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

January 19, 2011

Liana Reilly, NEPA Document Manager
Western Area Power Administration
PO Box 281213
Lakewood, CO 80228–8213

Subject: Draft Environmental Impact Statement (DEIS) for the Rice Solar Energy Project Riverside County, California. (CEQ# 20100416)

Dear Ms. Reilly:

The U.S. Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (DEIS) for the Rice Solar Energy Project (RSEP). 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 review authority under Section 309 of the Clean Air Act.

EPA supports increasing the development of renewable energy resources, as recommended in the National Energy Policy Act of 2005, in an expeditious and well planned manner. Using renewable energy resources such as solar power can help the nation meet its energy requirements while reducing greenhouse gas emissions. EPA supports the siting of the RSEP on disturbed land and encourages the use of existing roadways when routing transmission lines as much as possible.

Based on our review, we have rated the DEIS as Environmental Concerns - Insufficient Information (EC-2) (see enclosed "*Summary of Rating Definitions*"). We have concerns regarding impacts to ephemeral washes and recommend project configuration to avoid and minimize direct and indirect impacts to these resources. Our recommendations for avoidance are enclosed. We request additional information as to the applicability of Section 404 of the Clean Water Act to ephemeral drainages. We also emphasize the importance of meaningful tribal consultation for the project and recommend additional information on tribal consultation be included in the FEIS.

EPA appreciates the opportunity to provide input on this DEIS. When the FEIS is released, please send one hard copy and three electronic copies to the address above (mail code: CED-2). If you have any questions, please contact me at (415) 972-3521, or contact James Munson, the lead reviewer for this project. James can be reached at (415) 972-3800 or munson.james@epa.gov.

Sincerely,

Kathleen M. Goforth, Manager
Environmental Review Office

Enclosures: EPA Summary of Rating Definitions
EPA Detailed Comments

cc: Ms. Allison Shaffer, Bureau of Land Management, Palm Springs South Coast Field Office
Jeanne Jussila, Aqua Caliente Band of Cahuilla Indians
Bill Anderson, Augustine Band of Cahuilla Indians
Gilbert Parra, Chemehuevi Indian Tribe
David Harper, Colorado River Indian Tribes
Stephen Gill, Las Vegas Tribe of Paiute Indians
Sandra Stoneburner, Los Coyotes Band of Cahuilla and Cupeno
Reginald Agunwah, Ramona Band of Cahuilla
Daniel Daggett, Salt River Pima-Maricopa Indian
Jacquelyn Gonzales, San Manuel Band of Serrano Mission Indians
Steven Estrada, Santa Rosa Band of Cahuilla Indians
Marshall Cheung, Twenty-Nine Palms Band of Mission Indians

SUMMARY OF EPA RATING DEFINITIONS*

This rating system was developed as a means to summarize the U.S. Environmental Protection Agency's (EPA) level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the Environmental Impact Statement (EIS).

ENVIRONMENTAL IMPACT OF THE ACTION

"LO" (Lack of Objections)

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

"EC" (Environmental Concerns)

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

"EO" (Environmental Objections)

The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

"EU" (Environmentally Unsatisfactory)

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

ADEQUACY OF THE IMPACT STATEMENT

Category "1" (Adequate)

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category "2" (Insufficient Information)

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

Category "3" (Inadequate)

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640, Policy and Procedures for the Review of Federal Actions Impacting the Environment.

EPA DETAILED COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) FOR THE RICE SOLAR ENERGY PROJECT (RSEP), RIVERSIDE COUNTY, CALIFORNIA, JANUARY 19, 2010

Impacts to Water Resources

Geographic Extent of Waters of the United States

According to the DEIS and the Jurisdictional Determination that the United States Army Corps of Engineers (Corps) received May 27, 2010, the Corps has determined that approximately 82.8 acres of streambeds on the solar generator and generator tie-line alignment are not within federal jurisdiction; however, the streambeds on the Parker-Blythe #2 transmission line have not been delineated and no determination regarding Corps jurisdiction over those waters has been made (Table 5, page 6.2-57). Therefore, the statement made on page 2-16 that the Corps "rendered a final opinion on July 27, 2010 concluding that the project does not affect waters of the United States (WUS), and thus does not require such a permit" is premature. The majority of the Parker-Blythe #2 transmission line alignment crosses creosote bush scrub, sand dunes and numerous washes, some of which may support desert riparian or microphyll wash woodland (page 6.2-2). A fiber optic overhead ground wire would be installed along the length of the Parker-Blythe #2 transmission line resulting in ground disturbance and affecting plant and wildlife species on the site. Should the Parker-Blythe #2 transmission line project area support WUS, activities associated with installation and maintenance of the fiber optic overhead ground wire may result in a discharge of dredged or fill material into waters and require a 404 permit from the Corps. In the absence of a formal jurisdictional determination verified by the Corps, it is difficult to discern the extent of impacts to waters.

