UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

SEP 0 7 2010

Roxie Trost, Field Manager
Barstow Field Office, Bureau of Land Management
2601 Barstow Road
Barstow, CA 92311

Subject: Final Environmental Impact Statement and Proposed Amendment to the California Desert Conservation Plan for the Calico Solar Project, San Bernardino County, California [CEQ #20100303]

Dear Ms. Trost:

The U.S. Environmental Protection Agency (EPA) has reviewed the Final Environmental Impact Statement (FEIS) for the Calico Solar 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 reviewed the Joint Draft Environmental Impact Statement (DEIS) and Staff Assessment and provided comments to the California Energy Commission (CEC) and the Bureau of Land Management (BLM) on July 6, 2010. We rated the DEIS as *Environmental Concerns–Insufficient Information* (EC-2), primarily due to concerns over potential impacts to air quality and biological resources, and requested disclosure of measures to avoid or mitigate impacts. We asked for additional information on cumulative air impacts from future actions, justification for the Project purpose and need, and evaluation of alternatives, including further evaluation of Alternative Site Layout #2. EPA's comments on the DEIS were not included in the Response to Comments. Although some of our concerns were resolved in the FEIS, we request that our comments on the DEIS be considered along with the enclosed comments on the FEIS.

We note that the preferred agency alternative (also the environmentally preferred alternative) identified in the FEIS includes project modifications that have reduced the proposed project's total acreage by approximately 2,000 acres. The northern boundary of the project footprint has been redesigned to avoid 1,770 acres of habitat for desert tortoise, bighorn sheep, and rare plants, as well as cultural resources. We commend the applicant, State, and federal agencies for working together to develop an alternative that reduces land disturbance by 25 percent. Given the large number of renewable energy project applications in the Desert Southwest that are pending approval by BLM, EPA continues 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.

EPA continues to have concerns about impacts to air resources and biological resources, including desert tortoise. In addition, we are concerned about the proposed placement of SunCatchers in drainage channels. Our primary concerns and recommendations are attached. We recommend that BLM address these issues prior to making a final decision on the proposed Project and that additional information be included in the Response to Comments.

We are available to discuss all recommendations provided. Please send one hard copy and one CD ROM copy of the responses to FEIS comments and the Record of Decision to us when they are filed with our Washington D.C. office. If you have any questions, please contact me at 415- 972-3521, or contact Stephanie Skophammer, the lead reviewer for this project. Stephanie can be reached at 415-972-3098 or skophammer.stephanie@epa.gov.

Sincerely,

Kathleen M. Goforth, Manager
Environmental Review Office

Enclosures: EPA Detailed Comments

Cc: Jim Stobaugh, BLM - Reno
Christopher Meyer, California Energy Commission
Ashley Blackford, U.S. Fish and Wildlife Service – Ventura
Jim Abbott, BLM – Sacramento
Michael Picker, California Governor's Office

U.S. EPA DETAILED COMMENTS ON THE FINAL ENVIRONMENTAL IMPACT STATEMENT (FEIS) FOR THE CALICO SOLAR PROJECT, SAN BERNARDINO COUNTY, CALIFORNIA, SEPTEMBER 7, 2010

Air Resources

As the FEIS indicates, the portion of the Mojave Desert Air Basin (MDAB) where the project is located is classified as a moderate non-attainment area for the federal and State ozone and PM10 (particulate matter of 10 microns or less) standards. According to the FEIS (pg. 4-21) the proposed project's predicted total maximum annual emissions of nitrogen oxides (NOx) and PM10 appear to approach their respective General Conformity Rule applicability (or *de mimimis)* thresholds for moderate attainment areas. It is important that the emissions estimates be accurate for this analysis. If the construction emissions of any pollutant would exceed an applicable *de minimis* threshold, a conformity determination would be needed. The emissions estimates that are referenced in the FEIS were calculated in the DEIS; however, we understand, based on information provided at the July 22, 2010 Renewable Energy Policy Group meeting, that the Calico Project may now require diesel powered equipment for at least some period of the Project construction, which was not previously analyzed in the DEIS nor FEIS. EPA strongly recommends that this new information and the direct, indirect, and cumulative impacts associated with the use of diesel be fully analyzed and disclosed in responses to comments on the FEIS and in the ROD.

