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09-AFC-9
DATE MAR 30 2010
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Via Electronic Transmission and US Mail
March 30, 2010

Laura Cunningham
Kevin Emmerich
Basin and Range Watch
PO Box 153,
Baker, CA 92309

RE: Ridgecrest Solar Power Project (RSPP), Docket No. 09-AFC-9, Responses to Basin and Range Watch Set 1 Data Requests #1 to #7

Dear Ms. Cunningham and Mr. Emmerich:

As requested, attached please find Ridgecrest Solar I, LLC's responses to Basin and Range Set 1 Data Requests DR-1 to DR-7.

If you have any questions on these data responses to the Data Requests, please feel free to contact me at 510-809-4662 (office) or 949-433-4049 (cell).

Sincerely,

Billy Owens
Director, Project Development

Cc: Eric Solorio, CEC
Docket

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BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION OF THE STATE OF CALIFORNIA
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APPLICATION FOR CERTIFICATION
For the *RIDGECREST SOLAR POWER PROJECT*

Docket No. 09-AFC-9

PROOF OF SERVICE
(Revised 3/2/2010)

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DECLARATION OF SERVICE

I, Elizabeth Copley, declare that on March 30, 2010, I served and filed copies of the attached Ridgecrest Solar Power Project (Docket No. 09-AFC-9) Responses to Basin and Range Watch Data Request Set 1, Data Requests #1 to #7. The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at:

[http://www.energy.ca.gov/sitingcases/solar_millennium_ridgecrest].

The documents have been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

(*Check all that Apply*)

For service to all other parties:

X sent electronically to all email addresses on the Proof of Service list;

_ by personal delivery;

X by delivering on this date, for mailing with the United States Postal Service with first-class postage thereon fully prepaid, to the name and address of the person served, for mailing that same day in the ordinary course of business; that the envelope was sealed and placed for collection and mailing on that date to those addresses **NOT** marked "email preferred."

AND

For filing with the Energy Commission:

X sending an original paper copy and one electronic copy, mailed and emailed Respectively, to the address below (preferred method);

OR

__ depositing in the mail an original and 12 paper copies, as follows:

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 09-AFC-9
1516 Ninth Street, MS-4
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I declare under penalty of perjury that the foregoing is true and correct.

RIDGECREST SOLAR POWER PROJECT (09-AFC-9)
BASIN AND RANGE NO. 1 DATA REQUESTS #1 - #7

Technical Area: Biological Resources (Section 5.3) **Response Date: March 30, 2010**

Following are responses to Set 1-Data Requests of Basin and Range Watch, dated March 1, 2010, regarding DR-BIO-53 in the Applicant's Responses to CEC Data Request Set 1 & 2, (1 - 262), Data Requests 53 to 74 - Biological Resources.

B&R No. 1 DR-1

Background:

> "Tortoise Abundance. There are no readily available DT density data for the project vicinity, but several sampling programs suggest low to very low local DT densities. Estimated DT density at the RSPP site, based on 2009 surveys and prior to reconfiguration, is 8.1 adult DT per square kilometer (km2) using the USFWS calculation (USFWS 2009a) and based on the 23 adult DT found in 702.1 hectares (1734.8 acres) (AECOM 2009)."

Data Request:

> The numbers 8.1 adult DT per square kilometer conflict with the numbers listed in the Application for Certification submitted in August, 2009. The numbers listed in that document are 9.8 DT's per km2. Please explain why there is a 1.7 margin of difference in these numbers. Were juveniles left off of the most recent list?

