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June 22, 2009

Christopher Meyer
Project Manager
Siting, Transmission and Environmental Protection Division
California Energy Commission
1516 Ninth Street, MS-15
Sacramento, CA 95814

Rich Rotte
Project Manager
Bureau of Land Management
Barstow Field Office
2601 Barstow Road
Barstow, CA 92311

Re: Scoping Comments on the SES Solar I Project

Dear Mr. Meyer and Mr. Rotte:

California Unions for Reliable Energy (CURE) has formally intervened in this siting proceeding for the Sterling Energy System Solar One Project (Project). CURE has undertaken a review of the biological resources section of the Application for Certification (AFC). Attached to this letter is an outline of CURE's preliminary scoping comments on potential biological impacts. The attached outline was prepared with the technical assistance of biological resources consultant Scott Cashen.

The AFC describes a project that will place 34,000 SunCatcher dishes on 8,230 acres of open, undeveloped land in the Mojave Desert. Each SunCatcher dish will be approximately 38 feet high and 40 feet wide. The site is surrounded by the Cady Mountain Wilderness Study Area and the Pisgah Area of Critical Environmental Concern. The project also includes construction of a water treatment facility, evaporation ponds, a 220kV substation and ancillary facilities.

As discussed in the attached outline of our scoping comments, the information that is provided in the AFC and by the supplement document demonstrates that the Project has a number of significant adverse environmental impacts. However, the surveys and methodology in the AFC fail to provide sufficient detail to enable the joint agencies, CURE, or the public to fully evaluate the environmental resources on the Project site or the proposed mitigation. The AFC is intended to provide baseline information about the Project's impact on environmental quality and public health and safety. The biological data underlying the AFC does not fulfill that purpose.

In particular, the AFC does not provide adequate information or analysis in the following biological areas: (1) baseline information regarding desert tortoise; (2) mitigation for impacts to desert tortoise; (3) impacts to burrowing owl; (4) rare plants survey methods and baseline data; (5) rare plant impact assessment; (6) rare plant mitigation; (7) impacts to potential jurisdictional waters; (8) impacts to the Mojave fringe-toed lizard; (9) impacts to Nelson's bighorn sheep; (10) impacts to wildlife corridors; (11) cumulative impacts; (12) impacts to nesting bird species; (13) collision hazards; (14) wildlife mortality from evaporation ponds; and (15) compliance with laws, ordinances, rules and standards. Additional baseline information and analysis is required to analyze the Project's biological impacts and for the development of feasible mitigation measures.

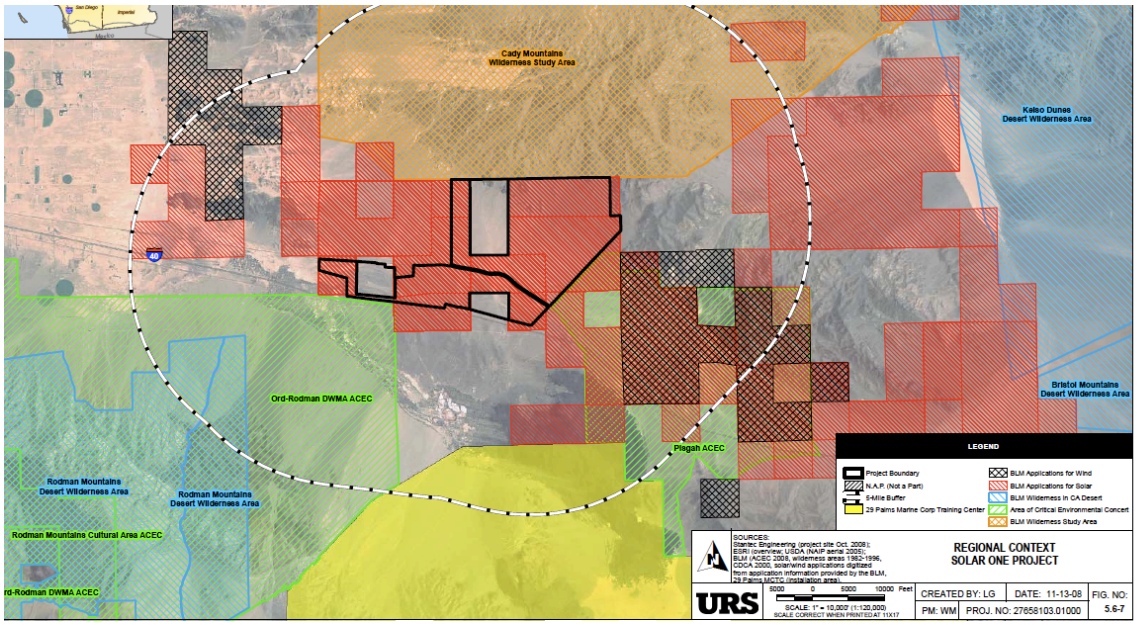
The applicant's data collection methods strongly affect the reliability and validity of the impacts identified and ability to mitigate significant impacts. To be legally adequate under CEQA, mitigation measures must be capable of avoiding, minimizing, or mitigating impacts to a level considered less than significant. This is simply not possible without reliable baseline information. In order to evaluate data validity, the AFC and supplemental information supplied by the applicant must meet minimum thresholds for content and quality. The AFC and supplemental information provided by the applicant fails to provide adequate biological resource information to evaluate Project biological impacts and proposed mitigation.

