Permit Application, if needed, are anticipated to be submitted at a later date to the County in order to obtain approval of these crossings and/or encroachments, after the final route for the electrical interconnection line has been determined.

The Applicant requests the County review and comment on the DEIS with respect to the Gen-Tie Line's crossings of County roadways, encroachments on County roadway rights of way, and crossing of land owned in fee by MWD or by private parties. This review is requested in order to ensure that the environmental review contained in the forthcoming Final EIS will satisfy the County's environmental review requirements in connection with the anticipated permit applications described above. The California Public Utilities Commission (CPUC) has entered into a Memorandum of Understanding with the BLM, pursuant to whichthe CPUC is expected to certify that the EIS prepared for the Project is compliant with the California Environmental Quality Act (CEQA).

The Applicant appreciates the County's support in reviewing and commenting on the DEIS, as well as this Pre-application Review Application. We look forward to meeting with the County to discuss the review.

Sincerely,

Amanda Beck
Environmental Project Manager - Business Development
First Solar

Attachment to Pre-Application Review (PAR) Application

Project Description

The Applicant, Desert Sunlight Holdings, LLC, proposes to construct and operate a 550 Megawatt (MW) solar photovoltaic energy generating facility known as Desert Sunlight Solar Farm (DSSF) (the "Project"). The majority of the Project will be located on federal lands managed by the BLM, Palm Springs-South Coast Field Office; however, a portion of the Project's generation interconnection line (Gen-Tie Line) may cross or encroach on County roadway easements on federal land or cross land owned in fee by the Los Angeles Metropolitan Water District (MWD) or by private parties. The BLM has prepared and published a Draft Environmental Impact Statement (DEIS) for the Project.

Several alternatives paths for the Gen-Tie Line are currently being considered in the DEIS. These alternatives including Gen-Tie Alternative A-1 (GT-A-1), Gen-Tie Alternative A-2 (GT-A-2), and Gen-Tie Alternative B-2 (GT-B-2) are described in detail in the DEIS. Each of the alternative Gen-Tie lines would cross County roadway rights of way on public land under management by BLM, and some of the alternatives would run parallel within the roadway rights of way, approximately 120 to 130 feet from the centerline of the paved roadbed. Each alternative would also span a parcel of land owned in fee by the Los Angeles Metropolitan Water District (MWD).

The Roadway Encroachment Application and Public Use Permit Application, if needed, are anticipated to be submitted at a later date to the County in order to obtain approval of these crossings and/or encroachments, after the final route for the electrical interconnection line has been determined. The permit applications that will be filed with the County will specify the location of the Gen-Tie from among one of the alternatives that are under environmental review pursuant to NEPA and CEQA by the BLM and the California Public Utilities Commission. The applicant has provided the County with the Draft Environmental Impact Statement (DEIS) describing the alternatives.

The Applicant requests the County review and comment on the DEIS with respect to the Gen-Tie Line's crossings of County roadways, encroachments on County roadway rights of way, and crossing of land owned in fee by MWD or by private parties. This review is requested in order to ensure that the environmental review contained in the forthcoming Final EIS will satisfy the County's environmental review requirements in connection with the anticipated permit applications described above. The California Public Utilities Commission (CPUC) has entered into a Memorandum of Understanding with the BLM, pursuant to which the CPUC is expected to certify that the EIS prepared for the Project is compliant with the California Environmental Quality Act (CEQA).

The following provides the Assessor's Parcel Number (APN); Section, Township and Range; and an aggregate of the approximate gross acreage of county roadway crossings and or privately held land crossings for each alternative:

For GT-A-1:

GT-A-1 would cross and encroach on the county roadway easements for Kaiser Road as well as land owned in fee by MWD. The approximate aggregate gross acreage of these crossing and encroachments is 112 acres. The table below provides a list of the APN's and associated Section, Township and Range where crossings or encroachments occur:

APN	Township, Range, Section
Crossing east to west over 300' Kaiser Rd. right of way	T 4S R 15E S 22
807-171-005	T 4S R 15E S 27
Travelling within 300' Kaiser Rd. right of way; west of pavement	T 4S R 15E S 22, 27, 34 T 5S R 15E S 3, 10, 15, 22
Crossing west to east over 300' Kaiser Rd. right of way	T 5S R 15E S 22

For GT-A-2:

GT-A-2 the Gen-Tie line would cross a number of privately held parcels. The approximate aggregate gross acreage of these crossing is 89 acres. The table below provides a list of the APN's and associated Section, Township and Range where the crossings would occur:

APN	Township, Range, Section
807-172-029	T 4S R 15E S27
808-250-014	T 5S R 15E S1
808-250-015	T 5S R 15E S1
808-250-016	T 5S R 15E S1
808-250-013	T 5S R 15E S1
808-250-003	T 5S R 15E S1
808-250-004	T 5S R 15E S1
808-250-005	T 5S R 15E S1
808-250-006	T 5S R 15E S1
808-240-012	T 5S R 15E S1
808-240-011	T 5S R 15E S1
808-240-010	T 5S R 15E S1
808-240-007	T 5S R 15E S1
808-240-008	T 5S R 15E S1
811-270-001	T 5S R 16E S6
811-141-011	T 5S R 16E S7
811-142-005	T 5S R 16E S7

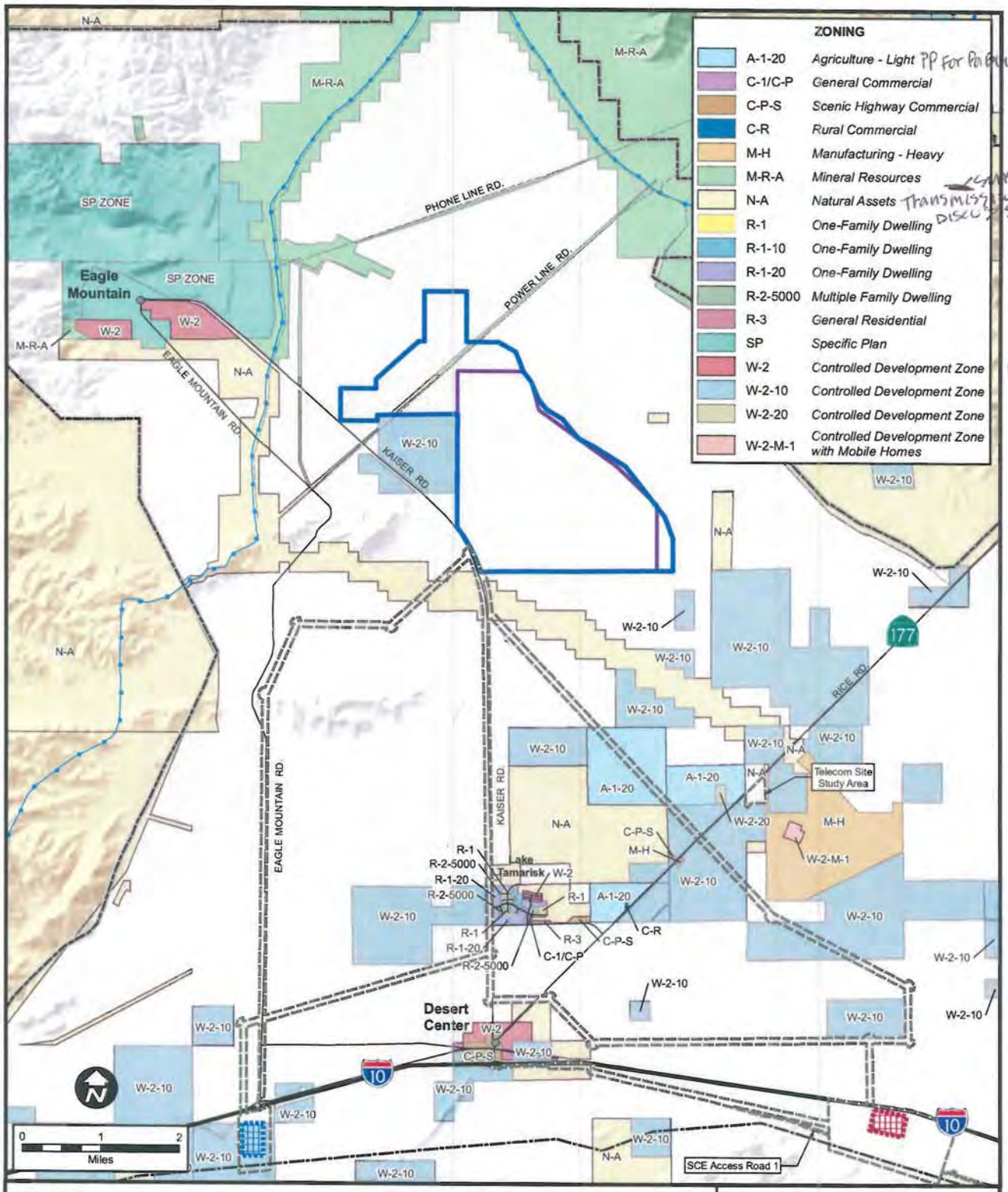
811-260-013	T 5S R 16E S7
811-170-013	T 5S R 16E S18
811-170-015	T 5S R 16E S17
811-170-016	T 5S R 16E S17
811-170-017	T 5S R 16E S17
811-170-018	T 5S R 16E S17
811-170-019	T 5S R 16E S17
811-180-004	T 5S R 16E S16
811-180-005	T 5S R 16E S16
811-180-027	T 5S R 16E S16

For GT-B-2:

GT-B-2 would cross and encroach on the county roadway easements for Kaiser Road and Eagle Mountain Road as well as land owned in fee by MWD. The approximate aggregate gross acreage of these crossing and encroachments is 101 acres. The table below provides a list of the APN's and associated Section, Township and Range where crossings or encroachments would occur:

APN	Township, Range, Section
Crossing east to west over 300' Kaiser Rd. right of way	T 4S R 15E S 22
807-171-005	T 4S R 15E S 27
Travelling within 300' Kaiser Rd. right of way; west of pavement	T 4S R 15E S 22, 27, 34 T 5S R 15E S 3, 10, 15
Crossing east to west over 80' Eagle Mountain Rd. right of way	T 5S T 15E S19
808-130-006	T 5S R 15E S31

X:\GIS\Desert_Sunlight\MXD_Files\Zoning2.mxd



LEGEND

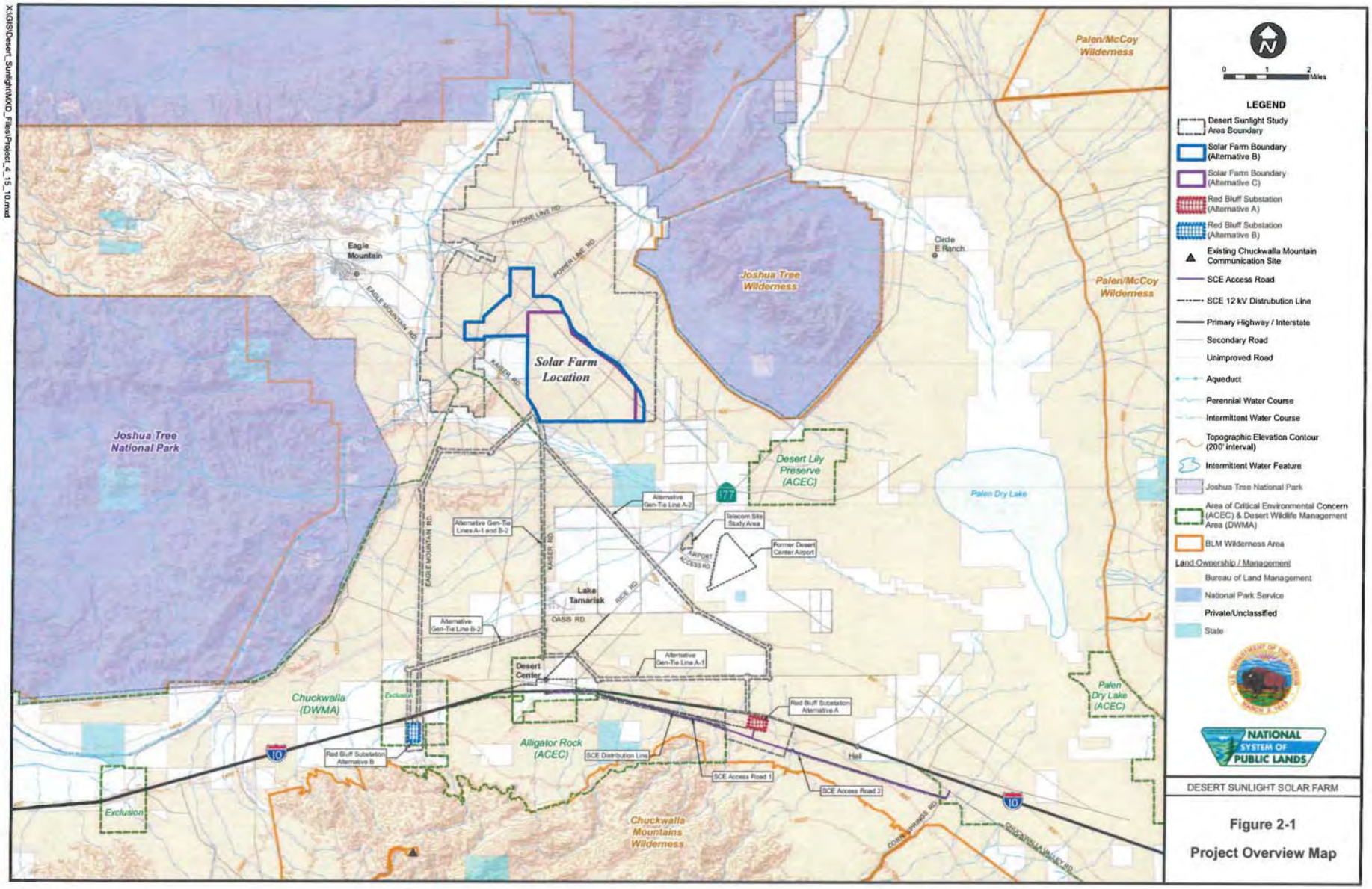
- Solar Farm Boundary (Alternative B)
- Solar Farm Boundary (Alternative C)
- Red Bluff Substation (Alternative A)
- Red Bluff Substation (Alternative B)
- Joshua Tree National Park Boundary
- Devers-Palo Verde Transmission Line (DPV1)
- Aqueduct
- BLM Land

Adapted from: Riverside County Integrated Plan, 2003.

DESERT SUNLIGHT SOLAR FARM

Figure 3.9-4

Riverside County Zoning


Solar Farm Location
Joshua Tree National Park
Joshua Tree Wilderness
Palen/McCoy Wilderness
Palen/McCoy Wilderness
Eagle Mountain
Circle E Ranch
Desert Lily Preserve (ACEC)
Palen Dry Lake
Palen Dry Lake (ACEC)
Chuckwalla (DWMA)
Exclusion
Exclusion
Alligator Rock (ACEC)
Chuckwalla Mountains Wilderness
Lake Tamarisk
Desert Center
Hell
Alternative Gen-Tie Lines A-1 and B-2
Alternative Gen-Tie Line A-2
Alternative Gen-Tie Line B-2
Alternative Gen-Tie Line A-1
Telecom Site Study Area
Former Desert Center Airport
Red Bluff Substation Alternative A
Red Bluff Substation Alternative B
SCE Distribution Line
SCE Access Road 1
SCE Access Road 2
PHONE LINE RD
POWER LINE RD
EAGLE MOUNTAIN RD
KAISER RD
AIRPORT ACCESS RD
RICE RD
OASIS RD
COVE SPRINGS RD
CHUCKWALLA VALLEY RD
177
10
10
0 1 2 Miles
LEGEND
Desert Sunlight Study Area Boundary
Solar Farm Boundary (Alternative B)
Solar Farm Boundary (Alternative C)
Red Bluff Substation (Alternative A)
Red Bluff Substation (Alternative B)
Existing Chuckwalla Mountain Communication Site
SCE Access Road
SCE 12 kV Distrubution Line
Primary Highway / Interstate
Secondary Road
Unimproved Road
Aqueduct
Perennial Water Course
Intermittent Water Course
Topographic Elevation Contour (200' interval)
Intermittent Water Feature
Joshua Tree National Park
Area of Critical Environmental Concern (ACEC) & Desert Wildlife Management Area (DWMA)
BLM Wilderness Area
Land Ownership / Management
Bureau of Land Management
National Park Service
Private/Unclassified
State
NATIONAL SYSTEM OF PUBLIC LANDS
DESERT SUNLIGHT SOLAR FARM
Figure 2-1
Project Overview Map
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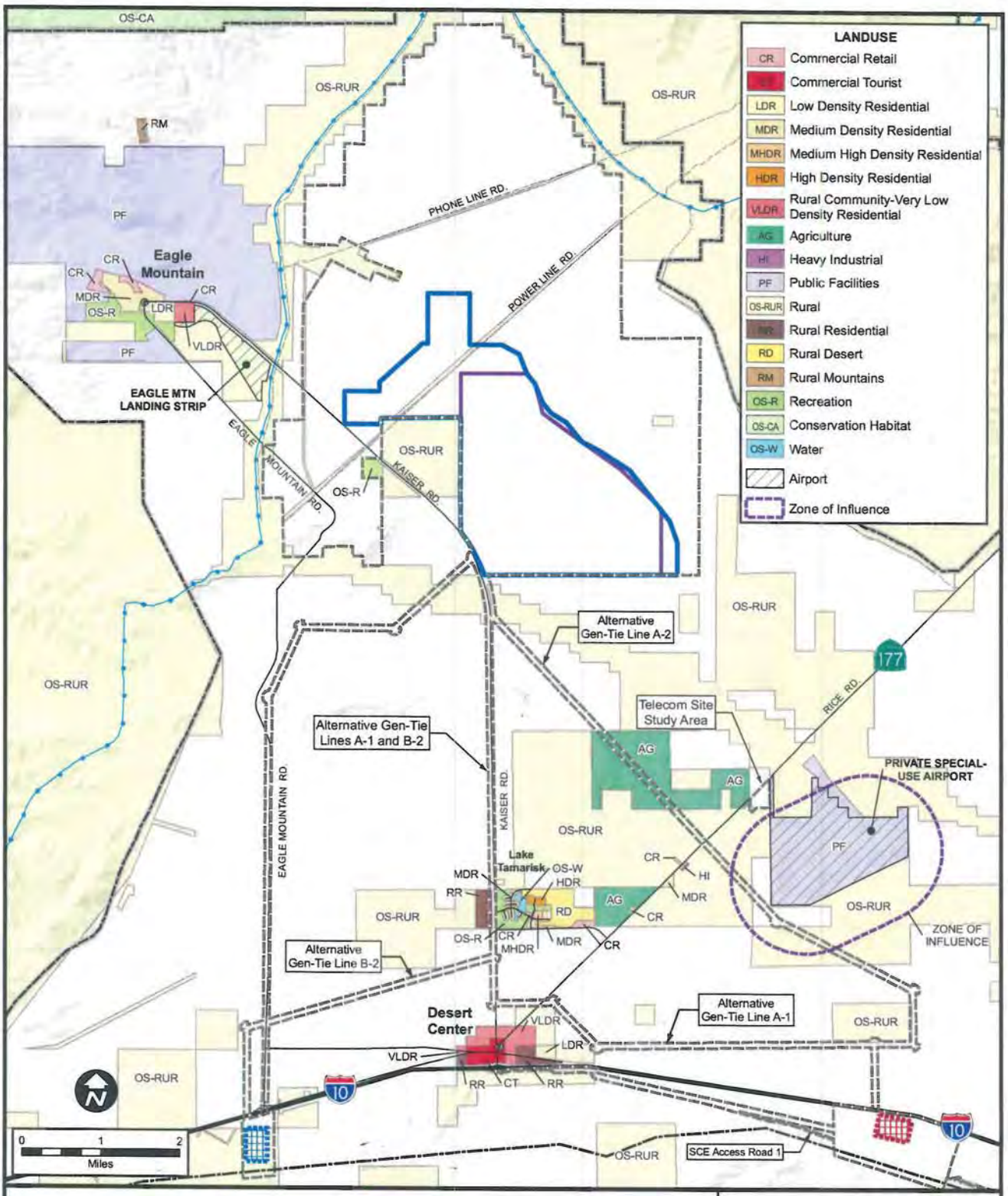
X:\GIS\Desert_Sunlight\MXD_Files\Land Use 2.mxd



LEGEND

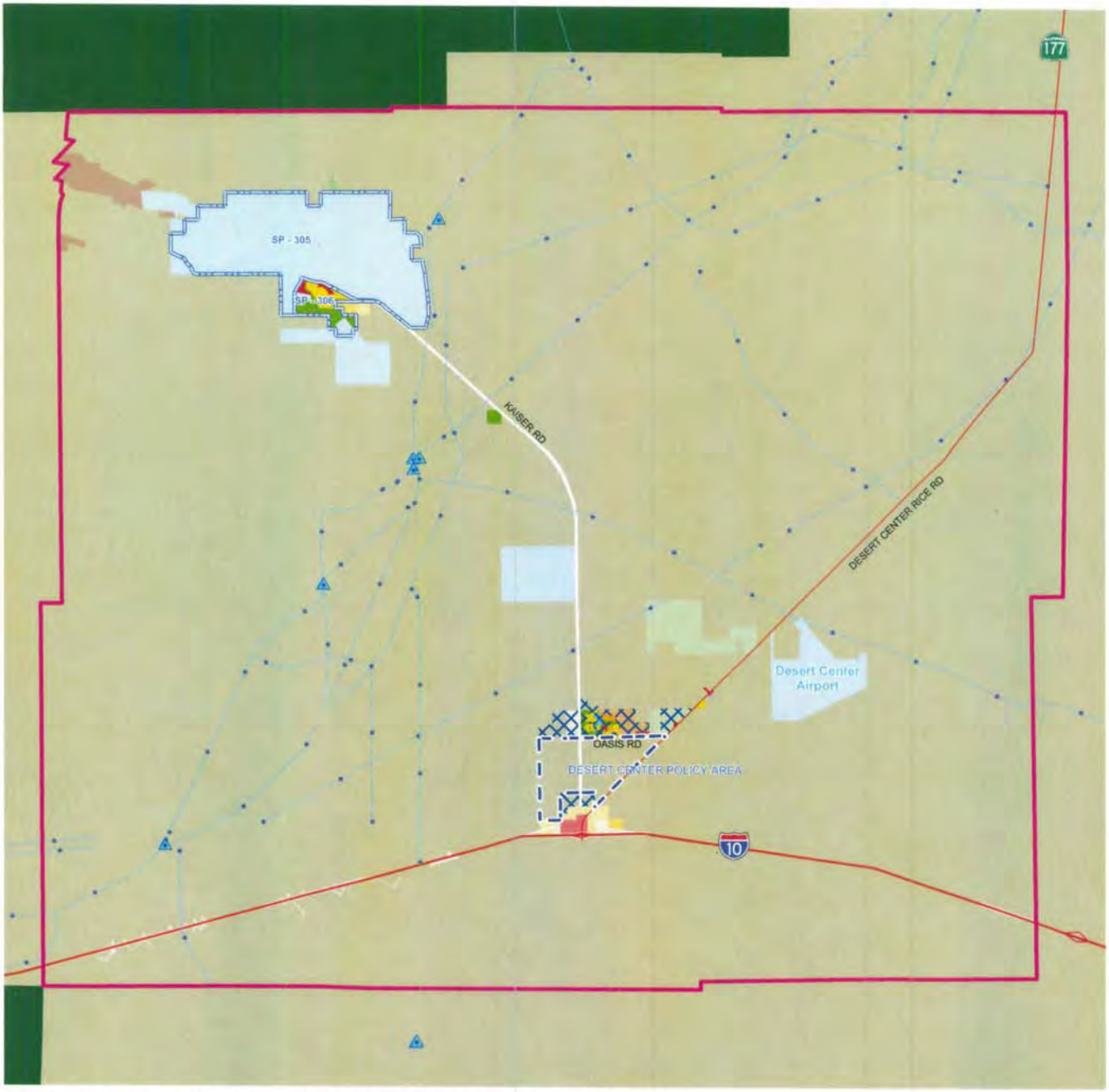
Adapted from: Riverside County Integrated Plan, 2003.

- Desert Sunlight Study Area Boundary
- Solar Farm Boundary (Alternative B)
- Solar Farm Boundary (Alternative C)
- Red Bluff Substation (Alternative A)
- Red Bluff Substation (Alternative B)
- BLM Land
- Joshua Tree National Park Boundary
- Devers-Palo Verde Transmission Line (DPV1)
- Aqueduct

DESERT SUNLIGHT SOLAR FARM

Figure 3.9-3

Riverside County General Plan Land Use Designations



GENERAL PLAN FOUNDATION COMPONENTS AND LAND USE DESIGNATIONS

COMMUNITY DEVELOPMENT
- Estate Residential (2 ac min)
- Very Low Density Residential (1 ac min)
- Low Density Residential (0.5 ac min)
- Medium Density Residential (2-5 du/acre)
- Medium High Density Residential (5-8 du/acre)
- High Density Residential (8-14 du/acre)
- Very High Density Residential (14-20 du/acre)
- Highest Density Residential (20+ du/acre)
- Commercial Retail
- Commercial Tourist
- Commercial Office
- Community Center

COMMUNITY DEVELOPMENT (CONT)
- Light Industrial
- High Industrial
- Business Park
- Public Facilities
- Mixed Use Planning Area

RURAL COMMUNITY
- Estate Residential (2 ac min)
- Very Low Density Residential (1 ac min)
- Low Density Residential (0.5 ac min)

RURAL
- Rural Residential (5 ac min)
- Rural Mountainous (10 ac min)
- Rural Desert (10 ac min)

AGRICULTURE
- Agriculture

OPEN SPACE
- Conservation
- Conservation - Habitat
- Open Space - Recreation
- Open Space - Rural
- Open Space - Water
- Open Space - Mineral Resources

OVERLAYS
- Business Park
- Community Center
- Community Development
- Commercial Retail
- Rural Village and Rural Village Study Area
- Watercourse
- Supervisorial District Boundary
- Specific Plans
- Cities
- Areas Subject to Indian Jurisdiction
- Area Plan Boundaries
- MWD Facilities

Source Information: General Plan land uses depicted on this map were developed by The County of Riverside Planning Department. The oldest data shown on this map was created in 1990.

Note: This Map may show designations on lands that have been annexed to cities after 1999.

This map may not represent the most current information available and may be revised without prior notice. The geographic information system and other sources should be queried for the most current information. This map or any information represented on it, shall not be reproduced or transmitted in any form or by any means, electronic or mechanical, including photo copying and recording.

Figure 3.19

0 14,000 Feet

Oct 7, 2003

FINAL DRAFT DESERT CENTER AREA LAND USE PLAN

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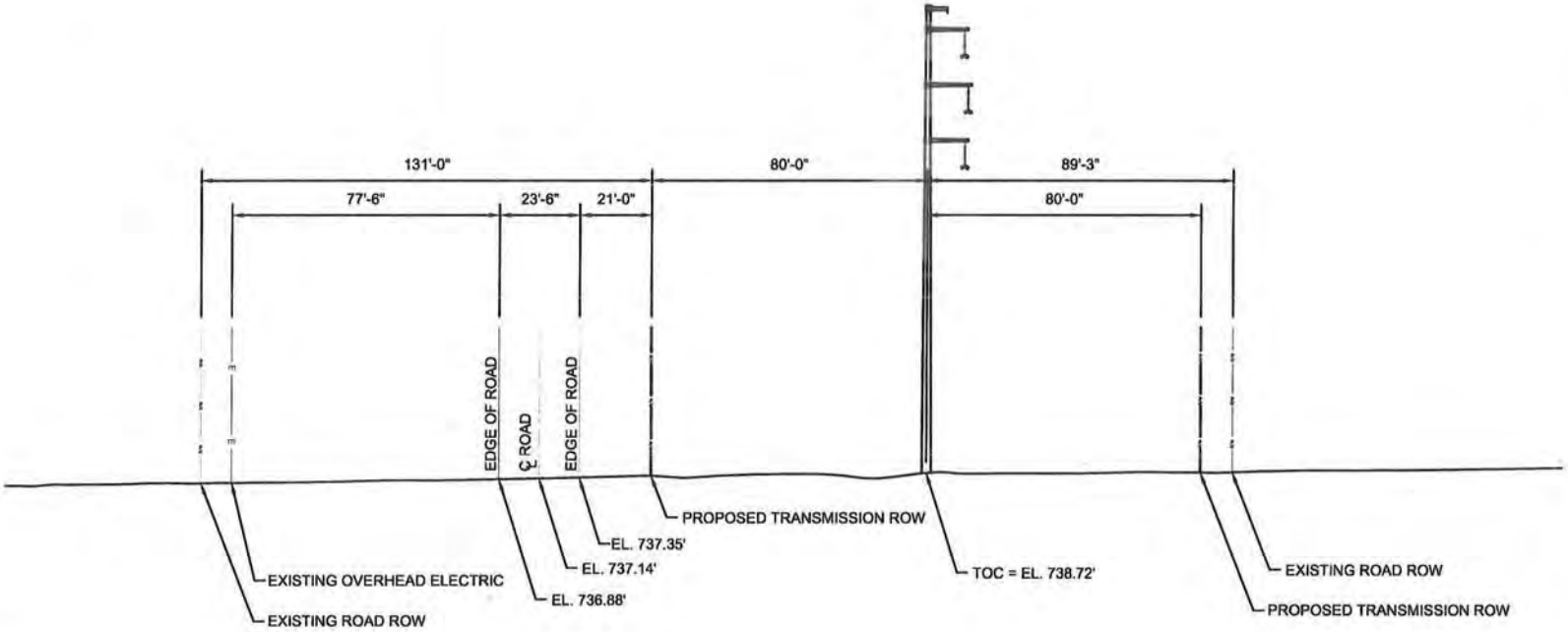
8



NOT TO SCALE

Burns & McDonnell
SINCE 1898

date 11/19/2010
designed D. SHARP

DESERT SUNLIGHT
TYPICAL CROSS SECTION ALONG
KAISER ROAD
220 kV LINE

project 54881
contract
dwg. no. CS-2
rev. 0

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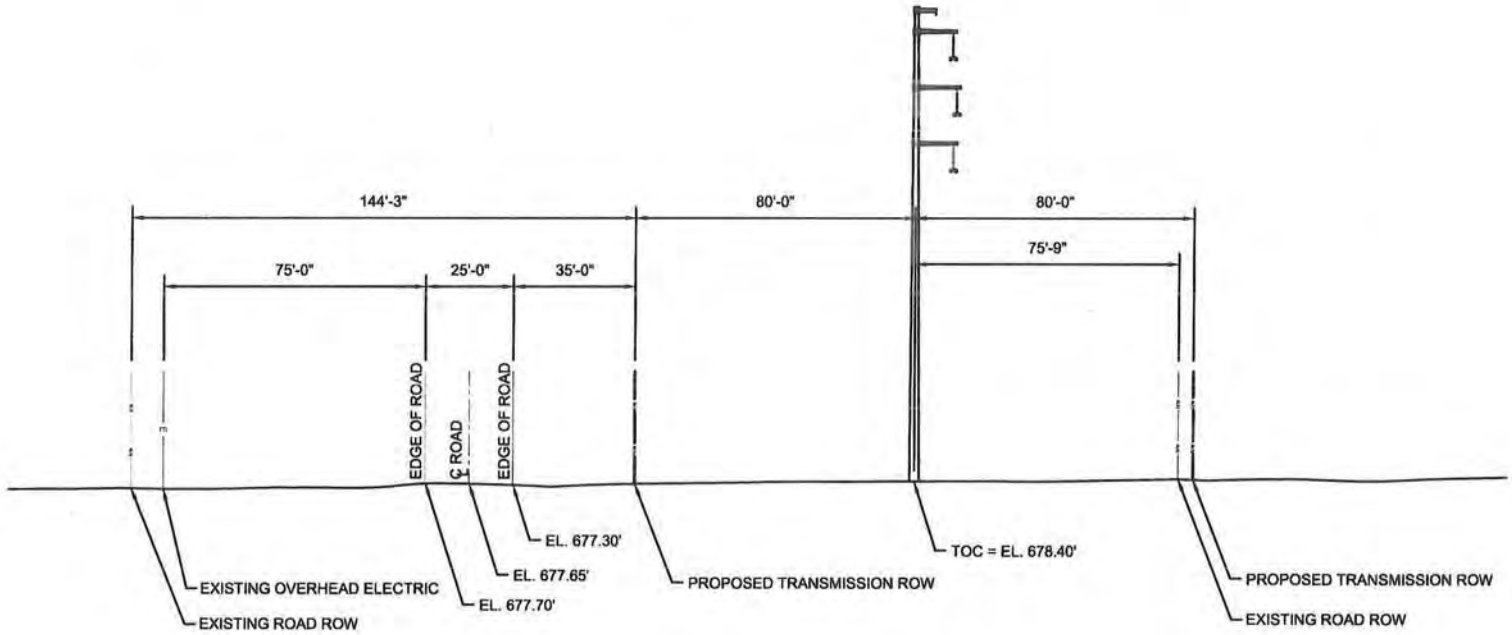

NOT TO SCALE

Burns & McDonnell SINCE 1898

date 11/19/2010

designed D. SHARP

DESERT SUNLIGHT

TYPICAL CROSS SECTION ALONG THE CURVE OF KAISER ROAD 220 kV LINE

project 54881

contract

dwg. no. CS-1

rev. 0

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Attachment B

Sheets 1-2

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Palm Springs South Coast Field Office
201 Bird Center Drive
Palm Springs, CA 92262
http://www.blm.gov/ca/palmsprings/

In reply refer to:
CACA 048649

August 27, 2010

Dear Reader:

I am pleased to announce the availability of the Draft Environmental Impact Statement (DEIS) and Draft Plan Amendment to the California Desert Conservation Area (CDCA) Plan, 1980, as Amended, for the Desert Sunlight Solar Farm (DSSF) Project. Desert Sunlight Holdings, LLC, the Applicant, is proposing to develop a 550-megawatt photovoltaic Solar Farm in Riverside County. The Applicant also proposes to facilitate the construction and operation of the Red Bluff Substation in cooperation with Southern California Edison (SCE) in order to provide renewable electric power to California's existing transmission grid.

The enclosed DEIS analyzes six alternatives: (1) No Action, in which the Applicant's application would be denied and current management of the site would be maintained; (2) the Applicant's application would be denied and the CDCA Plan would be amended to declare the site suitable for solar development; (3) the Applicant's application would be denied and the CDCA Plan would be amended to declare the site unsuitable for solar development; (4) BLM would grant the Applicant a right-of-way (ROW) for their project as proposed; (5) BLM would grant the Applicant a ROW for a modified project design; and (6) BLM would grant the Applicant a ROW for a smaller project. Alternatives 4, 5, and 6 include an amendment to the CDCA Plan as part of the Proposed Action and that amendment would find the project area as suitable for solar development.

The DEIS has been prepared in accordance with the National Environmental Policy Act (NEPA) and the Federal Land Policy and Management Act (FLPMA), which establishes the land management authority of the Bureau of Land Management (BLM) and provides guidance for how public lands are to be managed. In addition, because the California Public Utilities Commission (CPUC) has discretionary authority to issue the Permit to Construct (PTC) for the proposed SCE substation at Red Bluff, and CPUC is a cooperating agency with BLM in the preparation of the DEIS, this document has been prepared in accordance with the California Environmental Quality Act (CEQA). CPUC intends to use this DEIS to provide environmental review required for its consideration of SCE's PTC application under CEQA. The document has been sent to members of the public who requested a copy and to pertinent local, state, tribal, and federal government entities.

The DEIS will be circulated for 90-day public comment period. All comments must be postmarked no later than 90 days from the date the Notice of Availability for the DEIS is published in the *Federal Register* by the Environmental Protection Agency. Comments may be

sent to Allison Shaffer, Project Manager, by mail: 1201 Bird Center Drive, Palm Springs, CA, 92264; phone: (760) 833-7100; or email CAPSSolarFirstSolarDesertSunlight@blm.gov.

A public meeting will be held in Palm Springs, California, to allow oral or written comments to be presented to the BLM. Please see BLM's Web page at www.blm.gov/ca/st/en/fo/palmsprings.html for information about the location, date, and time of this meeting. All substantive issues raised during the comment period will be considered, and modifications based on these comments may be made to develop the Final EIS.

Additional hard copies or CD-ROM versions of the DEIS may be obtained by contacting the Palm Springs South Coast Field Office as noted in the previous paragraph. The document will also be available on the Internet at www.blm.gov/ca/st/en/fo/palmsprings.html.

We are pleased to provide this copy of the DSSF Project DEIS for your review and extend our appreciation for your cooperation and assistance during this process. We look forward to your continued participation.

Sincerely,

John R. Kalish
Field Manager

Attachment C

Sheets 1-25

COUNTY OF RIVERSIDE
ENVIRONMENTAL ASSESSMENT FORM: INITIAL STUDY

Environmental Assessment (E.A.) Number:
Project Case Type (s) and Number(s):
Lead Agency Name: County of Riverside Planning Department
Address: P.O. Box 1409, Riverside, CA 92502-1409
Contact Person:
Telephone Number:
Applicant's Name:
Applicant's Address:

I. PROJECT INFORMATION

A. Project Description:

B. Type of Project: Site Specific ☐; Countywide ☐; Community ☐; Policy ☐.

C. Total Project Area:

Residential Acres:	**Lots:**	**Units:**	**Projected No. of Residents:**
Commercial Acres:	**Lots:**	**Sq. Ft. of Bldg. Area:**	**Est. No. of Employees:**
Industrial Acres:	**Lots:**	**Sq. Ft. of Bldg. Area:**	**Est. No. of Employees:**
Other:			

D. Assessor's Parcel No(s):

E. Street References:

F. Section, Township & Range Description or reference/attach a Legal Description:

G. Brief description of the existing environmental setting of the project site and its surroundings:

II. APPLICABLE GENERAL PLAN AND ZONING REGULATIONS

A. General Plan Elements/Policies:

1. **Land Use:**
2. **Circulation:**
3. **Multipurpose Open Space:**
4. **Safety:**
5. **Noise:**
6. **Housing:**
7. **Air Quality:**

B. General Plan Area Plan(s):

C. **Foundation Component(s):**

D. **Land Use Designation(s):**

E. **Overlay(s), if any:**

F. **Policy Area(s), if any:**

G. **Adjacent and Surrounding Area Plan(s), Foundation Component(s), Land Use Designation(s), and Overlay(s) and Policy Area(s), if any:**

H. **Adopted Specific Plan Information**

1. **Name and Number of Specific Plan, if any:**

2. **Specific Plan Planning Area, and Policies, if any:**

I. **Existing Zoning:**

J. **Proposed Zoning, if any:**

K. **Adjacent and Surrounding Zoning:**

III. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below (x) would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" or "Less than Significant with Mitigation Incorporated" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Hazards & Hazardous Materials	☐ Recreation
☐ Agriculture & Forest Resources	☐ Hydrology / Water Quality	☐ Transportation / Traffic
☐ Air Quality	☐ Land Use / Planning	☐ Utilities / Service Systems
☐ Biological Resources	☐ Mineral Resources	☐ Other:
☐ Cultural Resources	☐ Noise	☐ Other:
☐ Geology / Soils	☐ Population / Housing	☐ Mandatory Findings of Significance
☐ Greenhouse Gas Emissions	☐ Public Services	

IV. DETERMINATION

On the basis of this initial evaluation:

A PREVIOUS ENVIRONMENTAL IMPACT REPORT/NEGATIVE DECLARATION WAS NOT PREPARED
☐ I find that the proposed project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.
☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project, described in this document, have been made or agreed to by the project proponent. **A MITIGATED NEGATIVE DECLARATION** will be prepared.
☐ I find that the proposed project MAY have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.

A PREVIOUS ENVIRONMENTAL IMPACT REPORT/NEGATIVE DECLARATION WAS PREPARED
☐ I find that although the proposed project could have a significant effect on the environment, **NO NEW ENVIRONMENTAL DOCUMENTATION IS REQUIRED** because (a) all potentially significant effects of the proposed project have been adequately analyzed in an earlier EIR or Negative Declaration pursuant to applicable legal standards, (b) all potentially significant effects of the proposed project have been avoided or mitigated pursuant to that earlier EIR or Negative Declaration, (c) the proposed project will not result in any new significant environmental effects not identified in the earlier EIR or Negative Declaration, (d) the proposed project will not substantially increase the severity of the environmental effects identified in the earlier EIR or Negative Declaration, (e) no considerably different mitigation measures have been identified and (f) no mitigation measures found infeasible have become feasible.
☐ I find that although all potentially significant effects have been adequately analyzed in an earlier EIR or Negative Declaration pursuant to applicable legal standards, some changes or additions are necessary but none of the conditions described in California Code of Regulations, Section 15162 exist. An **ADDENDUM** to a previously-certified EIR or Negative Declaration has been prepared and will be considered by the approving body or bodies.
☐ I find that at least one of the conditions described in California Code of Regulations, Section 15162 exist, but I further find that only minor additions or changes are necessary to make the previous EIR adequately apply to the project in the changed situation; therefore a **SUPPLEMENT TO THE ENVIRONMENTAL IMPACT REPORT** is required that need only contain the information necessary to make the previous EIR adequate for the project as revised.
☐ I find that at least one of the following conditions described in California Code of Regulations, Section 15162, exist and **a SUBSEQUENT ENVIRONMENTAL IMPACT REPORT** is required: (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; (2) Substantial changes have occurred with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any the following:(A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;(B) Significant effects previously examined will be substantially more severe than shown in the previous EIR or negative declaration;(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measures or alternatives; or,(D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR or negative declaration would substantially reduce one or more significant effects of the project on the environment, but the project proponents decline to adopt the mitigation measures or alternatives.

Signature _____ Date _____

Printed Name _____ For Carolyn Syms Luna, Director

V. ENVIRONMENTAL ISSUES ASSESSMENT

In accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000-21178.1), this Initial Study has been prepared to analyze the proposed project to determine any potential significant impacts upon the environment that would result from construction and implementation of the project. In accordance with California Code of Regulations, Section 15063, this Initial Study is a preliminary analysis prepared by the Lead Agency, the County of Riverside, in consultation with other jurisdictional agencies, to determine whether a Negative Declaration, Mitigated Negative Declaration, or an Environmental Impact Report is required for the proposed project. The purpose of this Initial Study is to inform the decision-makers, affected agencies, and the public of potential environmental impacts associated with the implementation of the proposed project.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
AESTHETICS Would the project				
1. Scenic Resources a) Have a substantial effect upon a scenic highway corridor within which it is located?	☐	☐	☐	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and unique or landmark features; obstruct any prominent scenic vista or view open to the public; or result in the creation of an aesthetically offensive site open to public view?	☐	☐	☐	☐

Source: Riverside County General Plan Figure C-7 "Scenic Highways"

Findings of Fact:

Mitigation:

Monitoring:

2. Mt. Palomar Observatory a) Interfere with the nighttime use of the Mt. Palomar Observatory, as protected through Riverside County Ordinance No. 655?	☐	☐	☐	☐

Source: GIS database, Ord. No. 655 (Regulating Light Pollution)

Findings of Fact:

Mitigation:

Monitoring:

3. Other Lighting Issues a) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the	☐	☐	☐	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
area?				
b) Expose residential property to unacceptable light levels?	☐	☐	☐	☐

Source: On-site Inspection, Project Application Description

Findings of Fact:

Mitigation:

Monitoring:

AGRICULTURE & FOREST RESOURCES Would the project				
4. Agriculture a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☐
b) Conflict with existing agricultural zoning, agricultural use or with land subject to a Williamson Act contract or land within a Riverside County Agricultural Preserve?	☐	☐	☐	☐
c) Cause development of non-agricultural uses within 300 feet of agriculturally zoned property (Ordinance No. 625 "Right-to-Farm")?	☐	☐	☐	☐
d) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	☐

Source: Riverside County General Plan Figure OS-2 "Agricultural Resources," GIS database, and Project Application Materials.

Findings of Fact:

Mitigation:

Monitoring:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
5. Forest a) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Govt. Code section 51104(g))?	☐	☐	☐	☐
b) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☐
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of forest land to non-forest use?	☐	☐	☐	☐

Source: Riverside County General Plan Figure OS-3 "Parks, Forests and Recreation Areas," and Project Application Materials.

Findings of Fact:

Mitigation:

Monitoring:

AIR QUALITY Would the project				
6. Air Quality Impacts a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	☐
d) Expose sensitive receptors which are located within 1 mile of the project site to project substantial point source emissions?	☐	☐	☐	☐
e) Involve the construction of a sensitive receptor located within one mile of an existing substantial point source emitter?	☐	☐	☐	☐
f) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☐

Source: SCAQMD CEQA Air Quality Handbook Table 6-2

Findings of Fact:

Mitigation:

Monitoring:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
BIOLOGICAL RESOURCES Would the project				
7. Wildlife & Vegetation				
a) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state conservation plan?	☐	☐	☐	☐
b) Have a substantial adverse effect, either directly or through habitat modifications, on any endangered, or threatened species, as listed in Title 14 of the California Code of Regulations (Sections 670.2 or 670.5) or in Title 50, Code of Federal Regulations (Sections 17.11 or 17.12)?	☐	☐	☐	☐
c) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U. S. Wildlife Service?	☐	☐	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☐
e) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U. S. Fish and Wildlife Service?	☐	☐	☐	☐
f) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☐
g) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☐

Source: GIS database, WRC-MSHCP and/or CV-MSHCP, On-site Inspection

Findings of Fact:

Mitigation:

Monitoring:

CULTURAL RESOURCES Would the project				
8. Historic Resources				
a) Alter or destroy an historic site?	☐	☐	☐	☐
b) Cause a substantial adverse change in the significance of a historical resource as defined in California	☐	☐	☐	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Code of Regulations, Section 15064.5?				

Source: On-site Inspection, Project Application Materials

Findings of Fact:

Mitigation:

Monitoring:

9. Archaeological Resources a) Alter or destroy an archaeological site.	☐	☐	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to California Code of Regulations, Section 15064.5?	☐	☐	☐	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☐
d) Restrict existing religious or sacred uses within the potential impact area?	☐	☐	☐	☐

Source: Project Application Materials

Findings of Fact:

Mitigation:

Monitoring:

10. Paleontological Resources a) Directly or indirectly destroy a unique paleontological resource, or site, or unique geologic feature?	☐	☐	☐	☐

Source: Riverside County General Plan Figure OS-8 "Paleontological Sensitivity"

Findings of Fact:

Mitigation:

Monitoring:

GEOLOGY AND SOILS Would the project				
11. Alquist-Priolo Earthquake Fault Zone or County Fault Hazard Zones a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death?	☐	☐	☐	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Be subject to rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	☐	☐	☐	☐

Source: Riverside County General Plan Figure S-2 "Earthquake Fault Study Zones," GIS database, Geologist Comments

Findings of Fact:

Mitigation:

Monitoring:

12. Liquefaction Potential Zone a) Be subject to seismic-related ground failure, including liquefaction?	☐	☐	☐	☐

Source: Riverside County General Plan Figure S-3 "Generalized Liquefaction"

Findings of Fact:

Mitigation:

Monitoring:

13. Ground-shaking Zone Be subject to strong seismic ground shaking?	☐	☐	☐	☐

Source: Riverside County General Plan Figure S-4 "Earthquake-Induced Slope Instability Map," and Figures S-13 through S-21 (showing General Ground Shaking Risk)

Findings of Fact:

Mitigation:

Monitoring:

14. Landslide Risk a) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, collapse, or rockfall hazards?	☐	☐	☐	☐

Source: On-site Inspection, Riverside County General Plan Figure S-5 "Regions Underlain by Steep Slope"

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Findings of Fact:

Mitigation:

Monitoring:

15. Ground Subsidence a) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in ground subsidence?	☐	☐	☐	☐

Source: Riverside County General Plan Figure S-7 "Documented Subsidence Areas Map"

Findings of Fact:

Mitigation:

Monitoring:

16. Other Geologic Hazards a) Be subject to geologic hazards, such as seiche, mudflow, or volcanic hazard?	☐	☐	☐	☐

Source: On-site Inspection, Project Application Materials

Findings of Fact:

Mitigation:

Monitoring:

17. Slopes a) Change topography or ground surface relief features?	☐	☐	☐	☐
b) Create cut or fill slopes greater than 2:1 or higher than 10 feet?	☐	☐	☐	☐
c) Result in grading that affects or negates subsurface sewage disposal systems?	☐	☐	☐	☐

Source: Riv. Co. 800-Scale Slope Maps, Project Application Materials

Findings of Fact:

Mitigation:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Monitoring:

18. Soils a) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☐
b) Be located on expansive soil, as defined in Section 1802.3.2 of the California Building Code (2007), creating substantial risks to life or property?	☐	☐	☐	☐
c) Have soils incapable of adequately supporting use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☐

Source: U.S.D.A. Soil Conservation Service Soil Surveys, Project Application Materials, On-site Inspection

Findings of Fact:

Mitigation:

Monitoring:

19. Erosion a) Change deposition, siltation, or erosion that may modify the channel of a river or stream or the bed of a lake?	☐	☐	☐	☐
b) Result in any increase in water erosion either on or off site?	☐	☐	☐	☐

Source: U.S.D.A. Soil Conservation Service Soil Surveys

Findings of Fact:

Mitigation:

Monitoring:

20. Wind Erosion and Blowsand from project either on or off site. a) Be impacted by or result in an increase in wind erosion and blowsand, either on or off site?	☐	☐	☐	☐

Source: Riverside County General Plan Figure S-8 “Wind Erosion Susceptibility Map,” Ord. 460, Sec. 14.2 & Ord. 484

Findings of Fact:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Mitigation:

Monitoring:

GREENHOUSE GAS EMISSIONS Would the project				
21. Greenhouse Gas Emissions a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☐	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☐

Source:

Findings of Fact:

Mitigation:

Monitoring:

HAZARDS AND HAZARDOUS MATERIALS Would the project				
22. Hazards and Hazardous Materials a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☐
c) Impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan?	☐	☐	☐	☐
d) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☐
e) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☐

Source: Project Application Materials

Findings of Fact:

Mitigation:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Monitoring:

23. Airports a) Result in an inconsistency with an Airport Master Plan?	☐	☐	☐	☐
b) Require review by the Airport Land Use Commission?	☐	☐	☐	☐
c) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☐
d) For a project within the vicinity of a private airstrip, or heliport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☐

Source: Riverside County General Plan Figure S-19 "Airport Locations," GIS database

Findings of Fact:

Mitigation:

Monitoring:

24. Hazardous Fire Area a) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☐

Source: Riverside County General Plan Figure S-11 "Wildfire Susceptibility," GIS database

Findings of Fact:

Mitigation:

Monitoring:

HYDROLOGY AND WATER QUALITY Would the project				
25. Water Quality Impacts a) Substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☐
c) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☐
d) Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☐
e) Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☐
f) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☐
g) Otherwise substantially degrade water quality?	☐	☐	☐	☐
h) Include new or retrofitted stormwater Treatment Control Best Management Practices (BMPs) (e.g. water quality treatment basins, constructed treatment wetlands), the operation of which could result in significant environmental effects (e.g. increased vectors or odors)?	☐	☐	☐	☐

Source: Riverside County Flood Control District Flood Hazard Report/Condition.

Findings of Fact:

Mitigation:

Monitoring:

26. Floodplains

Degree of Suitability in 100-Year Floodplains. As indicated below, the appropriate Degree of Suitability has been checked.

NA - Not Applicable ☐ U - Generally Unsuitable ☐ R - Restricted ☐

a) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	☐	☐	☐	☐
b) Changes in absorption rates or the rate and amount of surface runoff?	☐	☐	☐	☐
c) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam (Dam Inundation	☐	☐	☐	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Area)?				
d) Changes in the amount of surface water in any water body?	☐	☐	☐	☐

Source: Riverside County General Plan Figure S-9 "100- and 500-Year Flood Hazard Zones," Figure S-10 "Dam Failure Inundation Zone," Riverside County Flood Control District Flood Hazard Report/ Condition, GIS database

Findings of Fact:

Mitigation:

Monitoring:

LAND USE/PLANNING Would the project				
27. Land Use a) Result in a substantial alteration of the present or planned land use of an area?	☐	☐	☐	☐
b) Affect land use within a city sphere of influence and/or within adjacent city or county boundaries?	☐	☐	☐	☐

Source: RCIP, GIS database, Project Application Materials

Findings of Fact:

Mitigation:

Monitoring:

28. Planning a) Be consistent with the site's existing or proposed zoning?	☐	☐	☐	☐
b) Be compatible with existing surrounding zoning?	☐	☐	☐	☐
c) Be compatible with existing and planned surrounding land uses?	☐	☐	☐	☐
d) Be consistent with the land use designations and policies of the Comprehensive General Plan (including those of any applicable Specific Plan)?	☐	☐	☐	☐
e) Disrupt or divide the physical arrangement of an established community (including a low-income or minority community)?	☐	☐	☐	☐

Source: Riverside County General Plan Land Use Element, Staff review, GIS database

Findings of Fact:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Mitigation:

Monitoring:

MINERAL RESOURCES Would the project				
29. Mineral Resources a) Result in the loss of availability of a known mineral resource that would be of value to the region or the residents of the State?	☐	☐	☐	☐
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☐
c) Be an incompatible land use located adjacent to a State classified or designated area or existing surface mine?	☐	☐	☐	☐
d) Expose people or property to hazards from proposed, existing or abandoned quarries or mines?	☐	☐	☐	☐

Source: Riverside County General Plan Figure OS-5 "Mineral Resources Area"

Findings of Fact:

Mitigation:

Monitoring:

NOISE Would the project result in				
Definitions for Noise Acceptability Ratings Where indicated below, the appropriate Noise Acceptability Rating(s) has been checked. NA - Not Applicable A - Generally Acceptable B - Conditionally Acceptable C - Generally Unacceptable D - Land Use Discouraged				
30. Airport Noise a) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport would the project expose people residing or working in the project area to excessive noise levels? NA ☐ A ☐ B ☐ C ☐ D ☐	☐	☐	☐	☐
b) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? NA ☐ A ☐ B ☐ C ☐ D ☐	☐	☐	☐	☐

Source: Riverside County General Plan Figure S-19 "Airport Locations," County of Riverside Airport Facilities Map

Findings of Fact:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Mitigation:

Monitoring:

31. Railroad Noise NA ☐ A ☐ B ☐ C ☐ D ☐	☐	☐	☐	☐

Source: Riverside County General Plan Figure C-1 "Circulation Plan", GIS database, On-site Inspection

Findings of Fact:

Mitigation:

Monitoring:

32. Highway Noise NA ☐ A ☐ B ☐ C ☐ D ☐	☐	☐	☐	☐

Source: On-site Inspection, Project Application Materials

Findings of Fact:

Mitigation:

Monitoring:

33. Other Noise NA ☐ A ☐ B ☐ C ☐ D ☐	☐	☐	☐	☐

Source: Project Application Materials, GIS database

Findings of Fact:

Mitigation:

Monitoring:

34. Noise Effects on or by the Project a) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☐
b) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels	☐	☐	☐	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
existing without the project?				
c) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☐
d) Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels?	☐	☐	☐	☐

Source: Riverside County General Plan, Table N-1 ("Land Use Compatibility for Community Noise Exposure"); Project Application Materials

Findings of Fact:

Mitigation:

Monitoring:

POPULATION AND HOUSING Would the project				
35. Housing a) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☐
b) Create a demand for additional housing, particularly housing affordable to households earning 80% or less of the County's median income?	☐	☐	☐	☐
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☐
d) Affect a County Redevelopment Project Area?	☐	☐	☐	☐
e) Cumulatively exceed official regional or local population projections?	☐	☐	☐	☐
f) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☐

Source: Project Application Materials, GIS database, Riverside County General Plan Housing Element

Findings of Fact:

Mitigation:

Monitoring:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

PUBLIC SERVICES Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

36. Fire Services	☐	☐	☐	☐

Source: Riverside County General Plan Safety Element

Findings of Fact:

Mitigation:

Monitoring:

37. Sheriff Services	☐	☐	☐	☐

Source: RCIP

Findings of Fact:

Mitigation:

Monitoring:

38. Schools	☐	☐	☐	☐

Source: ?? (Union)(Unified) School District correspondence, GIS database

Findings of Fact:

Mitigation:

Monitoring:

39. Libraries	☐	☐	☐	☐

Source: RCIP

Findings of Fact:

Mitigation:

Monitoring:

40. Health Services	☐	☐	☐	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Source: RCIP

Findings of Fact:

Mitigation:

Monitoring:

RECREATION				
41. Parks and Recreation a) Would the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☐
b) Would the project include the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☐
c) Is the project located within a Community Service Area (CSA) or recreation and park district with a Community Parks and Recreation Plan (Quimby fees)?	☐	☐	☐	☐

Source: GIS database, Ord. No. 460, Section 10.35 (Regulating the Division of Land – Park and Recreation Fees and Dedications), Ord. No. 659 (Establishing Development Impact Fees), Parks & Open Space Department Review

Findings of Fact:

Mitigation:

Monitoring:

42. Recreational Trails	☐	☐	☐	☐

Source: Riv. Co. 800-Scale Equestrian Trail Maps, Open Space and Conservation Map for Western County trail alignments

Findings of Fact:

Mitigation:

Monitoring:

TRANSPORTATION/TRAFFIC Would the project				
43. Circulation a) Conflict with an applicable plan, ordinance or policy establishing a measure of effectiveness for the performance of the circulation system, taking into account	☐	☐	☐	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
all modes of transportation, including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?				
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☐
d) Alter waterborne, rail or air traffic?	☐	☐	☐	☐
e) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	☐	☐	☐	☐
f) Cause an effect upon, or a need for new or altered maintenance of roads?	☐	☐	☐	☐
g) Cause an effect upon circulation during the project's construction?	☐	☐	☐	☐
h) Result in inadequate emergency access or access to nearby uses?	☐	☐	☐	☐
i) Conflict with adopted policies, plans or programs regarding public transit, bikeways or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities?	☐	☐	☐	☐

Source: RCIP

Findings of Fact:

Mitigation:

Monitoring:

44. Bike Trails	☐	☐	☐	☐

Source: RCIP

Findings of Fact:

Mitigation:

Monitoring:

UTILITY AND SERVICE SYSTEMS Would the project

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
45. Water a) Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?	☐	☐	☐	☐
b) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☐

Source: Department of Environmental Health Review

Findings of Fact:

Mitigation:

Monitoring:

46. Sewer a) Require or result in the construction of new wastewater treatment facilities, including septic systems, or expansion of existing facilities, the construction of which would cause significant environmental effects?	☐	☐	☐	☐
b) Result in a determination by the wastewater treatment provider that serves or may service the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☐

Source: Department of Environmental Health Review

Findings of Fact:

Mitigation:

Monitoring:

47. Solid Waste a) Is the project served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☐
b) Does the project comply with federal, state, and local statutes and regulations related to solid wastes including the CIWMP (County Integrated Waste Management Plan)?	☐	☐	☐	☐

Source: RCIP, Riverside County Waste Management District correspondence

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Findings of Fact:

Mitigation:

Monitoring:

48. Utilities

Would the project impact the following facilities requiring or resulting in the construction of new facilities or the expansion of existing facilities; the construction of which could cause significant environmental effects?

a) Electricity?	☐	☐	☐	☐
b) Natural gas?	☐	☐	☐	☐
c) Communications systems?	☐	☐	☐	☐
d) Storm water drainage?	☐	☐	☐	☐
e) Street lighting?	☐	☐	☐	☐
f) Maintenance of public facilities, including roads?	☐	☐	☐	☐
g) Other governmental services?	☐	☐	☐	☐

Source:

Findings of Fact:

Mitigation:

Monitoring:

49. Energy Conservation a) Would the project conflict with any adopted energy conservation plans?	☐	☐	☐	☐

Source:

Findings of Fact:

Mitigation:

Monitoring:

OTHER

50. Other:	☐	☐	☐	☐

Source: Staff review

Findings of Fact:

Mitigation:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Monitoring:

MANDATORY FINDINGS OF SIGNIFICANCE				
51. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☐

Source: Staff review, Project Application Materials

Findings of Fact: Implementation of the proposed project would not substantially degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife populations to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.

52. Does the project have impacts which are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, other current projects and probable future projects)?	☐	☐	☐	☐

Source: Staff review, Project Application Materials

Findings of Fact: The project does not have impacts which are individually limited, but cumulatively considerable.

53. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☐

Source: Staff review, project application

Findings of Fact: The proposed project would not result in environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly.

VI. EARLIER ANALYSES

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration as per California Code of Regulations, Section 15063 (c) (3) (D). In this case, a brief discussion should identify the following:

Earlier Analyses Used, if any:

Location Where Earlier Analyses, if used, are available for review:

Location: County of Riverside Planning Department
4080 Lemon Street, 12th Floor
Riverside, CA 92505

VI. AUTHORITIES CITED

Authorities cited: Public Resources Code Sections 21083 and 21083.05; References: California Government Code Section 65088.4; Public Resources Code Sections 21080(c), 21080.1, 21080.3, 21082.1, 21083, 21083.05, 21083.3, 21093, 21094, 21095 and 21151; *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296; *Leonoff v. Monterey Board of Supervisors* (1990) 222 Cal.App.3d 1337; *Eureka Citizens for Responsible Govt. v. City of Eureka (2007)* 147 Cal.App.4th 357; *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th at 1109; *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656.

Revised: 11/24/2010 4:41 PM
EA 2010.docx

Attachment D

Sheets 1-5

PRE-APPLICATION REVIEW Case #: PAR01294 Parcel: 000-000-001

5. DRT CORRECTIONS REQUIRED

PLANNING DEPARTMENT

5.PLANNING. 1 DRT- CULTURAL RESOURCES REVIEW REQUIRED

Archaeology Section has reviewed the sections on cultural resources in the Draft Environmental Impact Statement for the Desert Sunlight Solar Farm Project. Technical studies have not been provided for review of the technical material. Therefore comments pertain to the planning summaries.

For cultural resources investigations conducted on parcels under County jurisdiction the consultant must be on the County's Cultural Resources Consultant List and have a signed MOU with the County. The certifying Principal Investigator must have a current County certificate.

All cultural resources investigations conducted on parcels under County jurisdiction must follow the current report scopes of work, formats and submittal requirements. These are posted on the TLMA website, or can be obtained from the County Archaeologist by calling (760) 349-9421 or emailing to lmouriqu@rctlma.org.

Please submit Appendix K (Cultural Resources studies and Programmatic Agreement) for continued review and comment on the adequacy for County needs in reviewing a future conditional use permit for project components on private land or that are County-owned. Until these documents are received for review and comment, adequacy cannot be determined.

The County requests to be a signatory on the Programmatic Agreement (PA) for treatment of cultural resources.

The DEIS indicates that tribal consultations have been occuring but does not report on any issues identified by tribes with traditional territorial claims on the project area. Traditional Cultural Properties (TCP) have not yet been identified as tribal consultation is on-going. Please provide an update on any tribal comments received.

The General Patton Memorial Museum, in Chiriaco Summit, has served as special monitor and curation facility for DTC-CAMA materials. The County requests that any DTC-CAMA materials that are collected or recovered be curated with this museum for the purpose of uniformity, artifact consolidation for accessiblty to resarchers and educational

5. DRT CORRECTIONS REQUIRED

5.PLANNING. 1 DRT- CULTURAL RESOURCES REVIEW (cont.) REQUIRED

purposes. Temporary curation may be necessary at the Western Science Center, in Hemet, until the Patton Museum can accommodate the artifacts.

Curation of prehistoric Native American artifacts and materials should be curated in a qualified curation facility within the County of Riverside. It is suggested that the Western Science Center be considered for such curation.

For all grading or other construction-related earth disturbances, the Pattom Museum should be contacted to provide special monitoring services to supplement archaeological monitoring. The museum has expertise to assist with artifact identification and intepretation of DTC-CAMA artifacts.

The BLM will prepare a Programmatic Agreement for treatment of cultural resources for this project. The County expects to be signatory to this document and will require compliance with the PA as it applies to treatment of cultural resources on privately owned parcels and County-owned parcels that are components of this project.

All cultural resources have been presumed NRHP eligible unless previously determined to be ineligible, except isolates and those previous determined ineligible. In DEIS section 3.6 there are a number of tables with many cultural resources sites listed as "likely ineligible" or "potentially eligible". Are these determinations pending additional testing for final determination that will be required in the PA? Will testing be required prior to any grading? It is recommended that for any archaeological testing or other types of investigations that the new cultural/historical context statements and field manuals for the DTC district and for the prehistoric resources in the project area now being developed by the BLM-CEC be applied for uniformity in approach, methods, and nomenclature.

Please provide a copy of the cultural resources monitoring and mitigation plan for review and comment.

Why was the 5-mile section of GT A-2 not able to be surveyed? Is this 5-mile section within the proposed project study boundaries?

5. DRT CORRECTIONS REQUIRED

5.PLANNING. 1 DRT- CULTURAL RESOURCES REVIEW (cont.) (cont.REQUIRED

On page 4.6-8, AM-CUL-1, please add language to the end of the paragraph requiring procedures for veryfiying mitigation compliance.

Addendum: Technical studies were received on November 22, 2010, and review was begun for adequacy for future County environmental review needs.

