STATE OF CALIFORNIA

Energy Resources Conservation and Development Commission

In the Matter of: APPLICATION FOR CERTIFICATION FOR THE RIDGECREST SOLAR PROJECT	DOCKET NO. 09-AFC-9

INTERVENOR WESTERN WATERSHEDS PROJECT

COMMENTS ON APPLICANT'S RIDGECREST SOLAR POWER PROJECT MOHAVE GROUND SQUIRREL HABITAT CONNECTIVITY STUDY *DRAFT STUDY PLAN* OCTOBER 19, 2010

November 12, 2010

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Pursuant to the November 2, 2010 email from Eric K. Solorio, Project Manager, Western Watersheds Project hereby submits the following comments on the Solar Millennium Ridgecrest Solar Power Project applicant's Ridgecrest Solar Power Project Mohave Ground Squirrel Habitat Connectivity Study *Draft Study Plan* October 19, 2010.

Western Watersheds Project is concerned that the study plan's experimental design may not be robust enough to (a) determine Mohave ground squirrel presence/absence at the Ridgecrest Solar Power Plant site, and (b) determine the importance of the Ridgecrest Solar Power Plant site to Mohave ground squirrel habitat connectivity. We offer the following comments and suggestions to address these concerns and to help strengthen the study plan design.

(1) Confirming Mohave Ground Squirrel Presence on the Site.

(a) The Proposed Number of Traps *per* Trapping Grid is Inadequate.

The applicant proposes using trapping grids each consisting of 20 traps in two lines of ten traps with 100 m spacing between the lines and 50 m spacing between traps in a line. Draft Study Plan at 3. In their guidelines, California Department of Fish and Game (CDFG) recommend that Mohave ground squirrel trapping grids consist of 100 traps with the traps spaced 35 meters apart.[1] These survey guidelines were intended for projects that would negatively affect areas of less than 180 acres; CDFG requires that special survey protocols be developed for larger projects to ensure that the project area is adequately sampled. In this case, the project disturbance area is nearly 1,944 acres. The applicant is proposing using only one fifth of the CDFG recommended number of traps per grid (i.e. 20 versus 100 traps) but provides no rationale for doing so. Brooks and

[1] California Department of Fish and Game Mohave Ground Squirrel Survey Guidelines (January 2003). 5 pp.

Matchett (2002)[2] reported that overall trapping success in trapping surveys conducted throughout the species' range averaged only 0.82 individuals/100 traps/day. Because overall Mohave ground squirrel trapping success rates are low, use of only 20 traps per grid is likely to be inadequate to establish presence. In addition, all the proposed data analyses depend on trapping being successful. The applicant should demonstrate that its proposed trapping grid size is adequate for addressing the tasks at hand or alternately, it should use CDFG's recommended 100 traps/grid.

(b) Trapping On the Site Should Be Stratified Using Data from the Habitat Assessment.

In its Application for Certification (AFC) the applicant assumed Mohave ground squirrel presence on the Ridgecrest Solar Power Plant site and conducted a habitat assessment in lieu of trapping. In that habitat assessment, the applicant established, "A total of 1,725.6 acres of potentially suitable MGS habitat, of which 234.7 acres are potentially high quality habitat, occur in the disturbance area." AFC at 5.3-36. If this habitat assessment is correct then Mohave ground squirrels would not be expected to be distributed randomly across the power plant site. The draft plan is unclear as to how many trapping grids would be located in the project disturbance area. Although 10 trapping grids will be located in the 7,403 acre Study Area B (Table 1), the 1,944 acre power plant site is only 26% of this. With random placement of grids, less than 100 traps would be located in the 1,944 acre disturbance area, a number lower than the number of traps CDFG recommends for sites that are less than 180 acres. The address these issues, the study protocol should include some level of stratification to ensure that the project site and its "high quality habitat" that was identified in the habitat assessment are adequately sampled. Without doing this stratification, there is a high risk that the trapping results for the power plant site itself will be inconclusive.

(2) Trapping Should Be Augmented with Other Methods Such as Video Photography.

While trapping has a useful role in establishing presence/absence, the relationship between trapping success and Mojave ground squirrel population densities is far from clear. In some cases, Mohave ground squirrels have been observed on or near trapping grids but none were captured. Young Mohave ground squirrels have even been observed entering and leaving traps. As an adjunct to the trapping studies, the applicant's should consider additional monitoring techniques such as the use of remote video cameras at the trapping sites, as has been used by Dr. Leitner in his recent studies at Fort Irwin.

(3) The Selection of Study Areas Should Include Key Sections of the 395 Corridor.

Leitner (2008)[3] has proposed that the 395 corridor is an important component of Mohave ground connectivity. To avoid any upfront spatial bias caused by the non-random selection of study areas we strongly suggest that an additional study area be added to sample this critical habitat

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[2] Brooks, M. L. and Matchett, J. R. 2002. Sampling methods and trapping success trends for the Mohave ground squirrel (*Spermophilus mohavensis*). California Fish and Game 88(4): 165-177.

[3] Leitner, P. 2008. Current Status of the Mohave Ground Squirrel. Transactions of the Western Section of the Wildlife Society. 44: 11-29.

component. This additional study area (Study Area G) would include the two large blocks of suitable habitat that lie west of Highway 395 between areas E, D and F and that connect the project site to Study Area F.

(4) The Genetic Analysis Should be Clarified.

The applicant proposes a genetic analysis using seventeen microsatellite loci. The proposal would benefit from the inclusion of a summary of how informative these presumably polymorphic microsatellite loci are, the degree of polymorphism, and the hypotheses being tested.

(5) The "Potential Data Analysis Methods Section" Needs Clarification.

The study plan proposes two scenarios for situations in which "greater than a few" or "no or very few" individual Mohave ground squirrels are trapped. The study plan is not clear on what constitutes "greater than a few" or "no or very few" and how this is to be applied. Do "greater than a few" individuals have to be trapped in all study areas for Scenario 1? The Study Plan at 8 states that "between 15-30 samples" from each population are needed to detect genetic effects. Does "greater than a few" thus mean 15 or more individuals? Given the Brooks and Matchett (2002) average of 0.82 individuals/100 traps/day it would seem highly improbable that 15 or more Mohave ground squirrels will be trapped in any of the study areas. It would seem most likely that Scenario 2 is the default analysis for this study and corridor modeling will be a mainstay. If this is so, it would seem imperative that our proposed Study Area G be included to facilitate least-cost corridor analysis.

(6) Collection of Incidental Data.

The study protocol should include an explicit requirement for the recordation of incidental observations of all special status species in addition to desert tortoise.

Dated: November 12, 2010

Respectfully submitted,

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APPLICATION FOR CERTIFICATION
For the *RIDGECREST SOLAR POWER PROJECT*

Docket No. 09-AFC-9

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(Revised 11/10/2010)

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DECLARATION OF SERVICE

I, Michael Connor, declare that on, 11/12/10, I served and filed copies of the attached Comments on the MGS Study. 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 document has 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:

(C*heck all that Apply*)

For service to all other parties:

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

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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
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I declare under penalty of perjury that the foregoing is true and correct, that I am employed in the county where this mailing occurred, and that I am over the age of 18 years ~~and not a party to the proceeding~~.

Michael J. Carroll