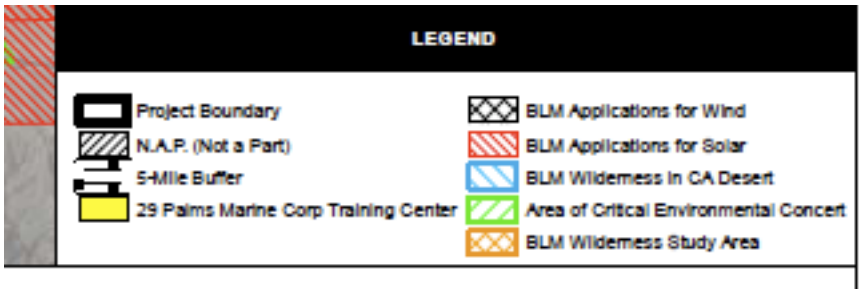
Sincerely,

/s/

Loulena A. Miles

LAM:bh
Attachment
2309-008a





INTRODUCTION

The proposed project site is nearly surrounded by areas of special management concern (e.g., preserves). The AFC suggests these areas are sufficient to conserve the many sensitive biological resources that occur in the Western Mojave Desert. This assumption does not account for the value of the site in supporting plants and animals within the preserves, nor the two rare plant species whose populations in California could be eliminated if the project is constructed. The AFC estimated more Federally and State threatened desert tortoise occur on the project site (and surrounding buffer) than on the adjacent Area of Critical Environmental Concern. Despite management efforts, the desert tortoise population has continued to decline in the Western Mojave. Due to the lack of suitable mitigation alternatives, the Project would unquestionably contribute to this decline.

As currently proposed the Project would contribute to the elimination or fragmentation of:

- Most of the sandy flats, basins, and bajadas remaining in the region.
- Habitat for numerous sensitive plant and animal species.
- Habitat of at least one rare plant species believed to occur nowhere else in California.
- Habitat corridors necessary to maintain genetic diversity and viable population dynamics.

Under the California Environmental Quality Act (CEQA) and the National Environmental Quality Act (NEPA), if feasible, significant environmental impacts must be mitigated to a less-than-significant level. Most of the mitigation measures proposed for the Project will not reduce impacts to this level due to the applicant's failure to establish reliable estimates of baseline conditions; apply accepted scientific knowledge and principles; and/or provide the mitigation necessary to reasonably assure Project impacts will be offset. Consequently, the AFC must be revised and the Project cannot be approved as currently proposed.

BASELINE DATA ON DESERT TORTOISE

1. The applicant's surveys do not appear to have followed the required U.S. Fish and Wildlife Service (USFWS) protocol.
    1.1. Surveyors would have had to walk minimum of 35 km (22 miles) per day to meet protocol.
    1.2. Unclear whether closer transect spacing was implemented in rocky areas.
    1.3. "Zone of Influence" surveys not completed.
    1.4. No intensive survey to validate surveyor accuracy.
    1.5. Most data sheets were not completed, were not used accurately, and/or are illegible.
2. Many surveyors did not have prior experience.
3. More tortoises were detected through incidental observation than focused surveys (e.g., 260% more tortoises and 800% more burrows detected through incidental observation in Assessment Area). USFWS considers major differences in survey results an indication of invalid data.
4. Abundance estimates are flawed.
5. Map in the AFC does not show all tortoise sign detected and does not coincide with information in data sheets.
6. Impact assessment does not properly incorporate sampling design, does not incorporate tortoise sign as indicator of presence, and does not address full Zone of Influence.
7. USFWS and CDFG consider survey results valid for only one year.