10. GENERAL CONDITIONS

EPD DEPARTMENT

10.EPD. 1 - EPD CORRECTIONS RECOMMND

Environmental Programs Division staff has reviewed the biological documentation associated with the proposed First Solar Desert Sunlight Solar Farm Project. This review was conducted at the request of the applicant to ensure that the existing biological documentation would meet county standards. The following comments and corrections must be addressed prior to the approval of a discretionary action. Please note that the following corrections refer to the primary text within the EIS, however the appropriate changes must be made to the corresponding documents found in appendix H.

CDFG Jurisdiction: A jurisdictional delineation was provided which included an analysis of federal wetlands. Please provide a delineation of all waters which fall under CDFG jurisdiction.

Table 3.3-2: Several of the species listed within Table 3.3-2 were categorized as being unlikely to occur, however no explanation was given for this finding. Please provide an explanation of findings for each of the species listed as unlikely to occur.

AM-BIO-3: For activities conducted on lands under county jurisdiction, all biological monitors must hold an MOU with the county.

AM-BIO-5: Prior to implementation, the Vegetation Resources Management Plan shall be submitted to the Environmental Programs Division for review and approval.

10. GENERAL CONDITIONS

10.EPD. 1 - EPD CORRECTIONS (cont.) RECOMMND

MM-BIO-1: For activities conducted on lands under county jurisdiction, all biological monitors must hold an MOU with the county. Monitoring reports shall be provided to the Environmental Programs Division for review.

AM-WIL-3: All burrowing owls shall be actively relocated.

If you have any questions, please contact Chad Young at (951) 955-8159.

TRANS DEPARTMENT

10.TRANS. 1 PAR - COMMENTS RECOMMND

These are comments only and are not to be construed as Conditions of Approval.

1. Deceleration lanes shall be constructed along Kaiser Road at the projects access driveway as approved by the Director of Transportation.

2. The driveway(s) shall be constructed in accordance with the applicable County Standards and shall be located in accordance with exhibits for PAR1294.

3. An Encroachment permit must be obtained from the Transortation Department prior to the commencement of any work (power poles, grading adjacent to power poles, driveways etc..) within the County road right-of-way.

4. The developer/and or First Solar shall contact the County of Riverside Purchasing Department at (951) 955-9580, Attn: Virginia Wilson and set up Franchise Agreement to own, operate and maintain their facilities within the County Road right-of-way. A copy of the recorded agreement shall be submitted to the County of Riverside Transportation Department.

5. The developer/and or First Solar shall accept full responsibility for complying with all Federal, State and County environmental laws within road right-of-way (Kaiser Road). The proposed Environmental Impact Study shall include any environmental mitigation within County road right-of-way (Kaiser Road).

10. GENERAL CONDITIONS

10.TRANS. 1 PAR - COMMENTS (cont.) RECOMMND

6. Street improvement plans and signing and striping plans will be required for this project.

Should you have any questions, please contact Majeed Farshad at (760)863-7045.

Attachment E

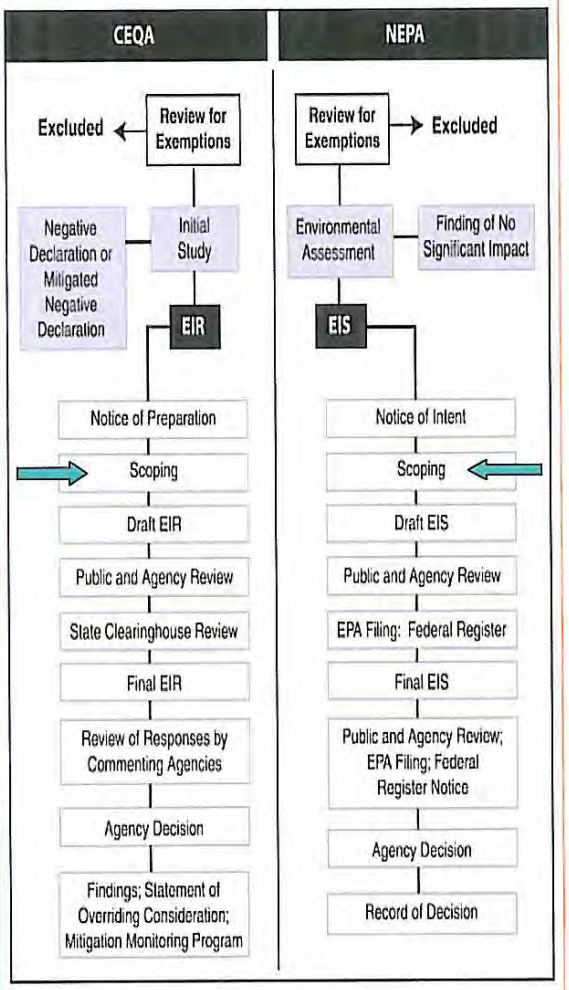
US Army Corps of Engineers ®

GCID GLENN-COLUSA IRRIGATION DISTRICT

The National Environmental Policy Act and California Environmental Quality Act

- **National Environmental Policy Act (NEPA)** – NEPA requires that federal agencies prepare an Environmental Impact Statement (EIS) for major federal actions that may significantly affect the quality of the human and natural environment.
- **California Environmental Quality Act (CEQA)** – CEQA requires that California state and local agencies prepare an Environmental Impact Report (EIR) for actions that may significantly affect the quality of the human and natural environment.
- **EIS/EIR** – An EIS/EIR is a public document that provides an assessment of the potential environmental impacts resulting from a proposed action and alternatives. Within the EIS/EIR, the potentially affected environment is identified and resources potentially affected are analyzed.
- **Analysis** – Major resource areas to be evaluated in the EIS/EIR include, but are not limited to:
  - Aesthetics
  - Biological Resources
  - Cultural Resources
  - Geomorphology
  - Land Use
  - Water Quality and Flood Conveyance
  - Indian Trust Assets
  - Air Quality
  - Noise and Vibration
  - Hazardous Materials and Hazardous Waste Management
  - Recreation
  - Traffic

NEPA/CEQA Process Flow Chart



Public Involvement Opportunities during the NEPA/CEQA Process

Attend the Public Scoping Meeting in Hamilton City, CA – January 29, 2009

Review and Comment on the Draft EIS/EIR – October-December, 2009

- Availability of the Draft EIS/EIR will be announced in October 2009 in the *Federal Register* and in local newspapers.
- The 45-day comment period commences with the availability of the announcement.

Attend the Public Hearing – November 2009

Review and Comment on the Final EIS/EIR – April/May 2010

- Availability of the Final EIS/EIR will be announced in April 2010 in the *Federal Register* and in local newspapers.
- The 30-day comment period commences with the availability of the announcement.

While it is the goal of the project team to meet these dates, all dates referenced are tentative and may be adjusted as circumstances dictate during the EIS/EIR process.

139

Public Comment Card for Scoping Process

First Solar Desert Sunlight Solar Farm Project

Commentor Name: DIANA Milliken Date: 11/24/10

Address: P.O Box 574 Desert Center Ca 92239

Comment:

Although I agree with solar power this proposed site is not appropriate. 139-1

Wildlife endangered. 139-2

Water availability questionable. 139-3

View of valley spoiled 139-4

? long term economy of valley. 139-5

By submitting a scoping comment you will receive a copy of the EIS. Please indicate the format you would prefer:

☐ Compact Disk (CD) or ☐ Hardcopy

RECEIVED BUREAU OF LAND MANAGEMENT 10 NOV 26 PM 12:32 PALM SPRINGS-FOREST DISTRICT RIVERSIDE, CA

October 20, 2010, Lake Tamarisk Community Center, 26257 Parkview Drive, Desert Center, CA 92239

140

Public Comment Card for Scoping Process

First Solar Desert Sunlight Solar Farm Project

Commentor Name: LOIS DONALDSON Date: 11/16/10

Address: PO BOX 7111 DESERT CENTER, CA 92239

Comment: ALTHOUGH THERE ARE SOME NEGATIVES RELATED TO THE PROPOSED SOLAR FARM THE POSITIVES FOR OUR AREA FAR OUTWEIGH THEM. TO SAY NOTHING OF OF BENEFITS OF CLEAN ENERGY PRODUCTION FOR OUR STATE. I SUPPORT THE PROPOSED SOLAR FARM AS PRESENTED BY FIRST SOLAR. 140-1

RECEIVED
BUREAU OF LAND MANAGEMENT
10 NOV 26 PM 12:32
BLM PALMDALE-SOUTH COAST
RESOURCE AREA

By submitting a scoping comment you will receive a copy of the EIS. Please indicate the format you would prefer:

☐ Compact Disk (CD) or ☒ Hardcopy

October 20, 2010, Lake Tamarisk Community Center, 26251 Parkview Drive, Desert Center, CA 92239

141

Public Comment Card for Scoping Process

First Solar Desert Sunlight Solar Farm Project

Commentor Name: Ed & Carol Schlauch Date: 11-20-10

Address: Lake Tamarisk Desert Resort Sp 122
26250 Parkview Dr., Desert Center, CA
92239

Comment:

We are opposed to the route (A-1) for the First Solar, BLM project which runs along Kaiser Road near Lake Tamarisk. We have concerns about health issues so close to our homes. Also possible interference with cell phone and wireless service. We are also concerned about long term growth & economy of this desert valley. 141-1

We feel (A2) route which runs down the existing power line road on the east side of Lake Tamarisk through Jojoba fields & out to the freeway is the best and most practical solution, and the best for health reasons. 141-2

RECEIVED
BUREAU OF LAND MANAGEMENT
10 NOV 26 PM 12: 32
BLM
NEVADA STATE OFFICE
RECEIVED

By submitting a scoping comment you will receive a copy of the EIS. Please indicate the format you would prefer:

☐ Compact Disk (CD) or ☒ Hardcopy

October 20, 2010 Lake Tamarisk Community Center, 26251 Parkview Drive, Desert Center, CA 92239

142

We Support Desert Sunlight

RECEIVED
BUREAU OF LAND MANAGEMENT
10 NOV 24 PM 12: 13

We, residents of and visitors to Desert Center, are pleased to be counted in support of First Solar's 550-megawatt Desert Sunlight Solar Farm to be built in this area. The project is expected to provide enough clean energy for about 160,000 California homes, and to be a major factor in California achieving one-third of its energy from renewable resources. Direct benefits will be approximately 435 construction jobs, more customers for local businesses, and increased sales and property tax revenues. As designed, the project will protect the environment of this area while at the same time utilizing one of our unique natural resources, abundant sunshine. 142-1

Name	Signature	City
ROBERT JAMES Chattar	Robert James	Colorado City TX
Larry Byrne		Castaic Ca 91384
Ray Corwin	Ray Corwin	Portland, OR.
C Fleming	C Fleming	DC
N Fleming	N Fleming	DC
Bizien Jean		Paris
DARNÉ		
Renou		Le Mans FRANCE
Renou		Le Mans FRANCE
Glennis McNeal	Glennis McNeal	Beaverton OR
LORENZO M. ROMERO	L Romero	Blythe CA
Dennis Klingensmith		Blythe, Ca.
Darrell Anderson		Blythe CA
Michael Roppolo		Blythe, CA.

Date Completed 11.2.10

We Support Desert Sunlight

We, residents of and visitors to Desert Center, are pleased to be counted in support of First Solar's 550-megawatt Desert Sunlight Solar Farm to be built in this area. The project is expected to provide enough clean energy for about 160,000 California homes, and to be a major factor in California achieving one-third of its energy from renewable resources. Direct benefits will be approximately 435 construction jobs, more customers for local businesses, and increased sales and property tax revenues. As designed, the project will protect the environment of this area while at the same time utilizing one of our unique natural resources, abundant sunshine.

Name	Signature	City
Betty Stanley	Betty Stanley	Desert Center
John Young	John Young	Desert Center
Pat Young	Pat Young	Desert Center
[illegible]	[illegible]	Desert Center
[illegible]	[illegible]	Rancho Cucamonga
Karen C Kirby	[illegible]	Desert Center
Elizabeth Quinn	Elizabeth Quinn	Eagle Mtn.
Mike Aleksich	[illegible]	Rialto
Marion Bergeson	Marion Bergeson	Desert Center
James Bergeson	[illegible]	Desert Center
Z Kuyper	[illegible]	Desert Center
H Kuyper	H. Kuyper	Desert Center
Sharon Blankenship	[illegible]	Desert Center
Victor Jerome	[illegible]	San Diego
Kevin Casey		Kingman AZ

Date Completed 11-4-10

We Support Desert Sunlight

We, residents of and visitors to Desert Center, are pleased to be counted in support of First Solar's 550-megawatt Desert Sunlight Solar Farm to be built in this area. The project is expected to provide enough clean energy for about 160,000 California homes, and to be a major factor in California achieving one-third of its energy from renewable resources. Direct benefits will be approximately 435 construction jobs, more customers for local businesses, and increased sales and property tax revenues. As designed, the project will protect the environment of this area while at the same time utilizing one of our unique natural resources, abundant sunshine.

Name	Signature	City
Laura Carrera	Laura Carrera	Desert Center, CA
Janet Shaler	Shaler	L.H.C.
Pat Yowna	Pyowna	LHC
JEFF Ragsdale	Jeff Ragsdale	D.C.
Frank Beatty	Frank Beatty	DC.
Tony Equino	Equino	DC.
Mark Fost	Mark Fost	YL
Hannah Foster	Hannah Foster	YL
Mike Silvey		DC
Bebe Silvey	Bebe Silvey	D.C.
Marita Woody		LHC
Bill Carroll	Bill Carroll	BR.
Nancy Oyler		DC.
Duane Oyler		DC
Catherine Silvey	Catherine Silvey	DC

Date Completed _____

We Support Desert Sunlight

We, residents of and visitors to Desert Center, are pleased to be counted in support of First Solar's 550-megawatt Desert Sunlight Solar Farm to be built in this area. The project is expected to provide enough clean energy for about 160,000 California homes, and to be a major factor in California achieving one-third of its energy from renewable resources. Direct benefits will be approximately 435 construction jobs, more customers for local businesses, and increased sales and property tax revenues. As designed, the project will protect the environment of this area while at the same time utilizing one of our unique natural resources, abundant sunshine.

Name	Signature	City
Richard Word	[illegible]	DC

Date Completed _____

M-696

COMMUNITY OF DESERT CENTER
C/O MCGOO'S COUNTRY MARKET
26401 RICE RD
DESERT CENTER CA 92239

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BUREAU OF LAND MANAGEMENT
C/O ALLISON SHAFFER, PROJECT MANAGER
1201 BIRD CENTER DRIVE
PALM SPRINGS CA 92262

(FIRST SOLAR - DESERT SUNLIGHT)

143

letter #2

November 23, 2010

Allison Shaffer, Project Manager
Palm Springs South Coast Field Office, BLM
1201 Bird Center Drive
Palm Springs, CA 92262

10 NOV 29 PM 12:32

Dear Allison Shaffer and BLM,

143-1 Please take "No Action" regarding the proposed "First Solar Desert Sunlight Solar Farm" project.

143-2 A) → The project amounts to a "clear cut" of a fragile ecosystem. It will wipe out 4,000 acres – potentially 15,000 acres – and more – if other such projects go forward. This clear cut will eliminate that much more land from the natural world – and create an obstacle to wildlife and plant migration.

143-3 B) The solar collectors will transform and remove the sun's energy from the desert floor equivalent to the shade it produces. This will kill or

143-3 cont

change the types of plants and animals and insects that live there. It will also

143-4

affect the climate at this place.

143-5

c) The local temperature change associated with such a project, and rainfall and percolation factors, will cause the 4,000+ acres to become something completely out of balance with the surrounding desert. ~~It can~~ The project ~~site~~ site cannot be considered as "mojave desert" ecosystem any more.

143-6

d) Developers loves deserts as they wreck them. It is super easy to level & excavate desert sand lands. In the process the desert is destroyed - the crust of the soil and the plants are obliterated and the animals are killed or leave. Look what has happened in the Coachella Valley and Phoenix area. Utter obliteration of the desert and

143-6 cont

a radical change of climate, with new weeds (especially mustard and non-native grasses) taking over. The microclimate will change.

143-7 e) The animals of the desert who depend on sight cannot function in the grasslands created by such development. After such "developmental" disturbance, weeds appear and act as a screen of blinds to creatures; as well as blocking use of their hearing and olfactory senses.

143-8 f) The human psychology of the impacts of this project need much, much more study. The "fast track" is obviously an end run around such consideration — as much as we need real green energy. Aesthetics need to be taken into account, for the people who love this place — which will be plowed under. The siting of this project right next

143-8 cont

to Joshua Tree National Park should stop it completely for the sake of the future of the park.

143-9

g) The land must not be given (even eventually) to the project "owner"! It is our land! It is our sunlight! It is our ecosystem!

143-10

h) A one-to-one mapping or matching of the homes the project claims will have energy needs offset (160,000) must be made for such projects (the the homes should now be retrofitted with building integrated solar energy). The mapping should be made to 10 year old-or older - homes so that those projects are used to create yet more awful - unneeded destructive subdivision. They just boarded up an 18 hole "country club" subdivision in

143-10 cont

Palm Springs.

143-11

i) The psychology (and public relations trickery) of the "fast track" on undeveloped public lands needs to be carefully examined — so the precedent can be prevented. The situation as it is now is like when certain congress people in the past and present want to give the ~~closest~~ cheaply leased ~~the~~ grazing allotments to "ranchers" that put their cattle on public lands — and given it just by penciling around their "allotment".

143-12

ii) There are other psychological issues that need to be addressed.

1) affects on people who have stewarded & worked on the land.

2) native american issues — especially where it might affect existing archeology and related disturbance.

143-12 cont

3) The psychology of destroying land just because you can, and nobody else sees you do it.

4) The psychology of officials trying to make commercial interests happy - and swallowing the commercial claims of "public service" for the rest of us who want public lands kept public and intact.

5) The psychological effects on children who are having the future of their public lands destroyed, altered, and given away. The convenience of the present generation does not justify chopping, and flattening public lands. There are other ways to engender green energy - without wrecking and eliminating public lands.

6) The psychological effects and influence of centralized electrical

143-12 cont

power production (single owner, corporate owner, etc.) versus distributed electrical power production — (building integrated, decentralized — many owner — potentially everyone) needs to be carefully examined. The physical effects on public land especially needs to be considered and the effects on our consciousness and the control system over our lives that ~~power~~ big power plant owners can command, commercially and politically.

143-13

7) The psychology of how the water will be used, who is affected, and how. Water use in the area will substantially affect residents in the Chuckwalla Valley. The psychology of the shenanigans of including the "Eagle Crest Pumped energy Storage Project" as part of the land grab.

8) The effect of one good sandstorm on the equipment & solar collectors. This stuff will be destroyed — sand blasted!!

Please protect our public lands, give none of it away to this project — and preserve the integrity of the wilderness area of Joshua Tree National Park (which is right next door.

Take "no action" on the "First Solar Desert Sunlight Farm".

Guide them into "building integrated" solar energy — the green path.

Sincerely,
Ron Brinkley
General Delivery
Bass Lake, CA. 93604

~~[illegible]~~

Ron Brinkley
General Delivery
Bass Lake, CA 93604

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92262

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Allison Shaffer, Project Manager
Palm Springs South Coast Field Office, BLM
1201 Bird Center Drive
Palm Springs, CA 92262

92262S8001

M-705

Claudia Sall
PO Box 37
Pioneertown, CA 92268

144

Duplicate of letter #124

November 30, 2010

Allison Schaffer, Project Manager
Bureau of Land Management
1201 Bird Ave
Palm Springs, CA 92262

Dear Ms. Schaffer

Re: First Solar Desert Sunlight

I have sent you comments via email. but in my haste to meet the deadline, there were spelling and grammar errors. I corrected those errors and I am sending you this revised version which includes a few minor sentence additions that seem to more accurately explain my position.

I would appreciate you making this part of the public comment record.

Respectfully,

Claudia Sall

Claudia Sall
PO Box 37
Pioneertown, CA 92268

November 26, 2010

Allison Schaffer, Project Manager
Bureau of Land Management
1201 Bird Ave
Palm Springs, CA 92262

Dear Ms. Schaffer

Re: First Solar Desert Sunlight

I welcome the opportunity to provide public comments on this project and to influence the environmental processing of this project's application.

BLM staff has acknowledged that this project will adversely affect residents and their quality of life and that the department is at a loss of how to mitigate the human impacts. Moreover, the BLM as a participating member of the Renewable Energy Action Team [REACT] and the California Desert Renewable Energy Conservation Plan [DRECP] impaneled independent science advisors to offer sound scientific guidance for renewable energy planning. These advisors produced a report now published on the DRECP website and disclosed that there is lack of a comprehensive and dependable land use core base and maps of rare, localized and unique communities. Subsequently, the advisors urged members of the DRECP to site renewable energy projects on already disturbed and degraded lands and to consider a "no regrets" strategy for the near term in deciding which and where renewable energy projects should be approved.

Concerns that have emerged about this project's effects on wildlife, air quality and night skies have been exacerbated by its near proximity to a federal wilderness area, the Joshua Tree National Park. This solar plant falls within what is the Park's natural buffer zone and will create human edge effects onto that same Park.

With the project being sited more than several miles from existing transmission, several new avenues of secondary transmission are being proposed: one that would bisect the Chuckwalla Desert Wildlife Management Area [DWMA] with new poles and accompanying roads and another through an undisturbed wash. BLM staff in the past has stated that extensive cherry stems of supply lines crisscrossing desert open space would not be tolerated. Furthermore, transmission lines as noted in the DRECP report come with a variety of unsavory effects on wildlife: unwelcomed ravens nesting on the poles and predating on wildlife in the DWMA, esp. Desert Tortoise, and interruption of wildlife in their travel corridors by the accompanying service roads which in turn induces unauthorized off road travel. Golden eagles have been observed near the siting of this project. The DRECP science panel noted that golden eagles are a protected species and recommended that they should be added to the DRECP protected list as "they are susceptible to disturbance by humans, are vulnerable to collisions with power lines". These eagles, as a special feature of this reserve area will be competing with the introduced ravens for food sources. 144-1

Joshua Tree National Park enjoys the reputation as one of the top worst air quality national parks in the nation and Park staff has been challenged to reverse the problem. It is known that the project sited so near the Park boundary will further denigrate the air quality but it is not known whether that effect will be lasting. Surely, the BLM should be a partner in protecting the designated wilderness of their sister agency and should avoid worsening the Park's air quality. I refer again to the DRECP report cautioning a "no-regrets" strategy and the advice to avoid de-vegetating native landscape and the air quality problems that accompany that practice. 144-2

Similarly, the protection of the Park's night skies is a choice within the hands of BLM. The project is sited near the darkest part of Joshua Tree National Park and it is known that at least while construction is on going, night skies will be affected, but what is not known is whether the nighttime glint of the project will introduce a permanent source of light during full moon periods. However, it is strongly suspected that this glint will adversely affect avian migration in the Pacific flyway and possibly other wildlife migration. 144-3

Additionally, I would like to see a few small but significant changes in the general EIR documents for renewable energy projects. First, I recommend that the mis-application of the term "farm" be dropped when describing solar installations and replaced with the more appropriate term of "plant", i.e. solar plant. The misnomer of "solar farm" trades on the public's appreciation of farms and is likened to the value of growing of crops, while "solar plant" more accurately describes an installation for energy production. Such misuse is sinister and may be overlooked when employed by corporations to lobby a more favorable, innocuous view of solar installations, but BLM should reject such an inaccurate and inappropriate label. BLM's use of "solar farm" rather than "solar plant" suggests that the department is compromised in its ability to conduct an objective NEPA process. Secondly, I would also like to see the department include the number of miles in parenthesis next to the number of acres of a project: e.g. 4500 acres [7 sq. miles], because the public is familiar with the scale of traditional energy generation plants but is both unfamiliar with the scale of the renewable energy projects and also with how the measurement of acreage describes a geographical area.

In closing, as a more than fifty year resident of the desert, I am deeply concerned about the siting of this project and the report of the DRECP substantiates concerns I have expressed. I recommend that the selection of Alternative 5 or the "no action" alternative because this project will produce long term, immitigable damage to Joshua Tree National Park and to its mission: it will significantly adverse wildlife, air quality and dark skies.

Sincerely,

Claudia Sall

P. O. Box 37
Pioneertown, CA 92268

SAN BERNARDINO CA 923

01 DEC 2010 PM 3 T

Happy Holidays

RECEIVED
BUREAU OF LAND MANAGEMENT
10 DEC -2 PM 12:50
PALM SPRINGS-SOUTH BASIN
RESOURCE AREA

Allison Schaffer, Project Manager
Bureau of Land Management
1201 Bird Ave
Palm Springs, CA 92262

92262\8001

145

Allison Shaffer, Project Manager
Palm Springs South Coast Field Office, BLM
1201 Bird Center Drive
Palm Spring, CA 92262

December 6, 2010

Ref: First Solar - Desert Sunlight

10 DEC -7 PM 12:58

Dear Ms. Shaffter -

Although I understand that I am a little late in sending this, I will do so anyway, in hopes that it will still be considered. I am in support of First Solar - Desert Sunlight. 145-1

I live in Lake Tamarisk and would like to comment on the proposed transmission routes from the solar site out to the freeway.

At the meeting in our community hall on October 20, 2010, I understood that Gen-Tie A-3 was understood to be a dead issue. While I disagree, I am willing to accept that. As to A-1 and A-2, I found NO one that did not prefer A-2 over A-1. While I can easily understand that SCE would find it more convenient to use A-1 because they wouldn't have to deal with the effort and money required to cross multiple private properties in A-2. I still think a serious effort should be made to do so. If A-2 becomes, for whatever reason or reasons impossible, I think they owe us the courtesy to at least go underground starting just before (North of) the "Green" property and keep it underground until it reaches several hundred yards east of where it will cross SR-177 ((Rice Road). This would make everyone happy, almost eliminate any close impact for those around Desert Center, and eliminate the impact it will surely eventually cause when it turns from south to east just North of Desert Center. 145-2

Desert Center will undoubtedly grow, probably sooner than later, and I think it would be shortsighted indeed - even just plain mean - to have it above ground in this area.

The BLM property located between Oasis Road and Desert Center will undoubtedly, at sometime in the near future, become developed. If A-1 as now proposed stays above ground in it's West to East route along the South border of BLM property, it will traverse directly through the middle of the proposed development area, thereby eliminating in advance any possibility of it being other than an industrial area, and this we do not deserve. Any extra cost of putting this line underground would be spread over many years and many people meaning little to them in the long run, but lots to everyone in and around Desert Center and Lake Tamarisk in both the short and long run. 145-3

For this reason I think it only fair that putting the line underground in the aforementioned area be seriously considered.

Sincerely, Stephen J. Wright

Stephen J. Wright
P. O. Box 276
Desert Center, CA 92239-0276
Cell: 253-653-7324

S. Wright
PO Box 276
Desert Center, Ca.
92239

SN BERNARDINO CA 92

06 DEC 2010 PM 5 L

USA FIRST-CLASS

Allison Shaffer, Project Manager
Palm Springs South Coast Field Office, BLM
1201 Bird Center Drive
Palm Springs Ca. 92262

First Solar
Desert Sunlight

92262388001

M-712

STATE OF CALIFORNIA – THE NATURAL RESOURCES AGENCY ARNOLD SCHWARZENEGGER, Governor

COLORADO RIVER BOARD OF CALIFORNIA
770 FAIRMONT AVENUE, SUITE 100
GLENDALE, CA 91203-1068
(818) 500-1625
(818) 543-4685 FAX

RECEIVED
BUREAU OF LAND MANAGEMENT
10 DEC -3 PM 12:29
LAS VEGAS SOUTH DESERT DISTRICT OFFICE

146

December 6, 2010

Mr. Scott Morgan
Director
State Clearinghouse
1400 Tenth Street
P.O. Box 3044
Sacramento, CA 95812-3044

Regarding SCH# 2010-084-009: Notice of Completion & Environmental Document Transmittal for a Draft Environmental Impact Statement (EIS) and California Desert Conservation Area Plan Amendment for the proposed First Solar Desert Sunlight Solar Farm Project, Riverside County, California

Dear Mr. Morgan:

The Colorado River Board of California (CRB) has received and reviewed a copy of Notice of Completion & Environmental Document Transmittal for a Draft Environmental Impact Statement (EIS) and California Desert Conservation Area Plan Amendment for the proposed First Solar Desert Sunlight Solar Farm Project, Riverside County, California.

The project proponent, Desert Sunlight Holdings, LLC, proposes to construct, operate and maintain a 550-megawatt photovoltaic solar energy-generating facility, transmission line and substation on the public lands in Riverside County, California. Southern California Edison would construct and operate the substation. The project would be located primarily on lands administrated by the U.S. Bureau of Land Management (BLM). The project proponent filed a right-of-way grant application with the BLM for a permit (Case File Number CACA #48649) to construct and operate the First Solar Desert Sunlight Solar Farm Project. The projected water demand for the proposed project totals 1,400 acre-feet for the 26 months required for project construction and approximately 0.2 acre-feet per year for the operation and maintenance of the Desert Sunlight Solar Farm Project. Additionally, the total water usage for 500-dwelling units over the 20-year evaluation period would be on the order of 5,000 acre-feet (i.e. 250 acre-feet per year for 20 years). Those amounts of water will be withdrawn from the Chuckwalla Valley Groundwater Basin (CVGB).

However, according to the U.S. Geological Survey Water Investigation Reports (i.e., WRI 94-4005 and WRI 00-4085), the Desert Sunlight Solar Farm Project site is currently located within the "Accounting Surface" area, i.e. the CVGB groundwater aquifer underneath the project site is currently considered to be hydraulically connected with the Colorado River through Palo Verde Mesa Groundwater Basin (PVMGB). Any amount of groundwater withdrawn from the CVGB/PVMGB aquifer is water that would be replaced by the Colorado River, in total or in part, and is considered a use of Colorado River water. 146-1

According to the Consolidated Decree of the Supreme Court of the United States in the case of *Arizona v. California, et al.* entered March 27, 2006, (547 U.S. 150, 2006), the consumptive use of water means "diversion from the stream less such return flow thereto as is available for consumptive use in the United States or in satisfaction of the Mexican treaty obligation" and consumptive use "includes all consumptive uses of water of the mainstream, including water drawn from the mainstream by underground pumping." Also, pursuant to the 1928 Boulder Canyon Project Act (BCPA) and the Consolidated Decree, no water shall be delivered from storage or used by any water user without a valid contract between the Secretary of the Interior and the water user for such use, i.e., through a BCPA Section 5 contract. This Solar Farm Project needs to acquire such a contract for the future use of groundwater withdrawn from the project site. **146-1 cont**

The Board has identified a preferred option for obtaining a legally authorized and reliable water supply for the Solar Farm project. That option involves obtaining water through an existing BCPA Section 5 contract holder, The Metropolitan Water District of Southern California. Although other options may be available, it is the Board's assessment that those other options could not be implemented in a timely manner and address the requirement that any water consumptively used from the Colorado River must be through an existing BCPA Section 5 contractual entitlement. **146-2**

Also, attached for your reference is a copy of the Lower Colorado River Basin states' letter (August 12, 2010) addressed to the Director of the BLM, regarding the siting and development of solar power/energy projects on public lands administered by the BLM and the long-term impacts to the water supplies. The letter requests that BLM include provisions in future right-of-way grants or leases and permit that requires the use of best management practices and water use efficient technologies. I have also included a copy of the BLM's recent response letter to the Basin states' letter.

If you have any questions or require further information, please feel free to contact me, or Dr. Jay Chen of my staff, at (818) 500-1625.

Sincerely,

Christopher S. Harris
Acting Executive Director

Attachments

cc: Ms. Lorri Gray-Lee, Regional Director, U.S. Bureau of Reclamation
Ms. Allison Shaffer, Palm Springs-South Coast Field Office, Bureau of Lands Management
Mr. William J. Hasencamp, The Metropolitan Water District of Southern California

ARIZONA DEPARTMENT OF WATER RESOURCES
COLORADO RIVER BOARD OF CALIFORNIA
SOUTHERN NEVADA WATER AUTHORITY

August 12, 2010

Mr. Robert Abbey, Director
Bureau of Land Management
U.S. Department of the Interior
1849 C Street NW, Room 5665
Washington, DC 20240

Re: Water Efficient Solar Power

Dear Mr. Abbey:

We are writing on behalf of the Arizona Department of Water Resources, the Colorado River Board of California, and the Southern Nevada Water Authority to communicate our joint concerns regarding current planning for concentrated solar power (CSP) projects throughout the southwestern United States, particularly in Arizona, California and Nevada.

Let us make clear at the outset that all of our agencies fully support the development of additional solar power projects in the southwestern United States and believe that solar power projects are a critical element in our nation's future sustainable electrical power portfolio. However, our concern is that in pursuing the realization of additional CSP projects that state, local and federal agencies do not overlook the energy-water nexus and the corollary adverse impacts that these projects can have on precious and finite water resources if there is not proper planning.

As you are well aware, there are currently numerous and disparate processes ongoing to permit large scale solar power projects in the southwestern United States. These processes include hundreds of individual right-of-way applications from project proponents on tens of thousands of acres managed by the Bureau of Land Management (BLM); the drafting of a Programmatic Environmental Impact Statement intended to establish "solar zones" in Nevada; a BLM "fast track" process in Arizona; and two bills currently pending before Congress, the *American Solar Energy Pilot Leasing Act of 2010* and the *Wind and Solar Leasing Act of 2010*.

With these multiple processes moving forward simultaneously, we believe that it is imperative that BLM apply a uniform standard regarding the efficient use of water for solar power projects. To that end we believe that any right-of way grant or lease issued by BLM for CSP projects in the southwestern United States should include a provision that requires that the best available water efficient technologies be utilized for solar power projects, including specifically that any CSP project utilize dry cooling technology.

United States Department of the Interior
BUREAU OF LAND MANAGEMENT
Washington, D.C. 20240
http://www.blm.gov

TAKE PRIDE IN AMERICA

In Reply Refer To:
1610 (300)

OCT 0 5 2010

Mr. Herbert R. Guenther
Director, Arizona Department of Water Resources
3550 North Central Avenue, Suite 200
Phoenix, Arizona 85012

Dear Mr. ~~Guenther~~: Herb

Thank you for your letter of August 12, 2010, concerning water use for solar energy power projects proposed for the states of Arizona, California, and Nevada. We agree that water is a critical resource concern when considering any new development in the arid regions of the Southwest.

The Bureau of Land Management (BLM) is currently processing a limited number of solar energy applications in Arizona, California, and Nevada. Each solar energy development application requires the preparation of its own environmental impact statement in which the water demands of the proposed action are considered in light of impacts to the environment and measures are identified to avoid, minimize, or mitigate potential adverse impacts. We are requiring the analysis of a water conservation alternative for any concentrating solar project that proposes to employ wet cooling.

We are also working on a programmatic environmental impact statement (PEIS) for solar energy development on BLM-administered lands. The draft PEIS is currently undergoing internal and cooperating agency review and is expected to be published in December 2010. That document will, among other things, identify proposed design features for a comprehensive BLM solar energy program. A number of those design features will pertain to water resources. A primary objective for such program requirements is the promotion of sustainable use of water resources through appropriate technology selection and conservation practices.

I strongly encourage you to review the draft document and provide comments through the project Web site (http://solareis.anl.gov). Your review of the draft and submission of formal comments is a very important part of the National Environmental Policy Act process.

Sincerely,

Bob

Robert V. Abbey
Director

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH# 2010084009

Project Title: Draft EIS and CDCA Plan Amendment Proposed First Solar Desert Sunlight Solar Farm Project

Lead Agency: Bureau of Land Management — Contact Person: Allison Shaffer
Mailing Address: 1201 Bird Center Drive — Phone: (760) 833-7100
City: Palm Springs — Zip: 92264 — County: Riverside

Project Location: County: Riverside — City/Nearest Community: Desert Center, California
Cross Streets: Interstate 10 and Kaiser Road — Zip Code: 92239
Longitude/Latitude (degrees, minutes and seconds): 33 ° 49 ' 20.2 " N / 115 ° 23 ' 35.3 " W — Total Acres: 4,391
Assessor's Parcel No.: Multiple — Section: ____ Twp.: ____ Range: ____ Base: SBBM
Within 2 Miles: State Hwy #: Interstate 10 — Waterways: None
Airports: Special Use Airport — Railways: None — Schools: None

RECEIVED AUG 30 2010 STATE CLEARINGHOUSE

Document Type:

CEQA: ☐ NOP ☐ Early Cons ☐ Neg Dec ☐ Mit Neg Dec ☐ Draft EIR ☐ Supplement/Subsequent EIR (Prior SCH No.) ____ Other: ____

NEPA: ☐ NOI ☐ EA ☑ Draft EIS ☐ FONSI

Other: ☐ Joint Document ☐ Final Document ☑ Other: CDCA Plan Amendment

Local Action Type:

☐ General Plan Update ☐ Community Plan ☐ Site Plan ☐ Land Division (Subdivision, etc.) ☑ Other: CDCA Plan

Development Type:

☐ Residential: Units ____ Acres ____
☐ Office: Sq.ft. ____ Acres ____ Employees ____
☐ Commercial: Sq.ft. ____ Acres ____ Employees ____
☑ Industrial: Sq.ft. ____ Acres 4,391 Employees 15
☐ Educational: ____
☐ Recreational: ____
☐ Water Facilities: Type ____ MGD ____
☐ Transportation: Type ____
☐ Mining: Mineral ____
☑ Power: Type Solar Energy MW 550
☐ Waste Treatment: Type ____ MGD ____
☐ Hazardous Waste: Type ____
☑ Other: Utility scale alternative energy project

Project Issues Discussed in Document:

☑ Aesthetic/Visual
☑ Agricultural Land
☑ Air Quality
☑ Archeological/Historical
☑ Biological Resources
☐ Coastal Zone
☑ Drainage/Absorption
☑ Economic/Jobs
☑ Fiscal
☑ Flood Plain/Flooding
☑ Forest Land/Fire Hazard
☑ Geologic/Seismic
☑ Minerals
☑ Noise
☑ Population/Housing Balance
☑ Public Services/Facilities
☑ Recreation/Parks
☑ Schools/Universities
☑ Septic Systems
☐ Sewer Capacity
☑ Soil Erosion/Compaction/Grading
☑ Solid Waste
☑ Toxic/Hazardous
☑ Traffic/Circulation
☑ Vegetation
☑ Water Quality
☑ Water Supply/Groundwater
☑ Wetland/Riparian
☑ Growth Inducement
☑ Land Use
☑ Cumulative Effects
☐ Other: ____

Present Land Use/Zoning/General Plan Designation:

Project Description: *(please use a separate page if necessary)*
This EIS address the Bureau of Land Management's proposal to issue a right-of-way grant to Desert Sunlight Holdings, LLC, for the construction, operation, maintenance, and decommissioning of a utility-scale 550-megawatt photovoltaic solar energy facility, transmission line, and a substation on public lands in Riverside County, California. Southern California Edison would construct and operate the substation. The EIS analyzes six alternatives: (1) No Action, in which the Applicant's application would be denied and current management of the site would be maintained; (2) the Applicant's application would be denied and the CDCA Plan would be amended to declare the site suitable for solar development; (3) The Applicant's application would be denied and the CDCA Plan would be amended to declare the site unsuitable for solar development; (4) BLM would grant the Applicant a right-of-way (ROW) for the project as proposed; (5) BLM would grant the Applicant a ROW for a modified project design; and (6) BLM would grant the Applicant a ROW for a smaller project. Alternatives 4, 5, and 6 include an amendment to the CDCA Plan as part of the Proposed Action and that amendment would find the project area as suitable for solar development.

State Clearinghouse Contact: SM (916) 445-0613

State Review Began: 8 . 30 . 2010

SCH COMPLIANCE 11 . 29 . 2010

Review Per Lead

Please note State Clearinghouse Number (SCH#) on all Comments
2010084009

SCH#: ____
Please forward late comments directly to the Lead Agency

AQMD/APCD 33

(Resources: 9 / 4)

Project Sent to the following State Agencies

X Resources
____ Boating & Waterways
____ Coastal Comm
X Colorado Rvr Bd
____ Conservation
X Fish & Game # 6
____ Delta Protection Comm
____ Cal Fire
X Historic Preservation
X Parks & Rec
____ Central Valley Flood Prot.
____ Bay Cons & Dev Comm.
X DWR
____ Cal EMA
____ Resources, Recycling and Recovery

Bus Transp Hous
X Aeronautics
____ CHP
X Caltrans # 8
____ Trans Planning
____ Housing & Com Dev
____ Food & Agriculture
____ Health Services

State/Consumer Svcs
____ General Services

Cal EPA
____ ARB – Airport Projects
____ ARB – Transportation Projects
____ ARB – Major Industrial Projects
____ SWRCB: Div. Financial Assist.
____ SWRCB: Wtr Quality
____ SWRCB: Wtr Rights
X Reg. WQCB # 7
____ Toxic Sub Ctrl-CTC

Yth/Adlt Corrections
____ Corrections

Independent Comm
X Energy Commission
X NAHC
X Public Utilities Comm
X State Lands Comm
____ Tahoe Rgl Plan Agency
____ Conservancy
____ Other: ____

Comments attached.

147

DEPARTMENT OF THE NAVY
NAVAL AIR WARFARE CENTER WEAPONS DIVISION
1 ADMINISTRATION CIRCLE
CHINA LAKE, CA 93555-6100
575 I AVENUE SUITE 1
POINT MUGU, CA 93042-5049

IN REPLY REFER TO:

5090
Ser 52F00ME/277
January 24, 2011

Ms. Allison Shaffer
Palm Springs South Coast Field Office
Bureau of Land Management
1201 Bird Center Drive
Palm Springs, CA 92262

Dear Ms. Shaffer:

This letter provides Department of Defense (DoD) input on the proposed Desert Sunlight Solar Energy project (CACA-48649). We didn't comment on the Draft EIS as the project will not impact military testing or training, but the applicant, First Solar, has requested that we document the DoD position. I am providing this response on behalf of the DoD Southwest Renewable Energy Work Group. 147-1

The proposed project would construct a 550 MW solar photovoltaic power generating facility located on approximately 4,400 acres in eastern Riverside County, California. It includes a gen-tie (transmission) line to interconnect its output to the regional electrical grid. The gen-tie line will utilize steel monopoles approximately 135 feet tall.

We have reviewed the Desert Sunlight project and, as noted above, determined it will not impact military testing or training.

If you have any questions, please don't hesitate to contact me at (805) 989-9209 or email at anthony.parisi@navy.mil.

Sincerely,

A. M. PARISI
Head, Sustainability Office
By direction of the Commander

Copy to:
First Solar, Inc (Ms. Kim Oster and Ms. Amanda Beck)
AECOM Environment (Mr. Arrie Bachrach)

Appendix N

Responses to Comments

APPENDIX N – Responses to Comments

Appendix N is organized as follows:

N.1 Introduction

N.2 Format of the Responses to Comments: This section describes the format and organization of the comments received on the DEIS and the responses to those comments.

N.3 Index of Comments Received: This section provides a list of the comments received on the DEIS, by a member of the public, agency, or organization, and lists the unique letter number for each comment letter.

N.4 Common Responses: This section provides consolidated responses for topics on which a number of similar and related comments were received.

N.5 Individual Responses to Comments: This section provides responses to individual comments for letters that contain substantive comments.

N.1 INTRODUCTION

A total of 147 comment letters were received during the public comment period for the DEIS. Forty-three comment letters received either stated support or opposition to the Project or certain aspects of the Project; or expressed thoughts or concerns, or provided information that was unrelated to the proposed Project. None of these comments provided any questions, concerns or information regarding the adequacy of the NEPA analysis, or methodologies and processes used in the DEIS. While both frequency and expression of intent are important to BLM and CPUC, they do not provide a basis that warrants any additional changes to the analysis (Section 6.9.2.1, BLM NEPA Handbook H-1790-1 Jan. 30, 2008 and CEQA Section 15088. The following letters fall into this group: 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 17, 18, 21, 22, 23, 24, 27, 34, 50, 57, 58, 68, 71, 78, 80, 87, 88, 91, 102, 113, 115, 117, 120, 133, 134, 135, 136, 140, 141.

NEPA requires all substantive comments - whether environmental or procedural in nature - to be addressed and attached to the FEIS (40 CFR 1503.4(b)). Individual responses for all substantive comments are provided in Section N.5. A number of the comments received on the DEIS discussed the same issues or environmental concerns. Rather than repeat responses, Common Responses, set forth in Section N.4, were prepared.

N.2 FORMAT OF THE RESPONSES TO COMMENTS

The comments received on the DEIS are organized by agency, organization, or member of the general public. Each comment letter or e-mail is assigned a unique number with each comment individually numbered as well. Individual comments and issues within each comment letter or e-mail are numbered individually along the margins. For example, comment 1-01 is the first substantive comment in Comment Letter 1; "1" represents the commenter; the "01" refers to the first comment in that letter. All comment letters are provided in Appendix M.

N.3 INDEX OF COMMENTS RECEIVED

Table N.3-1 lists all individuals, agencies, and organizations that provided written comments on the DEIS. As described above, each comment letter was assigned a unique number when it was received. This table is the same as Table 5-1, in the FEIS Section 5.0, Consultation, Coordination, and Public Participation.

Table N.3-1
Commenter on the Desert Sunlight Solar Power Project
Draft Environmental Impact Statement

Letter Number	Commenter	Letter Available in Appendix M, Page
1	Jeff Randall, Individual	M-5
2	Mary Zeiler, Individual	M-6
3	Supporters of Desert Sunlight Petition	M-7
4	Sign-in Sheet	M-17
5	Ali Baba Farzaneh, Individual	M-23
6	Bob Hargreaves, Individual	M-24
7	Coachella Valley Economic Partnership	M-25
8	Dennis Larney, Individual	M-26
9	Gerald Budlong, Individual	M-27
10	Graeme Donaldson, Individual	M-28
11	Kathy Gottberg, Individual	M-29
12	Larry McLaughlin, Individual	M-30
13	LR Sanders, Individual	M-31
14	Assembly Member V. Manuel Perez	M-32
15	Sign-in Sheet	M-34
16	Anco Blazev, Individual	M-39
17	Dale Jenneskens, Individual	M-42
18	Dan Allen, Individual	M-45
19	Native American Heritage Commission	M-47
20	Anco Blazev, Individual	M-52
21	George Hepker, Individual	M-53
22	George Hepker, Individual	M-54
23	Alan Beattie, Individual	M-55
24	Kim Bauer, Individual	M-57
25	Anco Blazev, Individual	M-58
26	Anco Blazev, Individual	M-60
27	Jim Turney, Individual	M-61
28	Cynthia Cox, Individual	M-62
29	Carol Gerratana, Individual	M-65
30	Cindy Zacks, Individual	M-66
31	Mearl A. Rose, Individual	M-68
32	Ramon Alviso Mendoza, Individual	M-71
33	R. Ploss, Individual	M-73
34	Beals Steve, Individual	M-76
35	Betsy Foran, Individual	M-78
36	Debbie Burgett, Individual	M-80
37	Eric Mueller, Individual	M-83
38	Gary Hunt, Individual	M-86
39	Jason Burnham, Individual	M-89
40	Les Starks, Individual	M-92
41	Richard Worthington, Individual	M-94
42	Wendy Hunt, Individual	M-96

Table N.3-1 (continued)
Commenter on the Desert Sunlight Solar Power Project
Draft Environmental Impact Statement

Letter Number	Commenter	Letter Available in Appendix M, Page
43	Jill Giegerich, Individual	M-98
44	Penny Kemp, Individual	M-101
45	Rebecca Bueller, Individual	M-103
46	Vicki Perizzolo, Individual	M-105
47	Barbara Buckland, Individual	M-109
48	Joanne Flory, Individual	M-111
49	Cynthia Anderson, Individual	M-114
50	Virgila Weeks Hawthorne, Individual	M-117
51	Alex Mintzer, Individual	M-118
52	Ernest Goiten, Individual	M-119
53	David Halligan, Individual	M-122
54	Karen Tracy, Individual	M-124
55	C.B Wolf, Individual	M-127
56	State of California, Public Utilities Commission	M-129
57	City of Indian Wells, California	M-237
58	College of the Desert	M-239
59	David Halligan, Individual	M-241
60	Cleona Jenneskens, Individual	M-243
61	Dale Jenneskens, Individual	M-244
62	Geo. Donaldson, Individual	M-245
63	John Beach, Individual	M-246
64	R&M Johnson, Individual	M-248
65	Rick Estes, Individual	M-252
66	Environmental Commons	M-253
67	John Beach, Individual	M-261
68	JoAnn Dean, Individual	M-262
69	Ron Brinkley, Individual	M-263
70	Walter Green, Individual	M-279
71	Michael Silvey, Individual	M-280
72	Bruce Ray, Individual	M-281
73	Celia Beauchamp, Individual	M-282
74	John Beach, Individual	M-283
75	National Parks Conservation Association	M-288
76	Shaun Gonzales, Individual	M-295
77	Karen Berry, Individual	M-303
78	Michele Mooney, Individual	M-307
79	William Eskin, Individual	M-308
80	B.E. Singer, Individual	M-310
81	Caltrans District 8	M-311
82	Individual (to remain anonymous)	M-314
83	JVIndividual	M-316
84	La Cuna de Aztlan Sacred Sites Protection Circle	M-317
85	Brendan Hughes, Individual	M-321
86	Diane Mossbager, Individual	M-322
87	Lorenzo Romero, Individual	M-323
88	Marian Livingood, Individual	M-324
89	Raymond Kelso, Individual	M-325
90	Suzanne Ragsdale, Individual	M-326
91	Tex Whitson, Individual	M-327

Table N.3-1 (continued)
Commenter on the Desert Sunlight Solar Power Project
Draft Environmental Impact Statement

Letter Number	Commenter	Letter Available in Appendix M, Page
92	Dennis Morrison, Individual	M-328
93	Defenders of Wildlife, Natural Resources Defense Council, Sierra Club	M-329
94	Jerry Grey, Individual	M-341
95	Janell Harder, Individual	M-342
96	Cynthia Green, Individual	M-343
97	Warren Dean, Individual	M-345
98	Edith Arizmendi, Individual	M-346
99	Gene Oliphant, Individual	M-347
100	Jonathan Levin, Individual	M-348
101	Ken and Pattie Stamp, Individual	M-349
102	Michael Rhoades, Individual	M-350
103	South Coast Air Quality Management District	M-351
104	Center for Biological Diversity	M-357
105	Citizens for the Chuckwalla Valley	M-393
106	U.S. Environmental Protection Agency	M-422
107	First Solar	M-440
108	U.S. Fish and Wildlife Service	M-473
109	Johnney/Timothy Coon/Anderson, Individual	M-479
110	Kevin Emmerich, Individual	M-480
111	Kaiser Ventures LLC	M-515
112	Laura Cunningham, Individual	M-520
113	Mary Zeiler, Individual	M-532
114	National Park Service	M-534
115	Patrick Poole, Individual	M-543
116	The Wilderness Society	M-545
117	Victor Stewart, Individual	M-557
118	Western Lands Project	M-558
119	Chris Clarke, Individual	M-562
120	enXco	M-566
121	Jared Fuller, Individual	M-568
122	Western Watersheds Project	M-569
123	Barbara Daddario, Individual	M-577
124	Claudia Sall, Individual	M-578
125	Riverside County Fire Department	M-581
126	Renee Castor, Individual	M-584
127	Southern California Edison	M-587
128	Southern California Edison	M-611
129	Metropolitan Water District of Southern California	M-614
130	Chris Crow, Individual	M-626
131	Paul Smith, Individual	M-627
132	Rebecca Unger, Individual	M-628
133	Southern California Desert Video Astronomers	M-629
134	Tammie Dye, Individual	M-633
135	Richard DeLashmit, Individual	M-634
136	Ken Statler, Individual	M-635
137	Requests to not publish, Individual	M-638
138	Riverside County Planning Department	M-640
139	Diana Millikan, Individual	M-689
140	Lois Donaldson, Individual	M-690

Table N.3-1 (continued)
Commenter on the Desert Sunlight Solar Power Project
Draft Environmental Impact Statement

Letter Number	Commenter	Letter Available in Appendix M, Page
141	Ed and Carol Schlauch, Individual	M-691
142	"We Support Desert Sunlight" petition	M-692
143	Ron Brinkley, Individual	M-697
144	Claudia Sall, Individual	M-706
145	Stephen J Wright, individual	M-711
146	Colorado River Board of California	M-713
147	Department of the Navy	M-718

N.4 COMMON RESPONSES

A number of the comments received on the DEIS discussed the same issues or environmental concerns. Rather than repeat responses, common responses identified here and set forth below were prepared:

Common Response N.4.1: Purpose and Need

Common Response N.4.2: Wilderness

Common Response N.4.3: Dark Skies

Common Response N.4.4: Adequacy of Key Observation Points and Simulations

Common Response N.4.5: Recirculation of DEIS

Common Response N.4.6: Adequacy of Analysis

Common Response N.4.7: Alternatives Analyzed

Common Response N.4.8: Property Value

Common Response N.4.9: Cadmium Exposure

Common Response N.4.10: EMF Exposure

Common Response N.4.11: Construction Employment

N.4.1 Purpose and Need

Summary of Issues Raised

Several commenters suggest that the BLM's statement of Purpose and Need is too narrow.

Response

As explained in Section 6.2.1 of the BLM's NEPA Handbook, a carefully crafted purpose and need statement can "increase efficiencies by eliminating unnecessary analysis and reducing delays in the process." The statement of purpose and need dictates the range of alternatives, because action alternatives are not "reasonable" if they do not respond to the purpose and need for the action. As correctly noted in several comments on the Project, the narrower the purpose and need statement,

the narrower the range of alternatives that must be analyzed; the converse also is true. BLM has discretion in defining the purpose of and need for the proposed action (40 CFR 1502.13). Several comments requested that the BLM substantially expand its statement to address more broad (and less specific) purposes in order to allow for consideration of a broader range of alternatives. BLM's purpose and need for the proposed action is reasonable and is not inappropriately narrow, and a reasonable range of alternatives were evaluated based on BLM's defined purpose and need.

BLM's purpose and need for the proposed action, as stated in Section 1.2.1 of the FEIS, is based on two key considerations: (i) the potential action the BLM could or would take on the specific proposed action; and (ii) the consideration of amending the CDCA Plan of 1980, as amended. The primary action that BLM is considering is in response to a specific ROW grant application from the Applicant to construct and operate a specific solar project located on federal lands managed by the BLM. As a result, the BLM determined that a key purpose of this project was to determine whether to approve, approve with modifications, or deny that ROW application for the 550 megawatt (MW) DSSF. A statement of this breadth led the BLM to consider two additional "build," or "action," alternatives on the same site, one no action alternative (No Action Alternative 4) and two no project alternatives (Alternatives 5 and 6) pursuant to which the CDCA Plan would be amended but the DSSF would not be approved (see FEIS Chapter 2).

The BLM declined requests to expand the statement to focus on the "need to generate greater amounts of electrical energy from renewable energy sources so that dependency on carbon based fuels is reduced" because it is outside the purview of the BLM. The need for increased energy from renewable sources is not the responsibility of the BLM. However, the BLM can respond, within the context of specific directives under which it operates, to those needs by considering ROW grant applications for projects that would produce renewable energy on BLM-administered lands. As a result, the BLM purpose for the Project responds in part to the specific directives related to renewable energy production that are summarized in the DEIS Section 1.3. These directives require the BLM to act expediently in increasing the production of nonrenewable energy within the bounds of its other authorities regarding the management of BLM-administered lands. The BLM is not in the business of developing and operating energy production facilities; its responsibilities are to consider and to approve, approve with modification, or deny issuance of a ROW grant to any qualified individual, business, or government entity and to direct and control the use of rights-of-way on public land in a manner that: (i) protects the natural resources associated with public lands and adjacent lands, whether private or administered by a government entity; (ii) prevents unnecessary or undue degradation to public lands; (iii) promotes the use of rights-of-way in common considering engineering and technological compatibility, national security, and land use plans; and (iv) coordinates, to the fullest extent possible, all BLM actions with state and local governments, interested individuals and appropriate quasi-public entities.

As directed by Secretarial Order 3285A1, the BLM has identified renewable energy projects as a priority throughout the lands it manages. As a result, the BLM is considering ROW grants for various renewable energy projects throughout California and other western states. Each of these projects is considered by the BLM on its own merits and with consideration of the impacts of the specific project on a specific site. Therefore, the statement of purpose and need for each project, including the proposed DSSF, is specific to each project within the broader scope of the directives prioritizing renewable energy development on federally managed lands. (The DEIS considers other applications for energy projects in the cumulative impacts analyses provided in DEIS Chapter 4.)

The BLM believes that the purpose and need for the Project, as discussed in DEIS Chapter 1, is consistent with the requirements of Title V of FLPMA and the directives described above, and satisfies the requirements of NEPA. Therefore, the purpose and need for this project was neither revised in response to these comments nor replaced wholesale in favor of replacement statements proposed in comments.

In addition to the BLM's purpose and need for the proposed action provided in Section 1.2.1 of this FEIS, Section 1.2.4 provides a statement of the CEQA project objectives for the Red Bluff Substation required by CEQA Guidelines Section 15124(b) as:

- Respond to interconnection requests as part of the LGIP from generators in the Desert Center area by constructing a substation to interconnect with the DPV 500 kV interconnection line.
- Provide safe and reliable electrical service consistent with the North American Electric Reliability Corporation (NERC), Federal Energy Regulatory Commission (FERC), CAISO, and SCE's planning design guidelines and criteria;
- Meet project need while minimizing environmental impacts; and
- Meet project need in accordance with the Large Generation Interconnection Agreement.

Under CEQA, the statement of objectives should include the underlying purposes of the project, and it should be clearly written to guide the selection of alternatives to be evaluated in the environmental document (CEQA Guidelines Section 15124(b)). "Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives…" (CEQA Guidelines Section 15126.6(c)). The case law makes clear that (provided the objectives of the proposed project are not synonymous with the proposed project, i.e., the objectives cannot include "development of the proposed project") lead CEQA agencies are given broad discretion to determine the objectives of a project for CEQA purposes, and that such objectives will often and appropriately be narrower when the project at issue is proposed by a private applicant rather than by the Lead Agency. *See, e.g., Sierra Club v. County of Napa*, 121 Cal.App.4th 1490 (2004) (upholding agency's reliance on project applicant's objectives to narrow scope of alternatives and ultimately reject reduced-scale alternative as infeasible based on its frustration of project objectives); *Sequoyah Hills Homeowners Association v. City of Oakland*, 23 Cal.App.4th 704 (1993).

Section 1.2.4 (CEQA Objectives) of the FEIS provides a statement of project objectives as required by CEQA. It provides the underlying purpose of the Red Bluff Substation, to respond to interconnection requests as part of the Large Generator Interconnection Plan (LGIP) from generators in the Desert Center area by constructing a substation to interconnect with the DPV 500 kV transmission line. These CEQA objectives were modified by the BLM from First Solar's stated project objectives in order to ensure they were clear, yet broad enough to not inappropriately narrow the scope of alternatives considered in the FEIS. Although SCE proposes to construct the Red Bluff Substation in response to interconnection requests from Desert Sunlight Holdings LLC as part of the LGIP process, the specific construction of the Red Bluff Substation was not identified in the CEQA objectives.

The discussions of alternative transmission line routes and substation layouts were focused on alternatives to the project or its location that are capable of avoiding or substantially lessening any

significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly (CEQA Guidelines Section 15126.6(b)).

N.4.2 Wilderness

Summary of Issues Raised

1. *Wilderness Experience*:

Due to the close proximity of the Project Area to Joshua Tree Wilderness, and general proximity to Chuckwalla Mountains and Palen-McCoy Wilderness areas, a number of Wilderness Visitor experience issues were raised. Disruption to solitude values and visual intrusion were the primary concerns, including the impact of facility lighting on night skies. Fugitive dust and noise in the wilderness during the construction phase were also raised.

2. *Wildlife:*

Concerns were raised about potential negative impacts of the Project to wildlife and wildlife corridors near and around Joshua Tree National Park, and Joshua Tree Wilderness.

3. *Water Quality*:

General issues over potential negative impacts to water quality near and around Joshua Tree National Park and Joshua Tree Wilderness were raised.

Responses

1. *Wilderness Experience*

To evaluate potential impacts from the Project on the wilderness visitor experience, it is important to highlight two pieces of federal legislation: the Wilderness Act of 1964 and the California Desert Protection Act of 1994.

Wilderness Act

Section 2(c) of the Wilderness Act of 1964 [Public Law 88-577], which defines designated wilderness areas, was referenced directly and indirectly by commenters. This section of the Act includes the following definitions:

> *"……which is protected and managed so as to preserve its natural conditions and which*
>
> *(1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable;*
>
> *(2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation;*
>
> *(3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and*
>
> *(4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value."*

California Desert Protection Act

The California Desert Protection Act of 1994 [CDPA], designated Chuckwalla Mountains and Palen-McCoy Wilderness Areas. Joshua Tree Wilderness was first designated in 1976 [Public Law 94-567], and the CDPA expanded Joshua Tree Wilderness by designating the areas around the Project area as wilderness. This CDPA specifically addressed the issue of buffer zones:

> *"The fact that nonwilderness activities can be seen or heard within a wilderness shall not, of itself, preclude such activities or uses up to the boundary of the wilderness area [Public Law 103-433, Section 103(d)]. The Act further states that "nondesignated wilderness* ***within*** *Joshua Tree [Wilderness] should receive statutory protection pursuant to the Wilderness Act [Public Law 103-433, Section 401-5]."*

Discussion

Under the aforementioned federal acts Joshua Tree, Chuckwalla Mountains, and Palen-McCoy Wilderness Areas were established to protect the unique values contained within such boundaries. Desert Sunlight Solar Project, in itself, does not physically change the natural condition or values for which each Wilderness area was designated. In addition, the Project does not change the opportunity for visitors to experience solitude or primitive unconfined type of recreation *within* those wilderness areas.

It is recognized, however, that adjacent land uses, which could be impacted by the project, would have important impacts on the wilderness experience or values via noise, visual disturbances and disruption of wildlife corridors.

1. *Wilderness Experience*

The Project Area would be within the viewshed of some portions of these three wilderness areas. The degree of visual impact would depend on the viewing position. There is already existing infrastructure within the viewshed, as demonstrated in Figures 4.16-8 and 4.16-9 (Viewshed Analysis: Proposed Action and Alternate Action). The construction of this Project would add to the infrastructure visible from these wilderness areas. Figure 4.14-3 shows the current view of the Project Study Areas from Joshua Tree Wilderness, near the foot of the Coxcomb Mountains. For comparison, a second view in Figure 4.14.3 is a visual simulation depicting the Desert Sunlight Solar Farm from that viewpoint. The vantage points from which the Project would be most visible would be elevated viewpoints that offer panoramic vistas for backcountry hikers. In this context, even though the solar farm covers a large area, it would not dominate the view as a whole. The views would remain dominated by the more striking visual features such as the rugged mountain

While visitor numbers within each of these areas are unknown to NPS and BLM, visitation is relatively low due to the lack of developed access and predominately steep terrain. The opportunities for solitude and a primitive and unconfined type of recreation remain relatively unchanged in each wilderness area, even though additional infrastructure would be added to those already existing in the viewshed. The typical backcountry experience within each wilderness area will take place out of sight and sound of the Project Study Area. A detailed discussion of the visual impacts and mitigation, including nighttime lighting, is found in Section 4.16-Visual Resources. Note that nighttime lighting is also addressed in Common Response N.4.3.

The FEIS acknowledges that fugitive dust from construction would create a temporary visual distraction for some users of Joshua Tree Wilderness during the construction phase. A detailed discussion of fugitive dust and mitigation measures is included in Section 4.2, Air Resources. The FEIS also acknowledges that impacts of night lighting from construction and operation of the Solar Farm Layouts B and C would be significant and unavoidable (under the CEQA significance criteria; see Section 4.16.3 under "*Impact VR-3: Light and Glare")*. Mitigation Measure VR-4 has been modified in the FEIS to ensure that the effects of sky glow do not exceed the thresholds for light pollution set by the National Park Service for Joshua Tree National Park (see Common Response N.4.3, below).

In addition, noise levels during the construction phase of the Project will vary depending on the location of the wilderness visitor. Noise levels immediately adjacent to the Project Area are determined to be acceptable levels, within Riverside County's normally acceptable range for both rural residential land uses and open space, which are both 45 dBA during the daytime and at night. A detailed discussion of the audible impacts and mitigation is found in 4.10, Noise and Vibration.

2. *Wildlife*

The FEIS recognizes direct, indirect, and cumulative impacts to wildlife from the proposed action and alternatives in the Section 4.4, Wildlife. The discussion of impacts to wildlife in Joshua Tree National Park has been clarified in the FEIS (Section 4.4), and direct impacts to intermountain wildlife movement are specifically addressed. The FEIS describes that construction of the Solar Farm would create obstacles to intermountain and localized movements of wildlife including, but not limited to, Nelson's bighorn sheep, desert tortoise and Palm Springs round-tailed squirrel. Potential for intermountain wildlife movement among Joshua Tree National Park, Joshua Tree Wilderness and Chuckwalla Mountains Wilderness would be altered. Construction of the Gen-Tie Line alternatives and access roads would minimally affect movement of wildlife among these open space areas. Impacts to wildlife movement have been clarified, and are considered to be less than significant (under the CEQA significance criteria) in the Final EIS, including wildlife movement through Joshua Tree National Park.