Response:

The Application for Certification (AFC; AECOM 2009) reports 9.8 adult tortoises per km^2, but the density was revised to 8.1 based on subsequent data analysis. The preliminary estimated adult desert tortoise (DT) abundance and associated density reported in AFC (69 adult DTs were estimated, corresponding to 9.8 DTs/km^2) included five observations of DTs of unknown size class in the calculation. These DTs of unknown size class were subsequently removed from the calculation and estimates were revised (57 adult DTs were estimated, corresponding to 8.1 DTs/km^2) prior to submittal of the Applicant's Responses to CEC Data Requests in January, 2010. As specified in the USFWS protocol, only tortoises that are greater than 160-millimeters (mm) midline carapace length (MCL) are to be used to estimate tortoise abundances within the survey area. This is because the parameters used in the equation are based on USFWS range-wide monitoring data collected for adult tortoises greater than 160-mm MCL (USFWS 2009); therefore estimated abundance calculations are valid only for adult DTs within this specified size class.

B&R No. 1 DR-2

Background:

> "More recent transects conducted for the West Mojave Plan (WMP) in 1999 consistently found very low sign counts in the RSPP vicinity and Indian Wells Valley (U.S. Bureau of Land Management [BLM] 2005). On 23 of 25 transects, zero to three sign were observed; on the remaining 2 transects, four to eight sign were observed. During this same sampling program, there were many areas in the WMP planning area that had higher to substantially higher sign counts, indicating that the RSPP vicinity (Indian Wells Valley, Ridgecrest) is a low DT density area."

Data Request:

Please provide Indian Wells Valley rainfall and weather data for the survey years, including 1999.

Response:

Table B&R No.1 DR-2 presents winter (October to April) precipitation for the survey years 1998, 1999, 2001, and 2002. Winter precipitation influences forage abundance and tortoise activity during the following spring. These data indicate that tortoise forage would have been reduced in 1999, with some likely reduction in tortoise activity in spring 1999; transects were conducted in the summer following that spring. However, the discussion in the data response compared sign counts to other areas surveyed *during the same below-average rainfall/lowered tortoise activity year*, and identified that all of the transects in Indian Wells Valley had low sign counts, while other areas had higher sign counts. For example, high sign counts were observed northwest of Barstow. Barstow Airport has a long-term average precipitation of 96.5 mm (3.8 inches); the winter 1998-1999 total was 7.25 mm (0.29 inches) (http://www.wrcc.dri.edu/cgi-bin).

Table B&R No. 1 DR-2 Winter Precipitation for Survey Years (inches)

YEARS	OCT	NOV	DEC	JAN	FEB	MAR	APR	TOTAL
Winter 1997/1998	0.00	0.65	0.66	0.37	4.52	0.45	0.00	6.65
Winter 1998/1999	0.01	0.10	0.00	0.41	0.06	0.14	1.05	1.77
Winter 2000/2001	0.00	0.00	0.00	1.52	3.33	0.45	0.02	5.32
Winter 2001/2002	0.26	0.43	0.00	0.00	0.00	0.00	0.02	0.71

Reference: WRCC, 2010 (http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca4278)

B&R No. 1 DR-3

Background:

Historically, density transects for the Ridgecrest area, including the Project site, estimated densities at 8-19 DT per km^2 (20-50 DT per square mile [mi^2]) (Berry and Nicholson 1984). This was considered a relatively low tortoise density at the time. During this same sampling program, 7640 km^2 (2950 mi^2) in California were estimated to have over 19 DT per km^2 and nine areas were estimated to have over 58 DT per km^2 (150 DT per mi^2).

"While the available data are relatively old for the later time periods (early to mid 1990s) and current densities are unknown, these are the most recent available data."

"Recent sampling near Red Rocks State Park, west of the RSPP, suggested very low DT densities, fewer than four adult DT per km^2 (Keith et al. 2005). Even using the USFWS-calculated estimate of 8.1 adult DT per km^2 presented in the RSPP AFC, this would be considered a historically low density. Table DR-BIO-53 shows the five trend plots studied by BLM in the western Mojave Desert that historically had the highest DT densities. Adult DT densities from the period 1979 to 1982 ranged from 36 to 92 adult DT per km^2. The three plots closest to the RSPP (the Fremont Valley plot and the two Desert Tortoise Natural Area [DTNA] plots), approximately 18 to 75 km away, respectively, had the highest densities. The other high-density plots in California had 38 to 83 adult tortoises per km^2."