MITIGATION FOR IMPACTS TO THE DESERT TORTOISE

1. No Mitigation and Monitoring Plan with specific details on how impacts will be offset.
2. Potential shortage of suitable release sites (i.e., having similar habitat and without diseased tortoises).
3. No specific compensation proposal provided.
4. Unclear how occupied habitat for proposed fencing will be identified.
5. Unclear whether tortoises will be able to enter the construction site through existing culverts (and thus subject to being crushed).

IMPACTS TO THE BURROWING OWL

1. Surveys did not adhere to protocol.
    1.1. Burrow concentrations not mapped.
    1.2. No follow-up burrow monitoring.
    1.3. Recommended number of surveys not conducted.
    1.4. No winter survey.
    1.5. Surveys conducted during times of day when owls are least detectable.
    1.6. No information on specific survey methods that were implemented.
2. AFC provides misleading information on potential for site to support owls.
3. No Compensation or Mitigation Plan provided despite impacts to owls.
4. No Monitoring Plan provided.

RARE PLANT SURVEY METHODS AND VALIDITY OF BASELINE DATA

1. Surveys did not adhere to protocol guidelines.
    1.1. Each surveyor covered an excessive amount of area per day (480 acres a day for two biologists).
    1.2. Reference sites apparently not visited.
    1.3. Phenological development of target species not reported.
    1.4. Unknown if systematic survey techniques were implemented.
2. Plants not identified to the level necessary to be able to determine whether they were the variety with special-status listing.
3. Unclear how common species were distinguished from closely related rare species and subspecies.
4. Survey results do not reflect occurrence information presented in the West Mojave Plan.

RARE PLANT IMPACT ASSESSMENT

1. Impact assessment treats the surveys as a census (i.e., documentation of each individual plant) rather than the sample they actually constituted. As a result, the AFC likely underestimates Project impacts to rare plant species.
2. Discussion of local, regional, and rangewide significance of Project impacts on rare plants not discussed or incorporated.

Impacts to Small-flowered Androstephium

There are 82 records of small-flowered androstephium listed in the CNDDB.[1] Approximately 75% of the occurrences these records represent are within the Project site or cumulative impact area.[2] Many of the remaining occurrences are threatened by off-road vehicle use and proposed expansion of Fort Irwin.[3]

Impacts to White-margined Beardtongue

California's only known population of this species occurs within the Project site or cumulative impact area.[4]

Impacts to Emory's Crucifixion-thorn and Utah Vine Milkweed

1. The AFC provides no justification for the conclusion that impacts to Emory's crucifixion-thorn (*Castela emoryi*) and Utah vine milkweed (*Cynanchum utahense*)[5] would be less than significant.
2. Project conflicts the crucifixion-thorn conservation measures provided in the West Mojave Plan.
3. No other records of Utah vine milkweed in CNDDB.

MITIGATION FOR IMPACTS TO RARE PLANTS

1. No apparent attempts at avoidance or minimization as required by CEQA.
2. No plan to mitigate specific habitat conditions required of rare plants occurring onsite.

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[1] Department of Fish and Game, Biogeographic Data Branch. 2009. California Natural Diversity Database. Version 3.1.0. Updated 02 May 2009.

[2] *Id.*

[3] *Id.*

[4] *Id.*

[5] AFC, p. 5.6-21, 22.

3. Proposed mitigation would not be effective.
   3.1. *Ex situ* conservation techniques not enough.
   3.2. Previous attempts to propagate or transplant the target species have failed.
   3.3. Mitigation measures don't incorporate ecological knowledge of target species.