Additionally, Section 4.4.9, as revised in the FEIS, details a cumulative impact analysis of project impacts to wildlife from the project:

> *In addition to the intermountain habitats*, desert dry wash woodlands are likely important areas for wildlife movement within Project locations and would be directly impacted by construction. Exclusion fencing surrounding the Solar Farm and Red Bluff Substation would also directly impact the movement of wildlife in the region. Finally, impacts of the Project on the Chuckwalla DWMA and Chuckwalla CHU could adversely impact important movement corridors for the desert tortoise and other wildlife species in these areas. *In consideration of the existing and future development within DWMAs, CHUs, desert washes, and other regionally important movement corridors, project Alternatives 1, 2, and 3 would contribute to cumulative impacts on wildlife movement in these areas.* However, due to locations of project facilities under Alternatives 1 and 3, and the addition of a mitigation measure for Alternative 2, the Project would not have a cumulatively considerable contribution to this impact.

3. *Water Quality*

There are no permanent water bodies or Waters of the United States in the Project Study Area and only intermittent surface water flows occur. No impacts on surface water quality are expected. The potential for groundwater to be impacted by vertical transport of contaminants to the water table by surface water infiltration is expected to be very low. The potential for water quality impacts would be further reduced by implementation of Construction Best Management Practices. A detailed discussion of water quality impacts and mitigation is found in Chapter 4.17, Water Resources. Impacts to water quality in Joshua Tree National Park would not occur as a result of construction, operation, or decommissioning of the proposed Project.

Section 4.17.2 of the FEIS clarifies that, under CEQA, the proposed Project would have a significant impact on water resources if it would have the specific effects defined in the nine significance criteria set forth therein. Section 4.17 (Water Resources) of the DEIS analyzes Alternatives 1, 2, and 3 against these nine CEQA impacts criteria, including detailed CEQA significance determinations. Impacts to water quality on Joshua Tree National Park from the proposed Project would be less than significant under the CEQA significance criteria.

N.4.3 Dark Skies

Summary of Issues Raised

These comments raise concerns about the Project's effect on the darkness of the night sky (i.e., light pollution) generally and, in particular, for users of the Joshua Tree National Park, located as close as 1.3 miles west of the proposed solar facility. Many of the commenters question the adequacy of the DEIS analysis related to light, and request additional details on the level of nighttime lighting needed for construction, operation and maintenance of the DSSF.

Response

Description of the Existing Nighttime Light Environment

The DEIS describes the area's value in terms of the high quality of its nighttime skies (Sections 3.16 and 4.16). This is attributable to the scarce and scattered nature of existing light sources in the surrounding area and the prevalence of federally administered land in the region, which limits opportunities for development. As briefly stated in Section 4.16.3, existing light sources in the Chuckwalla Valley are provided by motorists on I-10. Existing light sources also include street lamps, residences, and other commercial/service land uses in the communities of Desert Center and Lake Tamarisk; lighting associated with the former Desert Center Airport (now a private special-use airport); motorists on local roads; and widely scattered homesteads on private land along Kaiser Road, Desert Center/Rice Road, and Eagle Mountain Road. Despite the presence of these existing light sources, the area remains highly valued for the quality of its night sky.

Clarifications on Project-Related Lighting Requirements

On January 5, 2011, the Project Applicant responded to a data request to clarify the lighting footprint of the DSSF (First Solar Inc. 2011). While providing additional details, its response was generally consistent with the description on lighting requirements in Chapter 2 of the DEIS.

During construction, dusk-to-dawn security lighting would be required for the construction staging areas, parking area, construction office trailer entries, site access points, and the security guard booth. Most of these areas would be concentrated on a 10 to 20 acre area on the southwestern corner of the 3,912 acre site (see Figure 2-30). Staging areas would be 8 acres each, scattered at four locations across the site. Lighting is not planned for typical construction activities because construction activities would occur primarily during daylight; however, if required, any lighting would be limited to that needed to ensure safety and would be temporary. Security lighting during operations would be limited to shielded, down-directed, area-specific lighting for the operations and maintenance (O&M) facility, on-site substation, visitor center, main entrance gate, and security guard booth. Service lighting would be placed in key safety-sensitive areas, such as the switchyard of the on-site substation. Service lighting would be provided by floodlights, which would be controlled by a local switch or lighting contactor and would only be used during the course of maintenance and emergency activities. Temporary portable service lighting could be used occasionally in other portions of the solar farm for O&M activities.

To clarify some of the Project's lighting requirements, Section 2.2.3 of the DEIS has been modified as follows:

> During operations, lighting would be limited to shielded area-specific lighting for security purposes for the O&M facility and the on-site substation. Power for the lights would come from the on-site substation and/or the existing electrical distribution service*. Service lighting would be placed in key safety-sensitive areas, such as the switchyard of the on-site substation.* The level and intensity of lighting during operations would be the minimum needed for security and safety purposes. *Security lights would use motion sensor technology* that would be triggered by movement at a human's height during maintenance or emergency activities.

As described above, the lighting footprint of the Project during construction and operation would be largely confined to a small area on the southwestern corner of the solar farm. The project area as a whole would never be flooded with light. While it is not feasible to totally eliminate the amount of back-reflected light from shielded, down-directed lamps, the presence and extent of nighttime O&M lighting would not be substantially out of character with other existing lighting sources found scattered throughout the Chuckwalla Valley. As such, the Project is likely to represent a minor addition to the total nighttime light environment. Detailed information on the location, intensity and type of light sources will be specified in the lighting plan to be developed during the Project's final design phase, but the applicant has indicated that the lighting would be shielded and confined to the site, and only used in areas needed for safety and security. Further, Mitigation Measure MM-VR-4 in the DEIS, as modified in response to these comments (see below), provides performance standards to be met in the development and implementation of the lighting plan.

Adequacy of Analysis in the DEIS

BLM's Visual Resource Management Policy is the agency's implementation of legal requirements for managing scenic resources, established through NEPA (1969) and FLPMA (1976). A Visual Resource Management (VRM) system has been developed by the BLM to apply a standard visual assessment methodology to inventory and manage scenic values on lands under its jurisdiction. This is the methodology used in the DEIS to identify and analyze visual resource impacts of the Project. As indicated in DEIS Section 3.16, this method focuses on a landscape's intrinsic visual quality, the

extent to which it is visible, and the level of public concern to define its visual value. The VRM system requires assessment of the visual contrast of a project within the affected landscape, but does not require an assessment of a project's affect on night skies. Nevertheless, in cooperation with the National Park Service (NPS) and in response to these comments, Mitigation Measure MM-VR-4 has been modified as follows to incorporate additional standards to minimize light pollution.

> Mitigation MM-VR-4: Lighting Control. Consistent with safety and security considerations, the Applicant and SCE shall design and install all permanent exterior lighting and all temporary construction lighting such that a) lamps and reflectors are not visible from beyond the Solar Farm site, including any off-site security buffer areas; b) lighting shall not cause excessive reflected glare; c) direct lighting shall not illuminate the nighttime sky, except for required FAA aircraft safety lighting (which shall be an on-demand, audio-visual warning system that is triggered by radar technology); d) illumination of the Project and its immediate vicinity shall be minimized; *e) skyglow caused by Project lighting will be avoided, and f) the plan shall comply with local policies and ordinances. All permanent light sources shall be below 2,500 Kelvin color temperature (warm white) and shall have cutoff angles not to exceed 45 degrees of nadir. All lights, temporary and permanent, are to be fully shielded such that the emission of light above the horizontal will be prevented. The Applicant and SCE shall submit to the BLM and CPUC for review and approval a Lighting Mitigation Plan that includes the following:*
>
> - *Specification that LPS or amber LED lighting will be emphasized, and that white lighting (metal halide) would (a) only be used when necessitated by specific work tasks, (b) not be used for dusk-to-dawn lighting, and (c) would be less than 2500 Kelvin color temperature;*
> - *Specification and map of all lamp locations, orientations, and intensities, including security, roadway, and task lighting;*
> - *Specification of each light fixture and each light shield;*
> - *Total estimated outdoor lighting footprint, expressed as lumens or lumens per acre;*
> - *Definition of the threshold for substantial contribution to light pollution in Joshua Tree National Park, in coordination with the Night Sky Program Manager (see below);*
> - *Specifications on the use of portable truck-mounted lighting;*
> - Lighting design shall consider setbacks of Project features from the site boundary to help satisfy the lighting mitigation requirements;
> - Light fixtures that are visible from beyond the Project boundary shall have cutoff angles sufficient to prevent lamps and reflectors from being visible beyond the Project boundary, except where necessary for security;
> - *Specification of m*otion sensors *and other controls to* be used, especially for security lighting;
> - Surface *treatment specification that will be employed* to minimize glare *and skyglow*;

- *Results of a Lumen Analysis (based on final lighting plans), in consultation with the NPS Night Sky Program Manager (Chad Moore – (970) 491-3700), in order to determine the extent of night lighting exposures in the surrounding NPS lands. If the lighting exposure on NPS lands exceeds the allowable threshold (which is to be determined in consultation with the NPS Night Sky Program Manager), additional control measures will be instituted to reduce the lighting exposures to levels below the action threshold; and*

- *Documentation that the necessary coordination with the NPS Night Sky Program Manager has occurred.*

The preparation and execution of a lighting mitigation plan as described above would ensure that the lighting requirements of the proposed action and alternatives do not substantially contribute to light pollution in the region and for backcountry hikers in surrounding wilderness. Further, Section 4.2, Air Resources, concludes that the net change in wind erosion as a result of the Project would be minor, and would not be detectable by visual observation. The air resources section also concludes that changes in night sky visibility due to project-related fugitive dust would be minor. Fugitive dust emissions during construction of Project facilities would occur primarily during daytime hours. The applicant would implement a dust control plan including the use of dust suppressants during facility construction. Airborne dust generated from construction sites would be widely dispersed and greatly reduced in concentration by nighttime hours. Construction activity would be phased across the Solar Farm site over a 26-month period, limiting the amount of disturbed area that could produce fugitive dust from wind erosion at night. Development of the Project would result in only a small increase in wind erosion potential compared to natural conditions.

N.4.4 Adequacy of Key Observation Points (KOPs) and Simulations

Summary of Issues Raised

Commenters raised concerns about the adequacy of key observation points (KOPs) used to simulate the DSSF into existing views. Several commenters are particularly concerned about the lack of visual simulation from high-elevation portions of surrounding wilderness and Joshua Tree National Park.

Response

The visual impact assessment of the DSSF focuses on the most critical viewpoints, or KOPs. The intent of establishing KOPs is to visualize the contrast created by the proposed action from locations most representative of how the public perceives the affected landscape. The "public" may include highway travelers, travelers on local roads, off-highway vehicle users, or dispersed recreational users in surrounding wilderness areas. The sensitivity of these diverse user groups to changes in the landscape are influenced by a number of factors, including how prominent the view of the proposed project is (in terms of scale, distance and angle of observation), the number of affected viewers, the duration that viewers are exposed to the view, and whether the viewer groups are aware of their surroundings or are expectant of high-quality views.

The KOPs used in the DEIS were selected with the above referenced criteria in mind, focusing on well-traveled roadways, population centers (Lake Tamarisk and Desert Center) and adjacent special designation areas. While potentially affected viewers would also include wilderness users in high-elevation areas of Joshua Tree National Park as well as some residences on private land, simulations

of the DSSF from these locations were not included based on the low number of affected viewers. Visitor use in the wilderness areas, while unknown by NPS and BLM, is likely to be low due to lack of developed access and steep terrain. Further, simulation from private property lines is considered inappropriate because the only affected viewers would be the owners, guests or leasers of the property.

However, lack of project simulations from certain vantage points does not preclude an analysis of potential visual impacts. As it is not feasible to include vantage points for all potentially affected viewers, KOPs are intended to be representative; meaning potential effects of the proposed project from other vantage points can be estimated from existing simulations by extension or proxy. For example, views of the proposed project from nearby locations are likely to be similar in the degree of contrast to the simulation from KOP 3 (Figure 4.16-4). Conversely, views of the DSSF from middleground or background zones are shown from KOPs 1, 2 and 4, and are likely to be similar from other middleground/background vantage points at similar elevations.

However, the DEIS has been revised to provide a more in-depth discussion of the potential effect of the proposed action and alternatives on views from elevated vantage points in surrounding wilderness, including Joshua Tree National Park. To identify backcountry wilderness users as a small, but noteworthy user group, the last paragraph of Section 3.16 has been modified, as follows:

> The ROI is surrounded by the scenic landscapes of Joshua Tree National Park (including the Joshua Tree Wilderness Area) and Chuckwalla Mountains Wilderness Area. The proposed Project is over 1.5 miles from the closest Wilderness Area. It is important to note that the portions of Wilderness Areas closest to the proposed Project have landscape characteristics that more closely resemble the proposed Project area than most of the Wilderness Area. Additionally, use of the surrounding mountains by dispersed recreational users is low *due to the general lack of visitor serving facilities, developed access, permanent natural water sources and the steep terrain. While use levels in these areas are low, the remote and isolated character of the landscape and the access to unencumbered, panoramic views of the region are attributes that are highly valued by its users. As such, these users are likely to be highly sensitive to visual changes in adjacent landscapes that are visible from the wilderness areas*.

In addition, the following discussion of potential impacts to wilderness areas and Joshua Tree National Park has been added to Section 4.16.3, before the heading titled "Summary of Construction Impacts":

> ***Visual Impacts for users of BLM Wilderness Areas and Joshua Tree National Park***
>
> *Construction of SF-B, GT-A-1, and Red Bluff Substation would also affect views of the Chuckwalla Valley from adjacent wilderness areas (Chuckwalla Mountains Wilderness, Joshua Tree Wilderness, and Joshua Tree National Park), particularly from elevated viewpoints within the Project's viewshed (see Figures 4.16-8 and 4.16-9). KOP 2 provides a low-elevation view from the boundary of Joshua Tree Wilderness, which as discussed above indicates a weak to moderate contrast within the landscape. This is due in large part to the effect of perspective foreshortening, which reduces the apparent size and scale of the Project due to a low elevation difference and the narrow angle of view. While elevated/mountainous portions of the surrounding wilderness are further removed in distance, the increased elevation difference would cause the size and shape of the DSSP to become increasingly apparent. As viewed from higher elevations, the level of contrast in form, line and texture would increase significantly; but this increase in contrast would be tempered*

by a decreased dominance of the Project within the affected views. As vantage points increase in elevation and distance, views become increasingly regional and panoramic, thereby decreasing the portion of view affected by the proposed Project.

However, from the elevated vantage points in Joshua Tree Wilderness (Eagle Mountains to the west and north and Coxcomb Mountains to the east), with their open, unobstructed, and panoramic views, the proposed Project would appear spatially prominent and central to the views of the northern Chuckwalla Valley. From these locations, viewers would observe a high level of visual contrast between the proposed Project and the surrounding desert basin and mountain landscape. The Project would appear co-dominant with the other prominent landscape features (desert basin and surrounding mountains). The overall visual change would be moderate-to-high, and in the context of the existing landscape's moderate-to-high visual sensitivity, the resulting visual impact on viewers in Joshua Tree Wilderness would be substantial. Construction-related dust plumes would be controlled using dust palliatives and limiting vehicle speeds, as described in the air resources analysis in Section 4.2. Light pollution would be minimized as described in Mitigation MM-VR-4, lighting control.

This additional analysis is considered applicable to construction, operation, and decommissioning impacts as well, and would not be substantially different for the other action alternatives. As such, appropriate references to this discussion have been added to the Final EIS text for O&M and decommissioning impact discussions for each alternative. The CEQA analyses have also been updated accordingly. To acknowledge wilderness users as a viewer group, the fourth paragraph of the cumulative impact discussion in Section 4.16.9 has been modified, as follows:

> The proposed Project would have significant and permanent adverse impacts on visual resources. Due to their type and location, the future foreseeable projects are expected to have impacts similar to those of the proposed Project; consequently, cumulative adverse impacts on visual resources would be significant and permanent. The cumulative impacts would involve the conversion of natural desert landscapes to landscapes with prominent industrial character (complex industrial forms and lines and surface textures and colors not found in natural desert landscapes). *Due to the number and extent of projects in the cumulative scenario, visual disturbances would dominate views of the Chuckwalla Valley from elevated vantage points (e.g., Joshua Tree National Park), resulting in a strong contrast with the existing visual environment.* Viewers within the I-10 corridor*, as well as dispersed recreational users of surrounding wilderness areas,* would witness industrial landscapes and activities that are out of character with the desert landscape. Mitigation (such as MM-VR-1 through MM-VR-6 and other forms of mitigation) to minimize the sprawl of an industrialized landscape along the surface of the I-10 corridor are available to reduce adverse unavoidable cumulative impacts on visual resources. *Nonetheless, the proposed Project's contribution to visual impacts would be cumulatively considerable.*

N.4.5 Recirculation of DEIS

Summary of Issues Raised

1. Some commenters suggest that the DEIS should be recirculated as a Supplemental DEIS because it failed to clearly identify the California Desert Conservation Area (CDCA) Plan Amendment as part of the project being evaluated and did not provide the specific wording for the proposed Plan Amendment.

2. Other commenters suggest that other parts of the CDCA Plan may need to be amended, that the Purpose and Need is "impermissibly narrow, and that BLM must revise and re-circulate the DEIS." Many of the recommendations for recirculation were in the context of comments about additional or substitute information that commenters requested be included (e.g., additional studies, revised characterization of environmental setting/conditions, revised statement of project objectives, consideration of additional alternatives) in the EIS.

Response

NEPA Guidance on Recirculation. According to Section 5.3 of the BLM's NEPA Handbook, supplementing an EIS is required only in the following limited circumstances:

1. When substantial changes to the proposed action are made and are relevant to environmental concerns (40 CFR 1502.9(c)(1)(i));

2. When a new alternative is added that is outside the spectrum of alternatives already analyzed (see Question 29b, CEQ Forty Most Asked Questions Concerning CEQ's NEPA Regulation, March 23, 1981); and

3. When there are new significant circumstances or information relevant to environmental concerns and have bearing on the proposed action or its effects (40 CFR 1502.9(c)(1)(ii)).

No substantial changes to the proposed action have been made, no new alternatives have been added and no new significant circumstances or information relevant to environmental concerns have been identified. Accordingly, supplementation or recirculation of the DEIS is not required.

CEQA Guidance on Recirculation. Because this EIS may be used by the California Public Utilities Commission in support of its decision on SCE's Red Bluff Substation, recirculation must also be considered under CEQA. Under CEQA, if significant new information is added to an EIR (or an EIS serving the purpose of an EIR under CEQA Guidelines Section 15221) after commencement of public review but prior to certification of the final document, the agency must issue a new notice and must "recirculate" the revised document, or portions of the document, for additional comment and consultation (Pub. Res. Code § 21092.1; CEQA Guidelines § 15088.5; *Laurel Heights Improvement Ass'n. v. Regents of Univ. of Cal. (Laurel Heights II)*, 6 Cal.4th 1112, 1129 (1993)). Recirculation requirements were addressed by the California Supreme Court in *Laurel Heights II*. The Court's holding is now reflected in CEQA Guideline Section 15088.5, which requires recirculation of an EIR only when "significant new information" is added to the document. Examples of the type of new information that is significant enough to require recirculation include:

(1) A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.

(2) A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.

(3) A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the environmental impacts of the project, but the project's proponents decline to adopt it.

(4) The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

Therefore, under CEQA, the critical issue in determining whether recirculation is required, is whether the new information added to the document is "significant." If it is, then recirculation is required under Public Resources Code Section 21092.1. If not, the document may be certified without a further round of public review and comment. In fact, a significant purpose of CEQA's Draft document circulation and comment process is to elicit information and to allow the agency to provide refined analysis and to make adjustments to the project that reduce impacts in the Final document.

The inclusion of new information that does not show new or increased significant impacts, the conclusion that an impact is less than assessed in the Draft document, or the identification of new mitigation measures or alternatives that offer reduced impacts and are within the range of alternatives analyzed in the Draft document (unless they create their own significant impacts), do not require recirculation.

The information and analysis presented in this FEIS has not changed such that any of those situations exist here. The FEIS does not disclose any new significant environmental impacts or increased severity of impacts, nor does it disclose any new mitigation measures or alternatives that the Project applicant, First Solar, has not agreed to accept or that are outside of the range of mitigation measures and alternatives already analyzed in the DEIS. The new information and analysis presented in the FEIS clarifies and amplifies the information and analysis presented previously in the DEIS. Under these circumstances, CEQA does not require recirculation.

Specific Responses:

1. The EIS clearly identifies the CDCA Plan Amendment as part of the proposed Project. Section 1.2.1 of the DEIS states "The BLM's actions will also include concurrent consideration of amending the CDCA Plan of 1980, as amended." Section 1.3.1 specifies that "BLM authorization of a ROW grant for the Project would require a resource management plan amendment (PA) to the CDCA Plan (BLM 1980), as amended." Section 1.6 of the DEIS states "[b]ecause solar power facilities are an allowable use of the land as it is classified in the CDCA Plan, the proposed Project does not conflict with the Plan. However, Chapter 3 (Energy Production and Utility Corridors element) of the CDCA Plan, as amended, also requires that newly proposed power generation facility sites that are not already identified in the Plan be considered through the Plan Amendment process. The application area is not identified within the Plan, and therefore a Plan Amendment is required to include the area as a recognized element of the Plan and to determine the suitability of the application area for solar development."

   Additionally, Section 2.2.2 of the DEIS explains that each of the action alternatives would require an amendment to the CDCA Plan, as would the two No Project Alternatives. Specifically, each of the three action alternatives analyzed in the FEIS, would require a finding of suitability for solar development. The No Action Alternative and two No Project Alternatives would require either no plan amendment, a plan amendment to identify the land as suitable for solar development or a plan amendment to identify the land as not suitable for solar development, respectively. Chapter 2 describes the plan amendment process and the land use

plan amendment decisions to be made. The specific language relating to a plan amendment will be provided in the ROD once a decision is made on the project. The environmental consequences of each of these No Action/No Project Alternatives are addressed in the EIS. Additionally, Section 2.2.2 in the FEIS has been revised to more specifically state the land use plan amendment decisions connected with each alternative.

2. Please refer to Common Response N.4.1 for a response to the comment relating to Purpose and Need.

N.4.6 Adequacy of Analysis

Summary of Issues Raised

1. Various commenters claim that BLM failed to: compile an adequate inventory of resources; provide adequate baseline information and description of the environmental setting; properly identify and analyze impacts to resources from all project components; and identify adequate mitigation measures to comply with NEPA and CEQA.

2. Commenters suggest that the DEIS identifies a large number of deferred studies in the form of mitigation measures, that deferral of analysis to some future study is counter to basic disclosure purposes of law, and that deferral of important studies makes it impossible to completely identify the affected environment and whether adverse impacts can be mitigated.

Response

1. Section 1.5.2 identifies the 16 environmental components addressed in the FEIS - air resources; biological resources (vegetation and wildlife); climate change; cultural; paleontological; geology and soil; lands and realty; noise and vibration; public health and safety and hazmat; recreation; socioeconomics and environmental justice; special designation areas; traffic and transportation; visual and water resources (surface and groundwater). Further, additional detailed information for some resources such as noise, air quality, biological resources, hydrology, geology, traffic and hazardous wastes is provided in technical reports and supporting information in technical appendices.

The environmental setting (existing condition) of the Project area is described in Chapter 3 using information from literature reviews, fieldwork, and input from appropriate federal, state and local agencies. Where appropriate, the individual resource sections in Chapter 3 define and describe a resource-specific region of influence (ROI), which serves as the baseline for environmental impact analysis. Defining the existing situation allows for characterization and anticipation of the proposed Project impacts and forms the basis for the environmental analysis. Sources for the literature reviews include published technical reports, internet resources, government sources, aerial photos, and information provided by applicant. Where existing information regarding the Project area was insufficient or outdated or specifically required by jurisdictional agencies, new surveys and studies were conducted to determine existing conditions from which to base impacts.

As described above, extensive surveys were completed for the proposed Project site. Focused and protocol-level surveys for the suite of species known to occur on the proposed Project site were not performed for the entire site; however, based on published data about species and habitat in the region and the reconnaissance surveys that were performed throughout the site, the DEIS and FEIS

assume and conclude that threatened or endangered species and suitable habitat for these species exist on the project site. In *Association of Irritated Residents v. County of Madera* (2003) 107 Cal.App.4th 1383, the Court specifically addressed whether protocol-level surveys were required to adequately determine the significance of impacts to special-status species in an EIR and concluded that they were not. According to the Court, "CEQA does not require a lead agency to conduct every recommended test and perform all recommended research to evaluate the impacts of a proposed project. The fact that additional studies might be helpful does not mean that they are required," particularly, where, as here, there is sufficient information regarding the biological resources on site to determine potential impacts.

The individual sections in Chapter 4 describe the individual and cumulative impacts to the various resources anticipated as a result of the Project and identify mitigation measures designed to reduce or eliminate such impacts. Table ES-3, Applicant Measures (AMs) and Mitigation Measures (MMs), provides a consolidated comprehensive list of mitigation measures designed to reduce or eliminate negative impacts associated with the Project.

NEPA requires that an EIS include consideration of mitigation measures to reduce adverse environmental impacts. There is no requirement in NEPA to mitigate all impacts below a threshold as required under CEQA, but mitigation may be proposed and required as part of the approved project. However, because this document may be used by the California Public Utilities Commission in its decision to issue a permit for the Red Bluff Substation, this document has been prepared in an effort to be consistent with CEQA pursuant to Section 15221 of the CEQA Guidelines; therefore, the EIS must describe feasible measures which could minimize significant adverse impacts per CEQA Guidelines Section 15126.4(a)(1). Consistent with this requirement, the FEIS describes all feasible mitigation measures to minimize significant adverse impacts. Nonetheless, certain impacts of the proposed Project and action alternatives remain significant and unavoidable despite mitigation. The final mitigation measures that will be implemented as part of the Project, if approved, will be disclosed in the Record of Decision (ROD). The DEIS and the FEIS include extensive mitigation measures addressing the potential adverse impacts of the Project. Many of these are measures that have been used extensively throughout the State and, therefore, are anticipated to effectively address the adverse Project impacts. In addition, many of the measures include standards or other requirements that, if not met, would trigger the need for additional mitigation. Many of the mitigation measures require the preparation of detailed plans during final design and prior to any activity on the Project site. This is consistent with the requirements of NEPA because these measures identify the impacts intended to be addressed by those plans and key activities that would be included in those plans to mitigate the identified impacts. This is also consistent with the requirements of CEQA as described in detail under (2) below.

In summary, the DEIS provided an adequate baseline and inventory of resources, and the mitigation measures in the FEIS are adequate to address the adverse Project impacts (and the significant adverse impacts under CEQA). Where there are adverse impacts that mitigation measures cannot entirely mitigate, these impacts have been identified as unavoidable adverse impacts of the Project and other alternatives, as applicable.

2. Several commenters stated that DEIS mitigation measures improperly defer mitigation by requiring completion of future plans. Mitigation measures that predicate future actions and obligations on data, analysis and results of future studies do not improperly defer mitigation, are not counter to disclosure, nor do they deprive the public of a meaningful opportunity to comment on

the adequacy of the mitigation measures. To the contrary, the mitigation measures proposed in the FEIS provide performance standards that are sufficiently detailed to allow for meaningful agency and public review. Requirements for the timing, coverage and contents of the surveys are established, as are standards for surveyor qualifications and training. Requirements for operational plans that have yet to be developed also are established in great detail.

CEQA Notes on Adequacy of Analysis

The DEIS reflects a good faith effort to investigate and disclose environmental impacts of the project (see CEQA Guidelines §§ 15003(i), 15151), and the EIS's mitigation measures are legally adequate. CEQA states that formulation of mitigation measures may specify performance standards which would mitigate the significant effects of the project and which may be accomplished in more than one specified way. CEQA Guidelines § 15126.4(a)(1)(B). The DEIS identified a number of mitigation measures that require the preparation of a more precise mitigation plan after certification of the EIS, which is acceptable under CEQA provided that practical considerations make it difficult to develop the plan at this stage of the planning process and the agency "commits itself to eventually devising measures that will satisfy specific performance criteria articulated at the time of approval." *Sacramento Old City Association v. City Council* (1991) 229 Cal.App.3d 1011, 1028-1029.

In *Sacramento Old City Association v. City Council*, the city approved a menu of options for reducing the parking effects of an office complex and convention center. The options were proposed as possible components of a program that would be designed to meet a performance standard of 90-percent parking usage. The court upheld the measure, reasoning that, when it is known that mitigation is feasible but it is impractical to devise specific measures early in the planning process, "the agency can commit itself to eventually devising measures that will satisfy specific performance criteria at the time of project approval." *Id*. at 1029; *see also Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 307.

It is common for formulation of a mitigation plan to be deferred when a regulatory agency other than the Lead Agency will be reviewing or approving the mitigation and can be expected to impose mitigation requirements independent of CEQA as a condition of the permit. These requirements are often worked out through a consultation and approval process that takes place after the environmental document is completed. In this type of situation, it often makes sense to defer formulation of the specifics of mitigation measures to ensure they will meet the regulatory agency's requirements. Compliance with regulatory agency standards for mitigation can be relied upon to ensure adequate mitigation under CEQA. As a result, regulatory approval of a mitigation program might serve as an adequate performance standard as long as the regulatory agency's standards for adequate mitigation are identified in the EIR (or in an EIS that is used in lieu of an EIR). See *Defend the Bay v. City of Irvine* (2004) 119 Cal.App.4th 1261, 1275 (holding no improper deferral of mitigation even though future investigations and consultation with regulatory agencies was required and further holding that an agency may defer defining the specifics of mitigation measures if it "commits itself to mitigation and lists the alternatives to be considered, analyzed and possibly incorporated in the mitigation plan"); *Endangered Habitats League v. County of Orange* (2005) 131 Cal.App.4th 777, 794 (upholding habitat mitigation measure because the EIR called for either off-site preservation of habitat at a specified ratio or obtaining habitat loss permits from relevant agencies).

In the case of the proposed Project in the DEIS, the deferred mitigation criticized by commenters focused on mitigation plans that will be subject to review and input by other regulatory agencies –

for example, in the case of species protection, mitigation measures that will be required under the federal and state endangered species acts through consultation and incidental take permit programs. In addition, the mitigation described in the DEIS contains details of the mitigation requirements (and refer to the detailed plans to be developed).

In this case, the practical difficulty of identifying the precise mitigation requirements for this project stems in part from the role of other regulating agencies in approving the project, including the United States Fish and Wildlife Service (USFWS) and California Department of Fish and Game (CDFG). These agencies would be required to issue "incidental take" permits based on the project's potential impact on listed species. The need for some level of deferral is necessary to avoid a mitigation approach that might ultimately be rejected by these agencies. In the context of biological resources mitigation, the Court in *Defend the Bay v. City of Irvine* (2004, 119 Cal.App.4th 1261, 1275-1276) determined that the Lead Agency may defer defining the specifics of mitigation measures if the agency commits to the mitigation, the EIR specifies performance standards, and the agency "lists the alternatives to be considered, analyzed, and possibly incorporated in the mitigation plan." In *Defend the Bay*, the Court upheld as adequate a mitigation measure that required the applicant to (1) consult with the USFWS and CDFG; (2) conduct surveys during the breeding season to determine if the birds are in fact present; (3) obtain a determination regarding the long-term value of the habitat area; (4) obtain permits from the USFWS and CDFG; and (5) coordinate avoidance measures as required by USFWS and CDFG.

Additional case law supporting the EIR mitigation approach can be found in *California Native Plant Society v. City Rancho Cordova* (2009) 172 Cal. App. 4th 603. In the *Rancho Cordova* case, the California Native Plant Society claimed that mitigation for significant impacts to wetlands and vernal pool fairy shrimp habitat was inadequate because the requirement for creation and protection of replacement habitat did not identify a specific location for the replacement habitat. The Court rejected that argument, concluding that "the agency does not have to commit to any particular mitigation measure in the EIR, as long as it commits to mitigating the significant impacts of the project." The Court ruled that the City could defer the development of the specific manner in which off-site mitigation was provided.

Based on the discussion above, and other relevant case law, the mitigation measures proposed in the FEIS provide performance standards that are sufficiently detailed under CEQA to allow for meaningful agency and public review.

N.4.7 Alternatives Analyzed

Summary of Issues Raised

1. Some commenters suggest that the BLM should consider an all-private-lands alternative. Some commenters suggest that sites closer to urban areas or on previously disturbed lands should have been considered. Other commenters suggest that solar panels should be on rooftops in towns or cities or on already highly degraded desert lands not where it is currently proposed and therefore the full range of possible sites to mitigate negative environmental impacts were not considered.

2. Some commenters suggest that the Gen-tie Line should be placed underground or suggested that they prefer Gen-Tie Line A-2 (GT-A-2).

Response

1. Concerning siting decisions, the BLM's role in managing public lands includes facilitating land uses on lands under the BLM's jurisdiction while appropriately balancing and responding to multiple interests concerning federal mandates, collaborating agencies' directives, and BLM's own interests. As a result, the site considered in the FEIS focuses on actions by the BLM that would respond to the specific application for a ROW grant received by the BLM for the DSSF project. The Applicant's proposal to construct, operate, and ultimately decommission the DSSF on the proposed site is evaluated, and alternatives proposed in the FEIS, consistent with the BLM's role in managing the public lands subject to its authority.

The BLM appreciates the concerns raised regarding the potential authorization of solar energy developments on previously undeveloped sites. The BLM, the DOE, and the State of California have all identified commercial-scale solar energy as an integral component of a future energy system which is sustainable, while reducing the emission of greenhouse gases. The BLM agrees that locating commercial-scale solar energy facilities on previously disturbed sites is desirable. For example, the EPA's RE-Powering America's Land program has identified a number of contaminated lands and abandoned mine sites nationwide, including some sites on BLM-managed lands in California, that have the potential for renewable energy development (See, e.g., EPA 2010). However, the Applicant for the DSSF has not proposed to develop its project on such lands, and the BLM has not received any applications for commercial-scale solar energy projects on such lands. To access the innumerable benefits of solar energy, sites must be identified that meet a variety of technical criteria (such as high solarity and particular slope and grade), and that minimize impacts to environmental resources.

Locating a utility-scale renewable energy generating facility in an urban area or on previously disturbed lands would present considerable challenges relating to site control, negotiations with numerous landowners, and overall acreage needs. Alternative sites on other BLM managed lands were not considered because the BLM is responding to the application for the specific parcel identified in the applicant's ROW grant application.

As a result, the alternatives considered in the FEIS focus on alternatives that would require an action by the BLM and that respond to the specific application for a ROW grant received by the BLM for the DSSF (see, e.g. BLM NEPA Handbook H-1790-1, January 2008, Section 6.6.1 Reasonable Alternatives). It was confirmed in the California Energy Commission (CEC)/BLM CEQA/NEPA joint documents (e.g., the Palen Solar Power Project and Genesis Solar Energy Project documents) on large-scale solar-thermal power plants, that all-private-lands alternatives present considerable challenges, including difficulties associated with obtaining sufficient site control from a number of different landowners who may or may not be motivated to allow utility-scale energy generation facilities to be developed on their property, the large number of acres that would be required for a viable project of this type, and the absence of any clear environmental benefit associated with development on private versus public land. In addition, many of the private parcels identified in the joint CEC/BLM environmental documents mentioned above that could support large-scale renewable energy development have subsequently been secured by other developers. Accordingly, BLM declined to accept suggestions that it consider the placement of the proposed utility-scale renewable energy projects on private lands.

The EIS also considers an alternative in which rooftop and other "distributed" solar would be developed rather than the large scale solar project included in the proposed action. Section 2.6.8 considers this alternative, and explains that it is eliminated because the rate of distributed PV development observed in 2009 would result in it taking over 50 years to achieve the 33 percent Renewables Portfolio Standard goal through reliance on distributed PV alone, threatening the utilities' compliance with Renewable Portfolio Standards. While distributed solar may be one component of the larger solution to energy concerns, it does not currently appear feasible that it could entirely replace the role large scale projects such as the Desert Sunlight project play in meeting the goals defined in California's Renewables Portfolio Standard.

With regard to the comments relating to the FEIS not considering the full range of possible alternatives or the comment suggesting that the public land area within the application that has been excluded from the footprint of the proposed Project and the reduced acreage alternative should be excluded from future energy development, NEPA directs the BLM to "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal that involves unresolved conflicts concerning alternative uses of available resources" (NEPA Section 102(2)(E)). A discussion of alternatives need not be exhaustive. What is required is information sufficient to permit the BLM to make a "reasoned choice" among alternatives so far as environmental aspects are concerned (40 CFR 1502.14).

In order to establish the reasonable range of alternatives to be considered, the defined project purpose and need functions as the first and most important screening tool. Thereafter, the range of alternatives is based on the applicant's proposed action, alternatives that would reduce or avoid adverse impacts of the applicant's project, and appropriate No Action Alternatives. The full range of possible alternatives may be narrowed to a "reasonable number" that covers the full spectrum of alternatives. In determining the alternatives to be considered, the emphasis is on what is "reasonable" rather than on whether the proponents or others like or are capable of implementing the alternative. See BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) §6.6.1.

The number and range of alternatives considered in the EIS is reasonable. In total, 16 alternatives to the proposed action were considered by the BLM. Five were carried forward, in addition to the proposed action, for more detailed review. Three of the six are action alternatives (the Proposed Action Alternative with Land Use Plan Amendment, Alternate Action Alternative with Land Use Plan Amendment and the Reduced Solar Farm Footprint Alternative with Land Use Plan Amendment) and one "no action" and two "no project" alternatives, under which no project would be approved and no approval of a CDCA Plan amendment would occur (No Issuance of a Right-of-Way Grant and No Land Use Plan Amendment, No Issuance of a Right-of-Way Grant with Land Use Plan Amendment to Identify the Area as Unsuitable for Solar Energy Development and No Issuance of a Right-of-Way Grant with Land Use Plan Amendment to Identify the Area as Suitable for Solar Energy Development). This is a reasonable number of alternatives given the breadth of the BLM's statement of purpose and need. Further, the alternatives carried forward for more detailed consideration in the FEIS sufficiently cover the full spectrum of alternatives because the scope of impacts assessed went from none (no action) to some (reduced acreage) to lessened in some respects (reconfigured).

CEQA Notes on Alternatives Analyzed

CEQA requires a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives (CEQA Guidelines 15126.6(a)).

An environmental document need not consider alternatives that are infeasible (CEQA Guidelines Section 15126.6(a)). The alternatives presented in an environmental document must be potentially feasible, defined as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors" (Pub. Res. Code §21061.1). The Guidelines add the term "legal" to the list of factors to take into account (CEQA Guidelines §15364). The alternatives discussed in an environmental document must be reasonable alternatives, selected to foster informed decision-making and public participation (CEQA Guidelines § 15126.6(a)). An environmental document need not consider an alternative whose effect cannot reasonably be ascertained or whose implementation is remote and speculative (CEQA Guidelines § 15126.6(f)(3)).

CEQA does not contain ironclad rules relating to the range of alternatives to be discussed in an environmental document. The nature and scope of the alternatives analysis is governed by the rule of reason (CEQA Guidelines §15126.6(a)). An environmental document is <u>not</u> deficient if it excludes potential alternatives from its analysis so long as it discusses a reasonable range of alternatives. No set number of alternatives is necessary to constitute a legally adequate range of alternatives. The scope of alternatives will vary from case to case depending on the nature of the project under review. If a reasonable basis for the choices the agency makes is found in the environmental document or elsewhere in the record, a reviewing court will defer to the agency's selection of alternatives. *See, e.g., Save San Francisco Bay Ass'n v. San Francisco Bay Conserv. & Dev. Comm'n* (1992) 10 Cal. App. 4th 908. 919, (upholding an EIR's discussion of alternatives because the record showed that the city had considered a number of potential alternatives and selected a range of prototypical alternatives for analysis in the EIR).

CEQA does not require the discussion of alternative locations for the project. Under the CEQA Guidelines, the environmental document must include a reasonable range of alternatives to the project <u>or</u> to the location of the project (CEQA Guidelines Section 15126.6(a)). However, a key factor in considering alternative sites is whether the project would or could be implemented at the alternative site. CEQA compliance requires consideration of concrete alternatives that will actually provide an alternative measure of carrying out the project. It does not require consideration of unrealistic, hypothetical alternatives.

As stated above, the DEIS considered 16 alternatives to the proposed project. After consideration, some of these alternatives did not meet most of the project objectives. Other alternatives were found not to meet the key requirement of reducing impacts as compared to the proposed Project or were not feasible. Three action and three no action/no project alternatives were carried forward for more detailed review. The DEIS also considered two alternative locations for the Red Bluff Substation: Substation A (to the east) and Substation B (to the west). Impacts associated with these alternative locations are analyzed in detail in the EIS.

In conclusion, the DEIS contains a reasonable range of alternatives meeting CEQA's requirements.

2. Based on public comment, the BLM has considered whether to pursue an alternative in which all or a portion of the Gen-Tie Line routes would be installed underground because of its proximity to Lake Tamarisk and the Town of Desert Center. Section 2.6.9, Underground Installation of Gen-Tie Lines, has been added to the discussion of alternatives eliminated from detailed analysis. That discussion concludes as follows:

> BLM and the CPUC have evaluated the information included in First Solar's report and have determined that, based on the Agencies' own experience, expertise and research, undergrounding Desert Sunlight's gen-tie lines would be infeasible. Although the technology for underground transmission lines is available and has been used to reduce visual impacts and to avoid overhead construction through congested areas by major utilities in California, the increased environmental impacts that would result in other resource areas does not justify the use of undergrounding in this case. Specifically, the lack of adequate paved roadways for installation of the gen-tie lines serving the Desert Sunlight project would result in substantially greater impacts in biological resources, cultural resources, air quality, and noise than for the overhead gen-ties. The additional costs and technical risks associated with undergrounding also make it undesirable under these conditions. As a result, the underground gen-tie alternative has been eliminated from detailed consideration.

N.4.8 Property Value

Summary of Issues Raised

Various comments indicate concerns that the proposed Gen-Tie routes would adversely affect future use of the private properties adjacent to the proposed right-of-way routes and also reduce property values of the neighboring properties. Several commenters expressed the opinion that the Proposed Action Alternative would preclude potential future commercial or industrial development of the properties along Kaiser Road near Lake Tamarisk.

Most of the commenters specifically expressed their opposition to the Gen-Tie Alternative A-1 (i.e., Kaiser Road Route) and their preference for the Gen-Tie Alternative A-2 (East of Lake Tamarisk Route). While most of the Gen-Tie Alternative A-1 is located on BLM land, the short segment near the Lake Tamarisk area would traverse private properties. This area is also currently identified in the current Desert Center Area Plan of the 2003 Riverside County General Plan as the future location for potential community development.

Response

Most of the land in the Project area is undeveloped and in its natural state. There are also a few agricultural properties dedicated to jojoba production in the area. The Lake Tamarisk community consists of single family retirement housing, a lake, and a golf course. The current land use designations for the area are discussed in Section 3.9, Lands and Realty. The land parcels directly adjacent to the right-of-way for the proposed Gen-Tie Alternative A-1 are currently designated for rural residential or recreation use (see Figure 3.9-3). Potential future use of the parcels and the nearby Lake Tamarisk community is for Community Development (see Figure 3.9-19).

The foreseeable future demand and likelihood of any such development occurring in the area is unclear and uncertain given its current small residential population, rural location and limited infrastructure. Consequently, it is highly speculative that future development will occur and

therefore insufficient likelihood that any physical impacts would occur. Simply stated, there is insufficient information to attribute an impact to the properties that would represent an adverse environmental and physical impact under CEQA or NEPA to the currently undeveloped property.

Most of the commenters expressed concern about potential adverse effects on property values from the proposed Project. Potential visual impacts as well as health and safety effects are generally the primary concerns commonly associated with living near power lines. The Project's visual impacts are analyzed in the DEIS, Section 4.16, Visual Resources, and mitigation measures are identified that reduce the Project's impacts to visual resources. Although the presence of Electric and Magnetic Fields (EMF) is generally not recognized as a NEPA or CEQA issue, the potential relevance and effects of EMFs are discussed in the DEIS, Sections 3.11 and 4.11, Public Health and Safety/Hazardous Materials and in Common Response N.4.9, below.

In recent years, extensive analysis of the potential impacts of high-voltage transmission lines on residential property values has been performed. The impacts are not easily measurable. Many studies indicate no significant effect on residential property values. Other studies have found some evidence that transmission lines may affect property values under some circumstances. The research has generally found any property value effects to be smaller than anticipated with an average discount of between 1 and 10 percent of property value reported for homes in very close proximity to the power lines. The property value impacts are reduced as distance from the line increases and at a distance of 200 feet the property value impact generally disappear. In cases where views are completely unobstructed, negative impacts may extend up to a quarter of a mile but the effects are reduced considerably by even partial screening (e.g. trees, landscaping or topography (Pitts 2007).

Value diminution attributable to tower line proximity is temporary and usually decreases over time – disappearing entirely in 4 to 10 years (except for properties adjacent to or in direct view of the tower structures where the effects may be longer lasting). High-end custom homes are also more susceptible to value diminution effects than lower-end homes (Pitts 2007).

Projecting the magnitude of any site specific decrease in home values requires extensive real estate market analysis and is beyond the scope of environmental review under NEPA or CEQA. CEQA Guidelines § 15131(a) states that economic or social effects of a project shall not be treated as significant effects on the environment, and these effects only need to be considered in a chain of cause and effect if they would result in a physical change to the environment that was caused in turn by the economic or social changes. Furthermore, in a predominantly undeveloped and/or agricultural area such as that within the study area, property prices would be mostly determined by the land's agricultural productivity. Consequently, since the proposed Project would have a very small (if not negligible) impact on the area's local agricultural productivity[1] the proposed Project may correspondingly be reasonably expected to have a similarly very small impact on local property prices. Potential property diminution impacts would mostly be attributable and at issue for the Gen-Tie Alternative A-1 (Kaiser Road) route. While the Gen-Tie Alternative A-2 route would traverse several private properties, the right-of-way acquisition process can be expected to largely address any land value and/or farmland productivity impacts to the local land owners because landowners allowing use of their land for the gen-tie would be compensated for use of their land by the Applicant.

[1] Most of the proposed Right of Way route alternatives would not cross existing agricultural land. Along sections where the route it would traverse farmland, continued jojoba cultivation could continue given the relatively low height of mature jojoba shrubs.

Additionally, the FEIS considers an alternative in which all or a portion of the Gen-Tie Line would be underground, but ultimately determines that such an alternative would be infeasible for the reasons described in Common Response N.4.7 and new FEIS Section 2.6.9.

N.4.9 Cadmium Exposure

Summary of Issues Raised

Commenters have concerns regarding the potential threats to the environment and human health from exposure to cadmium telluride (CdTe) used in the semiconductor materials of the PV modules. As indicated in the DEIS, Chapter 4.11, the CdTe is bound to a glass sheet by vapor transport deposition during the manufacturing process, followed by sealing the CdTe layer with a laminate material and then encapsulating it in a second glass sheet.

Response

While CdTe itself is a hazardous substance in an isolated form (i.e., not embedded within a PV module), any risk to human health or the environment is minimized by a combination of product design, testing, and routine monitoring. The panels meet rigorous performance testing standards demonstrating their durability in a variety of environmental conditions. The modules conform to the International Electrotechnical Commission (IEC) test standards IEC 61646 and IEC61730 PV as tested by a third party testing laboratory certified by the IEC. In addition, the modules also conform to Underwriters Laboratory (UL) 1703 a standard established by the independent product safety certification organization. In accordance with UL 1703, the modules undergo rigorous accelerated life testing under a variety of conditions to demonstrate safe construction and monitor performance. Furthermore, First Solar conducts its own testing including proprietary light soak testing under high intensity light and heat to evaluate potential long term degradation, high-cycle dynamic load testing where the modules are mechanically flexed thousands of times, and extending the IEC and UL tests to multiple test cycles to ensure the module design and performance margin can exceed these standards.

As also stated in the DEIS, Chapter 4.11, the project includes operational and maintenance protocols that would be used to identify and remove damaged or defective PV modules during annual inspections. Any identified damaged or defective PV modules would be removed from the site, as well as PV modules at the time of decommissioning, and then collected and recycled in accordance with First Solar's pre-funded PV module collection and recycling program.

Inadvertent release of CdTe from PV modules have been the subject of various scientific studies and according to the Brookhaven National Laboratory and the National Renewable Energy Laboratory (Fthenakis, Zweibel 2003), the only pathways by which people might be exposed to PV compounds from a finished module are by accidently ingesting flakes or dust particles, or inhaling dust and fumes. Dust particles would only be generated if the solar module were to be purposefully ground to a fine dust or vaporized in a fire, due to upset scenarios that are not reasonable during normal operations. The thin CdTe/CdS layers are stable and solid and are encapsulated between thick layers of glass, which would crack but not shatter under expected module breakage scenarios. Small amounts of CdTe could vaporize and be released from panels during a wildfire at the Project site. However, such conditions are unlikely to occur at the Project site because of the lack of fuel to support a sustained wildfire and the wildfire mitigation measures for the Project (Mitigation AM-

HAZ-4). Grass fires are the most likely fire exposure for ground-mounted PV systems, and these fires tend to be short-lived due to the thinness of fuels. As a result, these fires are unlikely to expose PV modules to prolonged fire conditions or to temperatures high enough to volatilize CdTe, which has a melting point of 1,041 degrees Celsius where typical grass fires have a maximum temperature of 1000 degrees Celsius (University of Toronto 2009). Moreover, even if a desert wildfire could reach that temperature, the actual loss of CdTe from a module would be insignificant (approximately 0.04 percent). For these reasons, the probability of sustained fires and subsequent emissions in adequately designed and maintained utility systems is extremely low (Fthenakis 2005). In addition, small amounts of CdTe could leach from broken panels exposed to low pH precipitation, such as acid rain (NGI 2010; SAL 2010). However, leaching would primarily occur with finely ground materials, which are not expected to be created under natural or intentional/vandalism scenarios. Furthermore, removal and recycling of damaged and end-of-life panels would limit the potential exposure time of any broken modules to the elements.

In conclusion, the environmental risks from CdTe PV are minimal and would be less than significant. Policy and scientific experts from the German Ministry of Environment, Brookhaven National Laboratory, Projekttrager Julich, Joint Research Centre of the European Commission, and the German Industry Association for Solar Energy concluded that the "emissions produced during the life-cycle of the modules are extremely low, and large scale use of CdTe photovoltaic modules does not present any risks to public health and the environment." (Jager-Waldau 2005)

References

NGI (Norwegian Geotechnical Institute). 2010. Leaching from CdTe PV module material – results from batch, column and availability tests. April 2010.

SAL (Sierra Analytical Laboratories). 2010. Cadmium testing of CdTe Solar Panels. July 2010.

Jager-Waldau, Arnulf. 2005. Summary Report: Peer Review of Major Published Studies on the Environmental Profile of Cadmium Telluride (CdTe) Photovoltaic (PV) Systems. [online] http://www.firstsolar.com/Downloads/pdf/SummaryReport_Environmental_Profile_NA.pdf

University of Toronto. 2009. Grass Fire Behaviour and Flame. [online] http://www.firelab.utoronto.ca /behaviour/grass_fire.html. Updated July 14.

N.4.10 EMF Exposure

Summary of Issues Raised

Various commenters indicate concerns regarding impacts resulting from EMF (Electromagnetic fields) exposure and negative health impacts.

Response

As stated in the DEIS, Chapter 4.11, generation of EMF is not considered a NEPA or CEQA issue and no impact significance is presented because: 1) there is no agreement among scientists that EMF does create a potential health risk; and 2) there are no adopted NEPA or CEQA standards for defining health risks from EMF. However, as indicated and discussed at length in Chapter 3.11, the CPUC has undertaken an investigation to consider its role in mitigating the health effects, if any, of EMF from utility facilities and power lines. The conclusions of the investigation as summarized in

CPUC issued Decision D.06-01-042, on January 26, 2006, resulted in the adoption of rules and policies to improve utility design guidelines for reducing EMFs. The CPUC also stated "at this time we are unable to determine whether there is a significant scientifically verifiable relationship between EMF exposure and negative health consequences." Regarding interference with electrical equipment, the Institute of Electrical and Electronic Engineers (IEEE) has published a design guide (IEEE 1971) that is used to limit conductor surface gradients to avoid electronic interference. Although high frequency energy may interfere with broadcast signals or electronic equipment, this is generally not a problem for transmission lines. In addition, as also stated in Chapter 3.11, EMF levels can be reduced through shielding, field cancellation or increasing the distance from the source. Shielding, which primarily reduces exposure to electric fields, can be actively accomplished by placing trees or other physical barriers adjacent to the EMF generating structure. Since electric fields can be blocked by most materials, shielding is effective for the electric fields but of limited effectiveness for magnetic fields. Buildings are also effective in shielding electric fields.

Magnetic fields can be reduced by either cancellation or by increasing distance from the field. Cancellation is achieved in two ways. A transmission line circuit consists of three "phases": three separate wires (conductors) on a transmission tower. The configuration of these three conductors can reduce magnetic fields. When the configuration places the three conductors closer together, the interference or cancellation, of the fields from each wire is enhanced. The most common electronic equipment that can be susceptible to magnetic field interference is probably computer monitors. Magnetic field interference results in disturbances to the image displayed on the monitor. In most cases it is annoying, and at its worst, it can require interference measures to correct the problem. Possible solutions to this problem include relocating the monitor, using magnetic shield enclosures, installing software programs, and replacing cathode ray tube monitors with liquid crystal displays that are not susceptible to magnetic field interference.

The transmission lines would be approximately 135 feet high which has proven effective in reducing exposure because the reduction of the field strength drops rapidly with distance. The Project would locate the Gen-Tie lines in existing transmission corridors where possible. The Project area is predominantly undeveloped and no residences are located within approximately a quarter-mile of any Project component.

N.4.11 Construction Employment

Summary of Issues Raised

Several comments raised concerns that DSSF's construction employment needs would result in a major influx of new workers to the local communities. The comments also questioned how construction workers would commute to the work site and whether construction worker in-migration would occur and adversely affect local municipal services.

Response

The availability of Project construction workers within the existing regional workforce is a key issue underlying the potential for in-migration to occur as a result of the Project. In addition, the availability of transit options would also affect the ability of the Project to meet its workforce needs with regional workers.

Supplemental analysis has been performed to more precisely evaluate the potential for the region's workforce to supply the construction workers needed during the Project's 26-month construction period. The "worker availability" analysis is presented separately due to its length and to avoid extensive and confusing revisions to the DEIS text. The approach and data for the analysis is adapted from similar worker availability analysis performed for the recently approved Blythe and Genesis Solar Projects. In addition, the analysis is based on more conservative and specific assumptions than the DEIS regarding the supply and origin of project workers from the region. Consequently, its conclusions provide additional analysis to confirming the DEIS analysis's findings.

Supplemental Construction Worker Availability Analysis

Affected Area

This supplemental analysis provides information and assesses the potential origin and housing/ lodging resources available for future project workers. The origin of the DSSF workers likely would be a central factor determining the magnitude and extent of the proposed action's potential for socioeconomic impacts to the local and regional communities and economy. The expected catchment area for DSSF construction workers' commuting daily to the site is a primary determinant of the project's social and economic affected environment. If there would be an insufficient number of suitable workers to staff the proposed action locally or regionally, then individuals may be attracted to the area (either temporarily or permanently), which consequently could result in increased demand for housing and local services.

There is little research and analysis providing guidance for determining the socioeconomic affected area for power facilities. The widely referenced EPRI analysis (BLM 2010) generally is cited as research showing that workers may commute as much as two hours each direction from their communities rather than relocate (BLM 2010). In addition, recent testimony by a representative of the Riverside/San Bernardino Building Trades Council also stated the opinion that construction workers associated with the proposed action could commute daily two to three hours each way (CEC 2010).

For the purposes of the supplemental analysis of construction worker, and as a conservative assumption recognizing the rural nature of eastern Riverside County, a two-hour daily commute radius is used to define the regional study area. As estimated by ESA based on similar analysis by AECOM for other similar nearby solar projects in Eastern Riverside County, the two-hour commute shed extends into parts of San Diego, Imperial and San Bernardino counties in California. The commute radius also extends into western Maricopa County in Arizona to the east and to Banning in Riverside County to the west. The north-eastern boundary for commute radius includes the very small community of Morongo Valley within San Bernardino County just north of its border with Riverside County.

However, given that there are no major populated urban centers located within the commute radius within the counties of San Diego, Imperial and Maricopa, these areas are not included in the regional study area for the proposed action. The relatively small community of Twentynine Palms is shown to be within the outermost limits of the two-hour radius; however, given both the relatively poor roadway connection along Route 62 (suggesting that actual commute time may be higher) and the prevalence of other solar projects closer to these communities, it is expected that relatively few if any San Bernardino residents would commute daily to work at the DSSF site.

Consequently, for analysis, the regional study area is determined to consist predominantly of eastern Riverside County in California and La Paz County in Arizona. In addition, the small city of Twentynine Palms, the community of Morongo Valley and their respective nearby unincorporated areas of San Bernardino County. The western limit for the two commute radius catchment area is assumed to extend as far as the community of Banning as a realistic representation of actual typical drive time conditions from the project site.

The local study area consists of the five nearest communities: the City of Blythe, California (approximately 60 miles east of the site); the very small community of Desert Center, California; the City of Ehrenburg, Arizona (approximately 65 miles east of the site); and the Cities of Indio and Coachella, California (both approximately 60 miles west of the site). These cities represent all the major communities located within an hour commute of the site and therefore together represent the local study area for the proposed action.

Population

The current population estimates and recent growth trends for both the regional and local study areas are summarized in Table 5-2. All the cities determined to be located within a two-hour commute of the site are shown. In addition, data for Riverside, San Bernardino, and La Paz Counties are presented. Zip code population estimates were used to estimate the approximate size and location of the residential populations within the unincorporated areas of eastern Riverside County located within the two-hour commute distance of the site. The unincorporated communities of Cabazon, Desert Center, Mecca, Thermal and Thousand Palms are represented within the unincorporated area population estimates of Riverside County. The unincorporated community of Morongo Valley also is represented within the unincorporated area population estimates of San Bernardino County.

Table 5-2
Population Profile of the Regional Study Area

	Population		
	Year		
Area	**2000 Population**	**2010 Population**	**Average Annual Growth Rate (2000 – 10)**
Riverside County, CA	1,545,387	2,139,535	3.3%
Blythe	20,465	21,812	0.6%
Coachella	22,724	42,591	6.5%
Indio	49,116	83,675	5.5%
Indian Wells	3,816	5,144	3.0%
La Quinta	23,694	44,421	6.5%
Palm Desert	41,155	52,067	2.4%
Rancho Mirage	13,249	17,006	2.5%
Cathedral City	42,647	52,067	2.0%
Palm Springs	42,805	48,040	1.2%
Desert Hot Springs	16,582	26,811	4.92%
Banning	23,562	28,751	2.00%
Unincorporated Area[1]	64,269	99,322	4.5%
Eastern Riverside County, CA	364,084	521,707	3.6%

Table 5-2 (continued)
Population Profile of the Regional Study Area

	Population		
	Year		
Area	**2000 Population**	**2010 Population**	**Average Annual Growth Rate (2000 – 10)**
San Bernardino County, CA	1,710,139	2,073,149	1.9%
Twentynine Palms[2]	14,764 (est)	16,877	1.4%
Unincorporated Area	5,890	10,580	6.0%
South San Bernardino County, CA	20,654	27,457	2.9%
La Paz County, AZ	19,715	21,616 [3]	0.9%
Ehrenburg	1,357	1,488 [3](est)	0.9%
Quartzite	3,354	3,731 [3]	1.1%
Cibola	172	189 [3] (est)	0.9%
Unincorporated Area[4]	4,226	4,621	0.9%
Western La Paz County, AZ	9,109	10,029	1.0%
Local Study Area[5]	93,662	149,566	4.8%
Regional Study Area	392,908	559,193	3.5%

Notes: CA Cities are shown (by County) in order of their relative distance from the project site.
1 Adjusted to remove Chuckwalla and Iron Wood State Prison population and includes Desert Center residents.
2 Estimated population to adjust for Twentynine Palms Military Base.
3 2009 Data
4 Consists of entire remainder of La Paz County except for the population of the City of Parker (3,401) and the estimated Colorado River Reservation population (8,186).
5 Blythe, CA; Coachella, CA; Indio, CA; and Ehrenburg, AZ.
Source: California Department of Finance, 2010; Arizona Department of Commerce, 2010.

The total population of eastern Riverside County within the regional study area is estimated to be 559,193 and approximately 26.1 percent of the County's total population.

Housing

Current housing conditions for the regional and local study areas are summarized in Table 5-3. All the cities determined to be located within a two-hour commute of the site are shown. In addition, data for Riverside, San Bernardino, and La Paz Counties are presented.

In 2010, Riverside County had 784,357 total housing units, with a vacancy rate of 13.0 percent. Also shown in Table 5-3, the regional study area contains a high number of housing units, with La Paz County having the highest vacancy rate.

Among the cities in Riverside County relevant to the proposed action,[2] Palm Springs had the highest vacancy rate (33.4 percent), and is behind only Palm Desert in number of housing units, with 33,479. Among the cities in La Paz County relevant to the Project, Cibola had the highest vacancy rate (60.0 percent), but Quartzsite had the highest number of vacant units at 1,336.

[2] The high vacancy rates for the affluent cities of Indian Wells and Rancho Mirage primarily reflect a large proportion of vacation homes and these cities are not expected to provide much of the Project workers population.

Table 5-3
Housing Profile of the Regional Study Area (2010)

Housing		
	Year	
Area	**2010 Total Housing Units**	**2010 Vacancy Rate**
Riverside County, CA	784,357	13.0%
Blythe	5,472	16.1%
Coachella	9,145	4.4%
Indio	28,167	18.0%
Indian Wells	5,025	48.4%
La Quinta	21,491	28.5%
Palm Desert	34,425	30.9%
Rancho Mirage	13,542	38.6%
Cathedral City	21,527	21.5%
Palm Springs	33,603	33.4%
Desert Hot Springs	11,073	16.7%
Banning	11,644	8.4%
Unincorporated Area	36,990 (est)	15.3%
Eastern Riverside County, CA	232,104	23.7%
San Bernardino County, CA	693,712	11.58%
Twentynine Palms	9,228	14.7%
Unincorporated Area	4,650 (est)	28.3%
Eastern San Bernardino County, CA	13,878	19.3%
La Paz County, AZ	16,765 [1]	45.0% [1]
Ehrenburg	824 [2]	34.9% [2]
Quartzite	3,541 [1]	41.9% [2]
Cibola	161 [2]	60.0% [2]
Unincorporated Area[3]	4,262 [1] (est)	49.5% [1]
Western La Paz County, AZ	8,788 [1]	45.3% [1]
Local Study Area[4]	43,608	15.2%
Regional Study Area	219,328	25.0%

Notes: CA Cities are show (by County) in order of their relative distance from the project site.
[1] 2009 Data
[2] 2000 Data
[3] Consists of entire remainder of La Paz County except for the population of the City of Parker (3,401) and the estimated Colorado River Reservation population (8,186).
[4] Blythe, CA; Coachella, CA; Indio, CA; and Ehrenburg, AZ.
Source: California Department of Finance, 2010; Arizona Department of Commerce, 2010.

Population Projections

The forecasted population trends for Riverside, San Bernardino, and La Paz Counties are shown in Table 5-4. The projected population growth for eastern Riverside County is estimated based on the county-wide growth projections. Population growth in Riverside County is expected to slow over the next few decades. The growth rate is projected to be 3 percent per year between 2010 and 2020, and then to fall to 2.1 percent per year between 2020 and 2030. The population projections discussed above were made prior to the economic recession that began in 2008, likely explaining the decrease in the 2010 actual population estimate for Riverside County from the previously estimated population growth projections.

Table 5-4
Population Projections for Riverside County and the Regional Study Area

	Population			
	Year			
Area	2010 Actual Population	2010 Projected Population	2020 Projected Population	2030 Projected Population
Riverside County, CA	2,139,535	2,239,053	2,904,848	3,507,498
Eastern Riverside County, CA[1]	521,707	545,974	708,322	855,273
San Bernardino County, CA	2,073,149	2,177,596	2,582,777	2,957,744
South San Bernardino County, CA[1]	27,457	28,840	34,207	39,173
La Paz County, AZ	21,544	22,632	25,487	28,074
Western LaPaz County, AZ[1]	10,029	10,535	11,865	13,069
Regional Study Area	559,193	585,349	754,393	907,514

Notes:
[1] Estimates based on Countywide growth projections.
Source: CEC GSSP 2010; ESA 2010.

Temporary Housing Resources

Rental Homes

As shown in Table 5-3, vacancy rates are high in the study area. Based on reported current vacancy rates for the City of Blythe, approximately 881 vacant housing units are unoccupied in 2010 and may be available for rental (or purchase) by future DSSF workers. Similarly, the data also suggests that up to another 5,760 local housing units may be available within the city of Ehrenburg and cities of Indio and Coachella (BLM 2010). However, the condition, suitability, and availability of the existing housing resources for use as temporary housing for DSSF-related construction workers is unknown. In addition, as shown by the high vacancy rates elsewhere in the region study area, some "vacant" homes may be second homes and, therefore, less likely to be available for use as temporary housing.