Recommendation:

- The ROD and responses to FEIS comments should thoroughly evaluate the additional use of diesel powered equipment for Project construction and incorporate appropriate mitigation measures to reduce impacts. (Please see our July 6, 2010 DEIS comment letter for additional construction mitigation recommendations for mobile and stationary sources.) The evaluation in the ROD and responses to comments should include consideration of the feasibility and impacts of avoiding the need for diesel power by altering the construction schedule.
- At a minimum, any additional nonroad, diesel-powered engines should comply with federal requirements, as applicable, for 40 CFR Part 89.
- For those engines that will be sited and operated for 12-months or more, federal applicable requirements should be identified for, at a minimum, air quality permitting, hazardous air pollutants (40 CFR Part 63, Subpart ZZZZ), and new source performance standards (40 CFR Part 60, Subpart IIII).
- The ROD and responses to FEIS comments should discuss and address whether the diesel equipment would require a permit from the Mojave Desert Air Quality Management District.
- The Response to Comments should assess whether the diesel powered equipment that will be used for a period of time during construction of the Calico Project will contribute to an exceedence of the General Conformity *de minimis* thresholds.

Air Resources- Cumulative Impacts Analysis

EPA is concerned that the scope of the cumulative air impacts analysis has been improperly confined, both temporally and geographically. Because there are no projects under construction or that have received permits from the Mojave Desert Air Quality Management District (MDAQMD) or San Bernardino County within six miles of the proposed project, the FEIS concludes that no stationary sources require a cumulative modeling analysis (pg. 4-25). However, 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 or person undertakes such other actions (40 CFR Part 1508.7). Cumulative impact analyses are important because they describe the threats to resources as a whole, and understanding cumulative impacts can illuminate opportunities for minimizing those threats. The FEIS includes maps depicting reasonably foreseeable future projects in the vicinity of the Calico Solar Project, including two projects that are either adjacent or within a couple of miles and several located within 40 miles. The FEIS states that these projects would only result in cumulative short-term construction emissions (pg. 4-26) but construction for the Calico Solar Project could last at least 42 months and operations would continue for several decades. Regardless of whether other projects in the cumulative effects study area have received permits to date, they appear to be reasonably foreseeable and should be analyzed in the cumulative impacts analysis.

Furthermore, the scope of the cumulative impact analysis in the Final EIS is geographically limited to focus on 'localized' cumulative impacts. Determination of the affected environment should not be based on a predetermined geographic area, but rather on perception of meaningful impacts for each resource at issue. The Draft EIS (p. C.1-43) indicates that, based on CEC staff's modeling experience, beyond six miles there is no statistically significant concentration overlap for non-reactive pollutant concentrations between two stationary emission sources. EPA disagrees that there is never significant overlap for sources separated by six miles. This would depend on the emissions, size of the source, and release height, among other criteria. For example, in our permitting process, we require modeling of the significant impact area plus 50 kilometers out. Due to the serious nature of the PM_{10} and 8-hour ozone conditions in the Mojave Desert Air Basin, the cumulative effects study area could be the entire air basin because ozone precursors are reactive over hundreds of miles. It is also unclear what "significant" means with respect to concentration overlap. While this may be true in CEC's experience for some source types, the FEIS will need to substantiate this in the specific case of the Calico Solar Project emissions.

Recommendation:

The response to comments on the FEIS should provide the rationale for limiting the scope of the cumulative impacts analysis to the specified local area. If the Project would affect the ability of other foreseeable projects to be permitted, the ROD and responses to comments on the FEIS should discuss this.