> *Recommendation:* A jurisdictional determination of the extent of any WUS potentially affected by the proposed project that fall within the alignment of the Parker-Blythe #2 transmission line should be conducted prior to issuance of the FEIS.

Compliance with Clean Water Act Section 404

If the additional jurisdictional determinations identify WUS that will be affected by the proposed project, Clean Water Act (CWA) compliance will be required. If a permit is required, EPA will review the project for compliance with the Federal Guidelines for Specification of Disposal Sites for Dredged or Fill Materials (40 CFR 230) (Guidelines), promulgated pursuant to Section 404(b)(1) of the CWA. The burden to demonstrate compliance with the Guidelines rests with the permit applicant. Information available within the DEIS would not be sufficient to determine compliance with the requirements of the Guidelines.

The Corps can only permit the Least Environmentally Damaging Practicable Alternative (LEDPA). Due to an incomplete determination of the geographical extent of waters on the project site, it is not possible to determine the LEDPA; however, as currently proposed, it appears the proposed alternative would not have the least amount of impacts to aquatic resources or represent the LEDPA if a 404 permit is required. Based on the information in the DEIS, it appears that the Reduced Acreage and North of Desert Center alternatives may be practicable and less environmentally damaging to WUS when compared to the proposed project alternative.

> *Recommendation:* If the additional jurisdictional determinations determine that a 404 permit is required, the FEIS should provide sufficient information to identify the LEDPA

and describe how the project would comply with the 404(b)(1) Guidelines. The location of desert dry wash woodlands and other sensitive habitat and species should be considered during development of the LEDPA.

The alternatives analysis should encompass a reasonable range of Project sizes and configurations that could be less environmentally damaging, while meeting the purpose and need of the Project. Sufficient detail should be provided to allow for meaningful comparisons and to justify dismissal of alternatives.

The FEIS should quantify the direct, indirect/secondary, and temporary impacts to waters (we suggest providing this information in a table format), and discuss steps that would be taken to avoid, minimize, and mitigate impacts for the project alternatives. Additionally, compensatory mitigation measures for potential impacts to waters should be included in the FEIS, as appropriate, consistent with the Compensatory Mitigation for the Loss of Aquatic Resources, Final Rule, 33CFR 325 and 332, April 10, 2008.

Impacts to Ephemeral Washes and Flood Zones

Regardless of federal jurisdiction, WAPA should select the project alternative with the least amount of aquatic and biological impacts, including impacts to ephemeral water segments located within the project area. The DEIS estimates 82.8 acres of desert dry washes will be impacted by the Project, not including impacts along the Parker-Blythe #2 transmission line. The project would eliminate or degrade native vegetation and wildlife habitat on the site and cause temporary or long-term effects to contiguous habitat north of the solar generator site and the generator tie-line and Parker-Blythe #2 transmission line alignments (page 6.2-1). Clearing, grading and compaction of the solar farm site in preparation for Project construction, in addition to access roads and transmission line development, could directly (via temporary or permanent fill) and indirectly affect drainages and ephemeral washes within the proposed Project area. Further, road crossings for maintenance access within drainages may result in the reduction of the physical extent of waters, adverse modification of stream hydrology and sediment transport, and adverse effects to habitat connectivity and wildlife movement.

Natural washes perform a diversity of hydrologic and biogeochemical functions that directly affect the integrity and functional condition of higher-order waters downstream. Healthy ephemeral waters with characteristic plant communities control rates of sediment deposition and dissipate the energy associated with flood flows. Ephemeral washes also provide habitat for breeding, shelter, foraging, and movement of wildlife. Many plant populations are dependent on these aquatic ecosystems and adapted to their unique conditions. The potential damage that could result from disturbance of washes includes alterations to the hydrological functions that natural channels provide in arid ecosystems, adequate capacity for flood control, energy dissipation, and sediment movement, as well as impacts to valuable habitat for desert species. Flood hazard risk is also of concern since project areas are located in Federal Emergency Management Agency (FEMA) Zone D, which is classified as an area with a possible but undetermined flood hazard (page 3-12).

Recommendation: Include information on the functions and locations of ephemeral washes in the project area because of the important hydrologic and biogeochemical role these washes play in direct relationship to higher-order waters downstream.

We recommend configuring the project to avoid and minimize direct and indirect impacts to desert washes (such as erosion, migration of channels, and local scour) by:

- avoiding placement of heliostat support structures in washes or desert dry wash woodlands;
- utilizing existing natural drainage channels on site and more natural features, such as earthen berms or channels, rather than concrete-lined channels;
- commiting to the use of natural washes, in their present location and natural form and including adequate natural buffers, for flood control to the maximum extent practicable;
- reconfiguring the project layout, roads, and drainage channels to avoid ephemeral washes, including desert dry wash woodlands within the Project footprint; and minimize the number of road crossings over washes and design necessary crossings to provide adequate flow-through during storm events.
- ensuring fencing does not impede drainage. Fencing should meet appropriate hydrologic, wildlife protection and movement, and security performance standards.