Hotel and Motel Accommodations

In addition to the existing residential units, DSSF construction workers and operational workers could use local lodging facilities as temporary housing. Hotel/motel lodging suitable for potential temporary housing use typically is concentrated in urban areas or near major transportation nodes. For the purposes of this analysis, only those hotels in the communities closest to the proposed action were tabulated under the assumption that construction and operations workers would congregate to this area for commuting ease.

Data compiled by Smith Travel Research for hotels and motels with 15 or more rooms identified 19 hotels with a total of 878 rooms within Blythe in 2008, which presents the most current available data (BLM 2010). In addition, 120 hotel/motel rooms are located in Ehrenberg, Arizona (Arizona Department of Commerce, 2010). In addition, there are approximately an estimated 1,010 rooms at 15 hotel and motels located in the Indio and Coachella area (ESA, 2010).

The extent that the local motel and hotels within the local study area could provide temporary housing for DSSF construction workers would depend both on the then-current room rates and occupancy rates. Typical room rates for most of the hotel/motels are currently relatively inexpensive

during the off-season with quoted rates of $60 to $70 per night (not including tax). Provided operators would maintain comparable rates, these local hotel/motel rooms would likely be a possible temporary housing option particularly for workers that might be willing to share accommodations.

Forty-two hotels with a total of 7,275 rooms were identified in communities located from 1 to 1.5 hours drive from the DSSF site (BLM 2010). These communities include Palm Desert, Indian Wells, and Rancho Mirage. Applying the 2008 average occupancy ratio (70.8 percent) suggests that, on average, 2,124 unoccupied rooms are available for rent within 1 to 1.5 hours drive of the DSSF site. A total of 129 hotels with 7,541 rooms were identified in communities within 1.5 to 2 hours' drive from the DSSF site (BLM 2010). These communities include Desert Hot Springs, Palm Springs, and Needles. Assuming an annual average occupancy rate of 70.8 percent, 2,202 unoccupied motel and hotel rooms were available for rent within 1.5 to 2 hours drive from the DSSF site. It should be noted that data was unavailable for local study area hotel/motel rooms located within Arizona, but is certainly available to workers.

The average annual occupancy rate for hotels in Riverside and San Bernardino Counties in 2007 was 70.8 percent (BLM 2010). Applying this ratio (70.8 percent) to the total number of hotel rooms identified within the local study area would suggests that, on average, in 2008 a total of 298 unoccupied rooms were available for rent in the local study area. However, given the seasonality of local tourism to the area, it is considered likely that higher occupancy and room rates would apply during the winter season (December to March), while higher vacancy rates lower room rates would apply during the off-season (summer and early fall) when very hot local conditions persist during the summer months.

Considerable additional hotel and motel facilities are available in the other communities within two hours of the DSSF site. Another 57 hotels with a total of 8,285 rooms were identified in communities located from one to 1.5 hours drive from the site (BLM 2010). These communities include Indio, Palm Desert, Indian Wells, and Rancho Mirage. Applying the 2008 average occupancy ratio (70.8 percent) suggests that, on average, 2,419 unoccupied rooms are available for rent within 1.5 hours drive of the project. Another 129 hotels with 7,541 rooms were identified in communities within two hours drive from the project (BLM 2010). These communities include Palm Springs and Desert Hot Springs.

However, the attractiveness of these temporary housing resources for DSSF construction workers generally would decrease the further they are located from the site. Furthermore, given the size of these hotels and their location within more affluent communities, it is likely that many of these hotels would likely have higher room rates and, therefore, would not be suitable temporary housing for DSSF workers.

Campground/RV Parks

In addition, other housing opportunities are available in the form of recreational vehicle (RV) facilities, mobile home sites, and campgrounds. Under some circumstances, these types of facilities could be usable by DSSF construction workers as temporary housing. Generally their lower cost for overnight use could make them more attractive as a potential temporary housing resource. Particularly for construction workers who may own their own RV or trailers, RV parks with utility

hook-ups and other amenities would be more suitable for use during the summer and could serve as a longer-term rental for workers who prefer a weekly commute.

There are at least 10 RV parks located in the vicinity of Blythe, with a combined total of about 800 spaces (BLM 2010). RV parks in Blythe tend to be located along the Colorado River and receive higher levels of use during the summer. Research performed on small sample of these RV parks suggests that, while they have a large number of spaces, many are occupied by year-round residents or are privately-owned and, therefore, would not be available for use by construction workers (BLM 2010). Additional RV parks are located in Ehrenberg and Quartzsite, Arizona, approximately four miles and 20 miles east of Blythe, respectively. The town of Quartzsite's web site states there are more than 70 campgrounds in the vicinity of the community that are typically occupied between October and March, with visitors attracted to the gem, mineral, and swap meet shows which are popular tourist attractions in the area (BLM 2010). Twenty local RV parks are identified by the Quartzite Chamber of Commerce as operating within Quartzite.

Long-term camping is available by permit in Long-Term Visitor Areas (LTVAs) on BLM lands. There are two LTVAs located in the vicinity of the Project site: Mule Mountain LTVA, which includes two primitive campgrounds, Wiley's Well and Coon Hollow, and Midland LTVA, which is located north of the City of Blythe. BLM also operates another LTVA within the local study area at La Posa, south of Interstate 10 near Quartzsite, Arizona. LTVAs are intended for recreation use only and workers would generally not be permitted to use these areas (BLM 2010). However, BLM may allow temporary LTVAs to be established on site for construction workers for the duration of project construction as temporary lodging facilities.

Campgrounds also are located nearby. Corn Springs is the closest BLM campground to the DSSF, located about 20 miles drive south of the project. However, the BLM imposes a 14-day stay limit at this campground, which would seem to make it an undesirable base camp for construction workers. Cottonwood Springs is the closest National Park Service (NPS) campground to the DSSF, located over 50 miles drive west of the project site. However, since this campground is located within a National Park that has an entrance fee, this location may also seem undesirable for construction workers. Further, the NPS strictly enforces a 30-day camping limit each year; visitors' stay is limited to a total of 14 nights between October and May.

Except for "special areas" with specific camping regulations, vehicle camping is allowed anywhere on BLM-administered land within 300 feet of any posted Open Route. There are, however, no facilities in these locations and there is a 14-day limit for camping in any one location. After 14 days, campers wishing to stay in the area longer are required to move 25 miles from their original camp site (BLM 2010).

Employment

Regional employment statistics by industry sector and county for 2008 are summarized in Table 5-5. The government is Riverside County's largest employer. Governmental employment accounts for over 17 percent of the total jobs in the County. Additional important industries in the area include natural resources, mining, and construction; manufacturing; transportation; trade (wholesale and retail); information; financial activities; and services (e.g., professional, business, educational, health). In Riverside County, natural resources, mining and construction, government, and retail trade services are the leading industry groups in terms of employment.

Table 5-5
Employment by industry Group – 2008

	Riverside County Employment		San Bernardino County Employment		La Paz County Employment	
Industry Group	**Total**	**Percent of Total**	**Total**	**Percent of Total**	**Total**	**Percent of Total**
Agriculture	13,800	2.3%	2,967	0.3%	323	5.65%
Natural Resources, Mining, and Construction	55,100	9.3%	57,660	6.5%	289	5.05%
Manufacturing	48,600	8.2%	63,634	7.2%	218	3.81%
Transportation, Warehousing, and Utilities	21,400	3.6%	63,164	7.2%	146	2.55%
Wholesale Trade	20,400	3.4%	40,192	4.6%	n/a	n/a
Retail Trade	84,200	14.2%	106,217	12.1%	1,340	23.43%
Information	7,700	1.3%	8,949	1.0%	n/a	n/a
Financial Activities	22,300	3.8%	29,563	3.4%	515	9.01%
Professional and Business Services	57,700	9.7%	151,391	17.2%	161	2.82%
Educational and Health Services	58,800	9.9%	96,586	11.0%	n/a	n/a
All Other Services	94,300	15.9%	120,791	13.7%	261	4.56%
Government	110,200	18.5%	139,329	15.8%	2,465	43.11%
Total	**594,500**	**100%**	**880,443**	**100.0%**	**5,718**	**100.00%**

Source: California EDD, 2010a; Bureau of Economic Analysis, 2010.

Labor Force

The labor force of the study area counties and communities is presented in Table 5-6. As of December 2010, Riverside County had a labor force of 905,000 workers, of which 776,500 were employed. Consequently, Riverside County's unemployment rate was 14.2 percent - considerably higher than the State-wide unemployment rate of 12.3 percent. Within Blythe, there is a labor force of 7,100 workers. The cities of Indio and Coachella have total labor forces of 27,100 and 12,300 respectively. Altogether, the local study area has a total labor force of 47,130 when the Ehrenburg labor force is also included.

The labor force and employment estimates for the unincorporated area within the DSSF's regional study area were based on the County-wide average. As of December 2010, Twentynine Palms had a labor force of 6,100 workers of whom 5,100 were employed (the population of the Twentynine Palms military base has been excluded since those residents would not be available to work at the proposed solar facility). Consequently, Twentynine Palms's unemployment rate was 17.1 percent – also considerably higher than the 12.3 percent statewide unemployment rate.

In Arizona, La Paz County had an estimated labor force of on average 7,675 workers in December 2010. No 2010 sub-County area labor force data is available. Therefore, labor force estimates for the sub-County areas were based on 2008 data and adjusted for subsequent population growth. The total labor force for the local study area is estimated to be 47,130 workers. The total labor force for the regional study area is estimated to be 236,265 workers.

Table 5-6
Labor force and Unemployment Data for the Regional Study Area

Jurisdiction	Civilian Labor Force	Total Employment	Number Unemployed	Unemployment Rate	Median Household Income[1]
Riverside County	905,000	776,500	128,600	14.2%	$60,085
Blythe	7,100	5,900	1,200	17.0%	$39,187
Coachella	12,300	9,600	2,700	22.1%	$41,797
Indio	27,100	23,000	4,200	15.4%	$55,598
Indian Wells	1,700	1,600	100	5.1%	$122,983 [2]
La Quinta	14,500	13,400	1,100	7.5%	$81,498
Palm Desert	24,600	22,500	2,100	8.5%	$57,038
Rancho Mirage	6,400	5,600	800	12.7%	$78,284 [2]
Cathedral City	25,900	22,300	3,600	13.9%	$43,411
Palm Springs	25,900	23,000	2,900	11.1%	$46,632
Desert Hot Springs	9,500	7,600	1,900	19.8%	$39,733
Banning	11,600	9,700	1,900	16.2%	$40,849
Unincorporated Area	57,500 (est)	49,300 (est)	8,200 (est)	14.2%	na
Eastern Riverside County, CA	224,100	193,500	30,700	13.5%	na
San Bernardino County, CA	855,600	738,800	116,800	13.7%	$58,440
Twentynine Palms	6,100	5,100	1,000	17.1%	$44,879
Unincorporated Area	3,000 (est)	2,600 (est)	400 (est)	13.7%	na
Southern San Bernardino County, CA	9,100	7,700	1,400	15.4%	na
La Paz County, AZ	7,675	6,925	750	9.7%	$31,812
Ehrenberg	630 (est)	570 (est)	60 (est)	9.7%	$35,330 [2]
Quartzsite	720 (est)	650 (est)	70 (est)	9.7%	$30,165 [2]
Cibola	75 (est)	70 (est)	5 (est)	9.7%	$28,420 [2]
Unincorporated Area	1,640 (est)	1,480 (est)	160 (est)	9.7%	na
Western La Paz County, AZ	3,065	2,770	295	9.7%	na
Local Study Area	47,130	39,070	8,160	17.3%	na
Regional Study Area	236,265	203,970	32,395	13.7%	na

Notes:
[1] 2005-2007 Census average converted in 2010 dollar values.
[2] 2000 Census data converted in 2010 dollar values.
Source: California EDD, 2010; U.S. Census, 2010; U.S. Census 2000; Arizona Department of Commerce, 2008 and 2010.

Unemployment Rates

The unemployment rate for Riverside County in December 2010 was 14.2 percent. In Riverside County, the community with the highest unemployment rate is the City of Coachella (22.1 percent). Reported unemployment data for the two communities located within the regional study area differed greatly. Mecca's labor force reported a 27.5 percent rate of unemployment for December 2010 while the more affluent community of Thousand Palm's 2,500 labor force had a 10 percent rate of unemployment. However, in the absence of more specific information, the Riverside County unemployment rate was used to estimate the current unemployment for the unincorporated areas within Eastern Riverside County.

As discussed above, Twentynine Palms's unemployment rate was 17.1 percent in December 2010, and higher than the San Bernardino County's unemployment rate of 13.7 percent. In Arizona, the unemployment rate for La Paz County was 9.7 percent in December 2010. No 2010 sub-county area unemployment data is available. Generally, past unemployment rates for most of the communities within the regional study area have been lower than the County-wide average. However, in the absence of more current information, the La Paz County unemployment rate was used to estimate the current unemployment for the sub-county areas within the County.

The unemployment rate for the local study area is estimated to be 17.3 percent. Given the estimated local study area labor force estimate of 47,130, it is estimated that there are approximately 8,160 unemployed local study area residents. The unemployment rate for the regional study area is estimated to be 13.7 percent. Given the estimated local study area labor force estimate of 236,265, it is estimated that there are approximately 32,395 unemployed regional study area residents.

Labor Force Growth Projections

Table 5-7 presents County labor force estimates and projections for those skilled workers (by craft) required for construction and operation of the project as estimated by the Applicant. Employment figures for 2006 are provided, as well as employment projections for the selected occupations for 2016. The California Employment Development Department (EDD) groups Riverside and San Bernardino into one statistical area for data presentation purposes. As of 2006, there were relatively high numbers of skilled workers in Riverside and San Bernardino County, including metal workers (19,460), carpenters (28,850), and construction laborers (27,930).

Relevant specialized positions generally were fewer in number, including paving, surfacing, and tamping equipment operators, power plant operators, and construction trade helpers. Employment figures for all occupations presented are anticipated to either remain constant or grow by 2016. The two occupations with the largest anticipated growth are plant and system operators (26.5 percent) and architects, surveyors, and cartographers (25.0 percent) (EDD 2010).

No County-level employment projections for La Paz County are available. Given the small size of available the Arizona labor force within the regional study area, any future growth to the La Paz labor force would have a very minor change in future employment for construction occupations.

Project Construction Labor Needs

The availability of the local and regional workforce to meet the DSSF's construction labor needs has been analyzed to determine whether the DSSF would induce population growth. Consistent with the geographic demarcations for the local and regional study areas, the "local workforce" consists of employable residents living in relatively close proximity to the site (i.e., the cities of Blythe, California or Quartzite, Arizona; or the community of Ehrenburg, Arizona).[3] The "regional workforce" consists of all potential employable adults currently living up to a two-hour commute (one-way) to the site. As discussed previously, the regional labor force consists of the employable adults living west of the site along I-10 as far as, and including, the Banning.

[3] Residents of the unincorporated areas near these communities or within an hour's commute of the project would also be considered local labor. However, given the very limited data on the unincorporated residents, it is conservatively assumed that the identified unincorporated population are regional residents.

Table 5-7
Construction Labor Pool by Craft – Riverside and San Bernardino Counties

	Annual Average Employment		Employment Change		Average Annual Job Openings		
Occupational Title	**2006**	**2016**	**Number**	**Percent**	**New Jobs**	**Net Replacements**	**Total**
Construction Managers	4,380	5,110	730	16.7%	135	160	295
Carpenters	28,850	32,390	3,540	12.3%	198	380	578
Cement Masons and Concrete Finishers	4,110	4,690	580	14.1%	38	120	158
Construction Laborers	27,930	32,080	4,150	14.9%	348	236	584
Paving, Surfacing, and Tamping Equipment Operators	630	720	90	14.3%	8	16	24
Operating Engineers and Other Construction Equipment Operators	4,790	5,460	670	14.0%	37	85	122
Electricians	6,740	7,600	860	12.8%	66	336	402
Plumbers, Pipefitters, and Steamfitters	4,630	5,330	700	15.1%	81	249	330
Metal Workers and Plastic Workers	19,460	20,800	1,340	6.9%	0	1024	1024
Helpers – Construction Trades	120	130	10	8.3%	35	169	204
Welders, Cutters, Solderers, and Brazers	3,960	4,640	680	17.2%	48	178	226
Architects, Surveyors, and Cartographers	1,420	1,670	250	17.6%	56	135	191
Engineering Managers	1,370	1,600	230	16.8%	43	170	213
Supervisors, Construction and Extraction Workers	10,990	12,380	1,390	12.6%	95	216	311
Machinists	2,630	2,960	330	12.5%	0	161	161
Total	**122,010**	**137,560**	**15,550**	**12.9%**	**1,188**	**3,635**	**4,823**

Source: EDD, 2010.

The Applicant expects that construction would last 26 months, with an average of up to 500 daily construction workers with a peak employment of 655 workers during Months 6 and 7 of construction (First Solar 2010). Generally, increased employment represents a beneficial economic impact on local communities from the new job opportunities and increased income generated for the local economy. However, in rural areas such as Blythe and/or projects with more skilled/specialized job requirements, increased labor demand can also have adverse indirect socioeconomic impacts on the local communities if it significant in-migration occurs that the existing local housing, infrastructure and/or other public services cannot support. The estimated peak employment of 655 is used to analyze worst-case construction employment related impacts from potential in-migration.[4]

Labor Force Supply

Table 5-7 shows Year 2006-2016 occupational employment projections for the Riverside/ San Bernardino/Ontario MSA[5] by construction labor skill. The primary trades required for construction of the proposed action will likely include pipefitters, skilled and unskilled laborers, electricians, carpenters, equipment operators, ironworkers, and truck drivers.

Table 5-7 shows that there is a very large population of suitably skilled construction workforce currently living within Riverside and San Bernardino Counties.[6] However, only a portion of these workers could be expected to be currently living within the region. Based on the regional study area's estimated 2010 population of 559,193 residents, compared to a corresponding Riverside and San Bernardino population of 4,212,684, the regional study area's skilled labor force would total approximately 13.3 percent of the skilled workforce shown in Table 5-7. Overall, that would suggest a total skilled labor force of approximately 17,260 workers (13.3 percent of approximately 129,785 total skilled construction workers[7]) living within the regional study area.

Applying the current regional unemployment levels of 13.7 percent within the regional study area would suggest that approximately 2,365 unemployed skilled workers may currently reside in the regional study area. Compared with the required average project employment need of 500 workers, the proposed action could employ up to approximately 21.1 percent of the estimated currently unemployed construction workers. During peak construction, 655 workers would be needed, which would employ up to nearly 27.7 percent of the estimated available unemployed skilled workforce. There also could be individuals amongst the region's other estimated 30,030 unemployed (i.e., 32,395 total regional unemployed – 2,365 regional skilled unemployed construction workers) that have or could obtain the necessary training to perform the facility construction. Also, it is likely that some of the currently employed skilled local construction workers would change their jobs in order

[4] This is a very conservative assumption since arguably Red Bluff Substation construction employment will use existing SCE workers or contractors, and peak employment for the on-site substation and Gen-Tie Line will be completed after Month 8.

[5] Metropolitan Statistical Areas (MSA) are geographic entities defined by the U.S. Office of Management and Budget (OMB). The Riverside/San Bernardino/Ontario MSA consists of Riverside and San Bernardino Counties combined and as such include individuals residing outside the likely daily commuting range from the site.

[6] Given its more rural character and the far smaller size of its labor force, only a very minor proportion of future construction workers would be expected to originate from La Paz County in Arizona. For this analysis, it is conservatively assumed that all construction workers for the DSSF would be California residents.

[7] Using the average of 2006 and 2016 skilled labor force estimates shown the Table 5-7.

to work closer to home and their vacated positions could be filled by other workers living outside of the regional study area.

Consequently, it is expected that most, if not all, of the construction employment for the DSSF would consist of construction workers who live within a two-hour commute from the site. Employee ride sharing, and the relatively long duration of the work would likely encourage workers to commute considerable daily distances to work on the project.

Potential for Housing and Lodging Impacts within the Local Study Area

As shown previously in Table 5-3, the current published vacancy rates for the cities of Blythe, California; Ehrenberg, Arizona; Coachella and Indio, California are 16.1, 34.9, 4.4 and 18 percent, respectively. These vacancy rates indicate that some currently vacant housing could be available for construction workers who choose to relocate within the local study area. Altogether, it is conservatively estimated that up to approximately 6,641 existing housing units could be available as potential housing for future construction workers (this estimate does not account for other potential available housing within the unincorporated local study area). The extent to which construction workers choose to rent local housing would depend on the rental prices and the condition of the available housing. Especially if construction workers would be willing to share rental accommodations, rental housing could be an option for workers wishing to relocate or, more likely, commute weekly to work at the site.

In addition, as previously discussed, analysis of the current motel and hotel businesses and their occupancy rates suggests that lodging could be available to accommodate construction workers who choose to stay temporarily at a local motel or hotel to be close to the site. There are approximately 1,000 hotel/motel rooms within the local study area (i.e., the Cities of Blythe and Quartzite and community of Ehrenburg) (BLM 2010).

Other lodging opportunities also could be available at privately-owned RV/campgrounds and public campground areas within the local study area. However, during the high season (December to March) these facilities can be popular with visitors and, therefore, could have only limited availability for construction workers. In addition, most of the public campgrounds (including the BLM administered Long Tern Visitor Areas) are intended for recreational use; construction workers might not be permitted to use these areas. Consequently, it is unlikely that the public RV/campgrounds would be very suitable or attractive lodging options for most DSSF construction workers who seek local accommodations.[8] However, BLM may allow temporary LTVAs to be established on site for construction workers for the duration of project construction as temporary lodging facilities.

Furthermore, particularly during the non-winter season, it is likely that there would be considerable housing opportunities within the local area for construction workers seeking temporary accommodations. Lodging facilities within the local study area could include both rental housing for workers seeking longer term local housing and motel lodging for those looking for more occasional or shorter stay accommodations. The relatively high vacancy rates also would ensure that any DSSF-related temporary housing needs would be met with existing housing or lodging facilities. As a result, no new housing or motel development would be expected to be induced by the proposed action and

[8] Except for construction workers that already own their own RV or camper trailers.

the increased use of these under-utilized housing or motel lodging would be considered beneficial for local property owners.

Construction Worker Expected Commuting Patterns

Given the major skilled labor force residing within the areas of Riverside and San Bernardino Counties, and the common construction worker commuting habits (ESRI 1982; CEC 2010), it is reasonable to expect that DSSF construction workers residing outside the regional study area would commute weekly to the local area rather than in-migrate with their families. Furthermore, the employee shuttle option will also be expected to be used by a large majority of project construction workers. Consequently, any such workers who choose to reside temporarily in the local area would have a limited service impact on local public services and infrastructure. Furthermore, given that existing housing and/or lodging facilities would be used to accommodate the few (if any) construction workers who choose to stay temporarily in the local area, the local transient occupancy tax revenues, local rental home owners' property, and/or business taxes payments should account for their limited local infrastructure and public service usage.

Therefore, it is concluded that the proposed project would not induce substantial growth or concentration of population in either the regional or local study areas. Furthermore, construction of the proposed action would not encourage people to relocate to the area and, thereby, would not result in new and unplanned growth or land use changes.

Project Worker Transit Provisions

The DEIS also includes Applicant Measures and Mitigation Measures proposed to encourage and facilitate regional workers commuting to the project site. Specifically as stated in the DEIS:

- AM-AIR-5: Sunlight would arrange a shuttle bus program for construction workers, with assembly points in the Palm Springs and Blythe areas. Sunlight expects this shuttle bus system to be heavily used by construction workers, with an average of 89.5 percent of construction workers accessing the Solar Farm site by shuttle bus.
- AM-TRANS-1: Sunlight shall prepare a Construction Traffic Control Plan in conjunction with Riverside County and/or Caltrans in accordance with Caltrans Manual on Uniform Traffic Control Devices and the California Joint Utility Traffic Control Manual (2010). At a minimum, the Plan shall address the following:
    - Determine timing of heavy equipment and building materials deliveries, scheduling these trips for off-peak hours to the extent feasible;
    - Determine timing of construction worker arrival and departure times, scheduling these trips for off-peak hours to the extent necessary;

In its supplemental information response, the Applicant also provided additional information describing the "final transit options" that Sunlight proposes to implement to transport workers from nearby population centers and facilitate both accessibility to the project site and service other projects' in the region. The Shuttle assembly areas are likely to be located in regional population centers, such as Blythe and in the Palm Springs area, at existing parking areas with sufficient parking for the number of workers expected to be taking the shuttle. Approximately three acres of

construction parking would also be provided at the Solar Farm Site. In addition, the Applicant Input to the FEIS on the Final Transit Options issue specifically states:

> "In cooperation with the construction contractors, the Applicant will develop the "final transit options" for workers traveling to and from the site during the construction phase of the project. The transit options considered would include formal rideshare, carpooling, and/or use of shuttle buses in order to minimize traffic and air quality impacts associated with individual vehicle use. Depending on the construction schedule for other projects in the area, the Applicant will also endeavor to work with other projects in the vicinity of Desert Center to most efficiently and effectively transport construction workers to multiple sites where practical.
>
> In addition, the Applicant would consult with the County of Riverside and the California Department of Transportation (Caltrans) District 8 office in the preparation and implementation of a Traffic Control Plan (TCP). Desert Sunlight will submit the proposed TCP to the County of Riverside and the Caltrans District 8 office in sufficient time for review and comment prior to the proposed start of construction and implementation of the plan.
>
> The Traffic Control Plan (TCP) will include a work schedule and end-of-shift departure plan designed to ensure that stacking does not occur at intersections necessary to enter and exit the Project site. The Applicant will consider using one or more of the following measures designed to prevent stacking: staggered work shifts, off-peak work schedules, and/or restricting travel to and departures from the Project site (First Solar, 2011)."

Implementation of these measures may be expected to facilitate daily commuting by Project construction workers from the surrounding region and thereby substantially reduce the likelihood of worker in-migration occurring to the local communities. Consequently, furthermore in the absence of extensive worker in-migration occurring, little additional demand on local public services would be expected to result during the Project's 26-month construction period.

Potential Social Impacts of Project Construction Employment

The potential for DSSF-related impacts to the local study area's social character are determined by the nature of economic impacts of the construction activity and any DSSF-related in-migration.

As discussed above, construction of the DSSF could be expected to generate considerable economic benefits directly for both construction workers and local businesses providing materials and services for construction. In addition, major indirect and induced spending benefits for the local and eastern Riverside County economies would be generated by subsequent spending of the construction workers and construction businesses' income within the local and regional economy. The economic benefits are expected to extend widely within the local and regional economy but would most benefit food, retail, lodging, real estate, and medical related businesses.

The additional new income for the local economy from the DSSF would have a positive, but short-term, contribution towards supporting local business and maintaining the economic vitality of the Cities of Blythe, Indio and Coachella and other nearby communities. The positive effect for the local economy would be increased given the local study area's recent and on-going economic weaknesses as a result of both longer term changes and the more recent economic downturn. For example, the

continued viability of Blythe's local business community is essential for its long-term well-being. Increased local employment opportunities would improve local residents' standard of living and will help retain younger residents who otherwise would be more likely to leave the community if there are insufficient local employment opportunities. The local community's positive social attitudes to the proposed action may generally be expected to increase based on the extent that local residents are employed (either directly or indirectly) or otherwise benefit from the DSSF.

If it were to occur, DSSF-related in-migration of new residents could affect the social character of the local study area. An influx of new individuals with different values, lifestyles, and/or socio-demographic backgrounds could have a positive or negative influence on the quality life and/or community values. The existing community members' attitudes and opinions to any such changes could vary greatly among individuals. However, in general, the magnitude of the in-migration would need to be relatively substantial for the social environment to be noticeably altered. Furthermore, social changes typically require, or are most commonly associated with, permanent changes to the community's composition and/or attitudes rather than as the result of short-term influences or changes.

As discussed above, the majority of construction workers for the DSSF would be expected to commute daily to the site. Given that most workers would likely travel to the site from their homes located far from Desert Area and are expected to use employee transit, local residents may have little daily interaction with most workers. It is possible that some construction workers could chose to commute weekly from their homes and stay within the local area at local hotels/motels or perhaps rent homes. In this case, after the workday is over, these individuals would be more likely to interact with existing residents at local businesses or community facilities. However, given the very limited number of construction workers expected to stay in the local area during the work week, the presence of these individuals would not be expected to result in substantial or long-term adverse effects to the local area's social composition and character.

Therefore, in general, given the expected new local employment opportunities and economic benefits to local business and relatively limited temporary in-migration of construction workers, most local residents and stakeholder groups would be expected to be supportive or, at a minimum, would not oppose the solar facility's construction. Consequently, the DSSF would be expected to have a minor and largely positive impact on the social character of the local study area for the temporary duration of facility construction.

Conclusions

Supplemental analysis of the local and regional workforce for the project confirms that there is likely to be sufficient construction workers in the region to meet the project's short term construction needs. Relatively high levels of local and regional unemployment as well as regional housing and lodging availability will likely ensure that project workers will be willing and able to commute from the local and regional area to work at the project site. In addition, the planned employee transit provisions will also facilitate and encourage a large majority of project construction workers to access the site by bus. Consequently, limited if any project-related in-migration may be expected to occur and as a result limited social or municipal service impacts would likely result from the construction worker employment.

References

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N.5 INDIVIDUAL RESPONSES TO COMMENTS

Letter - 10.

10-01 See Chapter 2 for a description of the Project and its technology.

Letter - 16.

16-01 See Common Response N.4.9.

Letter - 19.

19-01 Commenter details actions required for analysis of cultural resources for the FEIS, including contacting the appropriate California Historic Resources Information Center; preparation of archaeological surveys, if required; mitigation plans in case of discovery of previously unknown archaeological resources; and provisions in case of discovery of human remains. Cultural resource information can be found in Chapter 3.6.

Letter - 20.

20-01 Commenter expresses concern about the use of cadmium by the proposed Project. See Common Response N.4.9.

Letter - 25.

25-01 Commenter expresses concern about the use of CdTe modules. See Common Response N.4.9.

Letter - 26.

26-01 Commenter expresses concern about the use of CdTe modules. See Common Response N.4.9.

Letter - 28.

28-01 Commenter has concerns about the Project's impact on the local economy. The proposed Project is predominantly located on BLM lands and is entirely outside Joshua Tree National Park. The potential Project impacts to the area have been analyzed on a resource by resource basis. As discussed in Section 4.12 (Recreation), current recreation use of the local area is rare (except for OHV use) and there would be a less than significant impact to local recreation. Consequently, there is little evidence to suggest that the Project would substantially reduce local tourism. Furthermore, as 99 percent of park entries occur through the park's five major entrance stations and the Black Eagle Mine Road access to the park is a four-wheel-drive only access road, there is no evidence that there is currently substantial tourism via the local area to Joshua Tree National Park (Joshua True National Park 2004 Visitor Study). Therefore, it may be concluded that that proposed Project would have a less than significant effect on local tourism and tourism spending.

28-02 Commenter has concerns about impacts on dark night skies. See Common Response N.4.3.

28-03 Commenter expresses concern about the generation of particulate matter by the Project. For discussion of fugitive dust emissions that would be associated with construction and operations of the Proposed Action, refer to Final EIS Section 4.2.3.

28-04 Commenter suggests that removing desert pavement would increase fine particulates and impact the health of nearby residents. For discussion of fugitive dust emissions that would be associated with construction and operations of the Proposed Action, refer to Final EIS Section 4.2.3.

28-05 Commenter suggests that disturbing desert soil would release arsenic and threaten human health. See Response to Comments 109-02 and 110-15.

28-06 Commenter expresses concern that removal of old growth desert will result in loss of carbon sequestering creosote. The carbon sequestration capacity of desert soils in the vicinity of the Project are discussed in Sections 3.5 and 4.5, in regard to greenhouse gas emissions and climate change. As discussed therein, current estimates of desert soil carbon sequestration potential are substantially less than had been previously estimated. For additional discussion, please refer to Section 3.5 and 4.5 of the DEIS.

28-07 Commenter expresses concern that climate change and the effect the Project would have on desert tortoise populations in the Chuckwalla Valley. The FEIS Chapter 4.5, Impacts

on Climate Change, has been updated to include a discussion of the potential indirect impacts of climate change, including effects on vegetation and wildlife, and changes in mitigation values of proposed mitigation lands. Please refer to this updated section for additional information.

28-08 Commenter expresses concern that the residents of Chuckwalla Valley are burdened inequitably by pollution, industrial facilities, and crime. The DEIS environmental analysis determines the future environmental impacts associated with the proposed Project. The environmental justice analysis specifically assessed the potential for any such major impacts to be disproportionately distributed to minor or low-income population within the local area. While certain potential impacts are significant and unavoidable (e.g., air resources, cultural resources, and visual resources), none of the Project's impacts were determined to have a disproportionate impact on local low-income or minority populations. The combined effects of the proposed Project with the other past, present and reasonably foreseeable future projects within the Chuckwalla Valley have been evaluated in the cumulative analysis performed for each resource area.

28-09 Commenter expresses concerns about invasive plant and animal species impacting Joshua Tree National Park as a result of the Project. Implementation of Applicant Measure (AM) BIO-2 will be required which will reduce the potential for the introduction of invasive species during construction, operation and maintenance, and decommissioning of the Project. AM BIO-2 involves implementing the Integrated Weed Management Plan, which was prepared specifically for the Project and pursuant to BLM's Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States and the National Invasive Species Council's National Invasive Species Management Plan. Measures required in the plan include equipment cleaning, soil management, use of weed-free products, training of construction personnel regarding weed management, containment and control measures, and monitoring and reporting to ensure compliance with these measures. By controlling weeds on the Project site, implementation of AM BIO-2 will also reduce the potential for the spread of invasive species into areas outside of and/or surrounding the Project areas, such as Joshua Tree National Park. Non-native wildlife species (e.g., starlings or house sparrows) may utilize the Project site but there is no expectation that the Project would cause their populations to disperse into Joshua Tree National Park. Soils of roads and administrative areas within the Project site would be compacted after construction, which would reduce the wind-erosion potential of the site. Further, the Applicant would be required to apply dust palliatives between the rows of solar panels using a water truck per Mitigation Measure MM-AIR-3. The Project would not increase the wind-erosion susceptibility of the site and, therefore, would not contribute to cumulative dust generation from past, present and future projects. Also, fugitive dust generated during construction would be short-term and temporary and would be minimized with AM-AIR-1, which requires implementation of a Dust Control Plan including the use of dust suppressants during facility construction.

28-10 Commenter suggests that solar panels belong on rooftops not on public lands miles from urban centers. See Subsection 2.6.8 in the FEIS for a discussion on distributed generation.

Letter - 29.

29-01 Commenter opposes the proposed Project and expresses concern about its impacts on the tourist economy of Joshua Tree National Park. Pursuant to Section 6.9.2.1 of the BLM NEPA Handbook H-1790-1 (Jan 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and does not require a specific response.

29-02 Commenter expresses concern about impacts to dark skies. See Common Response N.4.3.

29-03 Commenter expresses concern about dust and non-native growth. Implementation of Applicant Measure (AM) BIO-2 will be required which will reduce the potential for the introduction of invasive species during construction, operation and maintenance, and decommissioning of the Project. AM BIO-2 involves implementing the Integrated Weed Management Plan, which was prepared specifically for the Project and pursuant to BLM's Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States and the National Invasive Species Council's National Invasive Species Management Plan. Measures required in the plan include equipment cleaning, soil management, use of weed-free products, training of construction personnel regarding weed management, containment and control measures, and monitoring and reporting to ensure compliance with these measures. By controlling weeds on the Project site, implementation of AM BIO-2 will also reduce the potential for the spread of invasive species into areas outside of and/or surrounding the Project areas, such as Joshua Tree National Park. Further, the Applicant would be required to apply dust palliatives between the rows of solar panels using a water truck per Mitigation Measure MM-AIR-3. The Project would not increase the wind-erosion susceptibility of the site and, therefore, would not contribute to cumulative dust generation from past, present and future projects. Also, fugitive dust generated during construction would be short-term and temporary and would be minimized with AM-AIR-1, which requires implementation of a Dust Control Plan including the use of dust suppressants during facility construction.

29-04 Commenter expresses concern about the loss of habitat and impacts to desert tortoise. The BLM, FWS, CDFG, and CPUC have required extensive desert tortoise surveys to determine existing populations within the footprint of the Project and estimated mortality rates of translocated desert tortoises. As a result, the Applicant has reduced the solar farm footprint from 4.000 acres 3,912 acres to avoid impacts to the more sensitive tortoise areas. In addition, a Desert Tortoise Translocation Plan (per AM-WIL-1) and a Habitat Compensation Plan (per MM-BIO-2) would promote recipient sites for desert tortoise that are best suited to achieve a high success rate for translocated tortoises.

29-05 Commenter suggests that the Project would promote the spread of Sahara mustard, an invasive plant. See Response to Comment 29-3.

29-06 Commenter supports the use of rooftop solar panels. This comment does not provide any specific feedback on the proposed Project. Pursuant to Section 6.9.2.1 of the BLM NEPA Handbook H-1790-1 (Jan 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and does not require a specific response.

Letter - 30.

30-01 Commenter submitted a form letter expressing same issues of concern as stated in Letter 28. Please see Response to Comments for Letter 28.

Letter - 31.

31-01 Commenter submitted a form letter expressing same issues of concern as stated in Letter 28. Please see Response to Comments for Letter 28.

Letter - 32.

32-01 Commenter submitted a form letter expressing same issues of concern as stated in Letter 28. Please see Response to Comments for Letter 28.

Letter - 33.

33-01 Commenter suggests that other technology can be used in place of a large solar PV energy generation facility that is being proposed. Also, the commenter expresses same issues of concern as stated in Letter 28. Considering siting the Project on other lands and using different technology please see Common Response N.4.7. Please see Response to Comments for Letter 28 for the other issues raised.

Letter - 35.

35-01 Commenter submitted a form letter expressing similar issues of concern as stated in Letter 28. Please see Response to Comments for Letter 28.

Letter - 36.

36-01 Commenter submitted a form letter expressing similar issues of concern as stated in Letter 28. Please see Response to Comments for Letter 28.

Letter - 37.

37-01 Commenter submitted a form letter expressing similar issues of concern as stated in Letter 28. Please see Response to Comments for Letter 28.Considering siting on previously disturbed lands, see Common Response N.4.7. Also, please see responses to Letter 28.

Letter - 38.

38-01 Commenter submitted a form letter expressing similar issues of concern as stated in Letter 28. Please see Response to Comments for Letter 28.

Letter - 39.

39-01 Commenter submitted a form letter expressing similar issues of concern as stated in Letter 28. Please see Response to Comments for Letter 28.

Letter - 40.

40-01 Commenter submitted a form letter expressing similar issues of concern as stated in Letter 28. Please see Response to Comments for Letter 28.

Letter - 41.

41-01 Commenter submitted a form letter expressing similar issues of concern as stated in Letter 28. Please see Response to Comments for Letter 28.

Letter - 42.

42-01 Commenter submitted a form letter expressing similar issues of concern as stated in Letter 28. Please see Response to Comments for Letter 28.

Letter - 43.

43-01 Commenter submitted a form letter expressing similar issues of concern as stated in Letter 28. Please see Response to Comments for Letter 28.

Letter - 44.

44-01 Commenter submitted a form letter expressing similar issues of concern as stated in Letter 28. Please see Response to Comments for Letter 28.

Letter - 45.

45-01 Commenter submitted a form letter expressing similar issues of concern as stated in Letter 28. Please see Response to Comments for Letter 28.

Letter - 46.

46-01 Commenter submitted a form letter expressing similar issues of concern as stated in Letter 28. Please see Response to Comments for Letter 28.

Letter - 47.

47-01 Commenter submitted a form letter expressing similar issues of concern as stated in Letter 28. Please see Response to Comments for Letter 28.

Letter - 48.

48-01 Commenter submitted a form letter expressing similar issues of concern as stated in Letter 28. Please see Response to Comments for Letter 28.

Letter - 49.

49-01 Commenter submitted a form letter expressing similar issues of concern as stated in Letter 28. Please see Response to Comments for Letter 28.

Letter - 51.

51-01 Commenter expresses concern about impacts to the desert fungus garden ant. The desert fungus garden ant (Acromyrmex versicolor), is not considered a special-status species according to the definition presented in Section 3.4.2 and Table 3.4-1 of the DEIS. Although USFWS-designated critical habitat does not exist for this species (because it is not federally listed under the Endangered Species Act), it is understood that the commenter was instead likely describing the importance of the habitat for the desert garden fungus ant within and near the Project area. These ants are found within the Sonoran desert as well as deserts of Arizona. Habitat for the ant generally includes areas under mature dominant Sonoran trees; nests are established in the soil and under the canopy of these trees whose leaves they harvest. Colonies are found in aggregations on large trees and do not disperse great distances. Due to the lack of such habitat within the project footprint, there is low potential for this species to occur on-site and impacts to this non-special-status species would be minimal, if any.

Commenter also expresses concern about dark night skies, air quality (fugitive dust), and distributed generation. Please see Common Response N.4.3 (dark skies), and Subsection 4.2.3 and 2.6.8 for air quality and distributed generation, respectively, in the FEIS.

Letter - 52.

52-01 Commenter expresses concern that mitigation measures not adequate for NEPA / CEQA compliance. Other concerns expressed are same as in Letter 28. See Common Response N.4.6 and Response to Comments in Letter 28, above.

Letter - 53.

53-01 Commenter opposes the proposed Project. Pursuant to Section 6.9.2.1 of the BLM NEPA Handbook H-1790-1 (Jan 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and does not require a specific response.

53-02 Commenter suggests siting the Project on disturbed lands. See Common Response N.4.7.

53-03 Commenter opposes the siting of the proposed Project in the California desert. Pursuant to Section 6.9.2.1 of the BLM NEPA Handbook H-1790-1 (Jan 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and does not require a specific response.

53-04 Commenter expresses concern about impacts on wildlife, air quality, and water quality near Joshua Tree National Park. See Common Response N.4.2. In addition, see Chapter 4.2-Air Resource, Chapter 4.4, Wildlife, and Chapter 4.17, Water Resources, for a discussion on potential Project impacts on air quality, wildlife and water quality.

Letter - 54.

54-01 Commenter submitted a form letter expressing similar issues of concern as stated in Letter 28. Please see Response to Comments for Letter 28.

Letter - 55.

55-01 Commenter submitted a form letter expressing similar issues of concern as stated in Letter 28. Please see Response to Comments for Letter 28.

Letter - 56.

56-01 See Response to Comments 56-2 through 56-65. In addition, Attachment 1 in the cover letter refers to Cumulative Impact Analysis as revised by CPUC. These revisions have been incorporated into the FEIS text.

56-02 Applicant Measures have been added to Chapter 2 in the FEIS.

56-03 Text in the FEIS Subsection 3.3.3, Soils and Topography, has been added that includes a discussion of soils found within the Project Study Area and those specific to the Project components. Additionally, text from page 3.3-10 of the DEIS which discusses fine sand habitats found on the Project sites was reorganized and moved to the Active Desert Dunes discussion under Subsection 3.3.6; a subheading for Fine Sand Habitats was added which includes clarification that aeolian sand deposits do not exist within Project footprints.

56-04 A footnote has been added to Table 3.3-2 in the FEIS for the definition of NECO.

56-05 Text has been added to Section 3.3.5 in the FEIS to state that the likelihood of presence is unlikely.

56-06 Text has been added to Section 3.4.4 in the FEIS which provides greater depth to habitat description and the likelihood of occurrence.

56-07 The requested sentence has been integrated with revisions to the natural history description of the sheep and the likely use of the valley floor by the sheep in Section 3.4 of the FEIS.

56-08 The requested statement has been added to the discussion in Section 3.4 of the FEIS.

56-09 Text has been added to Section 4.17.3, which provides additional analysis regarding potential for the Project to result in the violation of water quality standards or existing waste discharge requirements.

56-10 The indicated discussion has been updated to reference the 2608-3346 range indicated in Table 4.17-1.

56-11 The cumulative analysis sections associated with the respective resources have been revised in the FEIS to address this comment.

56-12 Mitigation Measure MM-AIR-4 has been added to address this comment.

56-13 A South Coast Air Quality Management District (SCAQMD)-recommended measure has been added to the Final EIS to replace MM-AIR-1 (see Response 103-6). It appears that the intent of the CPUC-recommended measure would be achieved through implementation of a revised MM-AIR-1.

56-14 MM-BIO-2 has been added to Subsection 4.3.3 of the FEIS.

56-15 The last sentence under AM-BIO-3 in Subsection 4.3.3 has been revised to read: "All cacti observed will be flagged for tranplantation and special status plant species observed will be flagged for salvage." In addition, MM-BIO-3 has been added.

56-16 MM-BIO-4 has been added to Subsection 4.3.3 of the FEIS. Edits were also made to AM-BIO-5 to ensure consistency with and reference to MM-BIO-4.

56-17 See Response to Comment 56-16.

56-18 Impact BIO-2 in the FEIS has been edited to include reference to MM-BIO-2 and to provide an explanation as to why impacts are reduced to a level considered less than significant or cumulatively considerable. Impacts discussion under each impact were edited to address the concern of the impacts to special status plants and that they would be mitigated below a level of significance.

56-19 Text referring to MM-BIO-2 has been added to the text of AM-BIO-1 in the FEIS.

56-20 The typo has been corrected in the FEIS and text added that refers to M-BIO-2.

56-21 Text has been added to Impact BIO-5 under Subsection 4.3.3 of the FEIS to clarify that the Project is in compliance with the open space policies of the Riverside County General Plan.

56-22 The impact discussion text for Section 4.3 in the FEIS for special status plant species, natural vegetation communities and sensitive communities, including cumulative discussion, have been edited to make clear the determination language throughout the chapter.

56-23 Additional text has been added to the FEIS, Subsection 3.4.4 for the descriptions for each species, as needed. Section 4.4 was expanded to describe impacts to these species and provide mitigation for those impacts to these species.

A discussion on the topic of polarized light and glare has been added to Section 4.4. The discussion states that glare is not a problem but that polarized light may produce light pollution that can confuse wildlife, effect their navigation ability and ultimately effect dispersal and reproduction. This is also tied into effects to local plant communities.

MM-WIL-5 has been added to Section 4.4.

Additional text was added with regard to impacts on movements of wildlife, specifically with regard to Nelson's big horn sheep and Palm Springs round-tailed round squirrel. The clarifying text has been added to all relevant subsections under Section 4.4.

56-24 Additional text has been added to Section 3.4 in the FEIS, providing more background on critical habitat and its location with respect to the project sites. Also, a discussion was added in Section 4.4 about the project components and locations of critical habitat.

56-25 Reference to the USFWS guidance has been added to AM-WIL-1 in the FEIS, Section 4.4.

56-26 The typo has been corrected and MM-WIL-1 has been added to the list of Applicant and Mitigation Measures in the Executive Summary and in Section 4.4 of the FEIS.

56-27 AM-WIL-3 has been edited to include reference to USFWS's 2010 avian and bat guidelines.

56-28 Text under Impact WIL-1 in Section 4.4 of the FEIS has been edited to include reference to MM-BIO-2 as supportive reasoning that impacts would be reduced to less than significant.

56-29 Edits have been made to both Sections 3.4 and 4.4 in the FEIS to ensure consistency with the significance conclusion.

56-30 Additional text has been added to the FEIS, Section 4.4 under discussions related to Impact WIL-3 to clarify the importance of the valley floor as a movement corridor as well as text referring to mitigation for these impacts. Subsection 3.4.4 for the descriptions for each species, as needed.

56-31 Clarifying text has been added to Impact WIL-4 in Section 4.4 of the FEIS.

56-32 The impact determinations in Section 4.4 of the FEIS have been revised where appropriate to make clear the determination language throughout the section.

56-33 Section 4.4.3, Wildlife Management Areas and Critical Habitat in the FEIS has been amended to include the issue of polarized light and MM-BIO-5 has been added per this comment.

56-34 The discussion under Section 4.9.5 in the FEIS has been expanded to address this comment.

56-35 The intent of CEQA Significance Criterion NZ-4 is to address potential impacts that could occur even if Project-related operational noise levels would be less than applicable land use compatibility standards. In general, a 10 dB increase in noise level is perceived as a doubling in loudness. For the purposes of this analysis, BLM considers a perceived Project-related long-term doubling in loudness (i.e., increase in 10 dB) of ambient levels to represent a substantial permanent increase compared to noise levels without the Project. Therefore, such a long-term increase relative to ambient noise levels would be considered a significant impact.

56-36 The recommended mitigation measure has been included in the Final EIS as MM-NOI-1 to supersede applicant measure AM-NZ-1.

56-37 Comment noted, and the sentence has been deleted. The Project would recycle the panels if damaged or at termination, therefore discussion of land disposal is not relevant.

56-38 AM-HAZ-5 in the FEIS has been expanded to include more detail on the elements of an emergency response plan per this comment.

56-39 AM-HAZ-10 in the FEIS has been revised to add more detailed performance standards per this comment.

56-40 The text has been corrected to recognize that the travel routes could be returned to original baseline conditions after decommissioning, and the reference to "beneficial impact" has been removed.

56-41 As stated on page 4.15-6 of the DEIS, the Red Bluff Substation would be monitored remotely and would have about three or four visits per month, which translates to an average on about one visit per week. When trips are generated at such a low-level frequency, there would be no impact on traffic flow conditions at any time of the day (peak traffic hours or otherwise). That is, changing the assumed time of day for analysis from "outside of peak traffic hours" to "during peak traffic hours" would be no effect on the impact determination presented in the DEIS. The same applies to the analysis of Gen-Tie Line trip generation.

56-42 The updated FAA regulations referred to in the comment would not require SCE to file a Form 7460-1 for the telecommunications tower; nonetheless, SCE has agreed to Applicant Measure AM-HAZ-7, as amended, requiring that SCE file a Form 7460-1 with the FAA and comply with FAA's determination. SCE has filed a 7460-1 with FAA. See text revisions in Sections 4.15.4, 4.15.6, and AM-HAZ-7, as amended, in Section 4.11.3 in the FEIS.

56-43 The section headers have been revised in the Final EIS to more accurately reflect what is discussed in text. Headers titled "Interim Visual Management Class" have been revised to "Visual Contrast Analysis", and the headers titled "Summary of Operation and Maintenance Impacts" have been revised to "Consistency with Interim Visual Resource Management Objectives."

56-44 CPUC has expressed the need to make a determination under CEQA as to the impacts of the "whole of the action" which includes not only the Red Bluff Substation but all project components associated with the Project whether located on private land or BLM land. Accordingly, the Final EIS text under the headings "CEQA Significance Determination" has been revised as suggested.

56-45 See response to Comment 56-44

56-46 See response to Comment 56-44

56-47 See response to Comment 56-44

56-48 See response to Comment 56-44

56-49 See response to Comment 56-44

56-50 See response to Comment 56-44

56-51 See response to Comment 56-44

56-52 See response to Comment 56-44

56-53 See response to Comment 56-44

56-54 See response to Comment 56-44

56-55 See response to Comment 56-44

56-56 See response to Comment 56-44

56-57 See response to Comment 56-44

56-58 See response to Comment 56-44

56-59 See response to Comment 56-44

56-60 See response to Comment 56-44

56-61 See response to Comment 56-44

56-62 The indicated text has been updated to include a more complete characterization of potential impacts to flooding, both onsite and off.

56-63 The indicated text has been updated to include a more complete characterization of potential impacts to flooding, both onsite and off.

56-64 Text updated to indicate that alternative sources could include bottled water or the use of a small scale/on site drinking water purification system.

56-65 Text updated; non-binding language removed.

Letter - 59.

59-01 Commenter opposes the Project. Pursuant to Section 6.9.2.1 of the BLM NEPA Handbook H-1790-1 (Jan 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and does not require a specific response.

59-02 Commenter suggests that the EIS did not consider the full range of alternatives. See Common Response N.4.7.

59-03 Commenter suggests that the analysis in the EIS did not take into consideration impacts to Joshua Tree National Park (JTNP). See Common Response N.4.2 and Chapter 4.12, Recreation. In addition, a subsection has been added (Subsection 4.14.9) that summarizes Project impacts to JTNP.

59-04 Commenter opposes the Project. Pursuant to Section 6.9.2.1 of the BLM NEPA Handbook H-1790-1 (Jan 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and does not require a specific response.

Letter - 60.

60-01 Commenter supports the proposed Project unless power lines cross a populated area, particularly Kaiser Road. Commenter suggests routing power lines along Eagle Mountain Road. See Common Responses N.4.7 and N.4.8.

Letter - 61.

61-01 Commenter supports the proposed Project unless power lines cross a populated area, particularly Kaiser Road. For discussion associated with impacts related to transmission line corona discharge, refer to Final EIS Section 4.10.3, under the operations and maintenance impact discussion for Gen-Tie Line 1-A.

61-02 Commenter expresses concern about impacts of power lines on property values. Potential Project-related effects on local land uses and property values are discussed in Common Response N.4.8.

Letter - 62.

62-01 Commenter expresses concern about the route that would be taken by power lines serving the proposed Project. Please see Response to Comment 61-01 and 61-02 regarding power lines.

Letter - 63.

63-01 Commenter expresses support for the proposed Project with one reservation, the preferred route of the Gen-Tie line. Please see Common Response N.4.8 regarding land use impacts of the Gen-Tie lines. Also, see Common Response N.4.7 regarding alternatives analyzed.

63-02 Commenter expresses support for the proposed Project with one reservation, the preferred route of the Gen-Tie line. See Response to Comment 63-01.

63-03 Commenter expresses support for the Project. Comment is noted.

Letter - 64.

64-01 This letter raises the same concerns in form Letter 28. Please see Response to Comments to Letter 28.

Letter - 65.

65-01 Commenter urges the No Action Alternative be adopted. Comment is noted.

65-02 Commenter suggests that tourism to the area should be emphasized not job creation. See Response to Comment 28-01.

65-03 Commenter expresses concern about impact to night skies. See Response to Comment 28-02.

65-04 Commenter expresses concern about desert tortoises and climate change. See Response to Comment 28-07.

65-05 Commenter states that desert tortoises in the Chuckwalla Valley are the reservoir for future mitigation into Joshua Tree National Park. See Response to Comment 28-07.

65-06 Commenter expresses concern about non-native species introduced to Joshua Tree National Park, as a result of the Project. See Response to Comment 28-09.

65-07 Commenter expresses concern about the disturbing desert soils and encouraging blooms of a non-native plant, the Sahara Mustard. See Response to Comment 28-09.

65-08 Commenter suggests that solar panels belong on rooftops not on public lands miles from urban centers. See Response to Comment 28-10 and Subsection 2.6.8 in the FEIS for a discussion on distributed generation.

Letter - 66.

66-01 In response to the commenter, the words "the Project applicant and proponent" have been added at the beginning of the text to clarify per the comment.

66-02 In response to the commenter, the word "only" has been eliminated from the Executive Summary as it describes permanent disturbance of acreage.

66-03 Commenter suggests that the purpose and need for the Project is too narrowly defined. See Common Response N.4.1 regarding the purpose of the Project and Common Response N.4.7 regarding the alternatives evaluated.

66-04 Commenter expresses concern about the scope and level of analysis of the alternatives. See Common Response N.4.7. In addition, as stated in the Subsection 2.2.1 of the DEIS, there are many possible alternative configurations. Alternative site configurations were developed to avoid and then minimize impacts on sensitive environmental resources. The alternatives analyzed are considered to be a reasonable range of alternatives that are technologically and economically feasible and respond to the purpose of and need for the Project. The way the alternatives were combined into larger system alternatives has no bearing on the ability of the agencies' decision makers to select a different combination than what was presented in the EIS.

66-05 Commenter expresses concern about the scope and level of analysis of the alternatives. See Common Response N.4.7. The commenter suggests that Alternative 6 (no proposed Project ROW grant, amend CDCA Plan to allow renewable energy development at the proposed Project site) should analyze the largest possible project that could be developed under this scenario and the impacts associated with such development. The size of any future renewable energy development at the project site would depend on a future application for a ROW grant from another developer. Because there is no such application before BLM at this time, defining the maximum size of renewable energy development at the project site is speculative.

66-06 Commenter expresses concern about the analysis of alternatives to the proposed Project. Concerning a reasonable range of alternatives see Common Response N.4.7. Also, regarding the adequacy of the analysis please see Common Response N.4.6.

66-07 Commenter expresses concern about the analysis of alternatives to the proposed Project. Concerning a reasonable range of alternatives see Common Response N.4.7. Also, regarding the adequacy of the analysis please see Common Response N.4.6.

66-08 Commenter suggests there is no clear analyses of impacts to sacred sites. Sections 3.6 and 4.6 state that Indian tribes, during ongoing government-to-government consultation with the BLM, have identified no sacred sites that would be impacted by the Project. The FEIS acknowledges the possibility that such sites may be identified as consultations with tribes continue during the NEPA and Section 106 compliance processes. Because no sacred sites have been identified, the analysis of impacts does not differ among the alternatives with respect to such sites. See Response to Comment 66-11 with regard to the continuing consultation with tribes and resolution of adverse effects through development and implementation of a Memorandum of Agreement for the Project.

66-09 Commenter states that analysis of impacts in the Draft EIS is not adequate because mitigation measures defer requirements for studies. See Common Response N.4.6 regarding adequacy of analysis in the Draft EIS.

66-10 Commenter notes that Applicant Proposed Measure Vegetation BIO-5 includes requirements for the future preparation of a Vegetation Resources Management Plan. See Common Response N.4.6 regarding the adequacy of analysis in the DEIS. Please note the creation of more detailed mitigation plans after certification of the environmental document, is acceptable under CEQA provided that practical considerations make it difficult to develop the plan at this stage of the planning process and the agency "commits itself to eventually devising measures that will satisfy specific performance criteria articulated at the time of approval" (Sacramento Old City Association v. City Council (1991) (229 Cal.App.3d 1011, 1028 1029). See also CEQA Guidelines (14 Cal. Code Regs 15123.4 (a) (1) (B)), which provides that mitigation measures may specify performance standards that would mitigate the signifi-cant effect of the project and that may be accomplished in more than one specific way.

66-11 Commenter suggests that all impacts to cultural resources should be identified before issuance of the DEIS. Memorandums of Agreement are commonly used to comply with Section 106 of the NHPA on projects like the Desert Sunlight Solar Project. The Memorandum of Agreement for the Project will govern a process for completing identification and evaluation of cultural resources that will be affected, and for determining mitigation consistent with their values, prior to construction or other activities that could affect them. The Memorandum of Agreement will be completed and signed prior to approval of the ROD. Consulting parties and stakeholders, including the State Historic Preservation Officer and Indian tribes, will have an opportunity to participate in consultations on the terms and provisions of the Memorandum of Agreement before the project is approved.

66-12 The Project's potential effect on cultural and natural resources with the project area are identified and evaluated in Section 4.6 (Cultural Resources) of the DEIS. The Project site's cultural resources (including Native American values, history and culture) are analyzed in the Section 4.6. Native American consultations were initiated in mid-April 2010 and are ongoing. No sacred sites, TCPs, or traditional use areas have been identified, but such areas may be identified as the consultation process moves forward and if such cultural resources are found mitigation will be occur as appropriate and possible. Additionally, any disproportionate impacts to ethnographic resources, such as described in this comment letter would be identified and included in the results of the Native American consultations and formalized in a Memorandum of Agreement. As shown in Table 3.13-5, the environmental justice populations for the project are predominantly Hispanic and African American. The Native American population within the Project area is less than 1 percent of the population. The environmental justice analysis determined that the effects to the minority population were not disproportionate given the nature of the Project-related physical and cultural resource impacts identified as well as the very limited Native American population within the project area.

66-13 Commenter suggests that opportunities for environmental justice communities to participate in the NEPA process were inadequate. Native American consultations were initiated in mid-April 2010 and are ongoing. In addition, public scoping for the project was performed in full compliance with NEPA requirements. Section 5 of the DEIS (Consultation, Coordination and Public Participation) describes the extensive public outreach performed for the DEIS. Furthermore, as shown in Table 3.13-5, the environmental justice populations for the project are predominantly Hispanic and African American. The Native American population within the Project area is less than one percent of the local population. Consequently, the Project's public outreach and scoping efforts have not been disproportionate for the minority populations within the Project area.

66-14 Commenter summarizes previous comments. See Responses to Comments 66-3 through 66-13.

Letter - 67.

67-01 Commenter expresses support for the propose Project and clarifies previous comments (Letter 63) regarding gen-tie line route alternatives. See Common Response N.4.7 regarding gen-tie line route alternatives.

67-02 Commenter notes that portions of the gen-tie line route could be built underground in order to reduce visual impacts. See Common Response N.4.7 regarding gen-tie line route alternatives.

Letter - 69.

69-01 Commenter expresses opposition to the proposed Project because of impacts to the environment in the Chuckwalla Valley. This comment does not provide any specific feedback on the proposed action. Pursuant to Section 6.9.2.1 of the BLM NEPA Handbook H-1790-1 (Jan. 30, 2008), and CEQA Section 21091(d)(2)(A), this is not

considered a substantive comment on a particular environmental issue, and it does not require a specific response.

69-02 Commenter suggests that the proposed Project would not provide as much electricity as is indicated in the Draft EIS. This comment does not provide any specific feedback on the proposed action. Pursuant to Section 6.9.2.1 of the BLM NEPA Handbook H-1790-1 (Jan. 30, 2008), and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on a particular environmental issue, and it does not require a specific response.

69-03 Commenter supports the use of rooftop solar panels on previously disturbed or built areas; see Common Response N.4.7 regarding the Project alternatives evaluated in the Draft EIS.

69-04 Pursuant to Section 6.9.2.1 of the BLM NEPA Handbook H-1790-1 (Jan. 30, 2008), this is not considered a substantive comment.

69-05 Commenter expresses general opposition to renewable energy projects that have negative environmental impacts. This comment does not provide any specific feedback on the proposed action. Pursuant to Section 6.9.2.1 of the BLM NEPA Handbook H-1790-1 (Jan. 30, 2008), and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and it does not require a specific response.

69-06 Commenter supports the use of rooftop solar panels on previously disturbed or built areas; see Common Response N.4.7 regarding the project alternatives evaluated in the Draft EIS.

69-07 Commenter supports the use of rooftop solar panels on previously disturbed or built areas, see Common Response N.4.7 regarding analysis of project alternatives.

69-08 The commenter opposes the Project. Pursuant to Section 6.9.2.1 of the BLM NEPA Handbook H-1790-1 (Jan. 30, 2008), and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and it does not require a specific response.

69-09 The commenter opposes the Project. Pursuant to Section 6.9.2.1 of the BLM NEPA Handbook H-1790-1 (Jan. 30, 2008), and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and it does not require a specific response.

69-10 The commenter opposes development in the desert. Pursuant to Section 6.9.2.1 of the BLM NEPA Handbook H-1790-1 (Jan. 30, 2008), and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and it does not require a specific response.

69-11 The commenter supports integrated solar technology. Pursuant to Section 6.9.2.1 of the BLM NEPA Handbook H-1790-1 (Jan. 30, 2008), and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and it does not require a specific response.

69-12 The commenter opposes development in the Project area. Pursuant to Section 6.9.2.1 of the BLM NEPA Handbook H-1790-1 (Jan. 30, 2008), and CEQA Section 21091(d)(2)(A),

this is not considered a substantive comment on an environmental issue, and it does not require a specific response.

69-13 The commenter supports solar development on previously disturbed or built areas, see Common Response N.4.7 regarding analysis of alternatives in the Draft EIS.

69-14 The commenter supports energy conservation. Pursuant to Section 6.9.2.1 of the BLM NEPA Handbook H-1790-1 (Jan. 30, 2008), and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and it does not require a specific response.

69-15 The commenter opposes pumped water storage. Pursuant to Section 6.9.2.1 of the BLM NEPA Handbook H-1790-1 (Jan. 30, 2008), and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and it does not require a specific response. This comment also addresses wildlife corridors and wilderness. Wildlife corridors and the wilderness experience are addressed in Comment Response N.4.2.

69-16 The commenter opposes the Project and supports solar development on previously disturbed or built areas, see Common Response N.4.7.

69-17 BLM acknowledges that microclimates on site would be affected by the installation of the proposed solar panels. For instance, shading of the desert surface directly underneath the solar panels is expected to result in a reduction in soil surface temperatures in that area, in particular during the summer. Air circulation and light conditions are also expected to be altered on site. However, changes in shading, temperature, and wind patterns would be limited to the proposed solar fields and their immediate vicinity on the Project site. The Project would not result in the alteration of off-site microclimates. On-site impacts to vegetation, wildlife, hydrologic resources, and other resource categories are evaluated in the body of the DEIS, and no further evaluation of discussion is warranted.

69-18 Commenter suggests that increases in traffic related to the proposed Project would affect wildlife, including endangered species. See discussions in Chapter 4.15, Transportation, and 4.4, Wildlife.

69-19 Commenter recommends considering siting the proposed Project on previously disturbed or built areas. See Common Response N.4.7 regarding alternatives analyzed in the Draft EIS.

69-20 The commenter supports integrated solar technology on previously disturbed or built areas, see Common Response N.4.7 regarding alternatives analyzed in the Draft EIS.

69-21 The commenter supports integrated solar technology on previously disturbed or built areas, see Common Response N.4.7 regarding alternatives analyzed in the Draft EIS.