IMPACTS TO POTENTIAL JURISDICTIONAL WATERS

1. The AFC's conclusion that the Project site does not contain channels[6], streams or washes[7] is not supported by the features on the site, and is contradicted throughout the AFC.
2. Hydrologic considerations that were used to derive conclusions appear to be at least somewhat speculative and achieved through minimal field investigation (i.e., 2 days for the entire site).
3. The Project site appears to contain playas (i.e., seasonal lakes) not reported in the AFC.
4. The AFC concluded riparian vegetation is not present in the Project Area even though potential riparian vegetation appears on satellite imagery.
5. The AFC indicates the Project Area does not contain wetland vegetation.[8] This conclusion appears to conflict with the wetland indicator status of plants detected during plant surveys.
6. The majority of the Project Site is within an alluvial fan emanating from the Cady Mountains.[9] Guidance issued by the Army Corps of Engineers states "alluvial fans in arid areas will include some channels subject to Section 404 of the Clean Water Act."[10]

[6] AFC, p. 5.6-17.

[7] AFC, p. 5.6-16.

[8] AFC, p. 5.6-14.

[9] AFC, p. 5.4-2.

[10] US Army Corps of Engineers, South Pacific Division. 2001. Final summary report: Guidelines for jurisdictional determinations for waters of the United States in the arid southwest. US Army Corps of Engineers, San Francisco.


Jun 23, 2003
1994
2009
Water and riparian vegetation
Image © 2009 DigitalGlobe
© 2009 Tele Atlas
295 ft
Imagery Date: Jun 23, 2003
Eye alt 2846 ft


Select date
12:00:00 am
12:00:00 am
Riparian
Image © 2009 DigitalGlobe
© 2009 Tele Atlas
208 ft
Imagery Date: Feb 24, 2006
Eye alt 2603 ft


Select date
Washes
Image © 2009 DigitalGlobe
© 2009 Tele Atlas
653 ft
Imagery Date: Feb 22, 2006
Eye alt 4302 ft

IMPACTS TO THE MOJAVE FRINGE-TOED LIZARD

1. No information on methods used to determine potential habitat.
2. Unclear whether, or how, occupied patch of habitat onsite will be conserved.
3. Project will impact source sand and sand corridors, which are necessary for the long-term survivorship of fringe-toed lizards.[11]
4. Project may impact requisite shade plants.
5. Proposed mitigation does not meet needs of the species.

IMPACTS TO NELSON'S BIGHORN SHEEP

1. Habitat impacts greatly underestimated.
2. AFC fails to discuss how metapopulation dynamics, which are critical to the long-term viability of the species, will be maintained.[12]
   2.1. Cumulative impacts would likely result in inability to maintain metapopulation dynamics.
3. Potential impacts to watering stations.
4. No discussion of significance of impacts; no real mitigation proposed.

WILDLIFE CORRIDORS

1. Project features and fencing will cause significant direct and cumulative impacts to wildlife corridors.
2. The applicant's assumptions are not supported by science or the AFC.
   2.1. Assumes mammals can use foothills and existing roads as corridors even though foothills constitute vastly different habitat and many species view roads as barriers. Both foothills and roads may act as habitat "sink".
   2.2. Assumes wildlife will use existing culverts, even though research indicates some species (e.g., lizards) very rarely use culverts. Research further indicates culvert use depends on culvert characteristics, use of funnel fencing, and cover surrounding culverts. The AFC does not provide information on any of these variables.
3. Significance of direct Project impacts to wildlife movement not indicated in AFC.

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[11] Barrows, C. 1996. An ecological model for the protection of a dune ecosystem. Conserv. Biol. 10(3):888-891.

[12] U.S. Fish and Wildlife Service. 2000. Recovery plan for bighorn sheep in the Peninsular Ranges, California. U.S. Fish and Wildlife Service, Portland, OR. xv+251 pp.

3.1. Perimeter fence will direct wildlife to the road along the site's northern boundary, the railroad tracks, or Interstate 40, all of which are potential sources of mortality.[13]

4. No reliable mitigation provided for cumulative impacts.
5. Proposal to maintain east-west movement along the northern boundary of the project site has not been adequately demonstrated.

