UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
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JUN 13 2011

John Kalish
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Bureau of Land Management
1201 Bird Center Drive
Palm Springs, CA 92262

Subject: Final Environmental Impact Statement/Proposed Resource Plan Amendment for the California Desert Conservation Area and Palen Solar Power Project, Riverside County, California (CEQ#201100143)

Dear Mr. Kalish:

The U.S. Environmental Protection Agency (EPA) has reviewed the Final Environmental Impact Statement (FEIS) for the Palen Solar Power Project in Riverside County, California. Our comments are provided pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act.

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 12, 2010. We rated the DEIS as *Environmental Concerns– Insufficient Information* (EC-2), primarily due to concerns regarding potential impacts to ephemeral washes, groundwater, and biological resources, as well as the need for reconsideration of the restrictive purpose and need statement in order to allow for evaluation of a full range of reasonable alternatives. In the event that BLM decided to grant a right-of-way permit, we encouraged BLM to select the Reduced Acreage Alternative, which would generate 25 percent fewer megawatts than would BLM's preferred alternative, while reducing the disturbance area by 50 percent.

EPA appreciates BLM's responses to many of our comments on the DEIS. We commend BLM for committing to include all mitigation commitments for biological, air, and water resources in the Record of Decision (ROD). We are pleased to note that the FEIS includes additional analysis of climate change impacts to the project as relevant to mitigation habitat values, vegetation, and wildlife resources; quantification of GHG emissions; as well as additional integration of groundwater quality monitoring, pumping limits, and mitigation. BLM did not, however, respond to our recommendation regarding selection of the Reduced Acreage Alternative.

EPA notes that the BLM preferred alternative is now Reconfigured Alternative 2, which would avoid substantial impacts to valuable sand dune habitat, the sand transport corridor, and Mojave fringe-toed lizard. We strongly support those aspects of the new proposal. However, Reconfigured Alternative 2 would have greater impacts to ephemeral washes, dry wash woodlands, and desert tortoise habitat, compared to the Preferred Alternative in the DEIS (identified in the DEIS as Reconfigured Alternative and known in the FEIS as Reconfigured Alternative 1). In addition, the total disturbance area would be greater. The Preferred Alternative described in the DEIS would have a disturbance area of 3,097 acres

on currently undisturbed public land, and generate 500 megawatts of electricity. BLM's current Preferred Alternative would generate the same amount of electricity, but have a disturbance area of 4,366 acres on currently undisturbed public land. EPA recognizes the value of this project's contribution to California's renewable energy goals; however, we are not persuaded that greater impacts to washes, woodlands, and tortoise habitat are necessary to protect the sand dunes, sand transport corridor, and Mojave fringe-toed lizard while meeting the project's purpose and need. As noted above, the Reduced Acreage Alternative would reduce the project disturbance area by about 50 percent to 2,242 acres while avoiding impacts to ephemeral drainages -- including the most valuable desert tortoise habitat and State waters on the site -- as well as to sand dunes and the sand transport corridor. The ephemeral washes provide many important ecosystem functions, including plant and animal habitat, wildlife connectivity, and flood control. Onsite impacts to these valuable resources can be expected to induce additional impacts far beyond the project footprint. We continue to encourage BLM to consider selecting the Reduced Acreage Alternative, which would provide the greatest resource protection while still greatly advancing California's transition to renewable energy generation.

The enclosed detailed comments discuss EPA's continuing concerns regarding impacts to site hydrology, cumulative air quality impacts and the availability of adequate compensatory mitigation lands. We recommend that BLM address these issues prior to making a final decision on the proposed Project. We also recommend that *all* mitigation measures, including specific criteria for successful mitigation, be adopted in the ROD and be included as conditions in construction contracts and any other approvals, as appropriate, to minimize adverse environmental impacts to the extent possible. If any mitigation measures in the FEIS are not adopted, the ROD should provide justification for the decision not to adopt them.