69-22 The commenter opposes the Project but supports renewable energy. Pursuant to Section 6.9.2.1 of the BLM NEPA Handbook H-1790-1 (Jan. 30, 2008), and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and it does not require a specific response.

Letter - 70.

70-01 Please see response to comment 69-17; the materials proposed for the solar field and other proposed facilities are not anticipated to generate sufficient changes in temperature that areas outside of the Project footprint would be affected. No mechanism for significant increase or decrease in temperature offsite has been identified. Therefore, no further discussion is warranted.

70-02 The environmental impacts of the proposed power lines are evaluated in Chapter 4 of the EIS. Although the proposed action does not include gen-tie lines along Eagle Mountain Road, the DEIS considered a number of alternatives to the proposed Project. The Gen-Tie Line B-1 Alternative would travel across Eagle Mountain Road, as described in Section 2.2.4 of the EIS. The Project selection and alternative screening process is described in Chapter 2.2.1 of the DEIS. The BLM's preferred alternative is the proposed action without modification. BLM will identify the alternative that it considers to be environmentally preferable in its Record of Decision (ROD), as required by NEPA. The CPUC believes the environmentally superior action alternative under CEQA is a combination of Substation A with Access Road 2, Gen-Tie GT-A-2, and either Solar Farm Layout B or C. The ultimate decision on the project will be made by the relevant agency's decision makers, taking into account each agency's statutory mission and responsibilities, and giving consideration to economic, environmental, legal, social, technical and other factors. Your concerns will be provided to the decision makers for consideration prior to making a final determination on the project.

70-03 Commenter is concerned about health-related EMF impacts. See Common Response N.4.10.

70-04 Commenter is concerned about health-related EMF impacts. See Common Response N.4.10.

70-05 Commenter is concerned about EMF interference. See Common Response N.4.10.

70-06 Commenter recommends siting the proposed Project on previously disturbed or built areas in the DEIS, see Common Response N.4.7 regarding alternatives analyzed in the Draft EIS.

70-07 Commenter expresses concerns about impacts associated with the proposed Project. As discussed in Common Response N.4.9 and N.4.10, there are no identified significant health hazards or environmental risks with the Project elements as proposed. The potential impacts to wildlife are discussed and analyzed in the Draft EIS Chapter 4.4. The potential interference to communication is discussed in Common Response N.4.10. The commenter's concerns regarding the aesthetics of the project ("eyesore") are noted, but the comment does not address the adequacy of the EIS analysis. The commenter is referred to Section 4.16 of the Draft EIS for an analysis of visual resource impacts.

Letter - 72.

72-01 Commenters express concern about gen-tie line routes and suggest that the Gen-Tie route should follow an existing right-of-way and avoid Kaiser Road. See Common Response N.4.7, part 2 regarding gen-tie line route alternatives.

Letter - 73.

73-01 Commenter suggests siting the proposed Project on previously disturbed or built areas. See Common Response N.4.7 regarding alternatives analyzed in the Draft EIS.

73-02 Ironwood Consulting conducted focused desert tortoise surveys of the Study Area during five periods per the USFWS's methods as outlined in the 2008 (including revisions made in 2009 and 2010) Field Survey Protocol Action that May Occur within the Range of the Desert Tortoise. The survey periods included March 18 and April 5, 2008; October 1 and 12,2008; October 26 and 31, 2009; March 15 through April 17, 2010; and July 7 through 12, 2010. These surveys provided full coverage of the Study Area and included zone of influence transects at 100-, 300-, 600-, 1200- and 2400-feet intervals from and parallel to the Study Area. The Study Area included areas larger than the proposed disturbance areas included in project designs proposed in 2007 through to 2010 and large survey buffers. To ensure surveys included all appropriate seasons, additional surveys are planned for fall of 2010 or spring of 2011. All data were mapped and submitted to CDFG's CNDDB and were used to evaluate presence and distribution of the tortoise throughout the Study Area and surrounding areas. The experience and qualifications of surveying biologists were reviewed and approved by BLM prior to initiation of surveys as they each demonstrated a high level of experience with desert tortoise. Thus, the BLM's review of the project and its impacts is based on a thorough survey of the Study Area and a comprehensive evaluation of desert tortoise presence and distribution.

73-03 Commenter is concerned about developer counts of desert tortoise on renewable energy projects, such as the BrightSource Ivanpah Project permitted by the California Energy Commission (CEC), but makes no comments specific to the DEIS. The staff from the CEC, BLM, USFWS, and CDFG required many of the solar developers to perform additional surveys for desert tortoise, as well as other protected plant and animal species. Projects such as the Calico Solar Project were significantly reduced in size to avoid impacts to the desert tortoise based on these supplemental surveys required by the resource and regulatory agencies. In addition, very detailed performance criteria were added to many of the standard CEC conditions of certification to address both the scope of the renewable energy projects and the difficulty of verifying preliminary survey results. Similarly, the Desert Sunlight Solar Farm project applicant began with a more than 4,000-acre study area, and, after desert tortoise surveys and other environmental studies were completed, determined that a reduced project footprint could avoid the most sensitive tortoise areas of the Project Study Area. Please also see response to comment 76-03 regarding tortoise surveys for this Project.

Letter - 74.

74-01 This letter is a duplicate of Letter 63 from the same commenter. See Response to Comments to Letter 63. Commenter sent a follow-up email dated 11.12.10 suggesting that a portion of the Gen-Tie line be underground. See Common Response N.4.7 and an updated discussion of Section 2.6 in the FEIS.

74-02 This letter is a duplicate of Letter 63. See Response to Comment to Letter 65.

74-03 This letter is a duplicate of Letter 63. See Response to Comment to Letter 65.

74-04 This letter is a duplicate of Letter 63. See Response to Comment to Letter 65.

74-05 This letter is a duplicate of Letter 63. See Response to Comment to Letter 65.

74-06 This letter is a duplicate of Letter 63. See Response to Comment to Letter 65.

74-07 This letter is a duplicate of Letter 63. See Response to Comment to Letter 65.

Letter - 75.

75-01 Commenter states that the site is described as disturbed, but provides excellent habitat for desert plants and animals. Although the Applicant has characterized the Project area as disturbed, Section 3.4 of the DEIS and FEIS use a much more conservative definition of "disturbed": Disturbed, ruderal, and non-vegetated areas are found in association with roads within the Project locations and previously developed areas around wells and associated features such as drainage basins. Disturbed areas are found on 2 acres of GT-A-1, 20 acres of GT-A-2, 2 acres of GT-B-2, and 1 acre of Red Bluff Substation A (Access Road 1). Developed and disturbed areas provide habitat for opportunistic wildlife species. House sparrows (Passer domesticus) often nest on artificial structures. Red-tailed hawks (Buteo jamaicensis) and common ravens frequently nest on the steel lattice towers of transmission lines. Coyotes may also be present. In addition, the mitigation and/or compensation are based on the total area disturbed by the Project rather than only on qualifications of habitat quality.

75-02 Commenter expresses concerns about the proximity of the proposed Project site to Joshua Tree National Park and about the potential cumulative impacts of the proposed Project and other proposed renewable energy projects. See Common Response N.4.2 regarding potential impacts to wilderness. Cumulative impacts from the Desert Sunlight Solar Farm Project as well as other past, present and reasonably foreseeable future projects presented and described in Table 3.18-2 and Table 3.18-3 in the DEIS were taken into consideration in assessing the cumulative impacts discussed in each resource/program section in Chapter 4, Environmental Consequences.

75-03 Commenter expresses concerns about impacts to wilderness experience, including fugitive dust, noise. and aesthetics. See Common Responses N.4.2 through N.4.4 regarding potential impacts to wilderness as a result of fugitive dust, noise, and aesthetics impacts.

75-04 Commenter suggests that the Draft EIS does not adequately address cumulative impacts, including the Eagle Mountain Pumped Storage Project and Eagle Mountain Landfill. The Eagle Mountain Pumped Storage Project is included in the list of cumulative projects in Table 3.18-3 of the DEIS as ID# "J". The Eagle Mountain Landfill Project is also included as ID# "AA" in Table 3.18-3. Both of these projects are also shown on Figure 3.18-2, Cumulative Projects in the Project Area.

75-05 The localized significance thresholds (LST) levels are typically used to determine the potential for ambient air quality standards to be exceeded at local sensitive receptor locations in the vicinity of the Project site. The thresholds are voluntary on the part of the lead agency. The low number of sensitive receptors near the Project site does not warrant project-specific dispersion modeling analyses to identify Project-specific localized emissions. Because there are so few sensitive receptors close to the various Project sites, and none closer than 1,175 feet, the default thresholds for the 1,640-foot distance from a five-acre emissions area have been used in the EIS to document the localized impacts to nearby sensitive receptors. Given the average distance to actual construction activity and the typical size of areas subject to significant construction activity on any single day, the default five-acre site thresholds provide a reasonable screening value for the Project. The EIS considers the distance from project activities to Joshua Tree and the short-term nature of the construction emissions. No new or modified stationary sources would occur requiring permit review aside from portable equipment used during construction and the proposed emergency-use engine-generator at the substation. Construction-related vehicle traffic emissions are documented throughout Chapter 4.2, where it is noted the emissions would be dispersed across three air basins. With mitigation and emission control measures identified in the EIS, there would be no need for additional modeling due to the limited likelihood of project-related emissions causing adverse effects on air quality or air quality related values (AQRV) in the National Park or Class I area.

75-06 Commenter expressed issues with night sky impacts. See Common Response N.4.3.

75-07 Commenter states that the site is described as disturbed, but provides excellent habitat for desert plants and animals. See Response to Comment 75-01.

75-08 Commenter notes there is active territory for nesting golden eagles two miles from the project boundary. Use of the Project area by golden eagles as foraging lands and potential nesting territories has been acknowledged in the DEIS. Implementation of Applicant Measures (AM)-BIO-1 and Mitigation Measure (MM)-BIO-2 will reduce potential impacts to golden eagle foraging habitat by acquiring suitable habitat to compensate for direct loss of foraging habitat. It is not anticipated that the nests or nesting behavior of the eagles would be impacted by the Project as the only active nest is two or more miles from any Project component or related activities. Disturbance to nesting golden eagles would be avoided or minimized with implementation of the Avian and Bat Protection Plan (AM-WIL-3), which requires buffers around active eagle nests within which no disturbance shall occur. Impacts resulting from dust will be mitigated for as addressed in Section 3.2, Air Resources. Pinto Wash may provide a regional movement corridor for wildlife as discussed in Section 3.4.5, Wildlife Corridors. Pinto Wash would not be directly impacted by the proposed Project activities. However, to ensure the area is avoided, implementation of

AM-BIO-4 would require that workers on the site are educated about the location of sensitive areas such as Pinto Wash and how and why they must be avoided and implementation of MM-BIO-1 would require that a qualified biologist be on site to monitor compliance with those avoidance measures and to ensure that construction activities are contained within the staked and flagged construction areas at all times in order to avoid off-site impacts.

75-09 The DEIS acknowledges the potential use of Pinto Wash as a regional movement corridor by wildlife, however absence of animal signs during repeated, protocol-level surveys conducted during different seasons indicates that this area is not used heavily by wildlife. Potential impacts to wildlife resulting from noise, light and dust pollution will be temporary in nature and limited in extent at any one location. These impacts, as well as those related to installation of exclusionary fencing, are discussed in Section 4.4, Wildlife, 4.10, Noise, and 4.2, Air Resources, under impact discussions for each Project component. A discussion about impacts resulting from polarized light has been added to Chapter 4.4, and the associated impacts addressed in Mitigation Measure BIO-5. Noise impacts discussed in Section 4.4 are addressed through implementation of Applicant Measure (AM)-WIL-1 and AM-WIL-2. Dust control measures as required by the SQAQMD Rule 403 will be employed and through implementation of water application during construction (e.g., use of water trucks) and AM-AIR-6 and AM-AIR-2. Noise impacts will be reduced through implementation of designated construction windows and implementation of AM-NZ-1 and AM-NZ-2 as discussed in Section 4.10, Noise. Although impacts related to installation of exclusionary fencing during construction are discussed in Section 4.4 under impact discussions for each project component, additional language has been added to Section 4.4.3 of the FEIS. Lastly, daily monitoring by a qualified biologist as required under MM-BIO-1 will ensure that these requirements are adhered to.

75-10 Glare is caused by mirrors which would create sources of bright light caused from the diffuse reflection of the sun. Rather, the proposed Project's solar panels would not use mirrors that could cause glare, but would produce polarized light pollution that could confuse insects and potentially birds. Refer to Section 4.4, Wildlife, where an impact discussion about the Project's generation of polarized light has been added to the FEIS and Mitigation Measure WIL-5 has been added to the FEIS to address potential impacts to birds resulting from the generation of polarized light.

75-11 It is noted in Section 4.3 of the DEIS that transmission line towers provide artificial perches and nest sites for ravens, which could increased predation of these species on desert tortoise. Implementation of a Raven Management Plan required in Applicant Measure WIL-3 would reduce these impacts to less than significant levels. The commenter's preference for Gen-Tie A-2 is noted, the DEIS includes an assessment of impacts to desert tortoise, including effects of increased raven, predation for this alternative.

75-12 Commenter supports the No Action Alternative. Comment on No Action Alternative noted. Commenter recommends siting the proposed Project on previously disturbed or built areas. See Common Response N.4.7 regarding analysis of alternatives in the Draft EIS.

75-13 The DEIS considers the potential for incremental impacts resulting from construction, operation and maintenance, and closure and decommissioning of the Project to cause or contribute to a cumulative effect in each of the issue areas for which the Project could cause an impact. The DEIS identifies cumulative projects and provides quantified and detailed information about them. On an issue-by-issue basis, DEIS Chapter 4 identifies the geographic and temporal scope of the cumulative impacts analysis area, provides a basis for the boundaries of each, identifies existing conditions within each cumulative impacts assessment area, identifies the direct and indirect effects of the Project and alternatives, and identifies past, present and reasonably foreseeable future actions making up the cumulative scenario. The several renewable energy (solar and wind) projects being considered by the BLM's California Desert District are identified in Table 3.18-1, including the number of projects, acreage and total megawatts under consideration in the Palm Springs, Barstow, El Centro, Needles, and Ridgecrest Field Offices. Existing projects along the I-10 corridor in eastern Riverside County are also identified in Table 3.18-2 and future foreseeable projects in this area are identified in Table 3.18-3. The DEIS's analysis of cumulative impacts is adequate.

75-14 Commenter summarizes previous comments. See responses to comments 75-1 through 75-13, above.

Letter - 76.

76-01 The Desert Tortoise Translocation Plan (required per AM-WIL-1, a draft of which was included as DEIS Appendix H) includes a detailed discussion about how the recipient sites were evaluated, including an assessment of existing tortoise densities at each site and their proximity to existing home ranges. The recipient control sites were selected based on direction from BLM, CDFG and USFWS and current research in the field of desert tortoise home range and movement. The plan is in draft format and will be reviewed, refined and approved by BLM, the USFWS and CDFG to conform to the 2010 USFWS desert tortoise relocation guidelines entitled *Translocation of Desert Tortoises (Mojave Population) From Project Sites: Plan Development Guidance Unpublished Report* dated August 2010 as required per AM-WIL-1. DEIS Section 4.4.3 has been revised in the FEIS to include information on translocation of desert tortoise and its impacts. Also, new mitigation measures have been added in the FEIS: Mitigation Measure MM-WIL-7 (alternate to long-distance translocation), Mitigation Measure MM-WIL-8 (requiring USFWS, CDFG to review plans required by Applicant Measures).

76-02 Impacts to desert tortoises from translocation are described in Section 4.4, Wildlife, and the discussion has been expanded in the Final EIS. The analysis includes disclosure of estimated mortality rates of translocated desert tortoises, including recent evidence from the Fort Irwin Land Expansion Project.

76-03 The DEIS is not claiming that the total number of live tortoises inhabiting the Project area is based on what was detected during tortoise surveys but rather using the survey information as a tool to determine presence of and areas of use by tortoises. Also, tortoises generally use more than one burrow, so the presence of more active burrows than observed tortoises is not unusual. DEIS Sections 3.4 and 4.4, Wildlife, have been revised in

the FEIS to more clearly define the numbers of desert tortoise within the various project alternative boundaries.

76-04 Refer to response to comment 76-01.

76-05 Refer to response to comment 76-02.

76-06 Refer to response to comment 76-03. Follow-up surveys are not warranted.

76-07 Compensation ratios are specified in Applicant Measure BIO-1, citing the Northeastern Colorado Desert Plan as "1:1 for creosote bush scrub, 3:1 for desert dry wash woodland, and 5:1 for impacts to the Chuckwalla DWMA and Chuckwalla CHU." The Habitat Compensation Plan has not been finalized and would be implemented only after final review and approval by BLM, CDFG and USFWS. Compensation ratios are the same for the proposed Project and alternatives. It is not necessary to identify specific parcels at this stage; rather, requiring compliance with the performance standards of compensatory mitigation (AM-BIO-1 and new measure MM-BIO-2 added in the FEIS) is sufficient to demonstrate that mitigation would be effective. MM-BIO-2 has been revised per CPUC Letter 56 comments to provide greater clarification as to what the compensation lands must be composed of with regard to habitat types. It is anticipated that sufficient private land that meets the performance standards of MM-BIO-2 is available. Compensatory mitigation would be accomplished by acquisition of mitigation land or conservation easements or by providing funding for specific land acquisition, endowment, restoration, and management actions under one of several programs including the recently approved mitigation program created by Senate Bill 34.

76-08 Refer to response to comment 76-07 for compensation land ratios by habitat type. The number of acres of compensation lands would vary depending on which alternative is implemented.

76-09 Refer to response to comment 76-07.

76-10 Concerning the suggestion that a distributed solar alternative be evaluated thoroughly in the EIS, see Common Response N.4.7 regarding analysis of alternatives.

76-11 See Common Response N.4.7 regarding analysis of alternatives.

76-12 See Common Response N.4.7 regarding analysis of alternatives.

76-13 Commenter states that BLM should not consider the purpose and need for the proposed Project with reference to the Energy Policy Act of 2005 and the Solar Energy Study Zones pursuant to Secretarial Order 3285 until completion of the Solar Programmatic EIS. See Common Response N.4.1 regarding the purpose of and need for the proposed Project.

The BLM will not consider the proposed DSSF within the draft framework of the Solar PEIS. Although the BLM generally prefers to develop programmatic NEPA documentation and, thereafter, to use it as a basis for site-specific projects, the process of

drafting, reviewing and considering the Programmatic Environmental Impact Statement for Solar Energy Development in Six Southwestern States (Solar PEIS) is not yet final.

In response to direction from Congress under Title II, Section 211 of the Energy Policy Act of 2005, as well as Executive Order 13212, Actions to Expedite Energy-Related Projects, the BLM and the DOE are collaborating to prepare the Solar PEIS pursuant to NEPA and CEQ regulations. The Solar PEIS will evaluate utility-scale solar energy development in a six-state area, including that portion of the CDCA that is open to solar energy development in accordance with the provisions of the CDCA Plan.

A Notice of Intent to Prepare the Solar PEIS was published in the Federal Register on May 29, 2008. Secretarial Order No. 3285 (SO 3285), issued March 11, 2009, and amended February 22, 2010, by the Secretary of the Interior, announced a policy goal of identifying and prioritizing specific locations best-suited for large-scale production of solar energy. In light of SO 3285, the BLM and the DOE originally postponed completion of the Draft Solar PEIS, and on June 30, 2009, published a Notice of Availability of maps that preliminarily identify 24 tracts of BLM-administered land for in-depth study. The scoping period was extended. The Draft Solar PEIS was published in December of 2010 and the public comment period on the DEIS has been extended until April 16, 2011. The schedule to complete the Final Solar PEIS or adopt the ROD is not yet known (Id.).

Because the Solar PEIS is under development, it, and any decisions the BLM's makes based on its analysis, will not govern BLM's decision-making efforts for the DSSF. The BLM has a responsibility to perform a timely environmental review in response to individual applications. For this reason, the BLM will consider the proposed DSSF pursuant to FLPMA, NEPA, and applicable planning documents, in accordance with the BLM's existing Solar Energy Development Policy (Instruction Memorandum 2007-097) (BLM 2007). Therefore, the language in the FEIS was neither removed nor qualified further in response to this comment.

76-14 The analysis in the DEIS has been supplemented in the FEIS to include additional explanation and analysis concerning the proposed CDCA Plan Amendment. See FEIS Sections 1.3 and 2.2.2.

76-15 The Solar Farm site would be constructed outside the Chuckwalla DWMA and CHU. However, the gen-tie at Red Bluff substation and ancillary facilities would disturb desert tortoise habitat in the Chuckwalla CHU and DWMA compensation for direct impacts in the CHU and DWMA would be required at a 5:1 ratio. Mitigation for indirect impacts to tortoise, including increased raven predation, would be reduced with implementation of AM-WIL-2. Appendix D of the NECO Plan, which amended the CDCA Plan, states that new surface-disturbing projects would include specific design features to minimize potential impacts to desert tortoises and their habitat. Implementation of the above-mentioned mitigation would assure consistency of the project with NECO Plan and the CDCA Plan. Lands inside DWMAs are MUC category L (Limited Use), which allows for development of solar projects pursuant to the CDCA Plan. Cumulative new surface disturbance to the federal portion of the DWMA, including the proposed Project, would

be less than the 1 percent of disturbance to federal lands that is allowable per the NECO Plan.

76-16 Concerning the CDCA Plan, see Response to Comment 76-14.

76-17 Concerning transmission and substation locations, see Response to Comment 76-14.

Letter - 77.

77-01 Commenter recommends siting the Project on previously disturbed or built areas to avoid damage to a pristine area of the desert that will not heal quickly. Concerning the alternatives evaluated in the Draft EIS, see Common Response N.4.7.

77-02 Concerning the financial viability of the Project and a distributed solar power alternative, see Common Response N.4.7, *Alternatives Analyzed*.

77-03 The commenter opposes the Project. Pursuant to Section 6.9.2.1 of the BLM NEPA Handbook H-1790-1 (Jan. 30, 2008), and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

77-04 Impacts to desert tortoises from translocation are described in Section 4.4, Wildlife. The analysis includes disclosure of estimated mortality rates of translocated desert tortoises, including recent evidence from the Fort Irwin Land Expansion Project. See also, Response to Comment 76-02.

77-05 The commenter does not support the project in the proposed location. Pursuant to Section 6.9.2.1 of the BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and Section 21091(d)(2)(A) of CEQA, this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

77-06 Commenter favors a solar alternative to the proposed large-scale Project in the desert. Pursuant to Section 6.9.2.1 of the BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

Letter - 79.

77-07 The commenter prefers a gen-tie route through Jojoba. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

77-08 Commenter supports the Project, but only in a form that is good for all people and wildlife in the area. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

77-09 Comment on the population along the Eagle Mountain route noted.

77-10 Potential Project-related effects on local land uses and property values are discussed in Common Response N.4.8.

77-11 The commenter expresses concern regarding visual impacts of the Project. The commenter's concerns are noted, but the comment does not address the adequacy of the Draft EIS. The commenter is referred to DEIS Section 4.16 for an analysis of visual resource impacts.

Letter - 81.

81-01 As stated on DEIS page 4.15-10, lane closures required for short durations during construction of Gen-Tie Line A-1 would be completed in accordance with the guidelines of the agency that controls the affected roads, and would be managed through the implementation of AM-TRANS-1. This mitigation measure states, among other things, that Sunlight shall demonstrate compliance with Section 517 of Caltrans' Encroachment Permits Manual if lane closures are required on State Highways and identify all necessary transportation permits, including those for oversize vehicles, hazardous materials transport, haul routes, and roadway right-of-way encroachment. Reference to Chapter 600 (Utility Permits) of the Encroachment Permits Manual, and the Right of Way Manual Chapter 13, has been included in the FEIS.

81-02 The comment is noted and will be taken into consideration in the design of the Project.

81-03 Commenter suggests documenting all affected public roads, easements, and right-of-way segments prior to construction and providing documentation to Caltrans. As stated on Chapter 4.15 of the DEIS, applicant measure AM-TRANS-2 would ensure that "Sunlight shall document road conditions at the beginning and end of Project construction and decommissioning and contribute fair share cost for pavement maintenance and other needed repairs."

Letter - 82.

82-01 Commenter opposes construction of powerlines on Kaiser Road. Potential Project-related effects on local land uses and property values are discussed in Common Response N.4.8.

82-02 Commenter expresses concern about the potential health impacts of powerlines. Regarding EMF-related health concerns, see Common Response N.4.10.

82-03 The commenter opposes the Project due to the environmental sensitivity of the area. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

82-04 Pursuant to Section 6.9.2.1 of the BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

82-05 As stated in the DEIS in Chapter 4.13, Socioeconomics and Environmental Justice, short-term Project-related employment would average between 390 and 440 jobs for construction of the Solar Farm facility. In addition, there would be a small of number of additional construction jobs for the gen-tie line (averaging 25 jobs) and a similar number of construction jobs for the Red Bluff Substation (although the substation jobs would be staffed predominantly by SCE employees given their specialized nature and very short duration). Future operation and maintenance of the Solar Farm would provide long-term employment for 10 to 15 full-time workers. These permanent jobs would be available to qualified local residents.

Letter - 83.

83-01 Commenter opposes the project traversing sacred properties, but does not make any specific comments on the traditional sacred properties discussed in DEIS Section 3.6. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

83-02 Commenter requests that the Project not be sited on sacred properties, but does not question the adequacy or accuracy of the analysis of traditional sacred properties in DEIS Section 3.6. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

Letter - 84.

84-01 The BLM has been engaged in government-to-government consultation with Native American tribes since the early stages of Project planning and will continue this consultation throughout the Section 106 compliance process. BLM's tribal consultation efforts are discussed in Chapter 3.6 and in Cultural Resources Appendix K. Tribes have been invited to identify sacred sites and other properties of traditional cultural and religious importance that might be affected by the Project. Tribes have also been invited to participate in consultations to develop a Programmatic Agreement for the Project that will seek to resolve adverse effects on any properties of traditional cultural and religious importance that may be identified. As discussed in Chapter 4.6, no sacred sites, traditional cultural properties or traditional use areas have yet been identified that would be adversely affected by the proposed action.

84-02 The commenter opposes the Project. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A),this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

Letter - 85.

85-01 The commenter states that the project does not recommend avoidance measures for endangered plants. Implementation of the Habitat Compensation Plan, pre-construction surveys for special-status plant species and development and implementation of a Salvage

and Restoration Plan would address impacts to sensitive and special-status plants. These impact avoidance, minimization and mitigation requirements are identified in Section 4.3 and 4.4 under AM-BIO-1, AM-BIO-3, MM-BIO-2, and MM BIO-4. It is not necessary that the plans be final at this stage; rather, requiring compliance with the performance standards of the above-mentioned measures is sufficient to demonstrate that mitigation would be effective.

85-02 The commenter states that the Project would have a drastic impact on desert wildlife. Impacts to desert tortoise from translocation are analyzed in FEIS Section 4.4, Wildlife. Concerning translocation, see also Response to Comment 76-02. As analyzed in FEIS Section 4.4, translocation poses a lesser risk to desert tortoises than leaving them on the site where they would be subject to mortality by project construction and operation. Additionally, it is the policy of the CDFG and USFWS to require translocation of desert tortoises from project sites where they otherwise would be taken. Protocol surveys for desert tortoise were conducted by qualified biologists per the USFWS's Field Survey Protocol for any Federal Action that May Occur within the Range of Desert Tortoise. The total number of live tortoises observed during surveys was used to determine presence of and areas of use by tortoises. If additional tortoises are observed during clearance surveys of the project area, qualified biologists would implement USFWS, CDFG and BLM-approved protocol provided in the project's Desert Tortoise Translocation Plan, as required per AM-WIL-1.

The analysis of wildlife movement in the DEIS has been expanded in the FEIS to include discussion of wildlife movement among the Chuckwalla DWMA and CHU and other surrounding habitat areas (see Section 4.4.3).

Impacts to special-status birds, including burrowing owl and LeConte's thrasher, are analyzed in DEIS Section 4.4. Implementation of AM-WIL-3 would reduce these impacts. See Response to Comment 75-08 regarding impacts to golden eagles. An analysis of impacts to birds from polarized light has been added to the FEIS in Section 4.4.3; accordingly, Mitigation Measure WIL-5 has been added to the FEIS to mitigate these impacts.

85-03 The commenter states that the project would impact visual resources. See Common Response N.4.4, *Adequacy of Key Observation Points (KOPs) and Simulations*.

85-04 Concerning the adequacy of the range of alternatives analyzed in the DEIS, see Common Response N.4.7, *Alternatives Analyzed*.

85-05 The commenter favors a distributed solar PV alternative. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response. Nonetheless, see Common Response N.4.7, *Alternatives Analyzed*, which discusses solar energy development in the built environment.

85-06 The commenter states that projects on disturbed land are viable based on recent projects. Considering siting on previously-disturbed or built areas in the DEIS, see Common Response N.4.7, *Alternatives Analyzed*.

Letter - 86.

86-01 The commenter supports the economic benefits of the Project and requests clarification on the potential impacts from light pollution. See Common Response N.4.3, *Dark Skies*.

Letter - 87.

87-01 The commenter supports the Project. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

Letter - 88.

88-01 The commenter supports proposed development in the area, including the Project. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

Letter - 89.

89-01 The commenter opposes environmental impacts of large-scale solar development in the desert while roof tops are available for PV projects. Concerning siting on previously-disturbed or built areas, see Common Response N.4.7, *Alternatives Analyzed*.

Letter - 90.

90-01 The commenter is concerned about local impacts of development that benefit large-load centers far from the desert. The commenter's concerns are noted. Project impacts related to visual resources are analyzed in DEIS Section 4.16, which concludes that the Project would create a strong contrast within the affected landscape from several of the KOPs. This comment does not question the adequacy or accuracy of the DEIS. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

90-02 Concerning EMF-related impacts, see Common Response N.4.10, *EMF Exposure*.

90-03 The commenter disagrees with the proposed tortoise relocation areas. See Responses to Comments 76-1 through 76-3.

Letter - 91.

91-01 The commenter supports wind energy and the Project. Pursuant Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

Letter - 92.

92-01 The commenter opposes the Project due to impacts to golden eagle foraging habitat and desert tortoise. The discussion of eagle foraging and nesting in the DEIS has been expanded in FEIS Section 4.4.3. See Responses to Comments 76-1 and 76-02 regarding impacts of translocation to desert tortoise. See Response to Comment 75-08 regarding impacts to golden eagle foraging habitat. The commenter opposes the Project due to impacts to golden eagle foraging habitat and desert tortoise. See Responses to Comments 76-1 and 76-02 regarding impacts of translocation to desert tortoise. See Response to Comment 75-08 regarding impacts to golden eagle foraging habitat. Loss of foraging habitat would be considered "take" under the Bald and Golden Eagle Protection Act (50 CFR 22.3) if the loss of foraging habitat caused (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior." Loss of foraging habitat from development of the proposed Project would not result in "take" according to standard, and would be mitigated with acquisition, enhancement and protection of compensatory habitat as required in AM-BIO-1 and MM-BIO-2.

92-02 The commenter opposes the proposed location of the Project and questions the adequacy of the range of alternatives analyzed. Considering siting on previously disturbed or built areas in the DEIS, see Common Response N.4.7, *Alternatives Analyzed*.

92-03 The commenter states that the BLM needs to address connectivity; this discussion in the DEIS has been expanded in FEIS Section 4.4.3. Impact WIL-3, *Direct and Indirect Impacts to Wildlife Movement or Nursery Sites*, in DEIS Section 4.4.9 identifies that the project would have a considerable contribution to cumulative impacts on wildlife movement in the Chuckwalla DWMA and Chuckwalla CHU. Mitigation included in the Project's Habitat Compensation Plan and Applicant Measure BIO-1 would ensure that the Project's contribution to cumulative wildlife connectivity impacts would be reduced to less than significant levels. Concerning the adequacy of analysis in the DEIS, see Common Response N.4.6.

Letter - 93.

93-01 Concerning the breadth of the statement of BLM's Purpose and Need statement, see Common Response N.4.1, *Purpose and Need*.

93-02 Concerning the breadth of the statement of BLM's Purpose and Need statement, see Common Response N.4.1, *Purpose and Need*. Concerning the range of alternatives considered, see Common Response N.4.7, *Alternatives Analyzed*. Further, the commenter states that the BLM has misunderstood the intent of Congress in the Energy Policy Act. As stated in Section 211 of the Energy Policy Act of 2005, the Congress intended that "the Secretary of the Interior should" seek to have approved non-hydropower renewable energy projects located on the public lands with a generation capacity of at least 10,000 megawatts of electricity. The text in the FEIS has been corrected to reflect that the

approval of the stated capacity of renewable energy on federal lands is encouraged and not required.

93-03 The commenter favors Alternative C. Comment on Alternative C's preservation of habitat linkage is noted. Nonetheless, Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

93-04 The commenter considers Gen-Tie Alternative A-2 to be environmentally superior. Comment on the gen-tie alternatives is noted. See Common Response N.4.7, *Alternatives Analyzed*, regarding Gen-Tie GT-A-2.

93-05 Considering siting on private lands in the DEIS, see Common Response N.4.7, *Alternatives Analyzed*.

93-06 Concerning the reasonableness of the range of alternatives considered in the DEIS and siting on previously-disturbed or in built areas, see Common Response N.4.7, *Alternatives Analyzed*.

93-07 The commenter urges the BLM to consider cumulative impacts to the desert environment. The FEIS for the DSSF identifies cumulative projects and provides quantified and detailed information relating to them in Chapter 3.18. See also Figure 3.18-2, *Cumulative Projects in the Project Area*, and Tables 3.18-2 and 3.18-3, *Existing Projects along the I-10 Corridor (Eastern Riverside County* and *Future Foreseeable Projects along the I-10 Corridor (Eastern Riverside County)*, respectively. On an issue-by-issue basis, FEIS Chapter 4 identifies the geographic and temporal scope of the cumulative impacts analysis area, provides a basis for the boundaries of each, identifies existing conditions within each cumulative impacts assessment area, identifies the direct and indirect effects of the DSSF and alternatives, and identifies past, present and reasonably foreseeable future actions making up the cumulative scenario. See, for example, FEIS Sections 4.3.9 and 4.4.9, discussion of cumulative impacts on vegetation and wildlife, respectively; Table 4.3-18, *Summary of Cumulative Impacts on Native Vegetation Communities*; and FEIS Appendix H. Additionally, the FEIS analyzes cumulative impacts of past, present and reasonably foreseeable future actions, including utility-scale renewable and other development projects, on each of the resource areas in Chapter 4, including mitigation measures to offset cumulative impacts. Cumulative impact analysis is not an exercise in determining current conditions and trends, but requires considering effects of past, present and reasonably foreseeable actions. BLM believes the scope of the analysis of cumulative impacts in the FEIS is adequate.

93-08 The commenter states that the organization of the DEIS is unconventional and hard to follow. There is no specific organizational requirement required by NEPA. This document is intended to meet the requirements of both NEPA and CEQA, and as such, the formatting is different than that usually followed by BLM. It is logical that mitigation for loss of habitat be contained in the vegetation section of the document since "habitat" consists of the physical surroundings of wildlife, which includes the vegetation. MM-BIO-2

has been added to the FEIS to provide greater clarification as to what the compensation lands must be composed of with regard to habitat types. See also Response to Comment 76-07 regarding finalization and agency review of the Habitat Compensation Plan. Additionally, see Common Response N.4.6 regarding the identification of adequate mitigation measures.

93-09 The commenter states that the cumulative analysis of impacts to biological resources on the regional scale is missing from the DEIS. The DEIS analyzes cumulative impacts to plants in Chapter 4.3, *Vegetation*, Section 4.3.9; wildlife cumulative impacts are analyzed in Chapter 4.4 *Wildlife*, Section 4.4.9. While the geographic scope for the cumulative impacts to plants and wildlife includes regional solar projects (i.e., along the I-10 corridor); however, a scope encompassing the entire eastern Riverside County region would be too large to suitably focus on the impacts contributed by the proposed project. Mitigation included as part of the project's Habitat Compensation Plan and Applicant Measures would ensure that cumulative impacts to wildlife and vegetation would be reduced to less-than-significant levels.

93-10 The commenter states that the Habitat Conservation Plan (HCP) should be directly affiliated with the environmental consequences in Chapter 4. As explained in EIS Section 2.5, the applicant (either Sunlight or SCE) proposed certain Applicant Measures (AMs) as part of the project including AM-BIO-1, which requires development of an HCP to compensate for the loss of creosote desert scrub, desert dry wash woodland and jurisdictional resources as a result of the proposed action. In certain instances, Mitigation Measures (MMs) are recommended by BLM to further reduce impacts. The DEIS identified AM-BIO-1 and MM-BIO-1 to avoid or reduce various impacts to biological resources (see Chapters 4.3 and 4.4). MM-BIO-1 would require an approved biologist to conduct construction monitoring. The FEIS includes an additional mitigation measure, MM-BIO-2, which supplements AM-BIO-1. Specifically, MM-BIO-2 identifies the specific resources for which compensation land must be acquired in HCP, including creosote desert scrub and desert dry wash woodland as well as state-jurisdictional streambeds, occupied foxtail cactus habitat, undisturbed habitat for most wildlife species (i.e., away from sources of noise or other disturbance such as highways, wind farms, etc.), occupied desert tortoise habitat, occupied chuckwalla and rosy boa habitat, suitable/occupied upland shrubland nesting habitat for migratory birds, suitable or occupied roosting habitat for special status bats, and suitable or occupied habitat for Palm Springs round-tailed ground squirrel, Colorado Valley woodrat, or American badger. The analysis in FEIS Chapters 4.3 and 4.4 has been modified to reflect this additional measure.

93-11 The commenter would like the CDCA Plan amended to protect the 19,000 acres avoided by the Project from future development. However, the comment does not question the adequacy or accuracy of the analysis in the DEIS. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response. Considering siting on previously-disturbed or built areas in the DEIS, see Common Response N.4.7, *Alternatives Analyzed*.

93-12 The commenter urges the BLM to consider net impacts of habitat compensation acreage The habitat compensation requirement has been expanded in FEIS MM-BIO-2, which includes specific selection criteria of appropriate lands including that the lands must be occupied desert tortoise habitat and must provide wildlife movement value equal to that on the project site; agency review of proposed compensation lands; preparation and implementation of a management plan for the lands; as well as funding and implementing initial protection and habitat improvements and long-term maintenance and management. The FEIS describes the likely importance of Chuckwalla DWMA and CHU as movement corridors for the desert tortoise in Section 4.4, Wildlife. Implementation of Applicant Measures (AM)-BIO-2 and AM-BIO-4, as well as Mitigation Measures MM-BIO-1 and MM–BIO-2, would reduce impacts to wildlife movement corridors.

93-13 The commenter urges the BLM to focus on avoidance as the primary mitigation for impacts to desert tortoise. Comment on avoidance of desert tortoise and other biological resources and preference for Solar Farm Layout C due to its preservation of habitat connectivity is noted.

93-14 The commenter urges the BLM to fully offset any impacts to golden eagle foraging. See Response to Comments 75-08 and 92-01. The selection criteria for compensation lands are described in MM-BIO-1 and compensation land ratios are described in AM-BIO-1.

93-15 The commenter states that the DEIS does not adequately address sand transport impacts. Text has been added to FEIS Section 4.8.3, which discusses the sand transport evaluation conducted for the project. The Study Area was not found to be subject to aeolian sand migration nor was it found to be located within a sand transport corridor. The Storm Water Hydrology Report (AECOM 2010) provided in DEIS Appendix G found pre- and post-development of the Study Area would result in insignificant amounts of sediment transport. To further reduce potential impacts related to sediment transport, implementation of a Sediment Transport Monitoring and Maintenance Plan is proposed. Jurisdictional resources, such as ephemeral drainages, are discussed in Section 3.17.2; a discussion about impacts to these features, their hydrologic functions and potential sand transport erosion resulting from the project, is included in Sections 3.17 and 4.17, Water Resources. The commenter further states that the project would affect Eagle Creek and Big Wash ephemeral drainages but that the DEIS did not address impact to these drainages. In response, FEIS Section 4.17.3 has been updated to include analysis of impacts to surface water drainages. Under the CEQA significance criteria, impacts would be less than significant with mitigation incorporated.

93-16 The commenter requests additional study of natural drainages and fluvial sand transport. As discussed in DEIS Section 4.17.3 and Appendix G, the effects of Project implementation on stormwater, flood flows and sediment transport were evaluated and would result in minimal change. However, to provide further assurance that the Project would minimize such impacts, the mitigation proposed in the DEIS for stormwater and flood control has been updated in the FEIS to require an increase in flows of no more than 1 percent relative to existing conditions (see also, Response to Comment 106-11). This would ensure that impacts to stormwater, downstream flooding and associated

sediment transport would be minimized. Biological resources associated with desert wash habitat are discussed in DEIS Section 3.3; an expanded discussion is provided in FEIS Section 3.3. The DEIS's discussion of aeolian sand transport also has been expanded and is provided in FEIS Section 3.3, Vegetation.

93-17 The commenter states that the DEIS does not adequately address climate change impacts to species. The commenter is correct. See Response to Comment 93-18.

93-18 The commenter is correct. DEIS Chapter 4.5 has been updated in the FEIS to analyze additional direct and indirect effects of climate change, including potential effects of climate change on the project. Such impacts include snowpack and snowmelt period, sea level rise, dilution, water temperature, flooding/drainage/erosion, water resources availability, fisheries, habitat values/species/mitigation lands, wildfire risks, heat waves, soil moisture, and fugitive dust.

93-19 The commenter states that the DEIS needs to address the impacts of climate change on the proposed project. The analysis provided in the DEIS has been updated to do so. See Response to Comment 93-18.

93-20 The commenter requests that BLM expand the analysis of impacts of climate change from the proposed project and alternatives. Chapter 4.5, Climate Change, has been updated to analyze the effects of climate change on biological resources and habitat mitigation values.

Letter - 94.

94-01 The commenter opposes the impact that the proposed gen-tie route down Kaiser Road would have on the community. See Responses to Comments 76-1 through 76-3.

94-02 The commenter opposes Project-related impacts to their views and the desert. This comment does not question the adequacy or accuracy of the analysis in the DEIS. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response. Nonetheless, the commenter is referred to DEIS and FEIS Section 4.16 for an analysis of visual resource impacts.

Letter - 95.

95-01 The commenter supports renewable energy, and solar specifically, if the power lines are hidden underground. See Response to Comment 67-1.

Letter - 96.

96-01 This is a form letter. See Responses to Comments in Letter 28.

Letter - 97.

97-01 Commenter supports the Project. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

Letter - 98.

98-01 The commenter opposes the Project and the development of human infrastructure at the expense of desert land and animals. Concerning alternative locations considered in the DEIS, see Common Response N.4.7, *Alternatives Analyzed*.

Letter - 99.

99-01 Concerning alternative locations considered in the DEIS and the commenter's preference for Gen Tie GT-A-2, see Common Response N.4.7, *Alternatives Analyzed*.

99-02 The commenter is concerned about the proposed route of the gen-tie and aesthetic impacts and supports Alternative A-2 if Option B1 is not feasible due to the desert tortoise. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

Letter - 100.

100-01 The commenter opposes the Project, but does not question the adequacy or accuracy of the analysis provided in the DEIS. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

Letter - 101.

101-01 The commenter supports the concept of solar energy in Southern California. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

101-02 The commenter lives in Vancouver, Canada, and is concerned about power lines being located near homes. See Common Response N.4.10, *EMF Exposure*.

101-03 Water use for the proposed project is discussed in DEIS Chapter 2.0, Project Description, and in Chapter 4.17, Water Resources. As discussed in Chapter 4.17, sufficient groundwater is available to meet construction and operation period demand of the Project. To ensure that impacts to groundwater supply are minimized, Mitigation Measures (including MM-WAT-1, MM-WAT-2, and MM-WAT-3) would be required. A

Groundwater Level Monitoring, Mitigation and Reporting Plan (MM-WAT-3) would be required to detect any changes to groundwater supply levels.

Letter - 102.

102-01 The commenter supports the Project. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

Letter - 103.

103-01 The commenter appears to indicate that dispersion modeling should be conducted for the Project because Project-related vehicle traffic emissions combined with on-site emissions would exceed the LST levels for nitrogen oxides, PM10, and PM2.5. The thresholds are voluntary on the part of the lead agency. However, use of LST levels or dispersion modeling to determine the potential for an air quality standard to be exceeded in the vicinity of the Project site is only appropriate for on-site emission sources, and not for off-site vehicle emissions, the majority of which would occur miles from the locations of the various sensitive receptors closest to the Project site.

103-02 The FEIS includes additional information on the windblown dust calculation methodology. Subsequent to the release of the DEIS, AECOM prepared a new wind erosion, PM10 and PM2.5 formation analysis for the project on behalf of First Solar (see FEIS Section 4.2.3 and Appendix D-6). For the entire wind erosion, PM10 and PM2.5 formation study, including all assumptions and references, see Appendix D-6.

103-03 The comment suggests that the DEIS assumes that all construction-related dust would settle in the evening. To clarify, the FEIS states that airborne dust would be greatly reduced in concentration by nighttime hours. Given that construction activities would cease prior to nighttime hours and that, on average, meteorology at night tends to be more favorable to dust settlement than average daytime meteorology, the subject statement is valid. Likewise, it is reasonable to assume that phasing construction activity at the Solar Farm site would limit the amount of disturbed area that could produce fugitive dust from. Regarding the potential for exposure to light pollution, see Common Response N.4.3, *Dark Skies*.

103-04 To minimize fugitive dust on the Project site, the speed of travel of construction vehicles would be limited, and dust palliatives would be applied to the site as described in AM-AIR-1 and AM-AIR6, and in compliance with SCAQMD Rule 403. 105-06. First Solar has confirmed to BLM that it would be feasible to apply dust palliatives to the Solar Farm Site to control operational dust emissions. See Response to Comment 103-03.

103-05 Subsequent to the release of the Draft EIS, AECOM prepared a new wind erosion, PM10, and PM2.5 formation analysis for the Project on behalf of First Solar (see Final EIS Section 4.2.3 and Appendix D-6). The new analysis incorporates wind data from Blythe and adjusts the Barstow wind data to approximate the local wind profile.

103-06 The commenter recommends the following mitigation measures: 1) provide temporary traffic controls to maintain smooth flow of traffic; 2) provide dedicated turn lanes for movement of construction trucks and equipment on- and off-site; 3) re-route construction trucks away from congested streets and sensitive receptors; 4) appoint a construction relations officer to act as a community liaison concerning on-site construction activity including resolution of issues related to PM10 generation; 5) replace ground cover in disturbed areas as quickly as possible; 6) require utility-supplied power rather than gasoline or diesel generators; and 7) restrict construction delivery trucks to "clean" trucks, such as 2010 models or newer. With regard to items 1 through 4 and 6, Mitigation Measure MM-AIR-4 has been included in the FEIS to address this concern. With regard to item 5, Mitigation Measure MM-AIR-3 has been revised in the FEIS to address this concern. With regard to item 7, Mitigation Measures MM-AIR-1 and MM-AIR-4 have been revised in the FEIS to address this concern. See FEIS Section 4.2.2.3.

103-07 For the windblown dust calculation parameters used to the support the new wind erosion, PM10 and PM2.5 formation analysis conducted for the project (including ground, soil and vegetation types) see FEIS Appendix D-6. The SCAQMD-recommended measure has been added to the FEIS to replace MM-AIR-1.

103-08 Comment noted. First Solar intends to notify contractors of grants and incentives available from the SCAQMD.

Letter - 104.

104-01 This comment introduces and summarizes the commenter's concerns presented in greater detail in the comments that follow. The commenter's more specific comments are addressed separately, below. This comment also summarizes the commenter's policy concerns. Concerning the suggestion that the BLM's analysis fails to comply with FLPMA, see Common Response N.4.5, *Recirculation of DEIS*. With respect to whether industrial-scale projects are appropriate for lands in this area, the purpose of the EIS is to define the impacts of developing the proposed Project. With the information contained in this EIS, BLM can evaluate the extent of impacts in comparison with the stated purpose and need. The ultimate decision presented in the Record of Decision will present the agency's conclusion.

The commenter also states that BLM has failed to explain how the Project would interface with the Solar PEIS process. As stated in the Draft Solar PEIS, which is undergoing public review at this time, existing applications for development of BLM-administered lands are not affected by the alternatives considered in the Solar PEIS. However, the proposed Project is within a proposed Solar Energy Zone.

Regarding the commenter's desire to further protect desert tortoise within the CDCA, this EIS recommends mitigation measures that would offset the potential loss of desert tortoise habitat and individuals resulting from the development of the Project. The discussions in the DEIS of desert tortoise in the Project area and impacts to desert tortoise have been expanded in FEIS Sections 3.4 (baseline) and 4.4 (impacts).

The commenter also is concerned that the consideration of the Red Bluff Substation, the Colorado River substation, and the previous EIR/EIS on the Devers Palo Verde No. 2 (DPV2) transmission line constitute piecemealing, which would threaten the "bioregional" approach in the CDCA. With respect to the Red Bluff Substation's relationship to the DPV2 project, the Red Bluff Substation was not needed or proposed or even in the planning process at the time the DPV2 EIR/EIS was completed. Therefore, it could not have been analyzed in the DPV2 EIR/EIS. Both DPV2 and the Devers Palo Verde No. 1 (DPV1) transmission line project are included on the list of existing projects along the I-10 corridor (see FEIS, Table 3.18-2) and were analyzed as part of the cumulative scenario in this EIS. Additionally, in recognition of the relationship between the Red Bluff Substation and the Desert Sunlight Project, the substation is being fully analyzed by BLM and the CPUC in conjunction with the Desert Sunlight proposal in this EIS. The Colorado River Substation is not a "connected action" to the Red Bluff Substation, the Desert Sunlight Project or the DPV2 project. All of these projects have utility independent of the Colorado River Substation and of each other. The Draft Supplemental EIR for the Colorado River Substation is now available for public review and addresses cumulative impacts of the projects in the Chuckwalla Valley. The EIS analysis includes a cumulative impact assessment that does address the regional biological effects of the multiple proposed projects in this portion of the CDCA.

104-02 The analysis in the DEIS has been supplemented in the FEIS to include additional description and analysis of the proposed CDCA Plan Amendment. See FEIS Sections 1.3 and 2.2.2. See also, Common Response N.4.5, *Recirculation of DEIS*.

As explained in Section 2.2.1 of the EIS, other alternative sites were considered but eliminated from detailed analysis under NEPA, because one or more of the criteria from the BLM NEPA Handbook H-1790-1 (BLM 2008) apply. The rationale for eliminating alternative locations from detailed consideration is described in Section 2.6 of the EIS. However, the EIS considers two alternative locations for the Red Bluff Substation: Substation A (to the east) and Substation B (to the west). Impacts associated with these alternative locations are analyzed in detail in the EIS.

Concerning the range of alternatives analyzed in the DSSF EIS generally, see Common Response N.4.7.

Desert-wide resource protection is addressed in the analysis of cumulative impacts, which considers the impact of this proposed Project along with past, present and reasonably foreseeable future projects in the NECO planning area. The cumulative scenario is defined in Section 3.18 and the cumulative impact analysis is presented in EIS Chapter 4. Aside from the NECO and the desert-wide CDCA, no other BLM plans applicable to the Chuckwalla Valley. Beyond the cumulative analysis presented in this document, neither NEPA nor CEQA require a regional analysis to be completed for a project-specific action.

104-03 The commenter states that the DEIS fails to adequately address the proposed CDCA Plan Amendment. As indicated in FEIS Sections 1.1 and 1.3.1, Table 1-4-1 and elsewhere, the BLM processes applications for commercial solar energy facilities as right-of-way

authorizations under Title V of FLPMA and Title 43, Part 2804 of the Code of Federal Regulations. The FLPMA establishes public land policy and guidelines for administration, and provides for the management, protection, development, and enhancement of public lands. In particular, the FLPMA's relevance to the proposed project is that Title V, Section 501, establishes BLM's authority to grant rights-of-way for generation, transmission and distribution of electrical energy. The BLM is processing the Applicant's application within the FLPMA framework.

NEPA procedures ensure that "high quality" environmental information is available before actions are taken (40 CFR 1500.1). A "hard look" under NEPA consists of a reasoned analysis containing quantitative or detailed qualitative information. See, BLM NEPA Handbook H-1790-1 (Jan. 30, 2008). The data and analyses provided in the FEIS about the affected environment are commensurate with the importance of the impact, with less important material summarized, consolidated or simply referenced. This is consistent with the requirements of NEPA (40 CFR 1502.15). The FEIS relies on quantitative data where possible, and detailed qualitative data under other circumstances. The proposed action's compatibility with the CDCA Plan is addressed in FEIS Section 4.9. BLM has determined that solar energy generation facilities may be allowed on Class M land after NEPA requirements are met and a Plan Amendment is approved, and that each of the action alternatives would be compatible with the CDCA. Landscape level issues, which may include desert-wide and CDCA-wide considerations, are addressed in the FEIS in the context of cumulative impacts on a resource-by-resource basis throughout Chapter 4, *Environmental Consequences*. Consistency with management objectives is not an appropriate topic of CEQA concern.

As explained in Section 2.2.1 of the EIS, alternative sites were considered but eliminated from detailed analysis under NEPA, because one or more of the criteria from the BLM NEPA Handbook H-1790-1 (BLM 2008) apply. The rationale for eliminating alternative locations from detailed consideration is described in FEIS Section 2.6. The EIS considers two alternative locations for the Red Bluff Substation: Substation A (to the east) and Substation B (to the west). Impacts associated with these alternative locations are analyzed in detail in the EIS. Concerning the range of alternatives analyzed in the DEIS generally, see Common Response N.4.7, *Alternatives Analyzed*.

104-04 The commenter states that the DEIS fails to adequately address multiple use lands in favor of a single industrial use. Concerns from the public regarding the multiple use mission of the BLM and the loss of this large section of public land to a single use are addressed in the strict enforcement of mitigation measures for habitat and other measures that ensure a one-to-one replacement of lands lost to a single use. Table ES-2, *Summary of Project Impacts by Alternative*, identifies, by alternative, the total number of acres that would be permanently disturbed within the Chuckwalla DWMA and Chuckwalla desert tortoise CHU. Figure 3.4-5 shows where this DWMA and CHU intersect with the Project locations and where the CHU overlaps with the DWMA. Figure 3.9-2 shows the Multiple Use Classes within the Project component. Neither FLPMA nor NEPA require that exact acreages, as would be determined by an actual on-the-ground survey conducted by a registered surveyor, be

provided in order to evaluate the effects of the Project. The analysis provided in the DEIS is sufficient to adequately evaluate the proposed Project impacts per FLPMA and NEPA. Further, the DEIS addresses cumulative impacts to biological resources in Sections 4.3.9 and 4.4.9, discussion of cumulative impacts on vegetation and wildlife, respectively; and in Table 4.3-18, *Summary of Cumulative Impacts on Native Vegetation Communities*. Additionally, as analyzed in FEIS Section 4.12, Recreation, the impact of the closure and rerouting of OHV trails on recreation users would be less than significant in the CEQA context. Had impacts been found to be significant to OHV users, changes to the route network would have been appropriate mitigation to reduce the severity of such impacts. However, because the impact was determined to be less than significant under CEQA, route changes are not recommended in the DEIS.

104-05 The commenter states that the DEIS fails to adequately address other ongoing planning efforts. As defined in the NEPA guidelines (40 CFR 1508.25(a)) or Section 6.5.2.1 of the BLM NEPA Handbook (p. 45), there are no "connected actions" associated with the DSSF. The DSSF consists of the solar generation facility, substation, transmission line, communication site and other ancillary facilities, all of which are addressed in the FEIS. Cumulative impacts of the DSSF are discussed in FEIS Chapter 4, *Environmental Consequences*. Concerning the Solar PEIS and the BLM's responsibility to perform a timely environmental review in response to individual applications, see Response to Comment 76-13.

104-06 The commenter states that the BLM failed to inventory the resources before making a decision on impacts to those resources. See Common Response N.4.6, Adequacy *of Analysis*.

104-07 The commenter states that the DEIS fails to provide adequate information to ensure unnecessary degradation to public lands. See Common Response N.4.6, *Adequacy of Analysis*.

104-08 The commenter states that the Purpose and Need Statement and project description are too narrowly construed; expresses concern over compliance with NEPA through the fast-track process; states that the DEIS does not address certain aspects of global climate change; and that the Project's effects on biological resources may "run contrary to an effective climate change adaptation strategy." Regarding Purpose and Need, see Common Response N.4.1. Regarding the fast-track review process, please see Response to Comment 105-13, below. Biological resources at the Project site, and the Project's impacts to habitat fragmentation, connectivity for terrestrial wildlife, predators and invasive weed species are addressed in Sections 3.4, 3.4, 4.3, and 4.4 of the DEIS and the discussion of habitat connectivity has been expanded and clarified in Sections 3.4 and 4.4 of the FEIS.

The Project's emissions of greenhouse gases are acknowledged in DEIS Section 4.5, Climate Change. Clarifying text has been added to this section in the FEIS, referencing mitigation measure in other EIS sections that are relevant to reduction of greenhouse gases. The measures presented in Section 4.2, Air Quality, are particularly relevant. Three Applicant Measures and two Mitigation Measures are presented in the Climate Change section specifically to reduce greenhouse gas emissions.

104-09 The analysis in the DEIS has been supplemented in the FEIS to include additional analysis of the proposed CDCA Plan Amendment. See FEIS Section 2.2.2. Regarding the commenter's concern that the Purpose and Need Statement is too narrow, see Common Response N.4.1, *Purpose and Need*. Concerning the reasonableness of the range of alternatives considered, see Common Response N.4.7, *Alternatives Analyzed*. Concerning the request for recirculation, see Common Response N.4.5, *Recirculation of DEIS*.

104-10 The commenter states that the DEIS does not adequately describe the environmental baseline. See Common Response N.4.6, *Adequacy of Analysis*.

104-11 The commenter states that the DEIS does not fully describe the impacts of the Project on the desert tortoise; notes that more tortoises may be found on the site than expected; that "Category 3" desert tortoise habitat may be import as habitat or connectivity; that tortoises outside the Project boundaries may use habitat within the Project site; that desert tortoise translocation may have further impacts; that compensation lands should be conserved in perpetuity; that short-term and long-term impacts to desert tortoise must be addressed; that compensation should be at a 5:1 ratio; and that the DEIS does not evaluate significance of impacts to desert tortoise.

Sections 3.4 and 4.4 of the FEIS have been clarified to include estimated numbers of desert tortoises that would be affected by each project alternative. These estimates are based on data in Appendix H. Applicant Measure BIO-1 and new Mitigation Measure MM-BIO-2 in the FEIS provide mitigation of impacts to desert tortoise habitat, using ratios based on desert tortoise density and special land use status (DWMA, CHU) rather than the "Category 3" designation. The discussions of wildlife movement and potential project impacts have been clarified and expanded in FEIS Sections 3.4 and 4.4. The Project's impacts to desert tortoise habitat, which would include tortoises found near the Solar Farm boundaries, are described in FEIS Section 4.4 and compensation requirements are described in Applicant Measure AM-BIO-1 and new Mitigation Measure MM-BIO-2. Habitat compensation ratios identified in those measures are based on desert tortoise density and special land use designations, as applicable. Short-term impacts to desert tortoise would be minimized through translocation (Applicant Measure AM-WIL-1 and Mitigation Measure MM-WIL-7 in the FEIS) while long-term impacts would be mitigated through habitat compensation, at ratios described in Applicant Measure AM-BIO-1 and Mitigation Measure MM-BIO-2. The discussion of translocation has been expanded and clarified in FEIS Section 4.4; the final translocation plan, including translocation sites, must conform to USFWS guidelines (AM-WIL-1). Significance of impacts to desert tortoise and other resources have been clarified and analyzed in FEIS Section 4.4. See revisions to DEIS included in FEIS Sections 3.4 and 4.4, and Responses to Comments76-1 through 76-3.

104-12 The commenter states that the DEIS fails to analyze the significance of the impacts of the proposed project on the desert tortoise. See Responses to Comments76-1 through 76-3.

104-13 The commenter states that the DEIS fails to consider impacts to the sand transport system in the Chuckwalla Valley. Additional discussion about this issue has been added to FEIS

Chapter 4.8. As discussed therein, the Project would interfere with sand transport across the site. However, the Project is not directly situated within the Chuckwalla Valley sand transport corridor. Therefore, although sand transport across the site would be blocked, overall reductions in sand transport within the Chuckwalla Valley would be minor, because primary sand transportation corridors would be avoided.

104-14 The commenter states that no fall botanical surveys were conducted prior to the DEIS and that this triggers a need to recirculate the DEIS. The DEIS has been revised in the FEIS to reflect the results of plant surveys conducted in November 2010 to supplement those surveys conducted in the spring. See text revisions in FEIS Sections 3.3.3 through 3.3.5. In consideration of the November surveys, plant surveys have been completed of all Project components during both the spring and fall blooming periods. These surveys provide sufficient information to complete the Project's environmental impact assessment and permitting process. No additional special status plant species were found in the fall survey, and the Project's potential impacts to special status plant species are therefore unchanged from those discussed in the DEIS, which was based on results of previous surveys, including those completed in Spring 2010.

104-15 Recirculation of the EIS is not warranted, as explained in Section N.4.5, *Recirculation of DEIS*. The commenter states that the DEIS fails to adequately address impacts to migratory birds.

Burrowing owl occurrence on the Project site and potential Project impacts to burrowing owls are described in the DEIS in Sections 3.4 and 4.4. The Project is not expected to affect burrowing owl habitat or populations in the agricultural lands surrounding the Salton Sea, cited in the comment. Applicant Measure WIL-3 in the FEIS includes the requirement to create or enhance "at least two natural or artificial burrows per relocated owl." Burrowing owl habitat would be compensated at 13 acres per active burrow. No long-term monitoring of passively relocated burrowing owls is proposed. In addition, several thousand acres of compensation lands for impacts to vegetation and habitat as described in Applicant Measure AM-BIO-1 and Mitigation Measure MM-BIO-2 are expected to serve as suitable foraging habitat for burrowing owls.

104-16 The commenter states that the DEIS fails to analyze impacts to the golden eagle under the Bald and Golden Eagle Protection Act. See Responses to Comments 75-8 and 92-01.

104-17 The commenter states that the project could impact badger territories. Occurrence of American badgers within the Study Area is discussed in Chapter 3.4. Potential impacts to this species are discussed in Chapter 4.4. FEIS Section 4.4.3 has been revised to include Mitigation Measure MM-WIL-1, American Badger Protection Plan.

104-18 The desert kit fox is not State or federally listed at this time; however, Appendix B of the Biological Resources Technical Report prepared by Ironwood Consultants (report found in DEIS Appendix H) lists the desert kit fox as a species of which they found sign. Surveys were conducted to determine whether any special status species were found during surveys of the Project sites. According to the wildlife list table found in their report, a desert kit

fox burrow was observed. As the report focused on special status species, the desert kit fox was not discussed; rather, its presence on the site was documented in the table. All species, common and special status, were documented during all surveys. While the desert kit fox is not listed as a special-status species by the State of California or the USFWS, it is protected from trapping and hunting under Title 14 California Code of Regulations Section 460. These activities are not proposed. However mitigation measure WIL-1 has been added to the FEIS and would include pre-construction surveys and requirements for actions to be taken if dens are found.

104-19 The commenter is correct that cryptobiotic soils are not specifically mentioned in the DEIS. However, such soils are known to occur on older alluvial fan surfaces, along with desert pavement. Both cryptobiotic soils and desert pavement are indicators of older desert soils that have not been flooded by desert washes in thousands of years. Cryptobiotic soils can be expected to overlie older alluvial fan surfaces, indicated by all units other than Qw (modern washes) and Qa3 (late Holocene Alluvium). The likelihood that cryptobiotic soils are present generally increases with the age of the alluvial fan. Additional discussion of cryptobiotic soil crusts has been added in FEIS Chapter 4.8, Geology and Soil Resources. Mitigation measure GEO-2 would minimize potential impacts associated with the loss of cryptobiotic soil crusts.

104-20 The commenter states that the DEIS fails to address insects on the project site. Biological surveys to support NEPA and CEQA analyses usually focus on special-status species and are not intended to be exhaustive inventories of all animals in a project area. Overall, data and analyses in the DEIS covered a broad range of plant and animal taxa, but did not evaluate insects without special conservation status. There are no special-status insect species documented from the vicinity of the Project site (as tracked in the CNDDB). NEPA and CEQA analyses need not address every species or group of species. Nevertheless, the DEIS identified mitigation measures that also would reduce impacts to insects by avoiding or minimizing adverse impacts to their habitat, by setting aside compensation habitat; by revegetating disturbed habitat; or by minimizing adverse habitat impacts by managing potential erosion, water quality, and other impacts.

104-21 Potential impacts to rosy boa are discussed in DEIS Section 4.4. Construction monitoring as required per Mitigation Measure BIO-1 would ensure that these other special status wildlife species are actively or passively relocated if found within the construction areas. Although translocation of rosy boa out of harm's way may result in altered behavior or reduced survivorship, the translocation would reduce potential impacts of substation construction as described in the Section 4.4 of the DEIS and FEIS.