Data Request:

The applicant's biologist is making assumptions about Indian Wells Valley population density by using outdated, off site survey data, some of which is decades old. Red Rock State Park is over 20 miles from the project site. Please provide more recent survey data that gives a more accurate population estimate of desert tortoise density in Indian Wells Valley. Please compare current DT density in Indian Wells Valley to range-wide DT densities for 2009 and 2010.

Response:

At the request of the Project Applicant, Dr. Alice Karl, a DT expert, prepared an analysis of historic and recent tortoise abundance using all of the available data for the area. Dr. Karl determined that the WMP data are relatively recent and probably valid for the purpose used, since this survey was based on comparative tortoise abundance, not density. (Density, which is the absolute number of tortoises per unit area [e.g., 8.1 tortoises/km^2], may have changed since the WMP transects were walked, but the relative abundance of tortoises, estimated from sign counts, is more likely to still be current.) While the author of the DR states that the data used for this analysis is outdated, no references to more recent data are identified. Dr. Karl has concluded that there are no more data available for this area.

Dr. Karl has determined that the USFWS range-wide sampling (Line Distance Sampling [LDS]) program results are not comparable because of the very large size of the LDS sampling units compared to small units such as RSPP, and because of the random sampling method.

The USFWS sampling results for 2009 are not available yet and the 2010 data have not been collected.

B&R No. 1 DR-4

Background:

"Connectivity Issues. Based on the above analysis and aerial photographs, development of this site would not appear to impair connectivity within the population. First, there is no evidence that there are important population segments to connect given the low DT densities at the RSPP and a location that is already impacted by anthropogenic factors. Second, with the updated Project footprint refinement (Figure DR-ALT-49) connections to the El Paso Mountains Pass to the south

would be conserved by minimizing impacts to the El Paso Wash assuming that Project mitigation also ensures that (a) DT are not funneled onto the highway and Brown's Road along these corridors, and (b) off-highway vehicles (OHV) traffic does not increase in these washes."

Data Request:

Please provide peer reviewed references or other evidence besides an aerial photograph that support the assumption that tortoises in Indian Wells Valley are not important to the connectivity of the species. If this is not an important population, please explain why an updated project footprint is necessary to maintain connectivity. The updated footprint was to maintain the best habitat for use by MGS and DT.

Response:

The analysis in the response to DR-BIO-53 provides an objective analysis of the importance of this population to DT recovery (not connectivity), based on the best available information. Discussion points include the relative abundance of tortoises in the Indian Wells Valley, both historically and recently, the lack of USFWS's designation of this area as critical habitat, and both the USFWS's and BLM's lack of identification of this area as important to the species' recovery (i.e., a designated Desert Wildlife Management Area [DWMA]). Based on these important conclusions by several different studies and different agencies, and in the absence of any data that would contradict this analysis, a reasonable conclusion is that the Indian Wells Valley tortoises are not critical to desert tortoise recovery.

The RSPP was reconfigured to minimize impacts to the El Paso Wash. Although the Indian Wells Valley tortoises are not thought to be critical to desert tortoise recovery, it is reasonable to conclude that the reconfigured site plan would maintain habitat connectivity. Maintaining this habitat connectivity through Project redesign would be beneficial to the species regardless of the size or importance of the population.

B&R No. 1 DR-5

Background:

"It does not appear that development of the RSPP would result in a level of fragmentation that would reduce surrounding habitat to unusable fragments. From aerial photographs, there appears to be ample habitat, even if somewhat degraded by anthropogenic activities, in the surrounding area to support the use of the area by DT should the RSPP be built."