We are available to discuss all recommendations provided. Please send one hard copy and one CD of the responses to FEIS comments and the ROD 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 Martyn Goforth, Manager
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Communities and Ecosystem Division

Enclosures: Detailed Comments

Cc: Jim Abbott, Bureau of Land Management, California State Office
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U.S. EPA DETAILED COMMENTS ON THE FINAL ENVIRONMENTAL IMPACT STATEMENT/PROPOSED RESOURCE PLAN AMENDMENT FOR THE CALIFORNIA DESERT CONSERVATION AREA AND PALEN SOLAR POWER PROJECT, RIVERSIDE COUNTY, CALIFORNIA JUNE 13, 2011

Alternatives Analysis

Compared to the Preferred Alternative, the Reduced Acreage Alternative would generate 25 percent fewer megawatts, but reduce the disturbance area by about approximately 50 percent to 2,242 acres, while avoiding impacts to ephemeral drainages -- including the most valuable desert tortoise habitat and State waters on the site -- as well as to sand dunes and the sand transport corridor. The ephemeral washes provide many important ecosystem functions, including plant and animal habitat, wildlife connectivity, and flood control. Onsite impacts to these valuable resources can be expected to induce additional impacts far beyond the project footprint. EPA previously recommended that BLM consider adopting the Reduced Acreage Alternative. The Response to Comments did not respond to that recommendation, and the FEIS provides no rationale for not selecting that alternative.

Recommendation:
We continue to encourage BLM to consider adopting the Reduced Acreage Alternative if the decision is made to grant a right-of-way for the Palen Solar Power Project.

Site Hydrology

In our comments on the DEIS, we requested additional information regarding BLM's finalized drainage plans. We requested demonstration that downstream flows would not be disrupted due to the elimination of 364 acres of ephemeral drainages in order to create a flat, uniform, and vegetation-free project site. According to the FEIS, downstream flows will be disrupted, and the existing Drainage Report and Channel Maintenance Plan are incomplete, insufficient for final design, and nearly all portions of the channels do not meet established and reasonable guidelines for allowable channel velocities (p. 4.19-13). Mitigation SOIL&WATER-12 indicates that a Channel Maintenance Program shall be submitted 60 days before project implementation and will include protecting wildlife habitat, providing flood protection, and supporting project mitigation (p. B-118). EPA acknowledges that BLM will commit to this mitigation in the ROD, and continues to recommend that the drainage reports and plans include designs to minimize impacts to habitat downstream as much as possible.

Recommendations:

- Because drainage reports and plans are in development, the ROD should identify the specific mitigation goals, specified in terms of measurable performance standards to the greatest extent possible, to avoid disruption of downstream flows due to proposed changes to natural washes, excavation of sediment, or increased sedimentation due to increased vegetation clearing and grading of surface irregularities. (Council on Environmental Quality (CEQ) Draft Guidance on NEPA Mitigation and Monitoring, February 18, 2010)
- Incorporate explicit fence design features that would allow natural hydrologic flow and sediment transport through the site in major drainages and washes, and include this measure in the ROD.
- The design features should mimic natural processes through use of natural materials. The use of native plantings and gentle side slopes, avoidance of hard structures, and the establishment of an appropriate buffer will help maintain the integrity of those washes. Channel restoration should prohibit roads, utility lines, trails, equipment or fuel storage, grading, firebreaks, mowing, plowing, or pesticide use. Detention basins should be

constructed off channel.

- Minimize the number of road crossings over washes in order to minimize erosion, migration of channels, and scour. Road crossings should be designed to provide adequate flow-through during large storm events. Commit to these measures in the ROD.
- Structure mitigation requirements to include adaptive management in order to minimize the possibility of mitigation failure.
- Specify, in the ROD, the response to be taken by BLM if any indication of mitigation failure is detected. This could include conditioning the right-of-way approval to require the applicant to restore any severely impacted watersheds that may result from mitigation failure.