104-22 In the FEIS, a new mitigation measure has been added: MM-BIO-4, *Salvage and Restoration Plan Performance Standards*. This measure supplements Applicant Measure BIO-5, in which the applicant committed to prepare and implement a Vegetation Salvage and Restoration Plan. See also Response to Comment 108-4.

104-23 The discussion in the DEIS of potential wildlife movement in the upper Chuckwalla Valley has been expanded and clarified in FEIS Section 3.4.5, and now includes a description of

the California Essential Habitat Connectivity Project and other biological connectivity modeling pertinent to the area. Description of the Project's potential impacts to wildlife movement in Section 4.4.3 has also been expanded and clarified in the FEIS.

104-24 The commenter states that late summer/early fall surveys for rare plants must be performed. Floristic surveys were conducted between March 15 and April 9, 2010 and November 8th through November 12, 2010, within the Project Study Area and thus all of the Project areas currently under consideration have been fully surveyed. These surveys were conducted at a time that did not allow the findings to be included in the DEIS. No additional special-status species were observed from those identified in the DEIS. Section 3.3.2 in the FEIS has been amended to reflect that these surveys were conducted. The survey information has also been added to Appendix H.

104-25 The commenter states that the DEIS failed to adequately identify appropriate mitigation measures. See Common Response N.4.6, *Adequacy of Analysis*.

104-26 The commenter states that the DEIS failed to evaluate impacts to Waters of the State. EIS Table 4.3-5 summarizes the direct impacts of each alternative on CDFG jurisdictional resources (also known as waters of the State). The effects of the Project on these resources are defined in FEIS Section 4.4.3 under the heading *Jurisdictional Resources*.

104-27 The commenter states that the DEIS should have addressed federal reserved water rights. See Response to Comment 129-8. The Project is not anticipated to interfere with federal water rights associated with the Colorado River. Public Water Reserve 107 would not apply to the proposed Project. No springs or water holes would be appropriated or precluded from use for public use by the proposed Project.

104-28 The commenter suggests that the analysis of cumulative impacts in the DEIS as it relates to GHG emissions is inadequate. Mitigation for GHG emissions are contained in DEIS Chapter 4.5, Climate Change. Specifically, measures AM-AIR-3 and AM-AIR-4 would minimize GHG emissions from grading and other onsite construction activity; AM-AIR-5 would reduce GHG emissions from construction worker driving trips; MM-AIR-1 would support the use of newer, more efficient construction machinery; and MM-AIR-2 would reduce hauling trips required during construction. Additionally, the Project as a whole would result in a net reduction in GHG emissions, as compared to current power grid suppliers that use fossil fuels, which the Project would displace. Therefore, consideration of additional alternatives or additional mitigation for GHG emissions is not warranted.

104-29 See Response to Comment 104-10.

104-30 The commenter questions the adequacy of the alternatives analysis in the DEIS based on the statement of Purpose and Need. See Common Response N.4.1, *Purpose and Need*, and Common Response N.4.7, *Alternatives Analyzed*.

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105-01 The commenter is concerned about impacts related to the decommissioning of the renewable energy projects in the desert. As stated in FEIS Section 2.4.3, a Decommissioning Plan would be prepared as part of the proposed action and put into effect when permanent closure occurs. As described, the procedures provided in the Decommissioning Plan would be developed to ensure compliance with applicable laws, ordinances, regulations, and standards, and to ensure public health and safety and protection of the environment. Given that decommissioning would not be expected to occur within the next 30 to 40 years, it would be speculative at this time to guess what precise provisions would be included. Also as indicated in FEIS Section 2.4.3, the Decommissioning Plan would be developed in coordination with the BLM and require BLM approval prior to implementation. The Decommissioning Plan would address decommissioning and reclamation measures for the DSSF and associated facilities; activities necessary for site restoration/re-vegetation if removal of equipment and facilities is needed; procedures for reuse, recycling or disposal of facility components, collection and disposal of hazardous wastes and use or disposal of unused chemicals; and conformance with applicable LORS, and BLM review and approval would be required before the plan would be implemented. In the event the decommissioning plan differs from the expectations stated in the FEIS in a way that would cause new or more intense impacts than would result from a plan reflecting the expectations in this FEIS, subsequent environmental review would be required.

With regard to infrastructure damage, a geotechnical investigation for the proposed Project would be completed before final design and construction of the Project. The geotechnical investigation would be required to comply with current building code standards that would ensure that poles and all infrastructure components are designed and constructed accordingly. Furthermore, as discussed in DEIS Section 2.4, routine maintenance would include equipment testing, equipment monitoring and repair, as well as emergency and routine procedures for reliability and preventive maintenance. These activities would ensure project infrastructure is properly maintained and repaired/replaced if necessary.

105-02 The commenter is concerned about the disposition of hazardous materials once the Project no longer is operational. First Solar set up its recycling program in 2005 and, consistent with the program, all recycled materials would be used for new products including new panels. See also Common Response N.4.9, *Cadmium Exposure.*

105-03 Potential project-related effects on local land uses and property values are discussed in Common Response N.4.8, *Property Value*.

105-04 As described in FEIS Section 4.10.3, Operations and Maintenance for Solar Farm Layout B, transformers at the power converter stations (PCS) would produce low levels of noise during facility operations; however, this noise would be limited to daytime hours when the solar arrays would be generating electricity. Each of the 550 PCSs would have one transformer mounted on a concrete pad that is estimated to generate noise at 65 dBA at a distance of 10 feet. This noise level would be reduced to a 50 dBA at a distance of 56 feet,

to 40 dBA at a distance of 178 feet, and to 35 dBA at a distance of 312 feet. The PCS stations would generate little audible noise beyond the solar farm boundary line during daytime hours and would not be a source of noise during nighttime hours. Therefore, there is no need for mitigation to protect the public from PCS station transformer noise.

105-05 The comment raises a concern about dust impacts to jojoba during pollination times and resulting impacts to the local economy. First Solar has confirmed to BLM that it would be feasible to apply dust palliatives to the Solar Farm Site to control operational dust emissions. Dust control would address the commenter's concern.

105-06 The commenter is concerned about dust-related impacts to plants. First Solar has confirmed to BLM that it would be feasible to apply dust palliatives to the Solar Farm Site to control operational dust emissions. FEIS Section 4.2.3, Alternative 1- Proposed Action, has been revised under the discussion of Operation and Maintenance for Solar Farm Layout B to reflect this commitment.

105-07 The commenter is concerned about EMF impacts to residences/farms, flora and fauna. As indicated in FEIS Chapter 3.11, measurable EMFs are not present except in the vicinity of existing power lines corridors. Where possible, proposed and alternative gen-tie lines would be placed in these existing transmission corridors. With regard to EMF impacts to agricultural uses, as discussed in DEIS Section 4.9, transmission line infrastructure would not result in a significant impact because transmission lines generally are consistent with agricultural uses with the exception of dairy operations; however, no dairy operations occur in the vicinity of the project. See also Common Response N.4.10, *EMF Exposure*.

105-08 The commenter is concerned about the creation of a micro-climate with elevated temperatures in the Project area. See Responses to Comments 69-17 and 70-1. Microclimate temperature effects outside of the boundary of the Project site are not anticipated, and no mechanism for the creation of such a change has been identified.

105-09 Applicant Measure(AM)-BIO-2 would be implemented to reduce the potential for introduction of invasive plant species as discussed in DEIS Section 4.3. AM-BIO-2 requires an Integrated Weed Management Plan (IWMP) (Ironwood Consulting 2010b) to be prepared pursuant to BLM's Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States (BLM 2007) and the National Invasive Species Management Plan (The National Invasive Species Council 2008), and would be implemented by the Applicant to reduce the potential for the introduction of invasive species during construction, operation and maintenance, and decommissioning of the Project. The draft plan is provided in DEIS Appendix H and would be reviewed and approved by the BLM. See also Response to Comment 28-09.

105-10 The commenter is concerned about the creation of noxious weed impacts on disturbed lands See Response to Comment 105-9.

105-11 The commenter is concerned about water use impacts of the Project. BLM acknowledges the commenter's concerns. Additional mitigation has been added to FEIS Chapter 4.17, under the Applicant Measures and Mitigation Measures subsection in regard to the solar

array field. The additional measures would address the potential effects of the Project on nearby groundwater wells.

105-12 Concerning the reasonableness of the range of alternatives, see Common Response N.4.7.

105-13 The commenter requests clarification of the relationship between agency compliance with NEPA/CEQA and the fast-track process. In response to this comment, the following definition has been added to the Glossary: "Fast-track projects are those where the companies involved have demonstrated to the BLM that they have made sufficient progress to formally start the environmental review and public participation process. These projects are advanced enough in the permitting process that they could potentially meet deadlines for economic stimulus funding under the American Recovery and Reinvestment Act of 2009. The fast-track process is about focusing BLM staff and resources on the most promising renewable energy projects, not about cutting corners, especially when it comes to environmental analyses or opportunities for public participation."

105-14 Concerning the reasonableness of the range of alternatives, see Common Response N.4.7.

105-15 The commenter expresses regional environmental justice concerns. The comment is largely beyond the scope of the DEIS's environmental justice analysis. The DEIS's environmental justice analysis is limited to evaluating the potential Project-related impacts to minority and low-income populations within the project's vicinity. Out of region residents are beyond the appropriate affected environment for the analysis of impacts of the proposed Project.

105-16 The commenter is concerned over the lack of KOPs on private properties. See Common Response N.4.4, *Adequacy of Key Observation Points (KOPs) and Simulations*.

105-17 The commenter is concerned about cultural resource impacts and consultation with Native Americans. Chemeheuvi, Serrano, Mojave, and Cahuilla tribes have been invited to participate in consultations on all issues of concern to them pertaining to the proposed action. The BLM welcomes and will consider the views of Native American tribes regarding the evaluation and treatment of cultural resources and disposition of archaeological materials recovered during testing and data recovery. BLM will seek to accommodate the wishes of tribes with regard to the curation of recovered materials to the extent they are consistent with the requirements of the Archaeological Resources Protection Act, the Native American Graves Protection and Repatriation Act, and Title 36 Code of Federal Regulations Part 79.

105-18 The commenter is concerned about impacts to local wells from development of a Project well or use of a local commercial well. There is no evidence that the volume of water proposed by the Applicant for use during construction is unreasonable or understated. The analysis in DEIS Section 4.17.3 evaluates water models and well data, concluding that the proposed water use, including construction use, would not affect other users of the aquifer. An evaluation and impact assessment regarding the volume of water that would be consumed during Project construction and operation is presented in DEIS Chapter 4.17, Water Resources. Anticipated groundwater budgets, as well as results from modeling analyses that were completed for the Project, are shown in Tables 4.17-1 and 4.17-2,

respectively. Associated levels of impact to groundwater are discussed for direct and cumulative impacts are discussed in Chapter 4.17. In terms of rainwater percolation, implementation of the Project is not expected to substantially reduce percolation of rainwater into groundwater. The proposed solar panels would be elevated above the ground surface. Rain falling on the panels would run off the bottom edge of the panels and fall to the ground. Sediments at the ground's surface around the solar arrays would be decompacted, as discussed in Chapter 4.17. As discussed in the DEIS, decompaction would support infiltration on site and would reduce impacts to groundwater recharge and runoff. Proposed roadways, buildings, and other impervious surfaces would be limited in extent. As discussed in Chapter 4.17, total surface runoff from the Project site would be increased by only minimally (1.2 percent for the 100-year storm, and by 2.8 percent for the 10-year storm). To further reduce stormwater runoff and support infiltration, Project mitigation has been updated to require the increases in runoff are maintained at less than a 1 percent increase, for 100-year and 10-year events (MM-WAT-7 in Section 4.17). Finally, stormwater discharge from the Project site would be released to downstream areas. The proposed Project would not alter the capacity of desert soils in downstream areas to infiltrate water. Therefore, no reduction in infiltration downstream of the Project site is anticipated, and, as discussed in DEIS Chapter 4.17, potential reductions in groundwater recharge would be minimal. In regard to other proposed projects, a cumulative analysis of all reasonably foreseeable and relevant projects in the vicinity of the Project is contained in the cumulative analysis in Chapter 4.17.

105-19 The commenter is concerned over the denuding of the desert. A discussion of existing vegetation resources in contained in DEIS Chapter 3.3, Vegetation Resources. As discussed therein, only select plant species rely on a continuous connection to groundwater for survival. Therefore, the denuded situation indicated by the commenter is not anticipated, and associated arsenic exposure is not anticipated. Potential effects of drawing down the groundwater basin on ironwood and other plants that do rely on groundwater are discussed in Chapter 4.3, Vegetation Resources. As indicated, these communities are unlikely to be substantially impacted as a result of the projected drawdown that would occur, as a direct result of implementing the proposed Project. See also Response to Comment 112-22.

105-20 The commenter would like the CDCA Plan Amendment to protect the 19,000 acres avoided by the proposed Project.

As discussed in the DEIS Chapter 1, the Applicant established a Project Study Area of over 19,000 acres to evaluate a reasonable range of alternatives. Once the Study Area was chosen, the Applicant conducted preliminary biological, cultural, hydrological and geological reviews to evaluate site conditions and eliminate areas of the Project Study Area considered unsuitable for development of Project facilities. Based on the preliminary studies, more thorough and detailed biological, cultural, hydrological, and geological studies were conducted on those portions of the Project Study Area considered suitable for development which resulted in the alternatives analyzed in the DEIS. Since the remaining portions of the Project Study Area were determined unsuitable for development

of the DSSF, it is unlikely that they would be considered suitable for development of another solar facility using today's technology.

Note also that the alternative suggested in this comment is within the range of alternatives already analyzed in the EIS. Specifically, No Action Alternative 5 is similar to the suggestion made in this comment. As defined in Section 2.2.2, this alternative would result in:

> No Issuance of a Right-of-Way Grant with Land Use Plan Amendment to Identify the Area as Unsuitable for Solar Energy Development – The CDCA Plan of 1980, as amended, would be amended to identify the Project application area as unsuitable for any type of solar energy development, and the Project would not be approved.

Therefore, the FEIS evaluates an alternative that addresses the commenter's concerns, and so no further analysis is required.

105-21 The commenter is concerned about impacts to the golden eagle in the Project area. See Responses to Comments 75-8 and 92-01. Mitigation Measure BIO-2 has been revised to include mitigation for loss of golden eagle foraging habitat. AM_BIO-1 requires that golden eagle foraging habitat of equal or greater value is preserved and/or created and managed to ensure the Project does not jeopardize golden eagle existence or adversely modify its critical habitat. The fulfillment of mitigation measure BIO-2 and AM-BIO-1 would be reviewed and approved by USFWS.

105-22 The commenter is concerned over local mining impacts related to obtaining gravel for the Project and about impacts to housing from the proposed Project. It is unclear to which portion of the DEIS the commenter is referring with respect to gravel potentially being obtained on site. Chapter 2, Project Description, indicates that earth moving and grading would be managed so that required fill materials are obtained on site. The same chapter also indicates that, "existing sand and gravel are expected to support construction traffic." However, this refers to naturally existing gravels that occur along the gen-tie line alignment, not to gravel that would be excavated or imported. The Project would not quarry gravel on site.

105-23 See Common Response N.4.11, *Construction Employment*.

105-24 The commenter is concerned about impacts to law enforcement with the influx of construction workers. Construction activities would be temporary and are not expected to be a significant impact to law enforcement resources. Further, workers would go through extensive training to minimize impacts to the local wilderness areas from illegal off-road travel.

105-25 The commenter is concerned with impacts to emergency services providers due to the remote nature of the Project. Concerning the distance and capacities of first responder fire services, as discussed in DEIS Section 4.13, the fire prevention plan that would be in place during construction of the Project would minimize the demand that this construction would place on the California Department of Forestry and Fire Protection. Further,

mitigation measure AM-HAZ-9 would require all Project facilities to be designed, constructed and operated in accordance with applicable fire protection and other environmental, health and safety requirements. In compliance with County of Riverside requirements, a project-specific fire prevention plan for both construction and operation of the substation would be required of SCE prior to initiation of construction. This plan would provide detailed information in the event of an emergency such as a facility fire. All elements of the proposed facility would be constructed in accordance with electrical building code requirements which include safety measures to minimize the potential for accidental fires. In addition, the solar panel modules are constructed primarily of glass and do not contain much in the way of flammable materials. The melting point of CdTe is 1,041 degrees Celsius which would require a substantial sustained fire to volatilize the CdTe that is encapsulated within the modules. The Applicant and SCE would use the CPUC General Order 95 and 165, as related to fire-safe design and maintenance practices for transmission lines, to establish minimum requirements for the Project including inspection, condition rating, scheduling and performance of corrective action, record keeping and reporting, in order to ensure a safe and high-quality electrical service.

105-26 Sale of the Project to a different company in the future would require that the new owner comply with all mitigation measures, applicant measures, and permit conditions as would apply to the initial applicant. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

Letter - 106.

106-01 Concerning the reasonableness of the range of alternatives considered in the DEIS, see Common Response N.4.7, *Alternatives Analyzed*.

106-1A Commenter expresses concern about the Project's potential direct and indirect impacts to desert dry wash woodlands, site hydrology, desert tortoise, air quality, groundwater, and cumulative effects of numerous large-scale solar projects in the Chuckwalla Valley. The comment is acknowledged, and the commenter is referred to FEIS Sections 4.3, 4.17, 4.4, 4.2, 4.17, and Chapter 4, respectively, where the EIS identifies impacts to each identified resource that are substantially reduced through implementation of mitigation measures. In particular, mitigation measures to protect desert dry wash woodland and desert tortoise, and surface and groundwater resources have been clarified and enhanced to ensure protection of resources. As this EIS may serve in lieu of an EIR for the purpose of State and local agency decision-making, impact significance was also evaluated against CEQA thresholds: Impacts to desert dry wash woodland, desert tortoise, surface hydrology, groundwater, and most cumulative impacts would be reduced to a less-than-significant level with implementation of these clarified and enhanced mitigation measures. Impacts to air quality would remain substantial (significant under CEQA) despite implementation of mitigation.

106-02 The commenter urges the BLM to adopt Reduced Acreage Alternative 3 to protect desert tortoise. See Common Response N.4.7, *Alternatives Analyzed*. Note also that the Applicant has proposed certain Project modifications, one of which is to reduce the footprint of the Solar Farm Layout B by approximately 330 acres. This and other proposed modifications are described in FEIS Chapter 2. Impacts associated with the modifications are analyzed in FEIS Chapter 4, Environmental Consequences.

106-03 The commenter is concerned about the Project's potential to increase erosion. BLM recognizes EPA's concerns regarding the potential of the Project to result in disruption to natural drainages upstream and downstream of the Project. In regard to the proposed soil de-compaction technique, Chapter 4.17 of the DEIS provides an evaluation of this technique and its efficacy in minimizing additional stormwater discharges from the Project site. BLM recognizes that even with implementation of such measures, additional erosion and stormwater impacts may be anticipated. Therefore, additional mitigation has been added to the DEIS, including construction and operation period stormwater and stormwater quality control measures including, but not limited to, deployment of water quality Best Management Practices (BMPs), additional measures to minimize stormwater flows, sizing and design requirements to ensure that flood control facilities are capable of handling flood conditions without causing erosion or other deleterious effects, and various operation period water quality control measures. These additional measures would ensure protection of onsite and offsite water quality from erosion, sedimentation, and other pollution during Project construction and operation. Additional measures, such as maintaining natural vegetation underneath the solar panels, are still under feasibility review by the Project Applicant. However, the current suite of mitigation would ensure that potential effects on erosion, sedimentation, and water quality are minimized during construction and operation.

106-04 The commenter suggests that the FEIS should quantify potential impacts to Waters of the U.S. Recently-approved delineations indicate that no Waters of the U.S. are present on the Project site. Chapter 4.17 of the DEIS has been updated in the FEIS accordingly. To address potential water quality degradation in the absence of NPDES permitting requirements, additional mitigation measures have been added to FEIS Chapter 4.17 that would restrict and minimize water quality discharges during construction and operation. See also Response to Comment 106-3.

106-05 The commenter suggests that the BLM and Applicant work with the USFWS to identify habitat compensation lands. The text of the DEIS has been revised in the FEIS to include new Applicant and Mitigation Measures that require protection, management, restoration and salvage plans that meet the requirements of the federal and State ESA. The revised text can be found in FEIS Section 4.3.3 and Section 4.4.3. See especially Mitigation Measure BIO-2, which addresses processes and requirements related to identification and acquisition of compensation lands. New MM BIO-2 (Off-site compensation) defines procedures for coordination with USFWS and CDFG in the definition of appropriate compensation lands.

The commenter also requests additional analysis of indirect and cumulative impacts to biological resources, groundwater and air quality. These issues are fully addressed in Chapter 4 for each discipline. The biological resources analysis is particularly detailed, with consideration of past, present and reasonably foreseeable future projects evaluated in the region. Additional analysis is not warranted.

106-06 The commenter recommends requiring more stringent air quality mitigation measures, phased construction, and coordination among multiple renewable energy project construction schedules to minimize adverse air quality impacts in the region. In response, mitigation measures for air quality have been designed to minimize air quality impacts to the maximum extent feasible (see FEIS Section 4.2.) Phased construction already is planned for the Project, and air emissions would be spread roughly evenly over a 26-month construction timeline (see AM-AIR-2). It is unclear how coordinating multiple construction schedules would benefit to air quality. Only substantial slowdowns in construction timelines would substantially benefit air quality; however, such slowdowns would be expected to render the proposed renewable energy projects economically infeasible.

106-07 The commenter is concerned about the lack of disturbed or private land alternatives. See Common Response N.4.7, *Alternatives Analyzed*.

106-08 The commenter recommends that the FEIS address the need for a Clean Water Act Section 404 permit. Based on completed consultation with the U.S. Army Corps of Engineers, the Project would not require a Section 404 permit. Text has been added in the FEIS to reflect the results of this recent determination. Additional mitigation also has been added. See Response to Comments 106-3 and 106-4.

106-09 The commenter recommends that the Project avoid, minimize and/or mitigate impacts to Waters of the U.S. See response to Comment 106-8.

106-10 The commenter recommends that the Project avoid, minimize and/or mitigate impacts to aquatic features that are not waters of the U.S. and that the BLM consider availability of compensation lands within the Chuckwalla Valley. Regarding the first subject, see Response to Comments 106-3 and 106-4. Please also note that the USACE has determined that there are no waters of the Unites States within the Project area (see FEIS Section 3.3.7. Regarding the location of available compensation lands and preference for a Chuckwalla Valley location, MM-BIO-2 has been revised in the FEIS. Compensation lands must be located within the NECO planning area and within the Eastern Colorado Desert Tortoise Recovery Unit (designated in the USFWS Desert Tortoise Recovery Plan).

106-11 The commenter is concerned about the effectiveness of proposed drainage control features. The DEIS evaluated the effectiveness of the proposed stormwater/drainage control features in Chapter 4.17, Water Resources, under the Drainage and Surface Water subheader of Section 4.17.3 and in Appendix G. Additionally, to ensure that sufficient mitigation is included in the Project design to minimize hydrologic change, the implementation of applicant measures and mitigation measures (including MM-WAT-7)

has been updated in the FEIS to specify that 10-year and 100-year flows shall be reduced to a magnitude of no greater than 1 percent of existing conditions.

106-12 The commenter recommends that the FEIS quantify the acreage that would not require clearing and grading. This is discussed in FEIS Chapter 2. The Applicant has proposed a different grading methodology that would reduce potential impacts. The methodology is described in detail in FEIS Chapter 2 and analyzed in Chapter 4.8, Geology and Soils.

106-13 The commenter suggests that the FEIS should include the results of the final hydrology report. The DEIS contains an evaluation of the effects of the proposed components on site hydrology in Section 4.17.3, concerning water resources, with additional details contained in DEIS Appendix G. Additional mitigation measures have been applied, as discussed in Response to Comment 106-11. Erosion and sedimentation is not expected to occur off-site as a result of construction or operation; discharge points for retention basins would be determined during final engineering, and would comply with all applicable County, State and Federal water quality regulations.

106-14 The commenter recommends that more detail be provided on the proposed fencing plan. Impacts of perimeter fencing are discussed in FEIS Section 4.4, Wildlife. Mitigation Measure WAT-5 (in Section 4.17.3) has been revised to ensure protection of desert tortoise and other wildlife by requiring that the fencing not be installed in major drainages or washes. Consequently, the fencing also would not to interfere with stormwater, flood or sediment flows.

106-15 The commenter requests additional data and analysis regarding water use, and states that the FEIS should confirm the approved water source. As discussed in DEIS Chapter 4.17, Water Resources, construction of the Project would rely on groundwater for water supply. Section 4.17.9, Cumulative Impacts, contains an evaluation of the potential for the Project, in combination with other projects including those mentioned by the commenter, to withdraw groundwater from the CVGB, resulting in cumulative groundwater drawdown. As discussed therein, the Project would cause drawdown only during the construction period, and would contribute only toward 6.5 percent of the drawdown, and so would not contribute a cumulatively considerable reduction in groundwater levels in the basin. No further analysis is warranted. See revised Section 4.3, Vegetation, for discussion of groundwater dependent plants: MM-BIO-5 would establish groundwater monitoring and pumping limits. With regard to the comment on wildlife movement, the DEIS discussion has been expanded in FEIS Section 4.4.3.

106-16 The comment states concerns about impacts to groundwater basins. Additional mitigation, similar to that provided for the Palen Solar Power Project, has been incorporated into the FEIS to ensure that groundwater quality would be protected. Additional discussion of groundwater resources relevant to the Colorado River has been added to FEIS Chapter 4.17. Appendix O, *Accounting Surface Technical Memorandum*, provides further analysis of Colorado River water rights. See also, Responses to Comments 101-03 and 129-08.

106-17 The commenter recommends consultation with the USFWS, which has jurisdiction over threatened and endangered species listed under the Endangered Species Act (ESA) (16 U.S.C. Section 1531 et seq.). Formal consultation with the USFWS under Section 7 of the ESA is required for any federal action that may adversely affect a federally listed species, and is ongoing for this Project. This is stated in Section 4.3 in the analysis of alternatives. The USFWS is expected to issue a Biological Opinion (BO) that specifies mitigation measures, which must be implemented for any protected species. As design changes are often a result of the EIS review process (such as reduced or altered project footprint), the timing of the BO is such that it usually follows or runs concurrently with the EIS preparation to ensure that it addresses these changes. Per ESA Section 7, the Applicant and BLM would be required to consult with the USFWS thereby ensuring protection of special status species with the potential to occur in the Study Area. The Biological Opinion would be referenced in and attached to the Record of Decision. Each of the individual species (northern harrier, golden eagle, burrowing owl) identified in the introductory comments that precede this recommendation are addressed in the FEIS.

106-18 The commenter recommends the reduced acreage alternative and a gen-tie route that affects the least desert tortoise, selected with input from USFWS. See Responses to Comment Letter 108 (USFWS). Concerning a reduced solar farm footprint, see Common Response N.4.7. See also, Response to Comment 106-02. The comparison of alternatives is more fully presented in EIS Appendix C, Section C.2 *CEQA Comparison of Alternatives*. DEIS Section 4.4, Wildlife, has been expanded in the FEIS to provide additional data on tortoise affected by the various alternatives, and identifies that Substation B would have substantially more adverse effects on wildlife movement due to its location in a narrow area between the base on the mountains and the freeway.

106-19 Applicant Measure (AM) BIO-1 and new Mitigation Measure BIO-2 give the current detail on habitat compensation for the DSSF and further information can be found in the Habitat Compensation Plan, provided as FEIS Appendix H. The Habitat Compensation Plan must be approved by BLM, CDFG and USFWS. Based on information obtained during agency consultation, it is anticipated that sufficient compensatory mitigation lands are available in the appropriate areas to fulfill habitat acquisition requirements even after the Palen, Blythe, Genesis and other projects have satisfied their mitigation requirements. Further, sufficient controls and criteria are included in the mitigation measure to ensure that appropriate habitat is found. The percentage of development within the Chuckwalla DWMA is specified for each alternative in DEIS Section 4.4.9, Impact WIL-5 Wildlife Management Areas and Critical Habitat.

The selection criteria and funding options for compensation lands are fully disclosed in MM-BIO-2, which has been added in the FEIS. In accordance with the requirements of MM-BIO-2, lands must be protected in perpetuity. BIO-2 also requires that management plans for acquired parcels would be developed, implemented and approved by appropriate resource and land management agencies.

BLM's current land management policy does not allow exclusion of the non-developed portion of the ROW as project-specific mitigation, as this land is still BLM-administered

land that would have to be evaluated for development potential. In order for BLM to protect this land from future development, a separate proposal, with its own NEPA analysis, would have to be considered. Such an action is not within the scope of this EIS or the proposed action currently being considered.

106-20 The fourth, sixth, and seventh bullets of the suggested mitigation have been incorporated into Mitigation Measure MM-AIR-4, with slight revisions in some cases to insure feasibility and to provide flexibility in implementation. The intent of the first two bullets of the suggested mitigation are covered by applicant measure AM-Trans-1 (see FEIS Section 4.15). The third and fifth suggested mitigation bullets are not applicable to the Project given the Project's remote location and the specifications of the proposed construction plan.

106-21 The commenter has provided additional mitigation recommendations for fugitive dust. The recommended mitigation measure has been included in the FEIS to replace DEIS Mitigation Measure MM-AIR-1.

106-22 The commenter recommends that the FEIS discuss cumulative air quality impacts. Additional explanation of the likelihood of overlapping cumulative project effects has been added to the DEIS in FEIS Section 4.2.9. The Geographic Extent also is identified in Section 4.2.9 and found to be most pronounced within 0.5 mile of sites, which greatly reduces the potential for impact overlap during the various construction activities.

106-23 The commenter requests that the FEIS address impacts of climate change on the Project. DEIS Chapter 4.5, Climate Change, has been updated in the FEIS to analyze such effects as relevant to mitigation habitat values and vegetation and wildlife resources. A brief discussion regarding reclamation and restoration efforts is included with the discussion of the effects of climate change on plant and wildlife resources, as relevant to the Project. No further analysis is warranted.

106-24 The commenter suggests that the FEIS should reflect a purpose and need statement broad enough for analysis of a wide range of alternatives. Concerning the purpose and need statement in the DEIS, see Common Response N.4.1. Concerning a reasonable range of alternatives in the DEIS, see Common Response N.4.7.

BLM's authority relating to rights-of-way is derived from Title V of the Federal Land Policy and Management Act (FLPMA) of 1976 (43 U.S.C. 1761-1771) and the implementing regulations at 43 CFR 2800. BLM policy requires that upon the filing of an application, the Applicant must be notified whether the (1) application is complete and the estimated time required for processing; (2) the application is incomplete and requires additional information; or (3) the application is denied.

BLM may deny an application if: (1) the proposed use is inconsistent with the purpose for which BLM manages the public lands described in the application; (2) the proposed use would not be in the public interest; (3) the applicant is not qualified to hold a grant; (4) issuing the grant would be inconsistent with FLPMA, other laws, or the implementing or other regulations; (5) the applicant does not have or cannot demonstrate the technical or

financial capability to construct the project or operate facilities within the right-of-way; or (6) the applicant does not adequately comply with a deficiency notice or with any BLM requests for additional information needed to process the application (43 CFR 2804.26).

BLM also may modify a proposal or impose terms and conditions necessary to: (a) carry out the purposes of FLPMA and the rules and regulations issued there under; minimize damage to scenic and esthetic values and fish and wildlife habitat and otherwise protect the environment; require compliance with applicable air and water quality standards established by or pursuant to applicable Federal or State law; and require compliance with State standards for public health and safety, environmental protection, and siting, construction, operation and maintenance of rights-of-way for similar purposes if those standards are more stringent than applicable Federal standards; and (b) protect Federal property and economic interests to; manage efficiently the lands that would be subject to the ROW or adjacent thereto and protect the other lawful users of the lands adjacent to or traversed by the ROW; protect lives and property; protect the interests of individuals living in the general area traversed by the ROW who rely on the fish, wildlife, and other biotic resources of the area for subsistence purposes; require location of the ROW along a route that will cause the least damage to the environment, taking into consideration feasibility and other relevant factors; and otherwise protect the public interest in the lands traversed by the right-of-way or adjacent thereto. 43 USC 1765.

Individual ROW applications are considered separately; thus, two applications submitted by the same applicant or its corporate owner would be considered independently based on the independent merit of each. A decision whether to grant one of the applications would be made independently of whether to grant the other.

The BLM will weigh its decision on DSSF based on feasibility and environmental considerations consistent with its role in managing the public lands in accordance with FLPMA, NEPA and other applicable statutes and authorities as identified in Table 1.4-1. NEPA does not require the completion of a quantified lifecycle cost analysis in order to evaluate relative impacts and the BLM does not require the preparation of a cost benefit analysis or a fiscal impact statement. These are more typically done by the applicants prior to considering the use of public lands for projects. Additionally, reviewing such information would not affect the size and scope of the project, or its impacts, nor would it improve the analysis of the alternatives in such a manner as to make one more feasible than another.

As indicated in FEIS Section 1.2.1, BLM's actions in response to the Project include consideration of amending the CDCA Plan of 1980, as amended. The CDCA Plan, while recognizing the potential compatibility of solar generating facilities on public lands, requires that all sites associated with power generation not identified in the plan be considered through the land use plan amendment process. Amendments to the CDCA Plan can be site-specific or global, depending on the nature of the amendment. The CDCA Plan has been amended numerous times since it was first approved either as a result of site-specific need or development of other land use plans. The NECO Plan amended the CDCA plan in 2002 to make it compatible with desert tortoise conservation and recovery efforts. The NECO Plan

is a landscape-scale planning effort that covers most of the California portion of the Sonoran Desert ecosystem, including over five million acres and two desert tortoise recovery units. No NECO Plan amendment is proposed as part of this action.

106-25 The commenter suggests that the FEIS discuss how the concerns of the tribes have been addressed. Sections 3.6 and 4.6 state that tribes have not identified any sacred sites or other places of traditional cultural or religious importance that would be affected by the proposed action. Consultation with tribes is ongoing, and tribes will continue to have opportunities to express concerns during the NEPA and Section 106 compliance processes. The extent to which tribes participate in the Section 106 consultation under the PA will determine whether resolution of adverse effects is satisfactory to the tribes; consultation will be documented as part of the Section 106 compliance process. Section 106 compliance will be completed prior to issuance of the ROD. Measures prescribed in the PA to resolve adverse effects would be adopted in the ROD.

106-26 The commenter states that the FEIS should address Executive Order 13007. Language addressing EO 13007 has been added to FEIS Section 3.6. As stated in Response to Comment 106-25, the tribes have been consulted and have not identified any sacred sites or other places of religious importance that would be affected by the proposed action. Further, mitigation measure MM-CUL-9 in section 4.6 requires BLM to continue consulting with tribes to identify sacred sites that might be affected by the Project and, if such sites are identified, to consult further with tribes to resolve access impediments or other identified impacts.

106-27 The commenter recommends that the FEIS address impacts from the influx of workers in to the project area. Potential construction employment effects on the local area are discussed in Common Response N.4.11, *Construction Employment*.

Letter - 107.

107-01 The term "Gen-Tie" or "interconnection" line has replaced the generic reference "transmission" line throughout the document, as appropriate.

107-02 The text has been updated as indicated in the comment.

107-03 The text has been updated as indicated in the comment.

107-04 Text has been added stating that the Project is "predominantly within the Riverside County's Desert Center Planning Area."

107-05 The text has been updated as indicated in the comment.

107-06 The table has been updated accordingly.

107-07 The text has been updated as indicated in the comment.

107-08 The text has been updated as indicated in the comment.

107-09 The text has been updated as indicated in the comment.

107-10 The text has been updated as indicated in the comment.

107-11 The text has been updated accordingly.

107-12 The text has been updated as indicated in the comment.

107-13 The text has been updated as indicated in the comment.

107-14 The text has been updated as indicated in the comment.

107-15 Text has been modified.

107-16 The text has been updated as indicated in the comment.

107-17 As stated in the FEIS, the PV modules would be recycled in accordance with First Solar's recycling program, which was initiated in 2005. The disposal of wastes referred to in the comment pertains to other (construction-related) wastes such as wood, concrete and miscellaneous packaging materials.

107-18 Updated figures that were previously in gallons to show acre-feet.

107-19 Comment noted and text changed as suggested.

107-20 Additional information noted in the FEIS.

107-21 Refer to Response to Comments 76-1 through 76-3.

107-22 The text has been updated as indicated in the comment.

107-23 The text has been modified to include language regarding large scale projects.

107-24 For discussion of fugitive dust emissions that would be associated with construction and operations of the Proposed Action, see FEIS Sections 4.2.3 and Appendix D-6.

107-25 The requested changes were made to the DEIS.

107-26 The requested changes were made to the DEIS.

107-27 The requested changes were made to the DEIS.

107-28 The requested changes were made to the DEIS.

107-29 All surveys for rare plants should be conducted in accordance with the standardized guidelines issued by the regulatory agencies (U.S. Fish and Wildlife Service 1996, California Department of Fish and Game 2000) and the California Native Plant Society (2001). Under these guidelines the terms "historically" and "typically" have separate connotations. Thus, the requested edit was not made.

107-30 Sentence has been deleted.

107-31 Text has been added per request.

107-32 The indicated section of the DEIS has been updated in the FEIS to more clearly disclose the extent of CDFG jurisdiction over the ephemeral desert washes in the Project area. Note that the CDFG jurisdiction is also defined in: Streambed Alteration Agreements, California Fish and Game Code, Sections 1600 – 1616. Under these sections of the Fish and Game Code, CDFG jurisdiction is determined to occur within the water body of any natural river, stream or lake. The term "stream", which includes creeks and rivers, is defined in Title 14, California Code of Regulations Section 1.72. The applicant is required to notify CDFG prior to constructing any project that would divert, obstruct or change the natural flow, bed, channel, or bank of any river, stream, or lake. Preliminary notification and project review generally occur during the environmental process. When an existing fish or wildlife resource may be substantially adversely affected, CDFG is required to propose reasonable project changes to protect the resource. These modifications are formalized in a Streambed Alteration Agreement that becomes part of the plans, specifications, and bid documents for the project.

Also, as stated in Section 3.3.2: A jurisdictional waters delineation was conducted in spring of 2010 and updated in the summer of 2010 within the Project locations to map any wetlands, desert dry washes, and desert dry wash woodlands (Ironwood Consulting and Huffman-Broadway Group 2010). The delineation determined both USACE and CDFG jurisdictions. The study was conducted in accordance with the Code of Federal Regulations definitions of jurisdictional waters, the Wetlands Delineation Manual (USACE 1987), the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) (USACE 2008a), A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (Lichvar and McColley 2008), and supporting guidance documents, such as the current guidance from EPA and USACE (2008) regarding CWA jurisdiction after the U.S. Supreme Court's decision in *Rapanos v. Unites States* regarding isolated, non-navigable, intrastate waters (USACE 2008b).

107-33 The text has been updated as indicated in the comment.

107-34 The text included in the DEIS in Section 3.4.1, page 3.4.1 describes the definitions included in this comment. Thus, the text was not edited.

107-35 The text was edited under Section 3.4.2, Methodology.

107-36 This revision to the DEIS has been made as the Palm Springs round-tailed ground squirrel no longer is a candidate for federal listing (Federal Register 75:69228; November 10, 2010).

107-37 Text has been updated per request.

107-38 Section 3.6 has been updated.

107-39 Language regarding NAHC contacts has been added to FEIS Section 3.6 under Native American Consultations.

107-40 The text has been revised as suggested.

107-41 The text has been revised as suggested.

107-42 The text has been revised as suggested.

107-43 The text has been revised as suggested. Additional information about present-day economic activities has not been added because the section pertains to ethnohistoric context.

107-44 The text updated as requested.

107-45 The intent of this figure and others that show similar information depict the study area of SCE Access Road 1, and not the actual road.

107-46 The recommended sentence has been added to the first paragraph of FEIS Section 3.10.

107-47 This comment provides no reason to replace Table 3.10-1 with any other table, especially since there is no identification of the source document containing the Caltrans table that is suggested as a replacement. The most identifiable Caltrans table of decibel levels (from the 1998 Caltrans Technical Noise Supplement) is a table with no documentation as to its own data sources.

The data in Table 3.10-1 have been assembled from numerous published sources, supplemented by noise studies conducted by the author over a period of 30 years. Published sources of data used in Table 3.10-1 include, but are not limited to, the following (in alphabetical order):

- AOSafety. 2003. Life Can Be Loud.
- California Department of Transportation. 1998. Technical Noise Supplement.
- Cavanaugh, W. J. and G. C. Tocci. 1998. Environmental Noise: The Invisible Pollutant.
- Cowan, James P. 1994. Handbook of Environmental Acoustics.
- Federal Highway Administration. 2006. Roadway Construction Noise Model User's Guide.
- Federal Railroad Administration. 2005. High Speed Ground Transportation Noise and Vibration Impact Assessment.
- US Council on Environmental Quality. 1970. First Annual Report of the Council on Environmental Quality.
- US Environmental Protection Agency. 1971. Noise from Construction Equipment and Operations.
- US Environmental Protection Agency. 1980. Construction Noise Control Technology Initiatives.

- US Environmental Protection Agency. 1981. Noise in America: The Extent of the Noise Problem.

Very few of the references noted above provide any documentation regarding the source of the data included in their decibel level tables.

107-48 Although the referenced list includes facilities and activities that are not directly applicable to the Project, the disclosure of the complete Riverside County noise ordinance exemption list is appropriate so that the reviewer can clearly determine whether or not the Project would comply with dBA levels in the ordinance.

107-49 Reference to the remote nature of the Project locations has been added to the first paragraph of FEIS Section 3.10.2 to further support the ambient noise level estimates. However, because the subject paragraph provides information related to ambient noise levels, reference in the paragraph to sensitive receptors would not be on point. For information associated with sensitive receptors, refer to the second paragraph of FEIS Section 3.10.2, which follows the subject ambient noise levels paragraph.

107-50 Text has been added to the second paragraph of FEIS Section 3.10.2 to describe the distances between the closest sensitive receptors and the project site boundary.

107-51 The third paragraph of FEIS Section 3.10.2 has been revised to refer to noise- and vibration-sensitive "land uses" instead of "locations."

107-52 The DEIS evaluated a worst-case scenario as the Project assumes a potential for UXOs throughout the entire Project footprint. Therefore, the entire site was evaluated for the potential for UXOs and covers any potential historic military reservation overlaps.

107-53 After reviewing the Phase I EDR database report in the appendix of the Phase I, the Iron Mountain pumping station was correctly identified as a RCRA waste generator. A correction was made to identify the Iron Mountain site as also the location of an UST instead of Eagle Mountain, according to the EDR report.

107-54 Text in the DEIS has been modified.

107-55 A reference to Chuckwalla SWMA has been added to refer the reader to FEIS Section 3.4.6, Wildlife.

107-56 The subheading has been removed.

107-57 Public access, in and of itself, was not identified as an issue by the public or the BLM during scoping; therefore, it was not specifically addressed in the DEIS. The Traffic and Transportation subsection of Section 3.15.2, Existing Conditions, discusses the total transportation "system" in the vicinity of the Project, including a discussion of roads, traffic, off-highway vehicle routes, airports, railways, scenic routes, bicycle facilities, and public transportation. For clarity, both Sections 3.15 and 4.15 have been renamed to "Transportation and Traffic".

107-58 The text has been updated as indicated in the comment.

107-59 The suggested revisions are not considered necessary or appropriate. While it may be true that local plans and policies would be modified in the future to reflect the importance of the County's solar resource, the information relevant to the analysis in this FEIS are the policies that are currently in place. Discussion of how policies may change in the future would be speculative. Should policies have changed by the time local jurisdictions make a decision on portions of the Project under their jurisdiction, those are the policies that would be used to inform decision-making.

107-60 VRM classes vis-à-vis the Project boundaries are described in text (see DEIS Page 3.16-6). Further, the location of the Project in the figure can be determined by comparing it with other figures, such as Figure 4.16-1.

107-61 Text added per request.

107-62 Text added per request.

107-63 Text added per request.

107-64 Text added per request.

107-65 Text updated per request.

107-66 Text added per request.

107-67 The reference has been updated.

107-68 Text added per request.

107-69 The text has been modified as suggested.

107-70 The text has been modified as suggested.

107-71 The DEIS considers the potential for incremental impacts resulting from construction, operation and maintenance, and closure and decommissioning of the Project to cause or contribute to a cumulative effect in each of the issue areas for which the Project could cause an impact. The DEIS identifies cumulative projects and provides quantified and detailed information about them. On an issue-by-issue basis, DEIS Chapter 4 identifies the geographic and temporal scope of the cumulative impacts analysis area, provides a basis for the boundaries of each, identifies existing conditions within each cumulative impacts assessment area, identifies the direct and indirect effects of the project and alternatives, and identifies past, present and reasonably foreseeable future actions making up the cumulative scenario. Conclusions regarding whether the Project's incremental impacts are cumulatively considerable when considered in combination with past, present and reasonably foreseeable future projects are discussed in the Cumulative Impacts section at the end of each resource section.

107-72 BLM lands in the California Desert District are governed by the CDCA Plan. As used in the DEIS, the California Desert District or California Desert refers to the BLM-administered land within the CDCA.

107-73 The cumulative impacts analysis in Chapter 4 conservatively assumes that all projects within the cumulative scenario would proceed, including renewable energy projects. Any effort to further refine how many of renewable energy applications received by BLM are likely to proceed would be speculative and would not contribute to the understanding of the potential impacts of the Project on the human environment. In addition, each project in a region would have its own implementation schedule, which may or may not coincide or overlap with the proposed action's schedule. This is a consideration for short-term impacts of the Project. However, to be conservative, the cumulative analysis assumes that all projects in the cumulative scenario are built and operating during the operating lifetime of the proposed Project.

107-74 The text has been modified as suggested.

107-75 The text has been modified as suggested.

107-76 The text has been modified as suggested.

107-77 The text has been modified.

107-78 The text has been modified as suggested.

107-79 The text has been modified as suggested.

107-80 The projects listed in these tables are depicted on Figure 3.18-1. This map includes a scale that can be used to estimate distances to the Desert Sunlight site in miles.

107-81 The text in DEIS Table 3.18-2 has been updated in the FEIS to state that the existing DPV1 transmission line extends from Palo Verde (Arizona) to Devers Substation. The DPV1 500 kV line would loop into the Midpoint Substation (now called Colorado River Substation) when it is constructed by SCE.

In addition, DEIS Table 3.18-2 and Table 3.18-3 have been updated in the FEIS to elaborate on the CPUC approval of Midpoint Substation as part of the DPV2 project in November 2009, and its proposed expansion as the Colorado River Substation, which is currently under environmental review by the CPUC.

Furthermore, the NOP for a Focused Supplemental EIR for the Devers-Palo Verde No. 2 Transmission Line Project-Colorado Substation Expansion (Sept. 29, 2010) states: "In the DPV2 Final EIR/EIS, the CPUC identified the DPV2 Midpoint Substation and the Desert Southwest-Midpoint Substation as environmentally equivalent. In Decision D.09-11-007, the CPUC approved both substation locations, and determined that construction at either location did not trigger the need for additional CEQA review. The DPV2 Desert Southwest–Midpoint Substation site (now re-named as the Colorado River Substation) was

ultimately selected by SCE as the location for the CRS." Therefore, the proposed modification suggested by the commenter would not affect the analysis in the DEIS.

107-82 Corridors E and K are discussed on page 3.9-8 of the DEIS in Section 3.9.3, Existing Uses, Lands and Realty-Related Uses. These corridors also are shown on Figure 3.9-5, *Utility Corridors and Existing Transmission Facilities*, on p.3.9-10 of the DEIS. Per Kaiser Ventures LLC, the Kaiser Mine does hold operational permits.

107-83 See Response to Comment 107-73.

107-84 The text has been modified as suggested.

107-85 Portions of the Tables that were included in the DEIS but not used in the analysis do not affect the adequacy or accuracy of the analysis. The requested change has not been made in the FEIS.

107-86 The commenter requests that, to the extent requested by the SCAQMD or others, sections of the air impact analysis that refer to localized significance thresholds (LSTs) be revised to use modeling analysis in lieu of LSTs. The SCAQMD comments concerning LSTs are addressed in responses to Comments 103-01 and Comments 103-02.

107-87 The Applicant has committed to implementing applicant measures AM-AIR-1 through AM-AIR-4 to reduce construction fugitive dust emissions. Implementation of these measures would require development and implementation of a dust control plan that includes use of dust palliatives to ensure compliance with SCAQMD Rule 403, phasing of construction activities to reduce the disturbed area of the site on any single day, minimize grading and avoid the need to import fill materials or export excess spoils, and use of power screeners to obtain sand and gravel onsite so that associated haul trips would not be necessary. In addition, subsequent to the release of the Draft EIS, the Applicant has committed to several modifications (e.g., revised layout of Solar Farm facilities that reduces the Solar Farm footprint and a revised construction approach involving the use of innovative site preparation techniques that reduce the required volume of earth movement). For a discussion of the proposed modifications to the project and the associated effects on air resources, refer to Final EIS Section 4.2.3. In addition, mitigation measure MM-AIR-2 would be implemented, which would require chipped or shredded vegetation debris from the Solar Farm site to be spread on open areas of the site once construction activity has been completed on subareas to control dust.

107-88 The subject sentence in the footnote to Table 4.2-12 and similar tables have been removed from the Final EIS to clarify that emissions are based on average trips. The intent of the sentence was to emphasize that data in the table were developed by analysis of individual construction phases, not aggregated over the total construction days per year.

107-89 With regard to measures to reduce construction exhaust emissions, see FEIS Mitigation Measures MM-AIR-1 and MM-AIR-4.

107-90 Subsequent to the release of the DEIS, AECOM prepared a new wind erosion, PM10, and PM2.5 formation analysis for the project on behalf of First Solar (see FEIS Section 4.2.3 and Appendix D-6). The new analysis incorporates wind data from Blythe, and Barstow wind data were adjusted to approximate the local wind profile.

107-91 Subsequent to the release of the DEIS, minor revisions were made to air resources Table 3.2-1. However, the listed air quality standards are current and up to date.

107-92 The only Project-related emissions that would occur within the MDAQMD jurisdiction would be a portion of the emissions from Project-related vehicle traffic that would originate east of the Project area (generally either in the Blythe area or from states further to the east). Therefore, text has been added to the fifth paragraph of FEIS Section 4.2.2 to clarify that MDAQMD significance thresholds identified in Table 4.2-3 are presented for informational purposes only, and Project-related CEQA significance determinations related to regional emissions are based on comparisons to the SCAQMD standards identified in Table 4.2-2.

107-93 See Response to Comment 75-05.

107-94 The comment suggests that maximum daily construction emissions (not average daily emissions) should be compared to SCAQMD mass daily thresholds for impact determinations. However, the SCAQMD thresholds, and associated guidance materials, do not state that the thresholds are only to be compared to maximum day emissions. In fact, page 9-2 of SCAQMD's CEQA Air Quality Handbook states that the number of construction equipment hours per average day should be considered when estimating emissions that would be associated with construction equipment. This suggests that the SCAQMD daily mass significance thresholds are designed for comparison of average daily emissions. Therefore, it is appropriate to compare the average daily construction emissions that would be associated with the project to the SCAQMD thresholds for the basis of impact determinations.

107-95 As presented in the Final EIS, Tables 4.2-8 through 4.2-10, and the referenced Criterion AQ-4 discussion, onsite construction emissions associated with SF-B would not exceed the SCAQMD local impact significance criteria for nitrogen oxides, carbon monoxide, PM10, or PM2.5. It should be noted that the SCAQMD has not indicated that it is opposed to using the SCAQMD LTS levels for assessment of local impacts related to the project. However, the referenced Criterion QA-4 has been modified to clearly indicate that daily operation and maintenance fugitive dust emissions associated with SF-B would be less than significant with implementation of Mitigation Measure MM-AIR-3.

107-96 To clarify, the on-site activities for some of the project components would include phases that would overlap. Although the emissions associated with each phase would be average emissions, if the phases would overlap, the overlapped emissions would be added to account for the total emissions. Therefore, where project components would include overlapping phases, the FEIS emissions table references to "Maximum Day Totals" have been revised to "Maximum Average Daily Totals" to clarify that the emissions are

maximum averages. Where Project component phases would not overlap, the FEIS emissions table references to "Maximum Day Totals" have been revised to "Average Daily Totals."

107-97 The subject sentence in the footnote to Table 4.2-12 and similar tables have been removed from the FEIS to clarify that emissions are based on average trips. The intent of the sentence was to emphasize that data in the table were developed by analysis of individual construction phases, not aggregated over the total construction days per year.

107-98 The emissions data in the table represent maximum values because it is assumed that all of the construction phases overlap; however, the emissions data for each construction phase are daily averages. Therefore, the titles of Final EIS Tables 4.2-14 and 4.2-21 have been changed to correctly indicate that they present maximum average daily emissions.

107-99 Revisions to the DEIS have been made in the FEIS where information contained in the updated reports is relevant.

107-100 Requested revisions to the DEIS on page 4.3-2, Table 4.3-3 have been made and incorporated into the FEIS. These changes are consistent with the Biological Resources Technical Report.

107-101 The purpose of CEQA Guidelines, Appendix G is to provide a guide to satisfying individual agencies' needs and project circumstances when analyzing the significance of environmental impacts of a project. In most instances, the EIS for this Project uses the criteria outlined in Appendix G; however there may be some deviations (as pointed out in the comment) to better fit the magnitude and circumstances of the Project, and satisfy both NEPA and CEQA. The lead agency (BLM), in collaboration with the cooperating agency (CPUC), has the flexibility to determine what significance criteria should be applied to what resource. Criterion BIO-1 was developed to assess the specific impacts that the proposed action could have on native vegetation communities, including direct loss of vegetation and introduction of nonnative invasive weed species. The standard CEQA criterion requested in the comment is already set forth in EIS Section 4.4.2. Specifically, criterion WIL-5 provides that the proposed action would have a significant effect on wildlife if it would "conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan."

107-102 The requested revisions have been made.

107-103 There are areas designated as a Critical Habitat Unit (CHU) that also are located within the NECO Planning Areas such as Areas of Critical Environmental Concern (ACECs), Desert Wildlife Management Area (DWMA), Habitat Management Plans (HMPs), and Special Areas (SA). Where these areas overlap, mitigation as identified in the NECO Plan/EIS applies and must be fulfilled to compensate for impacts that occur in those designated areas. The NECO Plan/EIS identifies mitigation for impacts within Chuckwalla CHU and DWMA as 5:1 Additionally, the Applicant has committed to 5:1 mitigation ratio for impacts within the Chuckwalla CHU in the mitigation plan presented in the Applicant's

Biological Resources Technical Report (see Appendix H). The 5:1 mitigation ratio is appropriate as compensation for project impacts to either CHU or to DWMA lands. See also Response to Comment 76-15.

107-104 The Raven Management Plan and Desert Tortoise Translocation Plan would require monitoring that may require specialized training and that may continue after construction is complete. Mitigation Measure BIO-1 is intended to define the general responsibilities of an on-site monitor during construction, including authority and reporting requirements.

107-105 Mitigation Measure (MM)-BIO-2, *Off-site Compensation*, has been added to FEIS Section 4.3. The requirements of this mitigation measure are consistent with the draft Habitat Compensation Plan.

107-106 Requested revisions to the DEIS have been made in Section 4.3 of the FEIS, under Impact BIO-2, first paragraph.

107-107 The DEIS has been revised to remove the referenced text/paragraph in Section 3.4 and Section 4.4.

107-108 The DEIS has been revised to remove the referenced text/paragraph in Section 3.4 and Section 4.4.

107-109 The DEIS has been revised on page 4.3-85, under Cumulative Impact Analysis, second paragraph.

107-110 Please refer to FEIS Section 4.5, Climate Change, which expands the discussion and analysis relative to the DEIS.

107-111 Comment noted; the updated reports have been received and will be incorporated as appropriate.

107-112 DEIS Section 3.4 and Table 3.4-2 have been revised in the FEIS to reflect that the Palm Springs round-tailed ground squirrel no longer is a candidate for federal listing.

107-113 Revisions to the DEIS include a clarifying sentence on page 4.4-1.

107-114 The Habitat Compensation Plan (HCP) is developed based upon information gathered during surveys conducted for the DEIS as well as the pending BO and CDFG Section 2080.1 permit. The HCP would be reviewed and approved by BLM, the USFWS and CDFG. In addition to a complete and thorough data collection and analysis, the review process would help to ensure the accuracy of data. The FEIS presents a new Mitigation Measure, BIO-2, which lays out the requirements and detailed processes that are to be used in implementation of the HCP.

Table 4.4-3 presents the acreage for each alternative within the Chuckwalla DWMA and the Chuckwalla CHU. These figures may change slightly with final design, so they will be finalized, after approval of a particular alternative and its design determines the actual acreage of permanent disturbance. This process is defined in MM-BIO-2.

107-115 See Response to Comment 107-101.

107-116 Although a DWMA and CHU may overlap, impacts to each area and/or unit are evaluated individually for use to determine impacts as well as determine appropriate mitigation. Wildlife Areas and Critical Habitat Units differ in their function and values to certain species and as such should be evaluated independently. Regardless, a row has been added to Table 4.4-3 to indicate how many acres fall into both categories.

107-117 The Project could affect golden eagle nesting territories and foraging habitat. Discussion of historic and recent golden eagle occurrence in the general area in DEIS Section 3.4 and the Project's potential impacts to golden eagle nest sites and foraging habitat in Section 4.4 have been expanded and clarified in the FEIS to incorporate the best available scientific information. On September 15, 2010, the USFWS recommended to BLM that an Avian and Bat Protection Plan should be prepared for the Desert Sunlight project. See Response to Comment 92-01.

107-118 The DEIS's discussions of wildlife movement in the area and potential Project impacts to movement have been revised in FEIS Sections 3.4 and 4.4.

107-119 The information presented in the DEIS and updated in the FEIS is consistent with the Biological Resources Technical Report submitted by First Solar (DEIS Appendix H). Consistent with that report, impacts to special status mammals are described in general terms without quantifying acreages. Some mammal species, such as American badger, may be found in desert shrublands throughout the region and would be expected to use the entire Project area, whereas other species may rely on more specialized habitats. As clarified in FEIS Section 4.4.3, implementation of the Habitat Compensation Plan (AM-BIO-1) as well as Mitigation Measures BIO-2, WIL-2, and WIL-3 would reduce these impacts below a level of CEQA significance. The text regarding the proposed federal listing for the Palm Springs round-tailed ground squirrel has been removed or edited to reflect that this species no longer is a candidate for federal listing.

107-120 A summary paragraph has been added to FEIS Section 3.4 and 4.4 that provides an overall conclusion for cumulative impacts.

107-121 See Response to Comment 107-110.

107-122 The requested reference to Adams et al., 1998, has been added.

107-123 The discussion in FEIS Chapter 4.5, Climate Change, has been expanded.

107-124 DEIS Section 4.6 has been updated in the FEIS.

107-125 The geographic extent of "other projects" is discussed on the same page, under "Future Foreseeable Projects." The discussion identifies such projects as those listed in Tables 3.18-2 and 3.18-3.

107-126 Text has been added in FEIS Section 4.8.2 to incorporate conclusions regarding water erosion.

107-127 The text has been modified as suggested.

107-128 The text has been modified.

107-129 The text has been modified.

107-130 The text has been modified.

107-131 The text has been modified.

107-132 The text has been modified.

107-133 The text has been modified.

107-134 The text has been modified.

107-135 DEIS Table 4.10-1 has been modified in the FEIS as requested to show only the distances to the closest existing residences.

107-136 The values presented in Table 4.10-2 represent the estimated noise levels that would be associated with the five project construction phases. The values represent additions to the baseline, but do not represent increases above baseline or "with project" conditions because baseline levels are not included in the estimates. To clarify that the values in Table 4.10-2 do not represent expected increases above baseline conditions, the term "increments" has been removed from the table and the associated text in the FEIS.

107-137 The distance in miles to the closest sensitive receptor (i.e., 0.22 mile) has been added to the fifth paragraph of FEIS Section 4.10.3 as requested. The fifth paragraph of DEIS Section 4.10.3 has been revised in the FEIS to clarify that the closest residence is assumed to be occupied.

107-138 The premise of the comment, which is that the subject EIS paragraph notes that almost all project construction activities would occur within 2,000 feet of the nearest residence, is incorrect. In fact, the paragraph notes that for most of the 26-month construction period, construction activity would be well over 2,000 feet from the nearest residence and only a small portion of the overall construction activity would occur within half a mile of the nearest residence west of the proposed solar farm site. See the sixth paragraph of Final EIS Section 4.10.3.

107-139 As noted in the subject EIS paragraph, the referenced ambient noise levels are expressed as a range of daytime decibels, which inherently include Leq minimum and maximum levels.

107-140 Mitigation Measure MM-NOI-1, which includes language to clarify that the measure is applicable only to residences within a quarter mile of the site, has been added to the Final EIS to supersede applicant measure AM-NZ-1.

107-141 Comment noted. The text has been revised as suggested.

107-142 Comment noted. The text has been revised as suggested.

107-143 Comment noted. The text has been revised as suggested.

107-144 Comment noted. The text has been revised as suggested.

107-145 Comment noted. The text has been revised as suggested.

107-146 Comment noted. The text has been revised as suggested.

107-147 Comment noted. The text has been revised as suggested.

107-148 Comment noted. The text has been revised as suggested, although "hazardous materials" has been changed to "CdTe."

107-149 Comment noted. The text has been revised as suggested, although "hazardous materials" has been changed to "CdTe."

107-150 Comment noted. The text has been revised as suggested, although "hazardous materials" has been changed to "CdTe."

107-151 Comment noted. The text has been revised as suggested.

107-152 This statement already is made in the FEIS under the discussion of construction impacts for the substation on page 4.11-9.

107-153 Comment noted. The text has been revised as suggested.

107-154 Comment noted. The text has been revised as suggested.

107-155 Comment noted. The text has been revised as suggested.

107-156 Comment noted and text has been added for clarification; however, the level of significance determination remains at "less than significant" for the reasons stated in the text.

107-157 Impacts on recreational resources were assessed by determining the types of recreation uses in and around the proposed Project area, then determining the sensitivity of those uses to the proposed Project. As described in Section 3.12, the BLM does not have any recreation facilities, trails, or other improvements in the Project area. Although some day use of the area for hiking, photography, target shooting, and limited hunting is assumed to occur in the general area, the primary recreational use of the Project area is for OHV use. Construction and operation of the project would close and reroute portions of three OHV routes. However, the remaining open routes would provide an alternative to use of closed routes and closure would not significantly limit public travel.

107-158 See Response to Comment 107-158.

107-159 The text has been revised as suggested.

107-160 The text has been revised to reflect the relative number of visitors from only a portion of Joshua Tree Wilderness.

107-161 The sentence referring to impacts on cultural resources from construction of Kaiser Road has been deleted.

107-162 Substation B is closer to the boundary of Alligator Rock ACEC that Substation A. In either case, no cultural resources within the ACEC would be impacted by construction, operation and maintenance, or decommissioning of Substation A or Substation B.

107-163 The text was revised in Alternative 4 and Alternative 5 for clarification and consistency.

107-164 The text has been revised accordingly.

107-165 The text on the cited page of the DEIS has been revised in the FEIS to define the geographic extent of the area affected by transportation as the road network generally within the I-10 corridor.

107-166 Comment Noted. The DEIS section headers have been revised in the FEIS to more accurately reflect what is discussed in text. Headers titled "Interim Visual Management Class" have been revised to "Visual Contrast Analysis," and the headers titled "Summary of Operation and Maintenance Impacts" have been revised to "Consistency with Interim Visual Resource Management Objectives."

107-167 See Response to Comment 107-59.

107-168 See Response to Comment 107-59.

107-169 The land ownership of the proposed action and alternatives are discussed in the second paragraph on Page 4.16-1 of the Draft EIS. Some modifications to the text of the DEIS in recognition that a CEQA determination must be made for the project as a whole, regardless of land ownership (see Responses to Comments of the CPUC, Comment Letter 56).

107-170 Some modifications to the text of the DEIS in recognition that a CEQA determination must be made for the project as a whole, regardless of land ownership (see Responses to Comments of the CPUC, Comment Letter 56).

107-171 See Response to Comment 107-59.

107-172 The discussion of the geographic extent has been revised for clarity as follows: "The ROI for visual resources is defined as the viewshed, an area seen from a particular location to the visible horizon. Delineation of the viewshed from the proposed Project location must extend from the top elevation of all of the proposed facilities rising at the Project location, expanded to 5.5 feet above the ground of the visible horizon. The geographic extent of the cumulative analysis is generally coincident with the boundaries of the project viewshed, shown in Figures 4.16-8 (for the proposed action) and Figure 4.16-9 (for the alternative action alternative). Due to mountains surrounding the proposed Project site, the viewshed

is generally less than 15 miles from the proposed Project to mountain ridgelines. For analyzing cumulative impacts on visual resources, the ROI is expanded to include a larger area. The ROI for the cumulative impact analysis is approximately 15 miles on both sides of the I-10 corridor.

107-173 The suggested changes have been made in response to comments from the CPUC (see Responses to Comments in Letter 56 and revisions to the cumulative discussion in FEIS Section 4.16).

107-174 Changes to the cumulative section have been made in response to comments from the CPUC (see Responses to comments in Letter 56 and revisions to the cumulative discussion in Section 4.16). The text acknowledges that there are no additional mitigation measures that would reduce permanent adverse cumulative impacts to minor or a less-than-significant level.