Data Request:

There appear to be conflicting opinions about the importance of connectivity on the RSPP and to what level anthropogenic activity has influenced this population. At one point, the applicant's biologist suggests that urbanization, off highway vehicle activity, Highway 395 and subsidized predators have impacted this population to the point of being hopelessly fragmented, yet the last paragraph suggests that anthropomorphic activity has not substantially disrupted this population. We would like to request that additional studies on how anthropomorphic activity has influenced the overall health and connectivity of the desert tortoise population in Indian Wells Valley.

Response:

The reader has apparently misinterpreted the response to DR-BIO-53. The response identified several threats to tortoises at the RSPP that were very likely to be affecting that population in several important ways, including severe fragmentation and increased mortality. The last paragraph discusses only whether those anthropogenic impacts would be exacerbated due to the RSPP.

Additional studies are always welcomed as new sources of data, but not warranted in this situation. The data showing that heavily traveled roads impact tortoises (see references listed in DR-BIO-53) are conclusive. Likewise, there is ample evidence that ravens and dogs associated with desert towns impact desert tortoises near those towns. For instance, CDFG (R. Jones, CDFG Palmdale Office) specifically requested information from tortoise surveyors on feral dogs in order to identify impacts due to dogs. USFWS has written an environmental assessment for managing raven populations, expressly to minimize that threat to desert tortoises (USFWS 2009).

B&R No. 1 DR-6

Background:

All staff of the California Department of Fish and Game, US Fish and Wildlife Service, the Bureau of Land Management and the California Energy Commission have stated that the RSPP site is home to an important population of desert tortoise.

From the December 28, 2009, Memorandum from CEC to Commissioners Boyd and Levin. Ridgecrest Solar Power Project (09-AFC-9) Issues Identification Report. Docketed: "The Project Schedule Will Be Problematic For The Applicant and Permitting Agencies Considering How Much Additional Information Is Needed. The extent of high quality habitat loss for two listed species and several species of concern for this project will be difficult to mitigate."

Data Request:

Please explain why the opinion of the applicant's biologist is so radically different from the opinions of the several biologists working for the various agencies that have been given the responsibility of mitigating this project.

Response:

The DR-BIO-53 response does not present an opinion. Instead, it provides an objective analysis completed by a DT species expert using all existing, available data. The above referenced statement from the December 28, 2009 memorandum from CEC is not unusual. CEC Staff often highlights issues to ensure the Commissioners are prepared to consider the potential and known issues early in the approval process. This in turn assists CEC Staff in the preparation of the Data Requests. The report is also in the initial stage of the approval process, not in the later stages once a larger record of information has been analyzed. Since the December memorandum, the Applicant has responded to numerous Data Requests by the agencies to further examine the concerns raised by staff. Future workshops and hearings will allow differences in analyses to be rationally discussed and the optimum outcome for this listed species to be achieved.

B&R No. 1 DR-7

Data Request:

Please provide copies of all desert tortoise survey field data observation sheets. These could be posted on the CEC website for easiest access.

Response:

Additional desert tortoise protocol surveys within unsurveyed portions of the reconfigured Project disturbance area and associated 1-mile buffer are scheduled to be completed in April-May 2010. Results of the 2010 surveys will be used to update the 2009 Draft Ridgecrest Solar Power Project Desert Tortoise Technical Report (EDAW AECOM 2009). The revised technical report will include all desert tortoise field survey forms and will be made available to the CEC upon completion.

Literature Cited

AECOM. 2009. Ridgecrest Solar Power Project Application for Certification. Prepared for Palo Verde Solar I, LLC. Submitted to the California Energy Commission on August 31, 2009. 900 pp.

EDAW AECOM. 2009. Draft Ridgecrest Solar Power Project Desert Tortoise Technical Report.

United States Fish and Wildlife Service. 2009. Environmental assessment to implement a Desert Tortoise Recovery Plan task: reduce common raven predation on the desert tortoise. Ventura Field Office. 156 pp.