Disposal Discharges

Evaporation ponds will be used for disposal of condensate or other process water. The FEIS should identify chemical characteristics of the pond water and how seepage into groundwater will be prevented. Identify the storm design containment capacity of ponds, explain how overflow in larger storm events will be managed, and discuss potential environmental impacts (drainage channels affected, water quality, biological resources) in the event of overflow.

Consultation with Tribal Governments

Tribes have expressed concerns regarding large-scale solar projects and it is especially important that effective tribal consultation occur for the project, consistent with Executive Order 13175 – Consultation and Coordination with Indian Tribal Governments (November 6, 2000). Page 2-17 of the DEIS states that WAPA as lead federal agency, "has sought tribal comments and has invited them to consult on the project on a government-to-government basis", (page 2-17). During a phone conversation with WAPA's Liana Reilly, NEPA Document Manager, on January 4, 2011, concerning tribal consultations, it appears that much more consultation had taken place than was reflected in the DEIS.

Recommendation: The FEIS should describe the process and outcome of government-to-government consultation between the WAPA and each of the tribal governments within the RSEP project area, issues that were raised (if any), and how those issues were addressed in relation to the proposed action and selection of a preferred alternative. If tribal concerns remain, WAPA should commit to renewed efforts and consider alternative communication approaches for consulting with tribal governments.

Cumulative Impacts

As we identified in our scoping comments, a major concern regarding multiple large-scale solar projects in the desert southwest is the cumulative impacts, particularly potential impacts to water supplies, endangered species, and habitat. Page 1-14 states: "the RSEP would contribute to the cumulatively significant loss of regional resources, including the federally threatened desert tortoise and other special status species". However little description was provided of what the cumulative impacts may be from the RSEP in combination with other solar projects in the valley and/or other reasonably foreseeable projects.

> *Recommendation:* EPA recommends that WAPA provide additional information regarding the nature and likely severity of cumulative impacts associated with this and other large-scale renewable energy projects on various sensitive desert resources, including water supplies, special status species, and habitat.

Climate Change

EPA commends WAPA for devoting a substantive section of the DEIS to greenhouse gases (GHG), including detailed estimates of emissions from construction and operation of the Project, (page 6.1 - 83). The DEIS, however, does not include a detailed discussion of the potential impacts of climate change on the Project. Considering the Project is planned to be in operation for 30 years, the EIS should include a description of how climate change may affect the Project, particularly increased flood risk since the project is located in a flood hazard area. Cumulative impacts of climate change on resources affected by the project should also be discussed, including groundwater resources and sensitive species.

> *Recommendations:* Provide information detailing what impacts climate change may have on the Project and on resources affected by the project. Identify specific mitigation measures needed to 1) protect the Project from the effects of climate change, and 2) reduce adverse effects to air quality caused by Project construction activities.

Species of Concern

EPA commends the work undertaken by the WAPA to assess the risks to special status species from the Project. We understand that WAPA is consulting with the U.S. Fish and Wildlife Service (USFWS) under Section 7 of the Endangered Species Act.

> *Recommendations:* In the FEIS, include the results of the Section 7 consultation with the USFWS. Where possible, we recommend that mitigation measures be identified for all affected species. The DEIS indicates that comprehensive mitigation plans for special status species are "being developed" or "would be developed". The Final EIS should include additional information on the proposed mitigation measures these plans would contain so that their effectiveness can be assessed and disclosed. A more thorough survey and discussion of baseline conditions of habitats and populations of the covered species would improve the impact discussion.

Visual Impacts
The DEIS identifies significant and unavoidable adverse direct and cumulative visual impacts from several Key Observation Points. Steps should be taken to minimize the visual impacts and make the power tower less obtrusive to the extent possible. Careful attention should be given to how a power tower and heilostat array is set against the landscape. EPA encourages WAPA to explore possible mitigation measures such as color, angle, and positioning while obtaining input from local communities as well.

Decommissioning/Follow-up Actions
The DEIS states that "Both temporary and permanent closures would require the project owner to submit a contingency plan or decommissioning plan to the BLM and Energy Commission for review and approval". The expected life span of this project is up to 30 years (Page 6.5-13).

> *Recommendations:* EPA recommends that the FEIS identify bonding or financial assurance strategies for decommissioning and reclamation. The projected 30-year lifespan should be used to ascertain the correct financial instruments that could be used for bond and or financial assurance calculations.
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> The FEIS should take into consideration the increased cost (projected future rates) of decommissioning in thirty years and make provisions for extended or refurbished use.
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> The FEIS should include a discussion of the plan for decommissioning to remove the installed power generation equipment and return the site to a condition as close to a pre-construction state as feasible.