107-175 Text has been revised for consistency with new information.

107-176 Text has been added as requested.

107-177 Text has been added as requested.

107-178 Text has been added as requested.

107-179 Text has been added as requested.

107-180 Text has been added as requested.

107-181 Text has been added as requested.

107-182 Text has been added as requested.

107-183 The DEIS text has been updated in the FEIS to remove the reference to the dry lakes.

107-184 The DEIS text has been updated in the FEIS to supplement the discussion of Project-specific factors, as additional information has become available.

107-185 The text has been revised as requested.

107-186 The text has been revised as requested.

Letter - 108.

108-01 Commenter refers to FLPMA's characterization of the desert environment. Pursuant to Section 6.9.2.1 of the BLM NEPA Handbook (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not a substantive comment on an environmental issue, and so does not require a specific response.

108-02 The text has been updated as requested.

108-03 The text of the FEIS has been revised for the requested consistency.

108-04 Text of the FEIS has been modified throughout the document to reflect that all ground disturbing activities (whether identified as temporary or permanent impacts in the DEIS) are now considered permanent impacts to the environment. DEIS Table 4.3-1, *Comparison of Action Alternative Features Relevant to Vegetation Impacts*, has been revised in the FEIS to present updated data. Impacts related to the revised acreage presented would be mitigated through MM-BIO-2, *Off-site Compensation*. The residual impact would remain the same as that defined in the DEIS.

108-05 So noted.

108-06 On-site grading would be minimized to the extent practicable for the installation of the proposed solar field and other facilities. Thus, excess generation of overburden would be minimized and all grading spoils would be incorporated into site design, in order to minimize haul-off and disposal requirements.

108-07 In addition to needing to be feasible, alternatives carried forward for detailed analysis need to meet the project purpose and need under NEPA or project objectives under CEQA. Other alternatives not carried forward were deemed to be technically disadvantageous or to cause greater environmental impacts than the Project alternatives.

108-08 See Noise Impacts to Wildlife discussion presented in FEIS Section 4.10.3.

108-09 Although the Solar Farm site would occur outside the Chuckwalla DWMA and CHU, the gen-tie at Red Bluff substation and ancillary facilities would disturb desert tortoise habitat in the Chuckwalla CHU and DWMA and desert tortoises in the vicinity. Acreages of impact to the DWMA and CHU under each alternative are depicted in Section 4.4, Wildlife (see, e.g., Table 4.4-3). Habitat compensation is proposed to partially mitigate the loss.

108-10 DEIS Section 4.17, Water Resources, has been updated in the FEIS to recommend mitigation measures that would minimize potential impacts to groundwater wells and groundwater levels, including groundwater monitoring.

108-11 The FEIS presents new Mitigation Measure MM-WIL-5, *Prepare and Implement a Bird Monitoring and Avoidance Plan*. Also, a new mitigation measure (MM-WIL-8) has been added to ensure that all plans prepared under Applicant Measures are subject to review by the USFWS, CDFG, BLM, and CPUC.

108-12 MM Bio-1 and other mitigation measures to address impacts to biological resources also would reduce impacts to special designation lands. See revisions to Table ES-3.

108-13 Applicant Measures have been incorporated into to DEIS Chapter 2.0 as agreed-upon measures that would be implemented as part of the Project. Table ES-3, as updated in the FEIS, lists all mitigation measures (Applicant and other) proposed or recommended for the Project.

108-14 The BLM has requested that all applicants for renewable energy projects within the CDD work toward a mutual goal of reducing the number of transmission lines associated with

planned projects. To respond to this request, the Applicant proposed a minor modification of the design configuration of the gen-tie line poles that would allow for a future unrelated project(s) to add a second circuit. The configuration of the gen-tie line poles would be modified but the gen-tie line right-of-way area and width, pole height, pole spacing, materials of construction, and surface finish as described in the DEIS would be unaffected by the proposed modification. The modification would have no effect on gen-tie line construction or operation activities or associated impacts. The modified pole design would not affect the footprint, construction or operation of either the gen-tie line or the Project as a whole. Any of the alternative gen-tie line configurations could accommodate collocation with the Eagle Crest gen-tie line, and would result in fewer overall impacts by virtue of less overall disturbance.

108-15 Additional surveys have been conducted since the DEIS was issued for review. See Response to Comment 104-13. The DEIS text has been revised in the FEIS to reflect the results of plant surveys conducted in November 2010, as a supplemental to those surveys conducted in the spring. See FEIS Sections 3.3.3 through 3.3.5 for related text revisions.

108-16 Detailed descriptions of the surveys conducted for wildlife and vegetation are included under the heading *Methodology* in FEIS Chapters 3.3 and 3.4.

108-17 The discussion of desert tortoise in DEIS Section 3.4 has been expanded in the FEIS in response to this and other comments.

108-18 Revisions to the DEIS have been made in the FEIS to ensure that species listings are up-to-date. This includes a revision to the status of the Palm Springs round-tailed ground squirrel in FEIS Chapter 3.4 and Table 3.4-2: this species no longer is proposed for federal listing.

108-19 Revisions to the discussion of Nelson's bighorn sheep movement have been added in FEIS Chapter 3.4, Wildlife, including additional data citations. Desert tortoise habitat connectivity is discussed in Response to Comment 85-02, above. The discussions of wildlife movement in the area and potential Project impacts to such movement have been revised in FEIS Sections 3.4 and 4.4.

108-20 See Response to Comment 85-02. Please also note that MM BIO-2 in the FEIS includes a habitat connectivity criterion for desert tortoise.

108-21 The text in DEIS Section 3.4.6 has been revised accordingly in FEIS.

108-22 The land designations were determined through a process of research with GIS shapefiles and personnel from both BLM and the USFWS to identify the correct DWMA and CHU boundaries in the region of the proposed project.

108-23 The total contribution of GHG emissions from the Project is evaluated in FEIS Section 4.5, Climate Change. The analysis presented therein discloses anticipated construction and operation period GHG emissions of the Project, and provides additional

discussion regarding decommissioning. Analyzing GHG emissions associated with the manufacturing of Project components is beyond the scope of the EIS.

108-24 No reasonable evidence exists to support the idea that desert biological crusts comprise a substantial carbon sink. Consequently, additional discussion is not warranted.

108-25 A reference to Chuckwalla DWMA has been added in FEIS Section 3.14 to refer the reader to Section 3.4.6, Wildlife.

108-26 The DEIS's discussion of Project impacts to desert tortoises and habitat has been expanded and clarified in FEIS Sections 3.4 and 4.4, as recommended by the commenter.

108-27 Applicant Measure WIL-2, *Contribute to a USFWS Regional Raven Management Plan*, has been added in the FEIS on page 4.4-32. The DEIS mitigation and applicant measures relevant to the raven and desert tortoise require review and approval by BLM, USFWS and CDFG. Please note that new mitigation measure MM-WIL-8 in the FEIS would ensure that all plans prepared under Applicant Measures would be subject to review by the USFWS, CDFG, BLM, and CPUC.

108-28 The Avian and Bat Protection Plan defined in the FEIS as AM-WIL-3 is in draft form. A new mitigation measure, MM WIL-3 has been prepared to clarify the requirements relating to impacts on birds, and to require that the final plan must conform to the 2010 USFWS guidelines. This measure would require that the Plan be reviewed and approved by BLM, USFWS and CDFG. WIL-5 states, "This plan shall follow the Avian Protection Plan guidelines outlined by USFWS and Avian Power Line Interaction Committee (APLIC)." The "Suggested Practices" document is included as one of the references developed by APLIC, and so would be considered in the development of the Plan. New mitigation measure MM-WIL-8 in the FEIS would ensure that all plans prepared under Applicant Measures are subject to review by the USFWS, CDFG, BLM, and CPUC.

108-29 Refer to response to comment 108-22.

108-30 Revisions to the DEIS have been made on page 4.4-12 and -27.

108-31 Existing and reasonably foreseeable future projects and related acreage impacts referred to in the comment were carried forward from the recently-approved Blythe Solar Power Project FEIS. Footnotes to Table 4.3-18 identify the source of the data. Also, see Common Response N.4.6.

108-32 The DEIS's discussion of potential impacts of desert tortoise translocation has been expanded in FEIS Section 4.4.

108-33 The DEIS's discussion of wildlife movement and potential project impacts to wildlife movement, including desert tortoise movement, has been has been expanded and clarified in FEIS Section 4.4. Please also note that MM BIO-2 in the FEIS includes a habitat connectivity criterion for desert tortoise.

108-34 See Response to Comment 107-103.

Letter - 109.

109-01 The commenter opposes the Project. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

109-02 As detailed in FEIS Section 4.2, the Project would employ a number of dust control measures such as implementation of a dust control plan, application of water and dust palliatives, phased approach to construction minimizing activity on any one day, and other measures that would significantly reduce fugitive dust emissions. See also FEIS Section 4.4 concerning potential impacts to wildlife.

109-03 See Common Response N.4.3, *Dark Skies*.

109-04 Potential construction employment-related effects on the local area are discussed in Common Response N.4.11, *Construction Employment*.

109-05 Impacts of the Project to wildlife resources are discussed and analyzed in FEIS Sections 4.3 and 4.4.

Letter - 110.

110-01 As discussed in DEIS Chapter 1, the Applicant identified a sufficiently large area to enable evaluation of a reasonable range of alternatives for the solar farm site, gen-tie line route, and Red Bluff Substation and ancillary facilities. The "Project Area" identified for study was roughly 19,000 acres in size. Should a ROW grant be issued, the grant would cover only those acres actually needed for the Project, i.e., less than 5,000 acres.

110-02 The commenter suggests that the Project is inconsistent with environmental policy. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H 1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not a substantive comment on an environmental issue, and so does not require a specific response.

110-03 Table ES-2 provides a summary of Project impacts by alternative in comparative form.

110-04 Concerning the reasonableness of the range of alternatives in the DEIS, see Common Response N.4.7, *Alternatives Analyzed*.

110-05 DEIS Chapter 2 evaluates three action alternatives and three No Action/No Project alternatives. The No Action/No Project alternatives are Alternative 4, 5 and 6.

110-06 Considering siting on previously-disturbed or built areas in the DEIS, see Common Response N.4.7, *Alternatives Analyzed*.

110-07 Considering siting on previously-disturbed or built areas in the DEIS, see Common Response N.4.7. *Alternatives Analyzed*.

110-08 The commenter suggests that there are many invalid applications for projects on BLM land. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

110-09 Considering siting on private lands in the DEIS, see Common Response N.4.7, *Alternatives Analyzed*.

110-10 Potential Project-related effects on local land uses and property values are discussed in Common Response N.4.8, *Property Value*.

110-11 Considering siting on private lands in the DEIS, see Common Response N.4.7, *Alternatives Analyzed*.

110-12 So noted.

110-13 Concerning the reasonableness of the range of alternatives considered in the DEIS, see Common Response N.4.7, *Alternatives Analyzed*.

110-14 The commenter supports Alternative 5 (No Project) and recommends the Project area be designated as an ACEC. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

110-15 The Project would prepare and implement a dust control plan as indicated in Response to Comment 109-02. Implementation of this dust control plan would include measures that significantly reduce fugitive dust emissions during construction activities There are only a few rural residences within 1 mile of the Solar Farm site, and only one rural residence within 0.75 mile of the boundary of the proposed Solar Farm. Airborne dust generated from construction sites would be widely dispersed and greatly reduced in concentration by nighttime hours. Construction activity would be phased across the Solar Farm site over a 26-month period, limiting the amount of disturbed area that could produce fugitive dust from wind erosion at night. The cumulative analysis of air quality impacts is thoroughly analyzed and discussed in the DEIS and in FEIS Section 4.2.

110-16 DEIS Section 4.2, concerning air resources, concludes that the net change in wind erosion as a result of the DSSF would be minor, and would not be detectable by visual observation. The air resources section also lists both Applicant-proposed measures and mitigation measures that would minimize the amount of fugitive dust emissions associated with the DSSF (see, DEIS pp. 4.2-40 and 4.2-41). The long-term visual effect of the Project following decommissioning is discussed under the appropriate headers in DEIS Section 4.16. The discussion recognizes that it could take decades for the landscape to resemble existing conditions due to the slow pace of desert ecology.

110-17 The commenter's opinion on the applicable VRM Class is noted. Page 3.16-5 and 3.16-6 discusses in detail the visual resource inventory used to determine the VRM class applicable to the proposed action and alternatives. The inventory used the BLM's standard

assessment methodology to determine the VRM classes applicable to the Project. Further, DEIS Section 4.16 recognizes that the Project would not be consistent with VRM objectives from several of the KOPs analyzed.

110-18 See Common Response N.4.4, *Adequacy of Key Observation Points (KOPs) and Simulations*.

110-19 See Common Response N.4.3, *Dark Skies*.

110-20 See Common Response N.4.3, *Dark Skies*.

110-21 See Common Response N.4.4, *Adequacy of Key Observation Points (KOPs) and Simulations*.

110-22 Potential construction employment-related effects on the local area are discussed in Common Response N.4.11, *Construction Employment*.

110-23 See Common Response N.4.9, *Cadmium Exposure*.

110-24 Potential for the Project to alter stormwater drainage and flood potential is discussed in DEIS Section 4.17, Water Resources. As discussed therein, potential effects to groundwater recharge would be minimal. Nonetheless, additional mitigation requirements have been incorporated into the FEIS that would require that stormwater and flood flows emanating from the Project site result in no greater than a 1 percent increase relative to existing conditions. Therefore, potential impacts associated with changes to drainage and flooding would be minimized, including potential changes associated with disturbance to desert pavement.

110-25 See Response to Comment 108-10.

110-26 See Response to Comments 75-8 and 75-10. The Project is not expected to result in take of bald or golden eagles.

110-27 See Responses to Comments 75-08 and 92-01 regarding potential Project impacts to golden eagles. Compensation acreage ratios are specified in AM-BIO-1, and MM-BIO-2 has been added in the FEIS to provide greater clarification as to compensation land habitat types.

110-28 The commenter is concerned that bighorn sheep and burro deer foraging areas and habitat connectivity could be affected by the Project. The DEIS's discussion of wildlife movement has been expanded in the FEIS to address these concerns more clearly; see FEIS Section 4.4, Impact WIL-3, *Direct and Indirect Impacts to Wildlife Movement or Nursery Sites*.

110-29 The DEIS discusses Nelson's bighorn sheep in Sections 3.4 and 4.4 on pages 3.4-24 and 4.4-7. Revisions to the DEIS text in Section 3.4 on page 3.4-24 have been made to provide additional information about the sheep, their movement patterns and habitat. Impacts to this species and its habitat are discussed in FEIS Section 4.4. The DEIS has been revised in the FEIS to include MM-WIL-2, *Nelson's Bighorn Sheep Protection Plan*.

110-30 See Response to Comment 110-29. Ratios for habitat compensation are specified in AM-BIO-1. Mitigation identified in the DEIS and FEIS for impacts to Nelson's bighorn sheep also would serve to address impacts to burro deer.

110-31 Revisions to the DEIS include the addition of MM-WIL-3, *Palm Springs Round Tailed Ground Squirrel Protection Plan*. Specific compensation lands have not been identified at this time. Note that Palm Springs round-tailed ground squirrel is no longer a candidate for federal listing (Federal Register 75:69228, 10 Nov 2010).

110-32 See Response to Comment 51-1.

110-33 The DEIS and FEIS address soils in Section 3.8, Geology and Soils Resources, and flooding-related concerns in Section 3.17, Water Resources.

110-34 The DEIS and FEIS address soils in Section 3.8, Geology and Soils Resources.

110-35 See Response to Comments 85-1 and 104-13.

110-36 The commenter expresses concern about the adequacy of the Integrated Weed Management Plan in analyzing impacts that Roundup and other herbicides could have on public health, water resources and biological resources. AM- BIO-2 describes the Integrated Weed Management Plan, which was prepared in conformance with BLM's *Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States Programmatic EIS* and associated 2007 Record of Decision. It contains numerous performance standards for protection of public health, water resources and biological resources, including the following requirements: "Conduct a pretreatment survey before applying herbicides; Select herbicide that is least damaging to the environment while providing the desired results; Have licensed applicators apply herbicides; Take precautions to minimize drift by not applying herbicides when winds exceed >10 mph…or a serious rainfall event is imminent." In addition, the impacts to public health of the use of chemicals during construction, operation and decommissioning are analyzed in Section 4.11 of the EIS and performance standards for the protection of public health are included in AM-HAZ-1c and AM-HAZ-1d. Numerous Applicant Measures are presented in DEIS and FEIS Section 4.17 to protect water quality from the use of chemicals on the Project site.

110-37 The commenter suggests that the Project site be preserved as a connectivity corridor and not developed for solar energy. See Responses to Comments 85-2 and 104-11 regarding the expansion in the FEIS of the DEIS's desert tortoise analysis. Note also that the FEIS includes an expanded discussion of connectivity and wildlife movement (see Impact WIL-3, *Direct and Indirect Impacts to Wildlife Movement or Nursery Sites*).

110-38 The original ROW area evaluated by First Solar was substantially larger than any of the alternatives now under consideration, and included many more desert tortoise than currently are considered to be present for the alternatives analyzed. The Project site is occupied by desert tortoises as described in DEIS Section 3.4, which has been updated substantially in the FEIS. See also, Responses to Comments 76-03 and 104-11 for additional detail.

110-39 The commenter is concerned about relocation or translocation of desert tortoises. The DEIS's discussion of this issue has been expanded in the FEIS. See Response to Comments 104-11, and 76-1 through 76-3.

110-40 As discussed in Common Response N.4.9, *Cadmium Exposure*, inadvertent release of Cadmium telluride (CdTe) from PV modules has been the subject of various scientific studies and, according to the Brookhaven National Laboratory and the National Renewable Energy Laboratory, the only pathways by which people or wildlife might be exposed to PV compounds from a finished module are by accidently ingesting flakes or dust particles, or by inhaling dust and fumes. The thin CdTe/Cadmium (Cds) layers are stable, solid and encapsulated between thick layers of glass. Unless the module is ground to a fine dust, dust particles cannot be generated. The vapor pressure of CdTe at ambient conditions is zero. Therefore, it is impossible for any vapors or dust to be generated when using PV modules. Thus, the environmental risks from and the potential for tortoises to be exposed to CdTe PV are minimal.

According to a review of the cause of mortality and disease in tortoises, virtually nothing is known about the effects of pollutants or toxicants in populations of tortoises (Jacobson, 1994). Additionally, according to a study on *Cutaneous Dyskeratosis*, the exact cause of the disease was not determined (Jacobson, 1994). Thus, as the potential for tortoises to be exposed to a toxicant such as CdTe are minimal and it is unknown as to whether this exposure would be related to *Cutaneous Dyskeratosis,* the potential for the Project to exacerbate this disease in tortoises is also minimal.

References

Cutaneous Dyskeratosis in Free-Ranging Desert Tortoises, Gopherus Agassizii, in the Colorado Desert of Southern California. Elliot Jacobson, et al. Journal of Zoo and Wildlife Medicine, Vol. 25, No. 1 (1994).

Causes of Mortality and Diseases in Tortoises: A Review. Elliott R. Jacobson. Journal of Zoo and Wildlife Medicine, Vol. 25, No. 1, Reptile and Amphibian Issue (Mar., 1994), pp. 2-17.

110-41 The BLM does not maintain a list of parcels that could be used as compensation lands to off-set impacts. The commenter's concerns regarding adaptive management planning are noted.

110-42 Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

Letter - 111.

111-01 The commenter supports the project and is providing comments for clarification and requesting additional information. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

111-02 As discussed in DEIS Chapter 1, the Applicant identified a sufficiently large area to enable evaluation of a reasonable range of alternatives for the solar farm site, gen-tie line route and Red Bluff Substation and ancillary facilities. The "Project Area" identified for study was roughly 19,000 acres in size. Should a ROW grant be issued, the grant would cover only those acres actually needed for the Project, which would be less than 5,000 acres.

111-03 Concerning the reasonableness of the range of alternatives considered in the DEIS, see Common Response N.4.7, *Alternatives Analyzed*.

111-04 The text of the DEIS has been updated in the FEIS as requested in the comment.

111-05 The groundwater analysis completed in support of the DEIS was prepared to evaluate groundwater withdrawal and level concerns that are specifically relevant to the Project. Because the Project does not include substantial groundwater withdrawals during operation (as many other solar projects do that are proposed for development in the vicinity of the Project), modeling assumptions relating to operation period groundwater use are substantially different from those of other projects. In regards to model assumptions/parameters, transmissivity, storage coefficient, and saturated thickness are shown in Table 4.17-2, while groundwater budget info is contained in Table 4.17-1. Completion of a detailed evaluation of such parameters for models from other proposed projects could be intellectually interesting. However, such additional analysis would not result in a more comprehensive assessment of anticipated impacts of the Project. Therefore, such additional analysis is not warranted, and was not completed.

111-06 Cumulative groundwater impacts are discussed in DEIS Section 4.17. This discussion includes modeling and other analyses completed within the CVGB, in order to evaluate the potential for drawdown and cumulative groundwater impacts. An additional detailed, comparative review of the studies completed in the Basin could provide an interesting comparison of the methodologies used for the various analyses. However, such a detailed scientific level consideration of these studies would be unlikely to change the level of impact identified in the discussion of cumulative impacts to groundwater, and therefore is not warranted.

111-07 See Response to Comment 108-10.

111-08 The DEIS text has been corrected in the FEIS.

111-09 Text has been added acknowledging that the Eagle Mountain Mine was another major historic water user.

111-10 The text/table has been corrected.

111-11 Assessor parcel number 80717005 has been deleted from the table in response to this comment.

111-12 Review of the descriptions of the alignment for GT-A-2 and GT-A-2 in the Executive Summary and Chapter 2, *Description of the Proposed Action and Alternatives,* did not reveal significant conflicts in the description of private land. The description of the alignment for

GT-A-1 and GT-A-2 in the Executive Summary was a bit more general than that contained in Chapter 2 since the Executive Summary is intended to be a more general overview than the discussion contained in Chapter 2. The description of GT-A-1 in Chapter 2 included more specific details relating to the area just south of Oasis Road involving less than 1 mile of the entire alignment. The alignment of GT- A-1 was designed specifically to avoid the majority all private land while the alignment of GT-A-2 would cross multiple parcels of private land.

111-13 The effects of the gen-tie route alternatives were compared with the Solar Farm Site alternatives. The details of this comparison are provided in Appendix C. As described in Appendix C, none of the three combinations of alternatives defined in the Project Description (Alternatives 1 through 3) is considered the environmentally superior action alternative. In addition, the discussion in Appendix C identifies the environmentally superior action alternative and compares it with the CEQA No Project alternative (No Action alternative, identified as Alternative 4 in Chapter 2, Description of the Proposed Action and Alternatives), as required by CEQA Guidelines Section 15126.6(e)(1).

111-14 See Common Response N.4.2, *Wilderness*.

Letter - 112.

112-01 Subsequent to the release of the DEIS, AECOM prepared a new wind erosion, PM10, and PM2.5 formation analysis for the Project on behalf of First Solar (see FEIS Section 4.2.3 and Appendix D-6), which supersedes the referenced analysis presented on DEIS pages 3.2-27 through 3.2-30. The new analysis incorporates wind data from Blythe. See also Response to Comment 103-05. Concerning desert pavement, see Response to Comment 104-19.

112-02 The text relating to the DCAP was found on page 3.3-5. FEIS Chapter 3 describes the affected environment. FEIS Chapter 4 analyzes the environmental consequences of the Project. As discussed in Section 4.3, Project components were sited in consideration of DCAP 10.1 and all three alternatives are consistent with the County of Riverside's General Plan, which includes the DCAP.

112-03 The commenter suggests that transplantation is not a successful mitigation practice for desert vegetation. AM-BIO-5 requires transplantation of cacti and for special status plants for which salvage and transplantation would be feasible. For impacts to other special status plant species, off-site habitat compensation as described in the Selection Criteria listed in MM-BIO-2 would address impacts. Avoidance of special status plant occurrences within the Project site is not recommended because development of the surrounding lands would isolate the plants and cause indirect impacts such as altered hydrology, dust, and invasive weeds, which would necessitate further on-site monitoring and management.

112-04 See Response to Comment 104-19.

112-05 See Response to Comments 76-1 through 76-3.

112-06 The commenter suggests that Red Bluff Alternatives A and B would impact the Chuckwalla CHU and that development of the Project does not meet the definition of special management. While Red Bluff Alternatives A and B would be located within the Chuckwalla CHU, the impacts to desert tortoises related to these alternatives are analyzed in DEIS and FEIS Section 4.4 and were found to be significant. As such, AM-WIL-1, *Desert Tortoise Translocation Plan*; AM-WIL-2, *Raven Management Plan*; AM-BIO-1, *Habitat Compensation Plan*; AM-BIO-2, *Integrated Weed Management Plan*; AM-BIO-4, *Worker Environmental Awareness Program*; and MM-BIO-2, *Off-site compensation of habitat*, have been proposed to reduce these impacts. With implementation of these measures, impacts would be less than significant under CEQA

112-07 See Responses to Comments 76-1 through 76-3.

112-08 The commenter suggests that translocation should not be undertaken. DEIS Section 4.4.3 has been revised in the FEIS to add information on translocation of desert tortoise and its impacts. Also, new mitigation measures have been added in the FEIS to further address related effects: MM-WIL-7, alternate to long-distance translocation; and MM-WIL-8, requiring USFWS and CDFG to review plans required by Applicant Measures. The translocation plan is intended to minimize take of desert tortoises and is preferable to leaving the animals in place. Recommendations of the DRECP Science Advisors' report are under review; however, to date, these recommendations have not been adopted by the BLM, CDFG or USFWS and may be further developed or refined. To ensure that any tortoise translocation effort is consistent with up-to-date agency policy, AM-WIL-1 has been revised in the FEIS to require that "the final [translocation] plan will conform to the 2010 USFWS desert tortoise relocation guidelines … or any updated CDFG and USFWS policy that may be available as of the date of implementing the translocation."

112-09 Provisions of the Desert Tortoise Translocation Plan (AM-WIL-1) and the Raven Management Plan provide sufficient management and control measures for canid predators. The present draft version of the tortoise translocation plan (see Appendix H) addresses canid predators such as coyotes and kit foxes in potential translocation areas. The plan focuses on avoidance of areas of high concentration of these species as a way to reduce predation. The draft plan does not specifically address potential predation by feral dogs, but does propose to avoid translocations into areas where human "subsidies" (e.g., trash dumping) would support elevated predator populations. In addition, provisions for refuse management and control of water sources required in AM-WIL-2, regarding the Raven Management Plan (see Appendix H), also would minimize potential "subsidies" for canid predators on the Project site.

112-10 The commenter suggests that connective habitat for Mojave fringe-toed lizards may occur on the Project site and should be investigated in the EIS. In response, DEIS Section 3.4.4 has been supplemented in the FEIS to provide a detailed description of the potential for this species to occur on the Project site. This section explains that the Project site would not serve as a movement corridor for this species because it provides no aeolian or alluvial sand habitat linkage between suitable habitat areas.

112-11 It is not necessary to finalize the Avian and Bat Protection Plan at this stage; rather, requiring compliance with the performance standards stated in AM-WIL-3 (i.e., conformance with USFWS guidelines) is sufficient to demonstrate that the mitigation measure would be effective. Concerning golden eagles, see Responses to Comments 75-08 and 92-01.

112-12 Regarding burrowing owls, see Response to Comment 104-15.

112-13 Regarding burrowing owls, see Response to Comment 104-15.

112-14 Regarding burrowing owls, see Response to Comment 104-15.

112-15 It is not necessary to identify specific parcels at this stage; rather, requiring compliance with the performance standards of compensatory mitigation (MM-WIL-3) is sufficient to demonstrate that the mitigation measure would be effective. MM-WIL-3 has been added in the FEIS to provide greater clarification as to what the compensation lands must be composed of with regard to habitat types. It is anticipated that sufficient private land that meets the performance standards of MM-BIO-2 is available. Note that Palm Springs round-tailed ground squirrel no longer is a candidate for federal listing (Federal Register 75:69228, 10 Nov 2010).

112-16 See Response to Comment 110-29.

112-17 Mitigation measures identified in the DEIS for impacts to Nelson's bighorn sheep also would address potential impacts to burro deer. See Response to Comment 110-29. Project impacts and region-wide cumulative impacts to desert dry wash woodland are analyzed in DEIS and FEIS Section 4.4. Ironwood woodland is a subset of desert dry wash woodland, as described and analyzed in FEIS Sections 3.3 and 4.3.

112-18 The analysis of cumulative groundwater impacts includes the Palen Solar Power Project, Blythe Solar Power Project and several other projects within the vicinity of the Project, as shown on DEIS and FEIS Table 4.17-3. The cumulative effects of these projects, in combination with the incremental effect of the proposed Project, are discussed in Section 4.17, *Water Resources*. As discussed therein, substantial groundwater withdrawals for the Project would occur during construction, but not during operation. As discussed, the indicated construction-related groundwater use would not contribute significantly to the cumulatively considerable total groundwater drawdown anticipated in the cumulative scenario for the basin. As a result, the Project would not contribute a cumulatively considerable impact to any potential effects on phreatophytes. For additional discussion of potential impacts to vegetation resources, see DEIS and FEIS Section 4.3, *Vegetation*.

112-19 See Responses to Comments 75-08, 85-02, 104-23, 108-19, and 110-29.

112-20 An approved jurisdictional determination regarding the presence or absence of Waters of the US from the USACE was obtained by the Project Applicant in December, 2010. As indicated therein, all of the drainages that would be affected by implementation of the Project would occur within a closed basin with no outlet. Specifically, the jurisdictional

determination found that water features on the Project site drain entirely to the closed Palen Dry Lake basin, with no apparent connection to interstate or foreign commerce.

112-21 See Response to Comment 112-22.

112-22 A system of groundwater monitoring and mitigation has been added to DEIS Section 4.17, under the Applicant Measures and Mitigation Measures subsection. This additional mitigation would ensure that potential impacts on nearby existing wells are addressed. For a discussion of the effects of the Project on rare plants, see DEIS and FEIS Section 3.3, Vegetation.

112-23 No facilities are proposed outside or upstream of the Project site. Stormwater retention basins, which would retain stormwater generated on site, would be included in Project design, and would be located on site, as discussed in DEIS Section 4.17. As discussed, these basins would minimize potential increases in flood flows during Project operation, and so would minimize increased flooding. Also discussed in DEIS Section 4.17, flood flows originating offsite would be channeled around the Project area and released downstream of the Project site. Proposed channels would be sized so as not to impede flood flows. These channels would permit flood flows to pass around the project, but would not result in the accumulation of additional flood flows.

112-24 The panels themselves are impervious. However, as discussed in Response to Comment 105-18, the Project overall would not result in substantial increases in stormwater runoff. In order to provide further assurances regarding stormwater runoff, the proposed mitigation strategy for stormwater flows in the DEIS has been updated in the FEIS to require that 10- and 100-year stormwater flows are increased by no more than 1 percent as a result of Project implementation. For additional information, see Response to Comment 106-11.

112-25 See Common Response N.4.9, *Cadmium Exposure*.

112-26 The possible detention basin would be installed within the substation site, and as such, has been adequately considered in terms of potential environmental impact to desert tortoise and other biological resources.

112-27 At the request of permitting agencies and public concerns, additional mitigation measures have been recommended for the Project, in order to monitor and, if warranted, compensate existing well owners for drawdown affected by the Project. See FEIS Section 4.17. For a discussion of the Project's potential to impact Colorado River water, see Response to Comment 129-08.

112-28 Biological soil crusts are discussed in detail in DEIS Section 3.5, Climate Change, and in Section 4.5, Impacts on Climate Change. Regarding large scale estimates of soil crusts, such estimates would likely not be applicable to the desert ecosystems that are located at the Project site because global estimates of biological crust carbon uptake or total carbon sequestration are represent average or composite values for desert and non-desert ecosystems. No further discussion is warranted.

112-29 See Responses to Comments 85-01 and 112-15 regarding finalization of the Habitat Compensation Plan (HCP) or identification of specific parcels. The final HCP would be based on the requirements specified in AM-BIO-1 and MM-BIO-2 in FEIS Section 4.3. Habitat enhancement measures, in combination with habitat acquisition, feasibly and effectively would mitigate the Project's impacts to desert tortoises. The USFWS Desert Tortoise Recovery Plan and Draft Revised Recovery Plan describe actions in addition to land acquisition that could reduce threats to desert tortoise populations. Some of these recommended actions include habitat restoration and invasive plant control, eliminating livestock and burro grazing, fencing to exclude livestock and vehicles or reduce the incidence of road strikes, controlling tortoise predators such as ravens, feral dogs and coyotes, as well as increased law enforcement, signage and education. These enhancement measures would address specific known threats to desert tortoise as identified in the Recovery Plan and other documents, including proliferation of roads; off-highway vehicle activity; deliberate maiming, killing, or collecting; habitat invasion by non-native invasive species; and increased frequency of wildfire due to invasion of desert habitats by non-native plant species.

112-30 See Response to Comment 104-22.

112-31 The commenter supports the No Project Alternative/Plan Amendment that excludes solar development. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

Letter - 114.

114-01 The Secretary of the Interior has a very wide range of duties and responsibilities spread over eight agencies within the Department of the Interior. BLM and NPS are but two of these agencies. Each has its own specific mission and legislation authorizing and guiding implementation of its respective mission. The 1916 Organic Act applies specifically to lands within the National Park System managed by the NPS; it does not apply to Federal lands managed by other Federal agencies. Although the BLM has in excess of 100 different laws with which it must comply, only those specific to processing the application for the DSSF are listed in Section 1.3.3. It would be inappropriate to list the 1916 Organic Act in Section 1.3.3 since the Act does not apply to lands outside the National Park System and is not one which directs the actions of the BLM.

114-02 See Common Response N.4.3, *Dark Skies.*

114-03 See Common Response N.4.3, *Dark Skies.*

114-04 See Common Response N.4.3, *Dark Skies.*

114-05 See Common Response N.4.3, *Dark Skies.*

114-06 See Common Response N.4.3, *Dark Skies.*

114-07 See Common Response N.4.3, *Dark Skies.*

114-08 See Common Response N.4.3, *Dark Skies*.

114-09 See Common Response N.4.3, *Dark Skies*.

114-10 See Common Response N.4.3, *Dark Skies*.

114-11 See Common Response N.4.3, *Dark Skies*.

114-12 The format of the document is set. Wilderness, which is designated to protect a variety of resource values is discussed in Sections 3.14 and 4.14, Special Designations. However, recreational use of the wilderness areas also is discussed and analyzed in Sections 3.12 and 4.12, Recreation, and in Sections 3.16 and 4.16, Visual Resources.

114-13 NPS Management Policies related to noise control are not applicable to the DSSF. Joshua Tree National Park, which is the closest area with NPS jurisdiction, is located approximately 1.4 miles from the southeast boundary of the site. Project-related noise levels would not be expected to be audible at Joshua Tree National Park (see Response to Comment 114-23).

114-14 Text has been added to the second paragraph of FEIS Section 3.10.2 to acknowledge that JTNP is located as close as 1.4 miles from the southeast boundary of the Project site.

114-15 The format of the document is set. Wilderness, which is designated to protect a variety of resource values, is discussed in Sections 3.14 and 4.14, Special Designations. However, the recreational use of wilderness areas also is found in Sections 3.12 and 4.12, Recreation, and in Sections 3.16 and 4.16, Visual Resources. Discussion of the Palen-McCoy Wilderness has been added in FEIS Section 3.12, Recreation, and Section 3.14, Special Designations.

114-16 The text has been revised to acknowledge the number of visitors accessing the wilderness from the Project Area is unknown, but likely to be "low" rather than "non-existent."

114-17 See Response to Comment 114-15.

114-18 The text has been revised to acknowledge that some visitors are likely to access this area.

114-19 See Common Response N.4.3, *Dark Skies*.

114-20 See Common Response N.4.3, *Dark Skies*.

114-21 See Common Response N.4.4, *Adequacy of Key Observation Points (KOPs) and Simulations*.

114-22 Subsequent to the release of the DEIS, AECOM prepared a new wind erosion, PM10, and PM2.5 formation analysis for the Project on behalf of First Solar (see FEIS Section 4.2.3 and Appendix D-6) that supersedes the referenced analysis presented in DEIS on pages 3.2-27 through 3.2-30.

114-23 As indicated in FEIS Section 4.10.3., noise from construction activity generally would be audible at locations less than 0.5 mile from the proposed solar farm site. It is highly

unlikely that noise levels associated with construction or operation of the Project would be audible at JTNP.

114-24 The text has been corrected to "Joshua Tree National Park."

114-25 The text has been changed to reflect the recommended wording.

114-26 This section has been revised to acknowledge "direct impacts" during construction, but limited to the experience of wilderness visitors within sight and sound of the project. See Common Response N.4.2, *Wilderness*.

114-27 The text has been edited to include noise, traffic and lighting as construction phase impacts.

114-28 See Common Response N.4.4, *Adequacy of Key Observation Points (KOPs) and Simulations*.

114-29 The following text has been added to the FEIS Glossary – "The U.S. Department of the Interior protects America's natural resources and heritage, honors America's cultures and tribal communities, and supplies the energy to power America's future."

Letter - 116.

116-01 Concerning the commenter's support of the Defender's of Wildlife, Natural Resources Defense Council, and Sierra Club comment letter, see Response to Comment 93. See also, Common Response N.4.1, *Purpose and Need*.

116-02 See Common Response N.4.1, *Purpose and Need*.

116-03 The commenter supports the reduction in environmental impacts analyzed in Alternative C. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

116-04 The commenter considers Gen-Tie Alternative A-2 to be environmentally superior. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

116-05 Considering siting on private lands in the DEIS, see Common Response N.4.7, *Alternatives Analyzed*.

116-06 Concerning the reasonableness of the range of alternatives considered in the DEIS, see Common Response N.4.7, *Alternatives Analyzed*.

116-07 Concerning the reasonableness of the range of alternatives considered in the DEIS, see Common Response N.4.7, *Alternatives Analyzed*.

116-08 Concerning the reasonableness of the range of alternatives considered in the DEIS, see Common Response N.4.7, *Alternatives Analyzed*.

116-09 This comment is identical to Comment 93-9. See Response to Comment 93-9.

116-10 See to Response to Comment 93-10.

116-11 The commenter recommends that the 19,000 acre area excluded from the project should be protected from future development. A 19,000 acre exclusion area would not mitigate significant impacts of the Project; mitigation measures that are not specifically tied to an adverse environmental impact of the proposed project need not be considered (CEQA Guidelines Section 15126.4(a)(3), (4)). If a ROW grant is approved for the Project, it would cover only those acres that would be disturbed by the Project, i.e., less than 5,000 acres. Creating a ROW exclusion area would require a separate CDCA Plan amendment process (including NEPA review) and is not included in the EIS process for the proposed Project.

116-12 See Responses to Comments 76-1 through 76-3.

116-13 See Responses to Comments 76-1 through 76-3.

116-14 See Responses to Comments 105-21 and 75-8.

116-15 See Response to Comment 93-15.

116-16 See Response to Comment 93-16.

116-17 This is the same comment as Comment 93-18. See Response to Comment 93-18.

116-18 This is the same comment as Comment 93-19. See Response to Comment 93-19.

116-19 This is the same comment as Comment 93-20. See Response to Comment 93-20.

Letter - 118.

118-01 The commenter supports the No Project Alternative/Plan Amendment that excludes solar development. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

118-02 The commenter states that the land would be transformed into an industrial area, off-limits to the public. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

118-03 As described in FEIS Section 4.18.2, Irreversible and Irretrievable Commitments of Resources, the Project would cause the permanent loss of approximately 4,165 acres of vegetation and habitat. Assuming that the mitigation measures recommended to address impacts to biological resources are implemented (see Sections 4.3, Vegetation, and 4.4, Wildlife), Project-induced loss of vegetation and habitat would be less than significant. While it is, indeed, likely that the vegetation and habitat on the Project site would not have the exact same ecological function it had prior to project construction, the supposition that

this would result in the site becoming permanently converted to a private industrial area is speculative and unfounded. In addition, AM-BIO-5 reflects a commitment to prepare a restoration plan that would include post-decommissioning restoration of the site, and MM-BIO-4 would require that strict performance standards be achieved for salvage and restoration. Therefore, the proposed applicant measures and mitigation measures would ensure restoration of the site to a natural state upon decommissioning.

118-04 Considering siting on previously disturbed or built areas in the DEIS, see Common Response N.4.7, *Alternatives Analyzed*.

118-05 The commenter states that off-site mitigation is not physically achievable. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not a substantive comment on an environmental issue, and so does not require a specific response.

Letter - 119.

119-01 See Response to Comment 104-23.

119-02 See Response to Comment 104-23.

119-03 Considering siting on previously disturbed or built areas in the DEIS, see Common Response N.4.7, *Alternatives Analyzed*.

119-04 The commenter supports the No Project Alternative/Plan Amendment that excludes solar development, and recommends building the Project in an urban or disturbed environment. Private land alternatives are discussed in Section 2.6.2; distributed generation alternatives are discussed in Section 2.6.8.

Letter - 121.

121-01 The commenter states that the Project is not necessary due to environmental impacts. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

121-02 Considering siting on previously disturbed or built areas in the DEIS, see Common Response N.4.7, *Alternatives Analyzed*.

121-03 See Responses to Comments 76-1 through 76-3.

121-04 See Common Response N.4.4, *Adequacy of Key Observation Points (KOPs) and Simulations*.

121-05 See Responses to Comments 76-8 and 85-1.

Letter - 122.

122-01 See Common Response N.4.1, *Purpose and Need*.

122-02 As stated in Section 211 of the Energy Policy Act of 2005, Congress intended that "the Secretary of the Interior should… seek to have approved non-hydropower renewable energy projects located on the public lands with a generation capacity of at least 10,000 megawatts of electricity." The DEIS text has been corrected in the FEIS accordingly.

122-03 Concerning the reasonableness of the range of alternatives in the DEIS, see Common Response N.4.7, *Alternatives Analyzed*.

122-04 Concerning the reasonableness of the range of alternatives considered in the DEIS, see Common Response N.4.7, *Alternatives Analyzed*.

122-05 Under Alternatives 5 and 6, none of the Project components would be built (No Project). However, there would be an amendment to the CDCA Plan that would identify the DSSF site as either unsuitable or suitable for solar development; as such, the word "Area" in this case refers to the Project "site" itself.

122-06 Concerning the reasonableness of the range of alternatives considered in the DEIS, see Common Response N.4.7, *Alternatives Analyzed*.

122-07 The DEIS's discussions of wildlife movement in the area and potential Project impacts to such movement have been revised in FEIS Sections 3.4 and 4.4.

122-08 Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

122-09 See Responses to Comments 76-1 through 76-3.

122-10 Impacts to desert tortoise are analyzed in the DEIS. AM-WIL-2, *Contribute to a USFWS Regional Raven Management Plan*, and MM-BIO-2, *Off-site Compensation*, have been added in the FEIS. Additionally, implementation of AM-BIO-1, *Habitat Compensation Plan*, AM-WIL-1, *Desert Tortoise Translocation Plan*, and AM-BIO-4, *Worker Environmental Awareness Program*, would reduce impacts to desert tortoise.

122-11 Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

122-12 MM-WIL-2, presented in FEIS Section 4.4.3, states that loss of habitat for Nelson's bighorn sheep shall be compensated at a ratio of 1:1 as approved by CDFG.

122-13 Honey mesquite is not present in any area that would be disturbed by any of the Project components and is rare in the watershed extending from this valley. It is found much more commonly in other areas of the larger Chuckwalla region. Impacts to groundwater-dependent plants are discussed in FEIS Section 4.4. One Palm Springs round-tailed ground squirrel was recorded during surveys near the western access road to Substation A; however, the FEIS has been updated to reflect that this species no longer is a candidate for federal listing.

122-14 Cumulative impacts to the Palm Springs round-tailed ground squirrel are considered in the context of the discussion of cumulative impacts to wildlife habitat (Impact WIL-1) and special-status species (Impact WIL-2) in Section 4.4.9, *Cumulative Impacts*.

122-15 AM-WIL-3, *Avian and Bat Protection Plan*, requires specific avoidance and mitigation measures be taken with respect to burrowing owls. Avoidance of burrows during the active nesting season is specified in AM-WIL-3 and would be consistent with the limited operating period in the NECO Plan. See DEIS Section 4.4, page 4.4-31.

122-16 See Response to Comment 75-08 regarding impacts to golden eagle foraging habitat.

122-17 Ironwood Consultants performed special-status plant species surveys that covered the entire Study Area and timed to encompass the blooming periods for all target special-status plants, including Harwood's milk-vetch. Results of these surveys are detailed in the Biological Technical Report included as DEIS Appendix H. Additionally, the DEIS text has been revised in the FEIS to reflect and refer to the results of plant surveys conducted in November 2010, as a supplemental to those surveys conducted in the spring. See Section 3.3, pages 3.4-10 and 3.4-14, for these text revisions.

122-18 The commenter requests that a discussion of mitigation measures to offset impacts to Coachella Valley milkvetch, crucifixion thorn, California ditaxis, foxtail cactus, desert devil's claw (desert unicorn plant), Mojave fringe-toed lizard, chuckwalla, California leaf-nosed bat, mountain lion, prairie falcon, mountain plover, LeConte's thrasher, loggerhead shrike, and burro deer be included in the EIS. In response, impacts to foxtail cactus, crucifixion thorn, desert devil's claw (desert unicorn plant), and California ditaxis would be avoided, minimized, or compensated by implementing AM-BIO-1 and AM BIO-3 through AM-BIO-5, MM-BIO-1 and MM-BIO-2 through MM-BIO-4. Coachella Valley milk-vetch is unlikely to occur for any of the alternatives (see Table 3.3-2 in Section 3.3). Impacts to Mojave fringe-toed lizard would be mitigated through implementation of MM-WIL-4. Impacts to chuckwalla would be mitigated through implementation of MM-BIO-1. Impacts to California leaf-nosed bat would be mitigated through implementation of AM-WIL-3 and MM-WIL-8. Impacts to mountain lion would be mitigated through implementation of AM-BIO-1, AM-BIO-2, AM-BIO-4, MM-BOP-1, and MM-BIO-2. Impacts to prairie falcon foraging habitat would be mitigated through implementation of AM-BIO-1, AM-BIO-2, and MM-BIO-2. Impacts to LeConte's thrasher and loggerhead shrike foraging and nesting habitat would be mitigated through implementation of AM-BIO-1, AM-WIL-3, AM-BIO-4, and AM-BIO-2. Impacts to burro deer habitat would be mitigated through implementation of AM-BIO-1, MM-BIO-2, MM-WIL-2, MM-WIL-3, and MM-WIL-8. Impacts of all of these species would be reduced to a less-than-significant level under CEQA. The full text of these applicant measures and mitigation measures is presented in FEIS Sections 4.3 and 4.4. Mountain plover is a California species of special concern and BLM sensitive species that winters, though it does not breed, in southern California (see California Bird Species of Special Concern, Shuford and Gardall (eds.) 2008, cited in the FEIS). The Project area is outside this species' known historic or current winter range. Habitat for this species is flat lands nearly barren of vegetation. Due to geographic range and habitat requirements, the

mountain plover is not considered likely to occur and is not addressed in the Biological Resources Technical Report or in the DEIS or FEIS.

122-19 See Response to Comment 93-15.

122-20 Impacts to desert washes are analyzed in DEIS Section 4.4. Table 4.3-9 presents the acres of CDFG jurisdictional resources that would be disturbed as a result of Project construction. Additional mitigation measures have been added in FEIS Section 4.17.3 to address erosion and sedimentation, stormwater outfall from the Project site, and potential drainage issues including headcutting and channel migration. Implementation of these mitigation measures would minimize potential impacts along the desert washes that cross the proposed Project site.

122-21 The cited drawdown would occur in very close proximity to the proposed groundwater recovery well, where no groundwater dependent plants would be located. As discussed in Chapter 4.17, Water Resources, the Project would result in a drawdown of up to 1 foot at a distance of 1 mile from the Project well. Substantially less drawdown is anticipated in the vicinity of existing stands of groundwater dependent vegetation. However, in response to the comment, additional analysis has been added in the FEIS, and a new mitigation measure has been added (MM-WAT-3, *Groundwater monitoring and pumping limits*).

122-22 The potential effects of climate change on biological resources, including desert tortoise and other sensitive plant and wildlife species, would occur at the site of the Project whether or not the Project is implemented. The referenced USGS model (available at: http://pubs.usgs.gov/of/2009/1102/) does not explicitly evaluate climate change scenarios in relation to desert tortoise habitat suitability. To the contrary, the USGS model documents existing known populations of desert tortoise, and evaluates other locations where additional desert tortoise populations may be expected to occur, based on habitat, physical, and other ecosystem/landscape characteristics. As noted in the USGS model documentation, future studies could use the model to evaluate the effects of climate change on the desert tortoise, but such modeling has not been published to date. Nonetheless, additional discussion and analysis in regards to the suitability of the Project site and nearby areas to biological resources as relevant to future potential climate change is discussed, within revised text, in Section 4.5, Climate Change.

122-23 Distribution patterns of species generally are expected to shift according to regional changes in temperature and precipitation, while the location of wildlife migration corridors and the extent of invasive species also may be altered. Project impacts on habitat fragmentation, habitat linkages, and cumulative impacts of multiple projects on corridors and connectivity are analyzed in the DEIS and are only heightened in their importance by the effects of global climate change. DEIS Section 4.5, Impacts on Climate Change, has been updated in the FEIS to include a discussion of the potential indirect impacts of climate change, including effects on vegetation and wildlife.

Letter - 123.

123-01 The commenter opposes the development of the Project area. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

123-02 See Responses to Comment for 76-1 through 76-3.

Letter - 124.

124-01 See Common Response N.4.2, *Wilderness*.

124-02 Subsequent to the release of the DEIS, AECOM prepared a new wind erosion, PM10, and PM2.5 formation analysis for the Project on behalf of First Solar (see FEIS Section 4.2.3 and Appendix D-6), which supersedes the referenced analysis presented in DEIS pages 3.2-27 through 3.2-30.

124-03 See Common Response N.4.3, *Dark Skies*.

124-04 The phrase "solar farm" is a widely-used term describing solar energy generation facilities, solar plants or solar installations. The word "farm" in no way connotes or implies that these areas are synonymous with agricultural production.

124-05 Due to the irregularity of the proposed Project footprint, the inclusion of the number of miles in parenthesis next to the number of acres of a project is impracticable.

124-06 See Common Response N.4.2, *Wilderness*. The commenter's preference for Alternative 5 is noted.

Letter - 125.

125-01 Concerning the distance and capacities of first responder fire services, as discussed in DEIS Section 4.13, the fire prevention plan that would be in place during construction of the Project would minimize the demand that this construction would place on the California Department of Forestry and Fire Protection. Furthermore, AM-HAZ-9 would require all Project facilities to be designed, constructed and operated in accordance with applicable fire protection and other environmental, health and safety requirements. In compliance with County of Riverside requirements, a project-specific fire prevention plan for both construction and operation of the substation shall be completed by SCE prior to initiation of construction. This plan would provide detailed information in the event of an emergency such as a facility fire. Once constructed, the facility would require very few onsite staff and would contain a relatively low level of materials containing high fire potential, and therefore does not present a high risk of requiring response from the local Fire Department.

As discussed in DEIS section 4.11, cumulative impacts could occur despite the many safeguards implemented to both prevent and control fires, hazardous materials releases,

and injuries and accidents, because of the great distances required for a response. Although the chances that two or more alternative energy facilities would require emergency response simultaneously may be low, a response to one distant site could impede or preclude a simultaneous response to another facility, residential or commercial location, or other location in demand. Although adverse cumulative impacts theoretically are possible, the likelihood of their occurrence is considered low given the existing levels of service within the region

125-02 Comment noted; however, as stated in Response to Comment 125-1, no substantial impact to Fire Department Resources has been identified.

125-03 Comment noted.

125-04 Comment noted.

125-05 Comment noted.

125-06 Comment noted.

125-07 Comment noted. See also Response to Comment 125-1.

125-08 See Response to Comment 125-1.

125-09 The Project does not include any residential elements and would not involve construction of a commercial structure. The installation of panels that are constructed primarily of glass is not considered a high threat of fire.

125-10 The commenter suggests that flag lots would not be permitted by the fire department. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

125-11 The Applicant would be required to obtain certain permits and/or approvals from Riverside County on the portions of the Project site that occur on private lands. As part of this process, the Applicant would be required to comply with the conditions set forth, such as the one in this comment.

125-12 The commenter states that the California Fire Codes would be enforced by the Fire Chief. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

Letter - 126.

126-01 The commenter does not support the proposed Gen-Tie Alternative A-1. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

126-02 The commenter does not approve of the proposed desert tortoise translocation area. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

126-03 See Common Response N.4.7, *Alternatives Analyzed*.

126-04 See Response to Comment 105-7. In addition, as stated in FEIS Chapter 3.11, "the CPUC has not implemented a general requirement that utilities include nonroutine mitigation measures or other mitigation measures that are based on numeric values of EMF exposure and has not adopted any specific limits or regulation on EMF related to electric power facilities." However, the Applicant would prepare a Field Management Plan that would specify, where feasible, "no-cost" and "low-cost" measures, to reduce exposure from the Solar Farm and Gen-Tie facilities (or Red Bluff Substation). No-cost mitigation measures would be undertaken, and low-cost options, when they meet certain guidelines for field reduction and cost, would be adopted through the project certification process and specified in a Field Management Plan.

Potential noise impacts are discussed and analyzed in FEIS Section 4.10.

The construction of electrical transmission lines must meet stringent safety standards that assume wide ranging environmental conditions. The Applicant and SCE would use CPUC General Orders 95 and 165, as related to fire-safe design and maintenance practices for transmission lines, as the basis for establishing minimum requirements for the Project regarding inspection (including maximum allowable inspection cycle lengths), condition rating, scheduling and performance of corrective action, record keeping and reporting, in order to ensure a safe and high-quality electrical service.

Furthermore, as discussed in DEIS Section 2.4, routine maintenance would include equipment testing, equipment monitoring and repair, as well as emergency and routine procedures for reliability and preventive maintenance. These activities would ensure project infrastructure is properly maintained and repaired/replaced if necessary.

126-05 See Common Response N.4.8, *Property Value*.

126-06 See Common Responses N.4.8, *Property Value*, and N.4.4, *Adequacy of Key Observation Points (KOPs) and Simulations*. See also FEIS Section 4.16 for an analysis of visual resource impacts related to the Gen-Tie Line.

Letter - 127.

127-01 Text has been added on FEIS page ES-4; however, to minimize impacts to groundwater, the proposed septic system must adhere to local and State regulations regarding septic design. Text, including this clarification, has been added in FEIS Section 4.17.3.

127-02 Text has been changed in Table ES-1.

127-03 Text has been changed on page ES-6.

127-04 Text has been changed on page ES-7.

127-05 Text has been changed on page 2-23, including the clarification detailed in Comment 127-1.

127-06 Text has been changed on page 2-34.

127-07 Text has been changed on page 2-34, including the clarification detailed in Comment 127-1.

127-08 Text has been changed on page 2-35.

127-09 Text has been changed on page 2-37.

127-10 Text has been changed on page 2.43, including the clarification detailed in Comment 127-1.

127-11 Text has been changed to Tables 2.2-5 and 2.3-9; however, Table 2.3-11 does not appear to reflect the information noted in the comment, and so was not changed.

127-12 Text has been changed to Tables 2.2-6 and 2.3-12; however Table 2.3-9 does not appear to reflect the information noted in the comment, and so was not changed.

127-13 Text has been changed on page 2-52.

127-14 Text has been changed on page 2.54.

127-15 Text has been changed on page 2.54.

127-16 Text has been changed on page 2.63.

127-17 Text has been changed in Table 2.3-16.

127-18 Text has been changed in Table 2.3-17.

127-19 Text has been changed within the document.

127-20 AM-AIR-6 is an applicant measure that SCE has committed to implementing during construction of the Red Bluff Substation to reduce fugitive dust emissions. As indicated by the measure, preparation of a written dust control plan is not a formal requirement of SCAQMD Rule 403. Therefore, this measure has not been deleted in the FEIS.

127-21 AM-AIR-7 would require submittal of a transportation plan that would describe how workers would travel to the project site. SCE has committed to implementing this measure to reduce environmental impacts and during development of the EIS, BLM considered this measure as part of the Project. Therefore, AM-AIR-7 has not been removed in the FEIS.

127-22 MM-AIR-1 has been revised per SCAQMD recommendations (see Response to Comment 103-06). The reference to construction contractor preference has been removed from MM-AIR-1.

127-23 Text has been changed within the document.

127-24 Text has been changed within the document.

127-25 Text noted was not identified within the document, and so no change was made.

127-26 Text has been changed within the document.

127-27 Ironwood's technical report states that there are 522 California ditaxis within the Study Area but does not specify whether all 522 would be impacted by Project activities. Ironwood defines the Study Areas for the Project as a larger area than the proposed disturbance area. No change was made to the EIS text.

127-28 Text has been changed within the document.

127-29 Text has been changed within the document.

127-30 Text has been changed within the document.

127-31 Text has been changed within the document.

127-32 Text has been changed within the document.

127-33 Text has been changed within the document.

127-34 Text has been changed within the document.

127-35 Text change has been incorporated into the document on page 4.6-9.

127-36 Text has been changed to clarify the mitigation measure.

127-37 The text change has been incorporated into the document on page 4.16-23.

127-38 The text change has been incorporated into the document on page 4.16-23.

127-39 The language for MM-VR-3 has been edited to reflect the following: MM-VR-3: *Fugitive Dust Control*. To minimize fugitive dust on the Project site, there shall be limits on the speed of travel for construction vehicles, and dust palliatives shall be applied to the site, as described in AM-AIR-1 and AM-AIR6, and in compliance with SCAQMD Rule 403.

127-40 The text change has been incorporated into the document.

127-41 The text change has been incorporated into the document.

127-42 The text change has been incorporated into the document.

127-43 The text change has been incorporated into the document.

127-44 The text change has been incorporated into the document.

Letter - 128.

128-01 Text has been added on FEIS page ES-4.

128-02 Text has been added on FEIS page 2-23.

128-03 Text has been added on FEIS page 2-34.

128-04 Text has been added on FEIS page 2-43.

Letter - 129.

129-01 A review of existing water conveyance and power supply facilities, including those owned and/or operated by MWD, was completed in support of the environmental review completed for this Project. The Project would not directly interfere with any existing facilities that are owned or operated by MWD. Additional assessment is not warranted.

129-02 The Project would not include installation of facilities that would interfere with MWD's electrical transmission system. Therefore, no impact is anticipated.

129-03 The text has been revised accordingly.

129-04 MWD's private air strip is approximately 9 miles from the proposed 185-foot high SCE telecommunications tower. This tower is not expected to have any effect on navigable airspace of the air strip. However, SCE has filed a Form 7460-1 with the FAA requesting a determination of effect on navigable airspace for the proposed telecommunications tower. The DEIS requires SCE to follow the determination from FAA on this matter (AM-HAZ-7).

Regarding glare from the solar panels affecting aircraft, the type of finish on the panels would be gray/black resulting in low reflectivity, unlike systems that use parabolic troughs or mirrors. Consistent with the recommendation in the EIS, the Applicant would submit a lighting mitigation plan that shall include the treatment of surfaces to minimize glare (MM-VR-4). It has become common practice to site PV solar fields on or near airports such as the facility installed at Fresno Yosemite International Airport. In this case, the FAA found there to be no issues of compatibility.

129-05 BLM acknowledges MWD's concern regarding potential impacts on water supplies, including along the Colorado River. However, as discussed in the Response to Comment 129-8, and in updated text that has been added to the DEIS, the Project is not expected to affect Colorado River flows, due to its distance from the Palo Verde Mesa Groundwater Basin, and its relatively low water use levels, wherein most pumping would occur during the construction phase. Therefore, additional allocations or entitlements to Colorado River water are not anticipated.

129-06 See Responses to Comments 129-5 and 129-8.

129-07 See Responses to Comments 129-5 and 129-8.

129-08 An Accounting Surface Technical Memorandum was prepared to assess the static water level associated with Project-related wells and to determine the potential Project-related impacts to Colorado River water. This analysis is presented in FEIS Appendix O. The

technical memorandum concluded that the static water level beneath the Project site is nearly 200 feet above the Accounting Surface and that Project-related construction and operation activities would not utilize Colorado River water. However, FEIS Section 4.17, Water Resources, concludes that Project-related groundwater use, when combined with groundwater use associated with current and reasonably-foreseeable future projects, would lead to both short-term and long-term cumulatively considerable impacts to groundwater levels near the Project site. To reduce the potential impacts to groundwater levels near the Project site, MM-WAT-7 would require implementation of a Groundwater Level Monitoring, Mitigation, and Reporting Plan. This mitigation measure would establish existing and operational water levels in nearby wells and would provide compensation to any affected well owner.

129-09 Groundwater monitoring data and reports can be made available to MWD upon written request. Regarding the effects of the proposed septic system on water quality, as discussed in updated text in FEIS Section 4.17, the proposed septic system would comply with applicable State and local regulations regarding construction and operation of the proposed septic system. Additionally, the system would treat sanitary wastewater of the Project, and would not be used to treat any process wastewater. Therefore, potential impacts to water quality arising from the use of a septic system are anticipated to be minimal.

Letter - 130.

130-01 No wind generated power is part of the DSSF project.

Letter - 131.

131-01 A CD version of the EIS has been sent in response.

Letter - 132.

132-01 The commenter is concerned about the impacts of industrial development to property values and human health. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response. The portion of this comment concerning the impacts of the Gen-Tie on property values is addressed in Common Response N.4.8, *Property Value*.

132-02 Three inferred/concealed fault lines intersect the Project Area, as shown on DEIS Figure 3.8-1. However, as discussed in Section 4.8, Geology and Soil Resources, these faults are not considered to be active. As discussed therein, the closest active fault to the Project site would be located approximately 7.2 miles away. For additional discussion of potential faulting and associated impacts, see DEIS Section 4.8. As discussed, the risk for health and safety related to fault line rupture to the proposed Project was found to be less than significant.

132-03 The commenter requests that the Project be very carefully evaluated for impacts to humans and the environment. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-

1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

Letter - 137.

137-01 The commenter states that this and other projects are located too close to wilderness areas. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

137-02 The commenter states that the Project and Gen-Tie will adversely impact the environment. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

137-03 See Responses to Comments 76-1 through 76-3.

137-04 Cumulative water impacts are discussed in DEIS and FEIS Section 4.17, Water Resources.

137-05 The commenter questions the unknown location and environmental impacts of the recycling plant. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

137-06 See Common Response N.4.9, *Cadmium Exposure*. Seismic hazards related to the Project site are discussed and analyzed in FEIS Sections 3.8 and 4.8.

137-07 See Common Response N.4.9, *Cadmium Exposure*. Seismic hazards related to the Project site are discussed and analyzed in FEIS Sections 3.8 and 4.8.

137-08 See Common Response N.4.3, *Dark Skies.*

137-09 Concerning a distributed (roof-top) solar alternative to the Project, see Common Response N.4.7, *Alternatives Analyzed.*

Letter - 138.

138-01 See FEIS Section 1.4.

138-02 DEIS and FEIS Chapters 3, *Affected Environment,* and 4, *Environmental Consequences*, describe and analyze potential impacts on land located within Riverside County rights-of-way and on private land in Riverside County.

138-03 FEIS Section 4.1 provides a detailed explanation of the ways in which the EIS meets the requirements of CEQA and NEPA, including Table 4.1-1, which identifies key differences between the requirements of these two laws. As background, EIS Chapter 1 explains that, because the Project would be located primarily on lands administered by the BLM, the Applicant filed a right-of-way (ROW) grant application with the BLM for a permit to construct and operate the Project (Case File Number CACA #48649). The decision regarding the issuance of the ROW grant will be based in part on an evaluation of the

Project's potential environmental effects through the environmental review process under NEPA and the requirements of the Federal Land Policy and Management Act of 1976 (FLPMA).

In compliance with NEPA, the BLM prepared the DEIS and this FEIS to inform the public about the proposed Project and to meet the needs of federal, state, and local permitting agencies in considering its effects on the quality of the human environment. BLM authorization of a ROW grant for the Project would require a plan amendment (PA) to the California Desert Conservation Area (CDCA) Plan of 1980, as amended. The U.S. Department of Energy (DOE) is a cooperating agency on the EIS pursuant to a Memorandum of Understanding (MOU) between DOE and BLM. DOE will consider Applicant's request for a loan guarantee under Title XVII of the Energy Policy Act of 2005 (EPAct 05), as amended by Section 406 of the American Recovery and Reinvestment Act of 2009, Public Law 111-5 (the "Recovery Act").

In order to construct the Red Bluff Substation, SCE first must obtain authorization from the CPUC, which has discretionary authority to issue a Permit to Construct (PTC) for the substation, evaluated as a portion of the Project. Pursuant to CEQA Guidelines Section 15221, the CPUC intends to rely on this FEIS to provide the environmental review required for its consideration of SCE's application under CEQA once that application is filed. The CPUC and BLM have signed an MOU that defines the relationship of the two agencies, and identifies CPUC as a cooperating agency with the BLM for preparation of this FEIS. Following preparation of the FEIS by BLM, the CPUC will determine whether it complies with CEQA and so can be used to support its decision on the substation.