CUMULATIVE IMPACTS

1. The AFC concludes the Project "would not contribute significantly to a cumulatively significant impact at a regional scale" because it is outside of DWMAs, ACECs, and Designated Critical Habitat.[14] This is not a scientifically valid conclusion.
   1.1. Tortoise densities in the Western Mojave Recovery Unit have continued to decline despite establishment of conservation areas.[15]
   1.2. Does not consider indirect impacts of Project on surrounding DWMAs and ACECs.
   1.3. Does not consider need for wildlife to disperse among DWMAs and ACECs.
   1.4. Assumes each DWMA and ACEC provides enough land to maintain viable populations of all occurring species.

IMPACTS TO NESTING BIRD SPECIES

1. Proposed mitigation would not comply with the Migratory Bird Treaty Act, which prohibits the "take" of migratory birds and their active nests containing eggs or young.
   1.1.Clearance surveys are not practical and do not constitute mitigation for nesting birds.
   1.2. Clearance surveys would contribute to nest abandonment, increased mortality to young, or loss of eggs.

COLLISION HAZARDS

1. The AFC's conclusion that the Project would not pose a significant collision hazard is not supported by research studies.
   1.1. The AFC does not adequately address any of the factors (i.e., avian species,

[13] AFC, Figure 3-3.

[14] AFC, Appendix Y: p. 4-6.

[15] Tracy CR, R Averill-Murray, W Boarman, D Delehanty, J Heaton, E McCoy, D Morafka, K Nussear, B Hagerty, and P Medica. 2004. Desert Tortoise Recovery Plan Assessment. 217 pp.

environment, configuration of potential hazards) known to be primary determinants in collision risk.

WILDLIFE MORTALITY FROM EVAPORATION PONDS

1. The AFC's assessment of potential impacts from evaporation ponds is flawed.
   1.1. Does not substantiate claim that waterfowl are uncommon or absent in the Project vicinity. During wet years, playas, which are present in the Project vicinity, can become shallow lakes that provide important habitat for waterbirds.[16]
   1.2. The AFC claims resident birds and small wildlife species obtain their water from food and thus would not ingest large amounts of the highly saline water from the evaporation ponds.[17] Many species can get water from food but will readily drink water if it is available.
2. The AFC states an initial monitoring program of pond water is recommended. However, it doesn't specify whether the applicant will implement such a program, or whether any specific mortality minimization features have been incorporated into the design of the proposed ponds.

COMPLIANCE WITH LORS

1. It's unclear whether the Project and its contribution to cumulative impacts is consistent with thresholds set by the West Mojave Plan (Plan).
2. The Project is not consistent with conservation measures for crucifixion thorn established by the Plan.
3. The Project is not consistent with conservation measures for white-margined beardtongue established by the Plan.
4. The AFC does not address how it will comply with the Plan requirement to avoid impacts to Joshua trees, yucca and cacti in the conservation area where transmission lines are proposed.
5. It's unclear whether the Project will comply with the Plan's requirement for raptor-safe electrical distribution lines associated with new construction.[18]
6. The AFC does not adequately establish how the Project will comply with the Plan's objective of protecting occupied Mojave fringe-toed lizard habitat.[19]

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[16] Sibley DA. 2001. The Sibley guide to bird life & behavior. New York: Alfred A. Knopf Inc.

[17] AFC, p. 5.6-25.

[18] *Id.*

[19] *Id.*

7. The Project does not meet CEC siting regulations.

   7.1. Surveys did not follow established protocols.

   7.2. Maps are insufficient in showing the proposed Project site and related facilities, biological resources, and associated areas where biological surveys were conducted.[20]

   7.3. The AFC does not provide a discussion of all proposed off-site habitat mitigation and habitat improvement or compensation, and an identification of contacts for compensation habitat and management.[21]

   7.4. The AFC does not provide a discussion of proposed compliance and monitoring programs that will be implemented to ensure the effectiveness of impact avoidance and mitigation measures incorporated into the Project.[22]

   7.5. The applicant has not provided copies of any preliminary correspondence between the applicant and state and federal resources agencies regarding the need for federal or state permits.[23]

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[20] California Energy Commission. 2007. Appendix B *of* Rules of practice and procedure & power plant site certification regulations. Document No. CEC-140-2007-003. Also see the updated Appendix B from July 2008 at http://www.energy.ca.gov/2008publications/CEC-140-2008-003/CEC-140-2008-003.PDF

[21] *Id.*

[22] *Id.*

[23] *Id.*