Compensatory Mitigation

According to the FEIS, the Biological Opinion (BO) has not been completed (p. 1-5). We expect that the final 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. We recommend that the BO be included in the ROD and that any additional mitigation measures needed to protect species from potential adverse effects of the proposed activities be listed within the ROD, accordingly.

The FEIS states that it is "anticipated" that sufficient lands are available for compensation (p. 5-32). EPA is concerned that, at this stage in the environmental review process, sufficient compensatory lands have not been identified for the project. If the applicant is to acquire compensation lands, the location(s) and management plans for these lands should be fully disclosed in the ROD. In light of the numerous renewable energy projects in the Riverside East Solar Energy Study Zone area, available land to adequately compensate for environmental impacts to resources such as state jurisdictional waters, desert dry wash woodlands, and desert tortoise, may serve as a limiting factor for development.

Recommendations:

- In light of the recent findings of significantly higher numbers of desert tortoises than initially surveyed at the Ivanpah Solar Electric Generating System site, as well as the recent release of draft Eagle Conservation Plan Guidelines[1], BLM should ensure that current and consistent surveying, monitoring, and reporting protocols are applied to all translocation and protection efforts.
- Incorporate, into the ROD, mitigation, monitoring, and reporting measures that result from consultation with the US Fish and Wildlife Service and California Department of Fish and Game, and that incorporate lessons learned from other solar projects and recently released guidance to avoid and minimize adverse effects to sensitive biological resources, including habitat for desert tortoise and golden eagles.
- Clarify the rationale for the 1:1, 2:1 and 5:1 mitigation ratios for tortoise habitat and how these relate to the mitigation ratios recommended by other agencies, as well as how they relate to mitigation ratios used for other renewable energy projects in California and Nevada.
- Incorporate, into the ROD, 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 waters of the State and biological resources such as desert tortoise and golden eagles.

[1] See Draft Eagle Conservation Plan Guidelines, February 2011: See internet address: http://www.fws.gov/windenergy/eagle_guidance.html

- Identify compensatory mitigation lands or quantify, in the ROD, available lands for compensatory habitat mitigation for this project, as well as reasonably foreseeable projects in the Riverside East Solar Energy Study Zone.
- Specify, in the ROD, provisions that will ensure that habitat selected for compensatory mitigation will be protected in perpetuity.

Air Resources – Cumulative Impacts

We recognize that Section 4.2.3 of the FEIS includes additional discussion of the cumulative impacts of projects in the vicinity that may have overlapping construction periods; however, the FEIS does not analyze the combined emissions from the proposed project and the reasonably foreseeable projects within the area. Furthermore, the FEIS indicates that there is potential for short-term significant cumulative fugitive dust impacts from the project in combination with other solar energy projects (p. 4.2-17). These impacts would be considered a cumulatively considerable contribution to air quality impacts under the California Environmental Quality Act (CEQA) within the South Coast Air Quality Management District (SCAQMD).

Recommendations:

- In consultation with the local air quality management agency, use cumulative emissions data to develop an incremental construction schedule that will not result in any violations of local, state or Federal air quality regulations. EPA recommends coordinated construction with the nearby solar projects, including Genesis, Desert Sunlight and Blythe (as well as potential future projects such as Chuckwalla Solar I and the Eagle Mountain Soleil Projects), to ensure air quality impacts due to construction are limited and sufficiently staggered.
- If the project would affect the ability of other foreseeable projects to be permitted, the ROD should discuss this and provide for a course of action.

General Comments

We suggest that BLM consider protecting non-developed portions of the Right-of-Way after final project approval. Some or all of the remaining acres within the Right-of-Way that the applicant has carefully chosen to avoid may now warrant protection from future development, particularly valuable sand dune habitat. We encourage BLM to consider such a land use policy modification through the development of the Desert Renewable Energy Conservation Plan (DRECP).