The Applicant is coordinating with other federal agencies, including the USFWS and USACE, regarding other Project approvals and associated NEPA compliance requirements. The Applicant also is coordinating with California state and local agencies, including CDFG, Caltrans, Metropolitan Water District of Southern California (MWD), California Regional Water Quality Control Board (RWQCB), South Coast Air Quality Management District (SCAQMD), and Riverside County, regarding potential Project approvals and associated CEQA requirements pursuant to the procedure outlined by the CPUC as a CEQA cooperating agency.

This FEIS describes and evaluates the environmental impacts that are expected to result from construction, operation, maintenance, and decommissioning of the Project and presents recommended mitigation measures that, if adopted, would avoid, minimize, or mitigate the significant environmental impacts identified. In accordance with the requirements of NEPA and CEQA, this FEIS identifies alternatives that respond to the stated purpose and need for the proposed Project (including three No Action/No Project Alternatives) that could avoid or minimize significant environmental impacts associated with the Project as proposed by the Applicant and SCE, and evaluates the environmental impacts associated with these alternatives. Specifically, the information contained in this FEIS will be considered by the BLM in its consideration of the ROW grant application and also may be considered by other agencies with regard to their respective permits, including DOE, CPUC, and others.

138-04 Comment noted. See Response to Comment 138-3.

138-05 Executive Summary Table ES-2 summarizes impacts by alternative; Table ES-3 summarizes all measures identified by Sunlight or SCE, measures required by law, regulation, or policy, and additional measures identified by the BLM. Thus, both the description of the anticipated impact and the proposed mitigation measures already are included in the Executive Summary Mitigation Tables. Milestones to trigger mitigation compliance and the entity to determine mitigation compliance will be part of the Environmental Construction and Compliance Monitoring Program to be included in the Record of Decision. It will also be part of CPUC's Mitigation Monitoring, Compliance, and Reporting Program (MMRCP) prepared in connection with CPUC's Decision on the Red Bluff Substation.

Letter - 139.

139-01 The commenter supports solar power, but not on this site. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

139-02 The commenter states that wildlife would be endangered by the Project. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

139-03 The availability of groundwater for Project-related use is discussed in detail in DEIS Section 3.17, Water Resources. As analyzed in DEIS Section 4.17, Water Resources, there is sufficient groundwater available to satisfy the demands of the proposed Project.

139-04 The commenter states the views of the valley would be spoiled. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

139-05 The commenter questions long-term economy of the valley. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

Letter - 142.

142-01 The comment is a petition in support of the Project. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

Letter - 143.

143-01 The commenter opposes the Project and supports the No Project Alternative. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

143-02 The commenter states that projects such as the proposed Project amount to a clearcutting of the desert. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

143-03 See Response to Comment 69-17.

143-04 Background information and potential impacts of climate change are discussed and analyzed in DEIS Sections 3.5 and 4.5. These sections have been updated in the FEIS to include additional analysis. Please refer to these chapters for additional discussion of climate related setting and potential impacts.

143-05 As discussed in DEIS Section 3.17, Water Resources, surface water in the vicinity of the Project site occurs only intermittently, during and immediately following large storm events. Stormwater quickly evaporates and, if sufficient volume is available, percolates into the underlying groundwater table. Therefore, any potential changes in temperature of surface water flows would not affect downstream surface water resources. Minor changes in stormwater runoff temperature would not noticeably alter groundwater temperature. In regards to percolation, some reduction in percolation would occur on site, as a result of construction of compacted roads and other proposed elements. These changes would result in changes to stormwater drainage on site, as discussed in Section 4.17, Water Resources. As discussed therein, changes in stormwater flow would be mitigated via installation and use of detention basins and other stormwater control features.

143-06 See Response to Comment 112-4.

143-07 See Response to Comment 28-9.

143-08 See Common Response N.4.4, *Adequacy of Key Observation Points (KOPs) and Simulations*.

143-09 The commenter opposes issuance of the right-of-way grant for purposes of solar energy development. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

143-10 The comment suggests that specific homes should be identified to receive energy from the Project. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

143-11 The comment does not question the adequacy or accuracy of the DEIS. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

143-12 The comment does not question the adequacy or accuracy of the DEIS. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

143-13 The comment does not question the adequacy or accuracy of the DEIS. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

Letter - 144.

144-01 This is the same letter, with spelling and grammar errors corrected, as Comment Letter 124. See Responses to Comment Letter 124.

Letter - 145.

145-01 The commenter supports the Project. Pursuant to Section 6.9.2.1 of BLM NEPA Handbook H-1790-1 (Jan. 30, 2008) and CEQA Section 21091(d)(2)(A), this is not considered a substantive comment on an environmental issue, and so does not require a specific response.

145-02 See Common Response N.4.7, *Alternatives Analyzed*.

145-03 See Common Response N.4.7, *Alternatives Analyzed*.

Letter - 146.

146-01 BLM acknowledges that the Project, which is located within the CVGB, is in an area that is considered to be within the Accounting Surface area. However, the supposition that the Project would result in an effect or impact on the Colorado River has not been substantiated. An additional evaluation of the potential for the Project to interfere with Colorado River water, based on the proposed Accounting Surface, was completed by AECOM (2011). See FEIS Appendix O for this evaluation memorandum. As discussed therein, Project related withdrawals/drawdown would occur well above the upper elevation of the accounting surface. Drawdown would not occur at or below the level of the accounting surface. Therefore, as discussed in updated text in FEIS Section 4.17, Water Resources, the Project would not interfere with or impact flows of the Colorado River. Therefore, acquisition of contracts or other water sources, as indicated by MWD, would not be warranted.

146-02 BLM would like to thank MWD insofar as MWD could provide an alternative water supply in support of the Project. At this time, however, it is anticipated that the Project

would rely on groundwater for construction period demand, and for minor operation period demand, as discussed in DEIS Section 4.17, Water Resources. See also Response to Comment 146-1.

Letter - 147.

147-01 BLM acknowledges receipt of the letter from the Department of the Navy stating that the Project will have no impact on military testing or training.

Appendix O

Accounting Surface Technical Memorandum

AECOM
1220 Avenida Acaso
Camarillo, CA 93012

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Memorandum

To	Bureau of Land Management, Palm Springs – South Coast Field Office
Subject	Desert Sunlight Solar Farm Project: Response to Public Comments Regarding Potential Relationship Between Groundwater Pumping Levels and Impacts to the Colorado River
From	Amanda Beck, First Solar
Date	January 5, 2011

Introduction

This technical memorandum provides an analysis of available groundwater level data in connection with comments on the Desert Sunlight Solar Farm Project (Project) Draft Environmental Impact Statement (DEIS) regarding the potential relationship between proposed groundwater pumping by the Project and the proposed Accounting Surface as has been defined by the United States Geological Survey (USGS) and United States Bureau of Reclamation (USBR). AECOM prepared this technical memorandum at the request of First Solar, Inc. in order to assist the Bureau of Land Management (BLM) in its further analysis of this issue and its response to comments on the DEIS.

While general concerns regarding a potential relationship between groundwater pumping and surface water levels are noted in several comments on the DEIS, including comments submitted by the U.S. Environmental Protection Agency and Metropolitan Water District of Southern California, the issue addressed in this technical memorandum is most clearly set out in the comments submitted by the Colorado River Board of California (Board), dated December 6, 2010. In those comments, the Board states that the area of the Project site, the upper Chuckwalla Valley Groundwater Basin (Basin), is within the area defined as within the “Accounting Surface” and that the Basin aquifer is hydraulically connected to the Colorado River through the Palo Verde Mesa Groundwater Basin. The Board further states that any amount of water withdrawn from the Basin aquifer is water that would be replaced by Colorado River, in total or in part, and should be considered a use of Colorado River water for which a valid contract for water use must be obtained.

This technical memorandum addresses the issue raised by the Board’s comments by explaining the background and framework of the proposed Accounting Surface Rule and then analyzing the groundwater pumping and water elevation data for the Project relative to application of the Accounting Surface Rule. This technical memorandum does not take any position regarding whether the Accounting Surface Rule, as currently proposed or as may be adopted, is an appropriate methodology for analyzing a potential hydraulic connection between groundwater pumping and the Colorado River but, instead, solely responds to the methodology as noted in the Board’s comments.

The Proposed Accounting Surface Rule

The Accounting Surface Rule (Proposed Rule) was proposed by the U.S. Bureau of Reclamation (Reclamation) in the Federal Register on July 16, 2008 (43 CFR Part 415), and has not been promulgated as a final regulation. The United States Geological Survey (USGS) Report 2008-5113 (Wiele et al 2008) updated the location and extent of the Accounting Surface in support of the Proposed Rule, and Figure 6 in the USGS document shows that the Project site is located within the areal extent of the river aquifer and that the Accounting Surface within this aquifer is predicted to be at an elevation of between 238 and 242 feet above mean sea level (msl).

The Accounting Surface is proposed to identify which groundwater wells located outside the floodplain of the Colorado River pump groundwater that will be replaced by surface water from the Colorado River and, thus, would need to be accounted for as consumptive use of Colorado River water as required under the Consolidated Decree (547 U.S.150 (2006)), (Wiele et al, 2008, page 3). The Accounting Surface is defined as the elevation and slope of the static water table in the river aquifer that would exist if the water in the raquifer were derived only from the Colorado River (Wilson and Owen-Joyce 1994, Wiele et al 2008). The river aquifer is defined as those saturated sediments that are hydraulically connected to the Colorado River, and include groundwater basins and adjacent tributary valleys that are adjacent to the River.

The static water level, which is the measured elevation of the water table not being affected by groundwater withdrawal, is used to determine whether a well is pumping water that would be replaced by Colorado River water (Wiele et al 2008). A static water level below the Accounting Surface is presumed to yield water that will be replaced by water from the Colorado River (43CFR 415.2(4), Weile et al 2008). Groundwater wells with static water levels above the Accounting Surface are presumed to yield water that will be replaced by precipitation, mountain front recharge or inflow from tributary valleys (i.e., tributary water).

Assessment of Water Elevation Data Relative to the Accounting Surface

As requested by First Solar, AECOM conducted research:

- to establish the current and historic static water level below the Project site and in the Upper Chuckwalla Valley; and,
- to determine if the static water level is above or below the proposed Accounting Surface as defined by the USGS at an elevation of between 238 and 242 feet msl (Wiele et al 2008, Figure 6).

To assess the water levels in the vicinity of the site, AECOM reviewed available information in the online National Water Information System (NWIS) USGS database and reviewed selected published reports from hydrogeologic investigation of the Upper Chuckwalla Valley (DWR 91-24, GEI 2009a and GEI 2009b). The water level data from this research is shown on Table 1, including the historic and recent elevation data from wells in the vicinity of the Project site and the difference between these elevations and the proposed Accounting Surface at 238 feet and 242 feet msl.

The well locations listed in Table 1 are also shown on Figure 1 relative to the Project site. In addition to a comparison of water level data, AECOM reviewed interpretations of the potentiometric surface in the area of the Project site from previous hydrogeologic investigations (DWR 91-24, GEI 2009a,b).

The available well data shows that the static water level elevation in the vicinity of the Project site have been measured between 469 feet and 504 feet msl (see Table1, 5S/15E-13C01, 4S/16E-19M01, 19N01, 30D01 and CW#2 and P-12). A review of cross sections and potentiometric maps from prior investigations of the Upper Chuckwalla Valley show that the water level elevation has been interpreted to be between about 500 to 540 feet msl in the area of the Project site. The difference between the static water level measurements for the wells in the vicinity of the Project site and interpreted potentiometric surface from prior investigations and the proposed Accounting Surface is between 241 and 266 feet. The range in the difference reflects the variability in the water level measurements from the wells surrounding the Project site and the lower (238 feet) and higher (242 feet) proposed accounting surface for the Basin. Most significantly, the data show that static water level is well above the proposed Accounting Surface. These water level data, either from the wells or used in the interpretation of the potentiometric surface, were collected from 1961 and 1992 (Table 1).

More recent data from a well close to the community of Desert Center (5S/16E-7P01, 7P02) and several miles south-southeast of the Desert Sunlight site show similar water level elevations to those measured in the early 1960s then show a period of water level decline in the mid-1980s due to expanded agricultural operations, where combined pumping exceeded 20,000 acre-feet per year (afy)(GEI 2009b) which is well above historic water usage for the western part of the Basin. These agricultural operations began to be curtailed in the late 1980s and water levels in the Desert Center area have recovered to levels similar to the early 1960s. The most recent water level elevation measured in Well 5S/16E-17P02 was 462 feet msl or about 220 feet above the proposed Accounting Surface (Table 1).

Another important element in the potential implications of the Accounting Surface for the Project is the proposed groundwater pumping and the predicted level of drawdown in the water supply wells from which Project water supplies are obtained. A numerical groundwater model was developed for the DEIS (Appendix G) to evaluate potential affects from Project pumping on adjacent water supply wells and on the Basin storage. Project water use during operation will be minimal (0.2 afy over a 30-year Project life for a total of only 60 acre-feet (af)). Project water use that was modeled during construction was between 1,300 and 1,400 af over a 26-month construction period. The model predicted drawdown in either a single well or two water supply wells of between about 10 and 20 feet over the construction period. Given the above water elevation data, the drawdown will be well above the proposed Accounting Surface. In addition, groundwater modeling of the cumulative impacts from the combined pumping of all proposed solar power projects within the Basin show that after 30 years the water table would drop between 20 and 50 feet (AECOM 2010, GEI 2009a). Even with this predicted decline in the water table, caused largely by other projects' water use, the static water table in the vicinity of the Desert Sunlight Project would be well above the Accounting Surface.

Conclusions

A comparison of available historic and recent groundwater level data from wells in the vicinity of the Desert Sunlight Solar Farm Project site and prior interpretations of the water level elevation below the Project site reveal that the static water level elevation is well above the proposed Accounting Surface. A buffer of more than 200 feet is indicated in the groundwater level data. The data indicate that the Project would therefore not impact the Accounting Surface as it would draw groundwater from well above the surface of what is termed "tributary" water (i.e., other than a Colorado River source, Wiele et al 2008). The "tributary" water replenishing groundwater withdrawals by the Project is therefore attributable to inflow from precipitation, mountain front recharge, Pinto Basin underflow and Hayfield Basin underflow (GEI 2009a).

In addition, a numerical groundwater model developed for the Project predicted drawdown of between only 10 to 20 feet in the Project's water supply well(s) as a result of Project pumping during the 26-month construction period. Because Sunlight is a solar photovoltaic project that does not utilize a steam cycle to generate electricity, water use during operation is negligible. Although not considered in the Proposed Accounting Surface Rule, the Project's minimal level of drawdown reinforces the conclusion that the predicted water levels would remain well above the Accounting Surface and therefore not hydraulically connected to the Colorado River.

References

AECOM 2010, Solar Millennium - Palen Solar Power Project: Groundwater Data Responses to January 14, 2010 CEC Workshop Queries Figure Soil and Water 208b(rev1), "Predicted Water Table Drawdown, Cumulative Impacts from Operational Pumping at the End of 30 Years", March 2010.

DWR, 1979. Bulletin 91-24, Sources of Power Plant Cooling Water in the Desert Area of Southern California – Reconnaissance Study: Prepared by the United States Department of Interior - Geological Survey, August.

Federal Register, 43 CFR 415 (July 16, 2008), "Regulating the Use of Lower Colorado River Water Without an Entitlement – Proposed Rule: 415.2 (4), definition of Colorado River Water.

GEI, 2009a, Eagle Mountain Pumped Storage Project No 13123 - Final License Application, Technical Appendices for Exhibit E, Volume 3 of 6 Groundwater Supply Pumping Effects – Attachment A Supplemental Alluvial Aquifer Properties, Chuckwalla Valley Groundwater Basin (April 17, 2009).

GEI, 2009b, Eagle Mountain Pumped Storage Project, Exhibit E - Applicant Prepared Environmental Impact Statement, Volume 2 of 6, Groundwater Resources, Fgures 3.3.3-1 through 3.3.3-20, Groundwater Resources Figures (June 22, 2009).

USGS 2010, National Water System Web Interface (NWIS), Groundwater Levels for California, Riverside County (http://nwis.waterdata.usgs.gov/ca/nwis/gwlevels)

Wiele, S. M., Lieke, S.A., Owen-Joyce, S.J., and McGuire, E.H., 2008, Update of the Accounting Surface Along the Lower Colorado River - Scientific Investigations Report 2008-5113 (Prepared in Cooperation with the Bureau of Reclamation): U.S Geological survey, Reston, Virginia, 16p.

Wilson, R.P., and Owen-Joyce, S.J., 1994, Method to Identify Wells that Yield Water that will be replaced by Colorado River Water in Arizona, California, Nevada and Utah: U.S. Geological Survey Water-Resources Investigations Report 94-4005, 19 plates, 36 p.

WELLS DATABASE
PROJECT BEACON

WELL DATA[1]									WELL COMPLETION DATA				GROUNDWATER LEVELS			WELL PERFORMANCE DATA[2]				
STATE WELL NUMBER (DWR)	STATE WELL NUMBER (USGS)	LATITUDE	LONGITUDE	Well Owner	Published Use	Year	Status (op)	Lithologic Log (YES)	Ground Surface Elevation	Total Depth	Well Diameter	Perforation Interval(s)	Depth to Groundwater		Groundwater Elevation	Pump Model	Pumping Test Date	Pumping Rate	Specific Capacity	COMMENTS
		NAD 83	NAD 83						feet-msl	feet-bgs	inches		Date	feet-bgs	feet-msl	(Hp)	Mo/Yr	gpm	gpm/ft	
02S/17E-30E01								Yes	850	624		uncased	Jan-33	325	525					
02S/17E-30E01S	002S017E30E001S																1/30/1933	7		
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Dec-54	150	931					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Jun-55	154.94	926					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Sep-55	155.2	925					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Dec-55	155.6	925					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Feb-56	155.2	925					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Feb-56	155.1	926					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Feb-56	155	926					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Mar-56	155	926					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			May-56	154.88	926					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Jul-56	155.3	925					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Aug-56	155.3	925					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Sep-56	155.7	925					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			May-57	155.21	925					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			May-57	155.65	925					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Jun-57	155.48	925					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Aug-57	155.49	925					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Sep-57	155.37	925					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Nov-57	155	926					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Mar-58	155.1	926					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			May-58	155.4	925					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Sep-58	155.6	925					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Jan-59	155.7	925					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Mar-59	155.6	925					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Jun-59	155.8	925					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Sep-59	155.71	925					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Dec-59	155.74	925					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Mar-60	155.6	925					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Jun-60	155.9	925					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Oct-60	155.93	925					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Jan-61	156.14	924					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Mar-61	156.81	924					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Nov-61	157.49	923					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Nov-61	157.77	923					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Nov-62	158.79	922					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Mar-63	159.28	921					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Oct-63	159.34	921					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Mar-64	159.49	921					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Nov-64	159.53	921					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Mar-65	159.81	921					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Nov-65	160.21	920					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Mar-66	161.95	919					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Oct-66	162.94	918					

WELLS DATABASE
PROJECT BEACON

WELL DATA[1]									WELL COMPLETION DATA				GROUNDWATER LEVELS			WELL PERFORMANCE DATA[2]				
STATE WELL NUMBER (DWR)	STATE WELL NUMBER (USGS)	LATITUDE	LONGITUDE	Well Owner	Published Use	Year	Status (op)	Lithologic Log (YES)	Ground Surface Elevation	Total Depth	Well Diameter	Perforation Interval(s)	Depth to Groundwater		Groundwater Elevation	Pump Model	Pumping Test Date	Pumping Rate	Specific Capacity	COMMENTS
		NAD 83	NAD 83						feet-msl	feet-bgs	inches		Date	feet-bgs	feet-msl	(Hp)	Mo/Yr	gpm	gpm/ft	
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Mar-67	163.38	917					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Oct-67	163.78	917					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Oct-69	165.06	916					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			May-70	164.86	916					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Oct-70	166.17	914					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Mar-71	166.54	914					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Jan-72	165.04	916					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Jun-72	166.67	914					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Mar-73	166.31	914					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Sep-73	167.72	913					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Feb-74	167.72	913					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Oct-74	167.48	913					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Apr-75	167.88	913					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Nov-75	168	913					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Mar-76	168.25	912					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Nov-76	168.91	912					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Apr-77	169	912					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Oct-77	169.43	911					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			May-78	169.08	912					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Oct-78	169.75	911					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Apr-79	168.65	912					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Oct-79	170.49	910					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Apr-80	170.55	910					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Oct-80	170.2	910					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Apr-81	170.03	911					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Oct-81	171.49	909					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Apr-82	170.89	910					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Jan-83	169.73	911					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Aug-84	167.24	913					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Feb-85	166.44	914					
03S/15E-04J01S	003S015E04J001S	33.93667885	-115.4099836						1,081	575			Jun-85	166.27	914					
03S/18E-03Q01								No	1,675	17			Jun-61	13	1662					
03S/18E-11A01								No	1,580	40			Jun-61	37	1543					
04S/15E-13C01S	004S015E13C001S							Yes	683	452		220-248, 317-328	Feb-61	188	495		Feb-32	450		
04S/16E-19M01								No	610	585			Oct-61	127	483					
04S/16E-19N01								No	600	151			Apr-61	112	488					
04S/16E-21N01								No	565	39			Apr-61	--	--					
04S/16E-29R01								No	545	110			Jun-61	80	465					
04S/16E-29R01S	004S016E29R001S	33.7902952	-115.3202862						540	110			Apr-61	79.95	460					
04S/16E-29R01S	004S016E29R001S	33.7902952	-115.3202862						540	110			Sep-61	80	460					
04S/16E-29R01S	004S016E29R001S	33.7902952	-115.3202862						540	110			Oct-61	79.93	460					
04S/16E-29R01S	004S016E29R001S	33.7902952	-115.3202862						540	110			Nov-61	79.92	460					
04S/16E-29R01S	004S016E29R001S	33.7902952	-115.3202862						540	110			Dec-61	79.94	460					

WELLS DATABASE
PROJECT BEACON

WELL DATA[1]									WELL COMPLETION DATA				GROUNDWATER LEVELS			WELL PERFORMANCE DATA[2]				
STATE WELL NUMBER (DWR)	STATE WELL NUMBER (USGS)	LATITUDE	LONGITUDE	Well Owner	Published Use	Year	Status (op)	Lithologic Log (YES)	Ground Surface Elevation	Total Depth	Well Diameter	Perforation Interval(s)	Depth to Groundwater		Groundwater Elevation	Pump Model	Pumping Test Date	Pumping Rate	Specific Capacity	COMMENTS
		NAD 83	NAD 83						feet-msl	feet-bgs	inches		Date	feet-bgs	feet-msl	(Hp)	Mo/Yr	gpm	gpm/ft	
04S/16E-29R01S	004S016E29R001S	33.7902952	-115.3202862						540	110			Jan-62	79.92	460					
04S/16E-29R01S	004S016E29R001S	33.7902952	-115.3202862						540	110			Feb-62	79.94	460					
04S/16E-29R01S	004S016E29R001S	33.7902952	-115.3202862						540	110			Mar-62	79.93	460					
04S/16E-29R01S	004S016E29R001S	33.7902952	-115.3202862						540	110			Apr-62	79.86	460					
04S/16E-29R01S	004S016E29R001S	33.7902952	-115.3202862						540	110			May-62	79.93	460					
04S/16E-29R01S	004S016E29R001S	33.7902952	-115.3202862						540	110			Jun-62	79.97	460					
04S/16E-29R01S	004S016E29R001S	33.7902952	-115.3202862						540	110			Nov-62	79.96	460					
04S/16E-29R01S	004S016E29R001S	33.7902952	-115.3202862						540	110			Mar-63	79.96	460					
04S/16E-29R01S	004S016E29R001S	33.7902952	-115.3202862						540	110			Oct-63	80	460					
04S/16E-29R01S	004S016E29R001S	33.7902952	-115.3202862						540	110			Mar-64	80.04	460					
04S/16E-29R01S	004S016E29R001S	33.7902952	-115.3202862						540	110			Mar-65	80.11	460					
04S/16E-29R01S	004S016E29R001S	33.7902952	-115.3202862						540	110			Nov-65	80.27	460					
04S/16E-29R01S	004S016E29R001S	33.7902952	-115.3202862						540	110			Oct-66	79.1	461					
04S/16E-29R01S	004S016E29R001S	33.7902952	-115.3202862						540	110			Mar-67	78.93	461					
04S/16E-29R01S	004S016E29R001S	33.7902952	-115.3202862						540	110			Oct-67	78.76	461					
04S/16E-29R01S	004S016E29R001S	33.7902952	-115.3202862						540	110			May-70	78.25	462					
04S/16E-30D01S	004S016E30D001S							No	603	610			Oct-61	114	489		Oct-60	5075	110	
04S/16E-30D01S	004S016E30D001S	33.8008503	-115.3347034						603	610			May-61	113.91	489		Oct-60	5075	110	
04S/16E-30D01S	004S016E30D001S	33.8008503	-115.3347034						603	610			Jun-61	114.3	489					
04S/16E-30D01S	004S016E30D001S	33.8008503	-115.3347034						603	610			May-70	118.53	484					
04S/16E-31D01S	004S016E31D001S							Yes	595	600		135-597	Jun-61	95	500		Jun-61	2328	44	
04S/16E-31R01								Yes	555	36			Apr-61	--	--					
04S/16E-32D01								Yes	555	610		265-555	Jun-61	79	476					
04S/16E-32D01S	004S016E32D001S																Oct-61	2750	80	
04S/16E-32E01								No	555	77		63-95, 245-252	Apr-61	--	--					
04S/16E-32M01								Yes	555	555			Jun-61	74	481					
04S/16E-32M01S	004S016E32M001S																Jun-61	2000		
04S/16E-32M01S	004S016E32M001S	33.7797398	-115.333592						548	555			Apr-61	71.41	477		Jun-61	2000		
04S/16E-32M01S	004S016E32M001S	33.7797398	-115.333592						548	555			Apr-61	71.61	476					
04S/16E-32M01S	004S016E32M001S	33.7797398	-115.333592						548	555			Jun-61	71.43	477					
04S/16E-32M01S	004S016E32M001S	33.7797398	-115.333592						548	555			Jun-61	73.46	475					
04S/16E-32M01S	004S016E32M001S	33.7797398	-115.333592						548	555			Feb-62	69.32	479					
04S/16E-32M01S	004S016E32M001S	33.7797398	-115.333592						548	555			Mar-62	70.29	478					
04S/16E-32M01S	004S016E32M001S	33.7797398	-115.333592						548	555			Apr-62	72.45	476					
04S/16E-32M01S	004S016E32M001S	33.7797398	-115.333592						548	555			May-62	73.82	474					
04S/16E-32M01S	004S016E32M001S	33.7797398	-115.333592						548	555			Aug-62	79.95	468					
04S/16E-32M01S	004S016E32M001S	33.7797398	-115.333592						548	555			Sep-62	79.57	468					
04S/16E-32M01S	004S016E32M001S	33.7797398	-115.333592						548	555			Nov-62	77.17	471					
04S/16E-32M01S	004S016E32M001S	33.7797398	-115.333592						548	555			May-70	77.25	471					
04S/16E-32M01S	004S016E32M001S	33.7797398	-115.333592						548	555			Apr-79	66.95	481					
04S/16E-32M01S	004S016E32M001S	33.7797398	-115.333592						548	555			Jul-80	72.87	475					
04S/16E-32M01S	004S016E32M001S	33.7797398	-115.333592						548	555			Jan-81	74.16	474					
04S/16E-32M01S	004S016E32M001S	33.7797398	-115.333592						548	555			Oct-81	86.9	461					

WELLS DATABASE
PROJECT BEACON

WELL DATA[1]									WELL COMPLETION DATA				GROUNDWATER LEVELS			WELL PERFORMANCE DATA[2]				
STATE WELL NUMBER (DWR)	STATE WELL NUMBER (USGS)	LATITUDE	LONGITUDE	Well Owner	Published Use	Year	Status (op)	Lithologic Log (YES)	Ground Surface Elevation	Total Depth	Well Diameter	Perforation Interval(s)	Depth to Groundwater		Groundwater Elevation	Pump Model	Pumping Test Date	Pumping Rate	Specific Capacity	COMMENTS
		NAD 83	NAD 83						feet-msl	feet-bgs	inches		Date	feet-bgs	feet-msl	(Hp)	Mo/Yr	gpm	gpm/ft	
04S/16E-32M01S	004S016E32M001S	33.7797398	-115.333592						548	555			Apr-82	82.01	466					
04S/16E-32M01S	004S016E32M001S	33.7797398	-115.333592						548	555			Jan-83	90.29	458					
04S/16E-32M01S	004S016E32M001S	33.7797398	-115.333592						548	555			Jul-84	121.88	426					
04S/16E-32M01S	004S016E32M001S	33.7797398	-115.333592						548	555			Feb-85	120.8	427					
04S/16E-35Z01								No	470	--			Jan-17	13	457					
04S/17E-06C01								Yes	500	501			Oct-61	22	478					
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				Jan-32	22.5	478		Apr-61	106		
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				May-52	21	479					
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				Sep-54	21.2	479					
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				Oct-56	21.4	479					
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				May-57	21.6	478					
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				Sep-59	21.9	478					
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				Apr-61	21.82	478					
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				Nov-61	22.4	478					
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				Jan-62	22.2	478					
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				Mar-62	22.14	478					
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				Nov-62	22.41	478					
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				Mar-63	22.22	478					
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				Oct-63	22.31	478					
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				Mar-64	22.41	478					
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				Nov-64	22.4	478					
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				Mar-65	22.51	477					
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				Nov-65	22.3	478					
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				Mar-66	22.5	478					
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				Oct-66	22.74	477					
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				Mar-67	22.55	477					
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				Oct-67	22.95	477					
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				Apr-68	22.8	477					
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				Nov-68	22.71	477					
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				Apr-69	25.02	475					
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				Oct-69	24.72	475					
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				Apr-70	23.15	477					
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				Oct-70	23.55	476					
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				Mar-71	23.57	476					
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				Apr-79	23.88	476.12					
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				Jul-80	24.4	476					
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				Jan-81	24.52	475					
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				Oct-81	25.23	475					
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				Apr-82	26.69	473					
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				Jan-83	25.01	475					
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				Jul-84	25.31	475					
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				Feb-85	25.42	475					
04S/17E-06C01S	004S017E06C001S	33.85918308	-115.2394237						500				Jun-85	25.65	474					

WELLS DATABASE
PROJECT BEACON

WELL DATA[1]									WELL COMPLETION DATA				GROUNDWATER LEVELS			WELL PERFORMANCE DATA[2]				
STATE WELL NUMBER (DWR)	STATE WELL NUMBER (USGS)	LATITUDE	LONGITUDE	Well Owner	Published Use	Year	Status (op)	Lithologic Log (YES)	Ground Surface Elevation	Total Depth	Well Diameter	Perforation Interval(s)	Depth to Groundwater		Groundwater Elevation	Pump Model	Pumping Test Date	Pumping Rate	Specific Capacity	COMMENTS
		NAD 83	NAD 83						feet-msl	feet-bgs	inches		Date	feet-bgs	feet-msl	(Hp)	Mo/Yr	gpm	gpm/ft	
05S/14E-24R01								Yes	1,072	733			Jan-33	570	502					
05S/14E-35L01								No	1,270	600		349-784	Sep-61	570	700					
05S/14E-35L01								No	1,270	641			Sep-61	571	699					
05S/14E-35L01								No	1,190	877		526-746	Sep-61	485	705					
05S/14E-35L01								Yes	1,369	501		400-501	Nov-80	Dry	--					
05S/14E-35L01								Yes	1,342	805		599-799	Nov-80	635	708					
05S/14E-35L01S	005S014E35L001S																Nov-61	2		
05S/14E-35L02S	005S014E35L002S																Nov-61	6		
05S/15E-01E01								No	645	755		215-788	Oct-61	146	499					
05S/15E-01L01								Yes	640	790			Oct-61	139	501					
05S/15E-01L01S	005S015E01L001S																Mar-61	1674	42	
05S/15E-01L01S	005S015E01L001S																Mar-60	3150		
05S/15E-02E01S	005S015E02E001S																Nov-60	3300	56	
05S/15E-12N01								Yes	688	746		--	May-61	173	515					
05S/15E-12N01S	005S015E12N001S	33.7440238	-115.3781377						671	746			Apr-61	173	498		May-61	1900		
05S/15E-12N01S	005S015E12N001S	33.7440238	-115.3781377						671	746			Jun-67	172	499					
05S/15E-12N01S	005S015E12N001S	33.7440238	-115.3781377						671	746			May-70	172	499					
05S/15E-12N01S	005S015E12N001S	33.7440238	-115.3781377						671	746			Mar-92	190	481					
05S/15E-12N01S	005S015E12N001S	33.7440238	-115.3781377						671	746			Mar-00	183	488					
05S/15E-13B01								Yes	650	788		--	Sep-61	160	490					
05S/15E-14E01								No	750	799		--	Nov-61	245	505					
05S/15E-14J01								No	710	63		--	--	--	--					
05S/15E-15E01								No	805	808		--	Nov-61	313	492					
05S/15E-23N01								No	880	409		--	Mar-61	367	513					
05S/15E-27B01								Yes	900	644		553-625	Oct-61	395	505					
05S/15E-27B01S	005S015E27B001S	33.71390794	-115.4038719						900	644			May-58	395	505					
05S/15E-27B01S	005S015E27B001S	33.71390794	-115.4038719						900	644			Mar-61	395	505					
05S/15E-27B01S	005S015E27B001S	33.71390794	-115.4038719						900	644			Jun-61	395	505					
05S/15E-27B02								No	900	--		224-705	--	--	--					
05S/15E-27H01								No	904	598		--	Mar-61	429	475					
05S/15E-29F01								No	1,046	680		--	Sep-61	366	680					
05S/15E-2E01								No	700	728		--	Oct-61	210	490					
05S/16E-05B01								No	560	114		--	Jul-61	71	489					
05S/16E-05B02								Yes	548	715		--	Oct-61	69	479					
05S/16E-05E01								No	570	124		--	--	--	--					
05S/16E-05F01S	005S016E05F001S	33.7679373	-115.3378755						544				Oct-00	79	464					
05S/16E-05F02S	005S016E05F002S	33.76787344	-115.3380088						545	250			Jun-99	81	464					
05S/16E-05F02S	005S016E05F002S	33.76787344	-115.3380088						545	250			Oct-00	80	465					
05S/16E-05F02S	005S016E05F002S	33.76787344	-115.3380088						545	250			Oct-00	80	465					
05S/16E-05M01S	005S016E05M001S	33.765729	-115.3441312						557				Oct-00	90	467					
05S/16E-06N01								Yes	604	723		228-331, 334-722	Jun-61	126	478					
05S/16E-07M01								No	614	648			Jun-61	61	553					
05S/16E-07M01								Yes	611	789		280-789	Jul-61	126	485					

WELLS DATABASE
PROJECT BEACON

WELL DATA[1]									WELL COMPLETION DATA				GROUNDWATER LEVELS			WELL PERFORMANCE DATA[2]				
STATE WELL NUMBER (DWR)	STATE WELL NUMBER (USGS)	LATITUDE	LONGITUDE	Well Owner	Published Use	Year	Status (op)	Lithologic Log (YES)	Ground Surface Elevation	Total Depth	Well Diameter	Perforation Interval(s)	Depth to Groundwater		Groundwater Elevation	Pump Model	Pumping Test Date	Pumping Rate	Specific Capacity	COMMENTS
		NAD 83	NAD 83						feet-msl	feet-bgs	inches		Date	feet-bgs	feet-msl	(Hp)	Mo/Yr	gpm	gpm/ft	
05S/16E-07M01S	005S016E07M001S	33.749171	-115.3573315						604	648			Apr-61	121	483		Feb-59	1324	94	
05S/16E-07M01S	005S016E07M001S	33.749171	-115.3573315						604	648			Apr-61	126	478		Feb-58	3634	110	
05S/16E-07M01S	005S016E07M001S	33.749171	-115.3573315						604	648			Jun-61	125	479		Jun-61	1118	124	
05S/16E-07M01S	005S016E07M001S	33.749171	-115.3573315						604	648			Jun-61	127	477		Apr-59	707		
05S/16E-07M01S	005S016E07M001S	33.749171	-115.3573315						604	648			Jun-61	127	477		Apr-61	1115		
05S/16E-07M01S	005S016E07M001S	33.749171	-115.3573315						604	648			Jun-61	126	478					
05S/16E-07M01S	005S016E07M001S	33.749171	-115.3573315						604	648			Jun-61	128	476					
05S/16E-07M01S	005S016E07M001S	33.749171	-115.3573315						604	648			Jun-61	129	475					
05S/16E-07M01S	005S016E07M001S	33.749171	-115.3573315						604	648			Aug-61	127	477					
05S/16E-07M01S	005S016E07M001S	33.749171	-115.3573315						604	648			Oct-61	124	480					
05S/16E-07M01S	005S016E07M001S	33.749171	-115.3573315						604	648			Oct-61	124	480					
05S/16E-07M01S	005S016E07M001S	33.749171	-115.3573315						604	648			Oct-61	125	479					
05S/16E-07M01S	005S016E07M001S	33.749171	-115.3573315						604	648			Oct-61	125	479					
05S/16E-07M01S	005S016E07M001S	33.749171	-115.3573315						604	648			Nov-61	127	477					
05S/16E-07M01S	005S016E07M001S	33.749171	-115.3573315						604	648			Nov-62	140	464					
05S/16E-07M01S	005S016E07M001S	33.749171	-115.3573315						604	648			Apr-70	128	476					
05S/16E-07M01S	005S016E07M001S	33.749171	-115.3573315						604	648			Oct-91	194	409					
05S/16E-07M01S	005S016E07M001S	33.749171	-115.3573315						604	648			Feb-92	189	415					
05S/16E-07M01S	005S016E07M001S	33.749171	-115.3573315						604	648			Mar-92	190	414					
05S/16E-07M01S	005S016E07M001S	33.749171	-115.3573315						604	648			Sep-92	188	415					
05S/16E-07M01S	005S016E07M001S	33.749171	-115.3573315						604	648			Apr-93	183	421					
05S/16E-07M01S	005S016E07M001S	33.749171	-115.3573315						604	648			Sep-93	182	421					
05S/16E-07M01S	005S016E07M001S	33.749171	-115.3573315						604	648			Apr-94	179	425					
05S/16E-07P01								Yes	608	347		248-296, 299-347	Apr-61	121	487					
05S/16E-07P01S	005S016E07P001S	33.74557395	-115.3533147						598	347			Sep-52	108	490					
05S/16E-07P01S	005S016E07P001S	33.74557395	-115.3533147						598	347			Jun-90	213	385					
05S/16E-07P01S	005S016E07P001S	33.74557395	-115.3533147						598	347			Oct-90	208	390					
05S/16E-07P01S	005S016E07P001S	33.74557395	-115.3533147						598	347			Mar-91	199	399					
05S/16E-07P01S	005S016E07P001S	33.74557395	-115.3533147						598	347			Feb-92	188	410					
05S/16E-07P02S	005S016E07P002S	33.7453656	-115.3535703						598	767			Oct-00	137	462					
05S/16E-08F01								Yes	560	206		103-168, 172-188	Sep-61	83	477					
05S/16E-08K01								Yes	555	212		124-162, 178-180	Jun-61	83	472					
05S/16E-09E01								No	545	--			Jun-61	--	--					
05S/16E-10Z01								No	--	76			Jun-61	74	--					
05S/16E-18M01								No	646	790			Apr-61	161	485					
05S/16E-18Q01								No	660	37			Jun-61	--	--					
05S/16E-22N01								No	653	516			Dec-61	188	465					
05S/16E-25F01								No	598	680			May-61	135	463					
05S/16E-36M01								Yes	730	357		261-357	Sep-61	274	456					
05S/17E-17F01S	005S017E17F001S	33.70807585	-115.2488671						574	698			Apr-61	108	466					
05S/17E-17F01S	005S017E17F001S	33.70807585	-115.2488671						574	698			May-70	111	463					
05S/17E-17F01S	005S017E17F001S	33.70807585	-115.2488671						574	698			Mar-92	113	461					
05S/17E-19Q01								Yes	535	760		314-758	Apr-61	76	459					

WELLS DATABASE
PROJECT BEACON

WELL DATA[1]									WELL COMPLETION DATA				GROUNDWATER LEVELS			WELL PERFORMANCE DATA[2]				
STATE WELL NUMBER (DWR)	STATE WELL NUMBER (USGS)	LATITUDE	LONGITUDE	Well Owner	Published Use	Year	Status (op)	Lithologic Log (YES)	Ground Surface Elevation	Total Depth	Well Diameter	Perforation Interval(s)	Depth to Groundwater		Groundwater Elevation	Pump Model	Pumping Test Date	Pumping Rate	Specific Capacity	COMMENTS
		NAD 83	NAD 83						feet-msl	feet-bgs	inches		Date	feet-bgs	feet-msl	(Hp)	Mo/Yr	gpm	gpm/ft	
05S/17E-19Q01S	005S017E19Q001S	33.71446456	-115.2472004						538	760			Apr-61	76	462					
05S/17E-19Q01S	005S017E19Q001S	33.71446456	-115.2472004						538	760			Apr-61	76	462					
05S/17E-19Q01S	005S017E19Q001S	33.71446456	-115.2472004						538	760			May-70	75	463					
05S/17E-19Q01S	005S017E19Q001S	33.71446456	-115.2472004						538	760			Feb-92	82	456					
05S/17E-20F01								No	465	10										
05S/17E-21Z01								No					Jan-17	98						
05S/17E-29E01								Yes	533	983			Apr-61	84	449					
05S/17E-29H01								Yes	495	1,025		uncased	Aug-61							
05S/17E-30F01								Yes	570	720		120-288, 314-698	Apr-61	108	462					
05S/17E-30G01S	005S017E30G001S	33.7079481	-115.2388196						543				Mar-00	116	428					
05S/17E-30P01								No	620	147			Jun-61							
05S/17E-30P01S	005S017E30P001S	33.70057607	-115.2494227						607	152			May-57	150	457					
05S/17E-33N01								Yes	597	758		266-758	Apr-61	173	424					
05S/17E-33N01S	005S017E33N001S	33.6861321	-115.2210885						592	758			Apr-61	173	419					
05S/17E-33N01S	005S017E33N001S	33.6861321	-115.2210885						592	758			Apr-61	173	419					
05S/17E-33N01S	005S017E33N001S	33.6861321	-115.2210885						592	758			Oct-61	173	419					
05S/17E-33N01S	005S017E33N001S	33.6861321	-115.2210885						592	758			Apr-70	175	417					
06S/15E-24E01S	006S015E24E001S	33.63391075	-115.3774823						1,995	22			Aug-61	17	1978					
06S/15E-24E02S	006S015E24E002S	33.63529958	-115.3794268						2,000	22			Aug-61	19	1981					
06S/15E-24E03S	006S015E24E003S	33.63279968	-115.3758156						1,995	14			May-52	10	1985					
06S/15E-30Q01S	006S015E30Q001S	33.61613324	-115.4580404						2,200	15			Aug-61	12	2188					
06S/17E-03M01								Yes	565	818			Apr-61	190	375					
06S/17E-03M01S	006S017E03M001S	33.67641019	-115.2035878						566	818			Apr-61	190	376					
06S/17E-03M01S	006S017E03M001S	33.67641019	-115.2035878						566	818			Apr-61	190	376					
06S/19E-28R01S	006S019E28R001S	33.6130791	-114.9955244						354				Sep-90	81	273					
06S/19E-28R01S	006S019E28R001S	33.6130791	-114.9955244						354				Sep-90	82	272					
06S/19E-28R01S	006S019E28R001S	33.6130791	-114.9955244						354				Feb-92	81	273					
06S/19E-32K01S	006S019E32K001S	33.60406264	-115.0196002						390				Feb-92	104	286					
06S/19E-32K01S	006S019E32K001S	33.60406264	-115.0196002						390				Mar-00	97	293					
06S/19E-32K02S	006S019E32K002S	33.6041904	-115.0196919						390				Feb-92	110	280					
06S/20E-33C01S	006S020E33C001S	33.61002386	-114.9013548						392				Sep-90	134	258					
06S/20E-33C01S	006S020E33C001S	33.61002386	-114.9013548						392				Feb-92	135	257					
06S/20E-33L01S	006S020E33L001S	33.60465735	-114.9017964						388	800			Feb-02	125	262					
07S/18E-14F01S	007S018E14F001S	33.56214983	-115.073652						563	1,000			Dec-82	300	263					
07S/18E-14F01S	007S018E14F001S	33.56214983	-115.073652						563	1,000			Feb-92	270	292					
07S/18E-14F01S	007S018E14F001S	33.56214983	-115.073652						563	1,000			Mar-00	270	293					
07S/18E-14H01S	007S018E14H001S	33.56226096	-115.0650739						546	985			Jan-83	270	276					
07S/18E-14H01S	007S018E14H001S	33.56226096	-115.0650739						546	985			Feb-92	258	288					
07S/18E-14H01S	007S018E14H001S	33.56226096	-115.0650739						546	985			Mar-00	257	289					
07S/19E-04R01S	007S019E04R001S	33.5849549	-114.9955658						424				Sep-90	144	280					
07S/19E-04R01S	007S019E04R001S	33.5849549	-114.9955658						424				Mar-00	144	279					
07S/20E-04R01S	007S020E04R001S	33.5839135	-114.8910764						418				Jun-61	152	266					
07S/20E-04R01S	007S020E04R001S	33.5839135	-114.8910764						418				Oct-61	151	267					

WELLS DATABASE
PROJECT BEACON

WELL DATA[1]									WELL COMPLETION DATA				GROUNDWATER LEVELS			WELL PERFORMANCE DATA[2]				
STATE WELL NUMBER (DWR)	STATE WELL NUMBER (USGS)	LATITUDE	LONGITUDE	Well Owner	Published Use	Year	Status (op)	Lithologic Log (YES)	Ground Surface Elevation	Total Depth	Well Diameter	Perforation Interval(s)	Depth to Groundwater		Groundwater Elevation	Pump Model	Pumping Test Date	Pumping Rate	Specific Capacity	COMMENTS
		NAD 83	NAD 83						feet-msl	feet-bgs	inches		Date	feet-bgs	feet-msl	(Hp)	Mo/Yr	gpm	gpm/ft	
07S/20E-04R01S	007S020E04R001S	33.5839135	-114.8910764						418				Nov-61	151	267					
07S/20E-04R01S	007S020E04R001S	33.5839135	-114.8910764						418				Jan-62	151	267					
07S/20E-04R01S	007S020E04R001S	33.5839135	-114.8910764						418				Mar-62	151	267					
07S/20E-04R01S	007S020E04R001S	33.5839135	-114.8910764						418				Apr-62	151	267					
07S/20E-04R01S	007S020E04R001S	33.5839135	-114.8910764						418				May-62	151	267					
07S/20E-04R01S	007S020E04R001S	33.5839135	-114.8910764						418				Oct-62	151	267					
07S/20E-04R01S	007S020E04R001S	33.5839135	-114.8910764						418				Mar-63	151	267					
07S/20E-04R01S	007S020E04R001S	33.5839135	-114.8910764						418				Oct-63	151	267					
07S/20E-04R01S	007S020E04R001S	33.5839135	-114.8910764						418				Mar-64	151	267					
07S/20E-04R01S	007S020E04R001S	33.5839135	-114.8910764						418				Nov-64	151	267					
07S/20E-04R01S	007S020E04R001S	33.5839135	-114.8910764						418				Mar-65	151	267					
07S/20E-04R01S	007S020E04R001S	33.5839135	-114.8910764						418				Nov-65	151	267					
07S/20E-04R01S	007S020E04R001S	33.5839135	-114.8910764						418				Mar-66	151	267					
07S/20E-04R01S	007S020E04R001S	33.5839135	-114.8910764						418				Oct-66	151	267					
07S/20E-04R01S	007S020E04R001S	33.5839135	-114.8910764						418				Mar-67	151	267					
07S/20E-04R01S	007S020E04R001S	33.5839135	-114.8910764						418				Oct-67	151	267					
07S/20E-04R01S	007S020E04R001S	33.5839135	-114.8910764						418				Oct-69	151	267					
07S/20E-04R01S	007S020E04R001S	33.5839135	-114.8910764						418				Apr-70	151	267					
07S/20E-16M01S	007S020E16M001S	33.5591308	-114.9053349						456	1,200			Jun-05	202	254					
07S/20E-16M01S	007S020E16M001S	33.5591308	-114.9053349						456	1,200			Sep-90	206	250					
07S/20E-16M01S	007S020E16M001S	33.5591308	-114.9053349						456	1,200			Feb-92	207	249					
07S/20E-16M01S	007S020E16M001S	33.5591308	-114.9053349						456	1,200			Feb-92	206	250					
07S/20E-17C01S	007S020E17C001S	33.56891386	-114.9166326						433				Feb-92	174	259					
07S/20E-17G01S	007S020E17G001S	33.5644973	-114.9155269						444	1,200			Dec-87	203	241					
07S/20E-17G01S	007S020E17G001S	33.5644973	-114.9155269						444	1,200			Sep-90	189	254					
07S/20E-17G01S	007S020E17G001S	33.5644973	-114.9155269						444	1,200			Feb-92	186	257					
07S/20E-17G01S	007S020E17G001S	33.5644973	-114.9155269						444	1,200			Feb-92	188	256					
07S/20E-17G01S	007S020E17G001S	33.5644973	-114.9155269						444	1,200			Mar-00	199	244					
07S/20E-17K01S	007S020E17K001S	33.55918915	-114.9121462						457	1,200			Dec-87	205	252					
07S/20E-17K01S	007S020E17K001S	33.55918915	-114.9121462						457	1,200			Feb-92	201	256					
07S/20E-17K01S	007S020E17K001S	33.55918915	-114.9121462						457	1,200			Feb-92	199	257					
07S/20E-17K01S	007S020E17K001S	33.55918915	-114.9121462						457	1,200			Feb-92	200	257					
07S/20E-17L01S	007S020E17L001S	33.55882247	-114.9202159						458	1,200			Oct-92	213	245					
07S/20E-18H01S	007S020E18H001S	33.5625251	-114.926355						443	1,139			Apr-61	168	275					
07S/20E-18H01S	007S020E18H001S	33.5625251	-114.926355						443	1,139			Apr-70	172	271					
07S/20E-18H01S	007S020E18H001S	33.5625251	-114.926355						443	1,139			Jul-79	173	269					
07S/20E-18H01S	007S020E18H001S	33.5625251	-114.926355						443	1,139			Jul-80	169	274					
07S/20E-18H01S	007S020E18H001S	33.5625251	-114.926355						443	1,139			Jan-81	169	274					
07S/20E-18H01S	007S020E18H001S	33.5625251	-114.926355						443	1,139			Sep-81	169	274					
07S/20E-18H01S	007S020E18H001S	33.5625251	-114.926355						443	1,139			Mar-82	170	273					
07S/20E-18H01S	007S020E18H001S	33.5625251	-114.926355						443	1,139			Jan-83	171	272					
07S/20E-18H01S	007S020E18H001S	33.5625251	-114.926355						443	1,139			Jul-84	171	272					
07S/20E-18H01S	007S020E18H001S	33.5625251	-114.926355						443	1,139			Feb-85	171	272					

WELLS DATABASE
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WELL DATA[1]									WELL COMPLETION DATA				GROUNDWATER LEVELS			WELL PERFORMANCE DATA[2]				COMMENTS
STATE WELL NUMBER (DWR)	STATE WELL NUMBER (USGS)	LATITUDE	LONGITUDE	Well Owner	Published Use	Year	Status (op)	Lithologic Log (YES)	Ground Surface Elevation	Total Depth	Well Diameter	Perforation Interval(s)	Depth to Groundwater		Groundwater Elevation	Pump Model	Pumping Test Date	Pumping Rate	Specific Capacity	
		NAD 83	NAD 83						feet-msl	feet-bgs	inches		Date	feet-bgs	feet-msl	(Hp)	Mo/Yr	gpm	gpm/ft	
07S/20E-18H01S	007S020E18H001S	33.5625251	-114.926355						443	1,139			Jun-85	173	270					
07S/20E-18H01S	007S020E18H001S	33.5625251	-114.926355						443	1,139			Feb-92	183	259					
07S/20E-18K01S	007S020E18K001S	33.5600363	-114.9319802						449	1,200			Oct-92	193	256					
07S/20E-18R01S	007S020E18R001S	33.5573475	-114.9270467						454	1,160			Oct-92	202	252					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Mar-82	248	258					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Feb-92	232	273					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Mar-00	235	271					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Oct-00	235	271					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Jan-01	235	271					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Feb-01	234	271					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Apr-01	235	271					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Apr-01	235	271					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Jul-01	235	270					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Nov-01	236	270					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Nov-01	236	270					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Apr-02	235	271					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Apr-02	235	271					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Oct-02	236	270					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Oct-02	236	269					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Jun-03	236	270					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Jun-03	236	270					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Nov-03	236	269					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Nov-03	236	269					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Mar-04	236	270					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Mar-04	236	270					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Aug-04	236	270					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Dec-04	236	270					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Apr-05	235	270					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Aug-05	236	270					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Aug-05	236	270					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Feb-06	236	270					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Feb-06	236	270					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			May-06	236	269					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			May-06	236	269					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Aug-06	237	269					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Aug-06	237	269					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Dec-06	237	269					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Dec-06	237	269					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Feb-07	236	269					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Feb-07	236	269					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			May-07	237	269					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			May-07	237	269					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Sep-07	237	269					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Sep-07	237	269					

WELLS DATABASE
PROJECT BEACON

WELL DATA[1]									WELL COMPLETION DATA				GROUNDWATER LEVELS			WELL PERFORMANCE DATA[2]				COMMENTS
STATE WELL NUMBER (DWR)	STATE WELL NUMBER (USGS)	LATITUDE	LONGITUDE	Well Owner	Published Use	Year	Status (op)	Lithologic Log (YES)	Ground Surface Elevation	Total Depth	Well Diameter	Perforation Interval(s)	Depth to Groundwater		Groundwater Elevation	Pump Model	Pumping Test Date	Pumping Rate	Specific Capacity	
		NAD 83	NAD 83						feet-msl	feet-bgs	inches		Date	feet-bgs	feet-msl	(Hp)	Mo/Yr	gpm	gpm/ft	
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Sep-07	237	269					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Dec-07	237	269					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Dec-07	237	269					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Mar-08	236	270					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Mar-08	236	270					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Mar-08	236	270					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Jun-08	236	270					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Jun-08	236	270					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Sep-08	236	270					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Sep-08	236	270					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Sep-08	236	270					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Jan-09	235	270					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Jan-09	235	270					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Apr-09	235	270					
07S/20E-28C01S	007S020E28C001S	33.53725089	-114.8991372						506	830			Apr-09	235	270					
07S/20E-28C02S	007S020E28C002S	33.5372481	-114.8989955						505	1,100			Nov-89	234	271					

NOTES

1 Data as provided in the USGS National Water Information System Database - http//:nwis/waterdata.usgs.gov/ and the Department of Water Resources Database - http://wdl.water.ca.gov/gw/

2 Data obtained by historical documents

DEFINITIONS

NAD-83	North American Datum 1983
feet-msl	feet above mean sea level
feet-bgs	feet below ground surface
Mo	month
gpm	gallons per minute
gpm/ft	gallons per minute per foot of drawdown
--	data not provided or available in USGS or DWR database.

TABLE 1
SUMMARY OF AVAILABLE WATER LEVEL DATA FOR WELLS
WITHIN CLOSE PROXIMITY TO THE DESERT SUNLIGHT SOLAR POWER PROJECT
RIVERSIDE COUNTY, CALIFORNIA

STATE WELL NUMBER (DWR)[1]	STATE WELL NUMBER (USGS)	Ground Surface Elevation	Total Depth	Perforation Interval(s)	Depth to Groundwater		Groundwater Elevation[6]	ACCOUNTING SURFACE 238 ft msl[7]	ACCOUNTING SURFACE 242 ft msl[7]
		feet-msl	feet-bgs		Date	feet-bgs	feet-msl	DIFFERENCE	DIFFERENCE
								feet	feet
04S/16E-19M01	**--**	610	585	--	Oct-61	127	**483**	245	241
04S/16E-30D01S	**004S016E30D001S**	603	610	--	Oct-61	114	489	251	247
04S/16E-30D01S	**004S016E30D001S**	603	610	--	May-70	118.53	**484**	246	242
04S/15E-13C01S	**004S015E13C001S**	683	452	220-248, 317-328	Feb-61	188	**495**	257	253
04S/16E-19N01	**--**	600	151	--	Apr-61	112	**488**	250	246
05S/16E-07P01[2]	**005S016E07P001S**	608	347	248-296, 299-347	Apr-61	121	487	249	245
05S/16E-07P01[2]	**005S016E07P001S**	598	347	--	Sep-52	108	490	252	248
05S/16E-07P01[2]	**005S016E07P001S**	598	347	--	Jun-90	213	385	147	143
05S/16E-07P01[2]	**005S016E07P001S**	598	347	--	Oct-90	208	390	152	148
05S/16E-07P01[2]	**005S016E07P001S**	598	347	--	Mar-91	199	399	161	157
05S/16E-07P01[2]	**005S016E07P001S**	598	347	--	Feb-92	188	**410**	172	168
05S/16E-07P02[2]	**005S016E07P002S**	598	767	--	Oct-00	137	**462**	224	220
CW#2[3]	**--**	--	--	--	Jul-92	--	**469**	231	227
P-12[3]	**--**	--	--	--	Jul-92	--	**504**	266	262
GEI (2009b) Cross Section C-C' [4]		NA	NA	NA	NA	NA	540	302	302
DWR 91-24 (1979) [5]		NA	NA	NA	NA	NA	520	282	282

Notes

1	Well locations are shown on Figure -1. Information shown was take from the USGS NWIS database.
2	Water elevation data from the NWIS database. Time-series graph of Wells 5S/16E-7P01 and 5S/16E-7P02 as shown on GEI Figure 3.3.3-7 (GEI 2009b). Decline in water levels during the mid-1980's and through the early 1990's is from expanded pumping in support of agriculture (upwards of 20,000 afy). Since the mid-1990's agriculture has been in decline as evidenced by the recovery in the water levels.
3	Water elevation data as shown on Figure 3.3.3-11, "Groundwater Contours Near the Project Site - July 15, 1992 (GEI 2009b). Water level data posted for those wells that are the most proximal to the Project Site (see Figure 1).
4	Estimate of water elevation based on water level surface plotted onto cross section C-C' (GEI, 2009a Figure 5) in the area of well 5S/16E-13C001 and Kaiser Well CW#4. Water level data interpreted was from 1961 and 1964.
5	Estimate of water elevation based on water level elevation map as shown on GEI Figure 3.3.3-10 (GEI 2009b). Figure references modificaiton after DWR 91-24 (1979). Water level data used in development of the contours was from 1974.
6	Values in BOLD, are shown on Figure-1 "Site Plan Showing Recent Water Level Data for Wells Adjacent to the Project Site".
7	Proposed Accounting Surface elevation after USGS 2008-5113 (Weile et al, 2008), Figure 6, "Map showing the accouting surface in the Parker, Palo Verde and Cibola Valleys and adjacent tribuary areas in California and Arizona".
--	Information not present in the USGS NWIS database.
NA	Not applicable. Water elevation data interpreted using graphical data (i.e., cross section and water level maps). No specific well completion, depth to water or elevation data included on the referenced figures.
CW	Chuckwalla Basin Water Supply Well (Kaiser Mine).
P	Piezometer (Kaiser Mine).

References

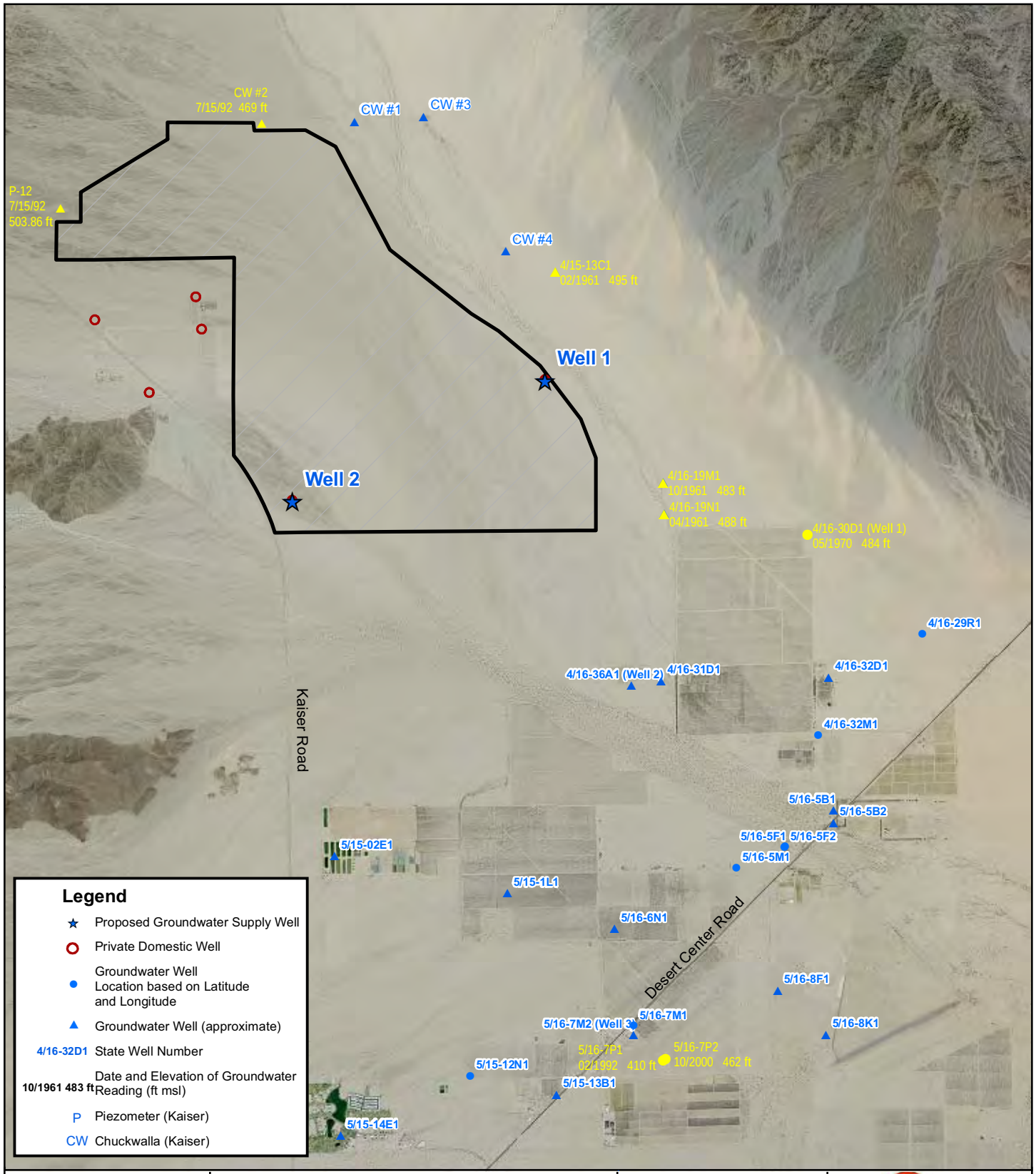
DWR 91-24, Department of Water Resources, 1979, Sources of Power Plant Cooling Water in the Desert Area of Southern California – Reconnaissance Study: Prepared by the United States Department of Interior - Geological Survey, August.

GEI, 2009a, Eagle Mountain Pumped Storage Project No 13123 - Final License Application, Technical Appendices for Exhibit E, Volume 3 of 6 Groundwater Supply Pumping Effects – Attachment A Supplemental Alluvial Aquifer Properties, Chuckwalla Valley Groundwater Basin. April 17, 2009 (GEI Project No. 080473) Figure 5 - Cross Section C-C', April 2009.

GEI, 2009b, Eagle Mountain Pumped Storage Project, Exhibit E - Applicant Prepared Environmental Impact Statement, Volume 2 of 6, Groundwater Resources, Figures 3.3.3-1 through 3.3.3-20, Groundwater Resources Figures (June 22, 2009).

USGS 2010, National Water System Web Interface (NWIS), Groundwater Levels for California, Riverside County. Accessed at: http://nwis.waterdata.usgs.gov/ca/nwis/gwlevels?county_cd=06029&format=station_list&sort_key=station_nm&group_key=county_cd&sitefile_output_format=html_table&column_name=well_depth_va&begin_date=&end_date=&TZoutput=0&date_format=YYYY-MM DD&rdb_compression=file&list_of_search_criteria=county_cd

Wiele, S. M., Lieke, S.A., Owen-Joyce, S.J., and McGuire, E.H., 2008, Update of the Accounting Surface Along the Lower Colorado River - Scientific Investigations Report 2008-5113 (Prepared in Cooperation with the Bureau of Reclamation): U.S Geological survey, Reston, Virginia, 16p.



Map Location

Legend

Proposed Solar Farm Site (Approximate)

1 in = 1 miles

0 1 2 Miles

N W E S

Desert Sunlight Solar Farm Project

Figure 1
Water Level Data In Vicinity of Project

First Solar.

AECOM

Project: 60139386.012
Date: December 2010

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