Biological Resources

Detailed compensatory mitigation measures are determined on a project-specific basis, and must be contained in each project's environmental analyses and decision documents. The ROD should describe the final biological resources mitigation commitments and how they would be funded and implemented. The FEIS specifies that the applicant shall contribute to the National Fish and Wildlife Foundation (NFWF) Account to compensate for the loss of tortoise habitat (pg. 4-168). For each species requiring compensatory mitigation, the ROD should state whether and how the Project applicant would use the NFWF Account, an in-lieu fee strategy, or an applicant-directed implementation strategy. We note that BLM does not propose mitigation for the Mojave fringe-toed lizard (pg. 154, BIO-13), although the FEIS acknowledges that that species has been observed on the Calico project site and the Proposed Action will contribute to a potentially significant cumulative effect on the lizard (pg. 4-102-103).

We understand that the Biological Opinion had not been issued by the U.S. Fish and Wildlife Service (USFWS) at the time of the publication of the FEIS (pg. 4-48). The draft Desert Tortoise Translocation Plan has been published in the FEIS (appendix I) but has not been finalized. When finalized, these documents should play an important role in informing the decision on which alternative to approve and what commitments, terms, and conditions must accompany that approval.

Recommendations:

- Incorporate final information on the compensatory mitigation proposals (including quantification of acreages, estimates of species protected, costs to acquire compensatory lands, etc.) for unavoidable impacts to biological resources including desert tortoise, peninsular bighorn sheep, Mojave fringe-toed lizard, and Special-status plants.
- If the applicant is to acquire compensation lands, the location(s) and management plans for these lands should be fully disclosed in the ROD.
- Include the provisions or mechanism(s) in the ROD that will ensure that habitat selected for compensatory mitigation will be protected in perpetuity.
- All mitigation commitments should be included in the ROD.

Aquatic Resources

Numerous ephemeral washes occur throughout the broad, coalescing alluvial fans that convey storm water runoff from the Cady Mountains. Natural washes perform a diversity of hydrologic and biogeochemical functions that directly affect the integrity and functional condition of higher-order waters downstream. The FEIS indicates that SunCatchers will be placed within existing drainage channels (pg. 4-370). EPA is concerned about the increased erosion, migration of channels, local scour, and potential destabilization and damage that could result from installing equipment in drainages, and we strongly recommend maximum avoidance of these waters and high risk flood hazard zones.

Sediment basins have been proposed to retard the flow of water and trap sediment through the project site. The DEIS indicated that there would be numerous sediment basins

throughout the site, including 4 separate basins constructed on the northern boundary. These are also depicted in the layout of the Proposed Project in the FEIS (Fig. 1-2). The FEIS states that the Agency Preferred Alternative will result in similar hydrological impacts and that the detention basins in the northern boundary would be designed and constructed to perform in the same manner as in the Proposed Action (pg. 4-371). However, Figure 2-6 shows the layout of the Agency Preferred Alternative and indicates one large detention basin instead of 4 smaller ones. The Response to Comments should discuss the effectiveness and hydrological impacts of the modified detention basin location(s) including whether the sediment basins would substantially change the pattern of sediment delivery in ephemeral waters downstream.

Recommendation:

- The ROD and responses to comments on the FEIS should discuss all measures to avoid washes and placement of SunCatchers in drainages.
- The Response to Comments should demonstrate that downstream flows will not be disrupted due to proposed changes to natural washes nor the accumulation of large amounts of sediment that will be trapped in the sediment basins and not permitted to flow through the site.
- Fully discuss, in responses to FEIS comments, how many SunCatchers will be installed in drainages for the final design. Impacts from such construction to waters of the State should be quantified. All analyses should be updated to include a full evaluation of impacts to waters, sedimentation, scouring, etc. from locating SunCatchers in flood hazard areas.

Reconciliation of BLM and CEC Processes

In light of the decision to separate CEC's and BLM's environmental review processes, the responses to FEIS comments should discuss the resolution procedure that will be employed if BLM's FEIS presents a preferred alternative that differs from what CEC approves through its process.

Recommendation:

Clarify, in responses to FEIS comments, how BLM's and CEC's now separated alternative selection processes will be reconciled.