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

October 8, 2010

Attn: Gregory Helseth
Renewable Energy Project Manager
Bureau of Land Management
Las Vegas Field Office
4701 North Torrey Pines Drive
Las Vegas, NV 89130

Subject: Final Environmental Impact Statement for the Silver State Solar Energy Project, Clark County, Nevada [CEQ# 20100365]

Dear Mr. Helseth:

The U.S. Environmental Protection Agency (EPA) has reviewed the Final Environmental Impact Statement (FEIS) for the Silver State Solar Energy Project (Project). Our review and 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 Draft Environmental Impact Statement (DEIS) and provided comments to the Bureau of Land Management (BLM) on June 2, 2010. We rated the DEIS as *Environmental Objections – Insufficient Information* (EO-2), primarily due to concerns over potential impacts to waters of the United States, as well as concerns about groundwater availability and the need for additional biological surveys. We asked for a final determination of the geographic extent of jurisdictional waters in the Project area and demonstration of compliance with Clean Water Act (CWA) Section 404. We also asked for additional information on how climate change could affect the proposed Project and the indirect and cumulative effects associated with the influx of other large-scale solar energy projects proposed in the Ivanpah Valley. Previously, on July 30, 2009, EPA provided extensive formal scoping comments for the proposed Project.

We appreciate the efforts of BLM, the Applicant, and its consultants to discuss and respond to our DEIS comments, and we commend the Applicant, State, and Federal agencies for working together to develop mitigations that support environmentally preferable outcomes. In particular, we are pleased to see that the FEIS contains additional information about groundwater availability and the proposed water supply, including requirements to meter the project wells and submit monthly water usage reports to the Las Vegas Valley Water District (LVVWD). We are also pleased to note that the Applicant will be required to recharge the aquifer should the Project impact the LVVWD's ability to service its customers.

EPA continues to have concerns about impacts to aquatic resources and biological resources, particularly impacts associated with waters of the United States (waters). Although we asked for clarification on the extent of waters and impacts to these waters previously, the FEIS does not provide any additional information. Documentation associated with the CWA Section 404 permit was not included in the FEIS, but indicates that up to 37.7 acres might be affected. We acknowledge that the Applicant may not need a CWA Section 404 permit to start construction in the Phase I area. The Applicant will, however, be requesting a CWA Section 404 permit for the Phase III area. To demonstrate compliance with EPA's 404(b)(1) Guidelines (40 CFR Part 230), the Applicant must comprehensively evaluate a range of alternatives to ensure that the *"preferred"* alternative is the *Least Environmentally Damaging Practicable Alternative* (LEDPA). In evaluating onsite alternatives, the Applicant must evaluate alternatives on the 7,925 acre Right-of-Way site, not just the Phase III area only. Regardless, this set of circumstances does not relieve the BLM of the responsibility to fully examine, discuss, and disclose the impacts associated with all phases of the proposed Project. We consider this to be a serious deficiency in the document. To that end, we have requested that the U.S. Army Corps of Engineers (USACE) convene a pre-application meeting with the Applicant, BLM, and EPA at their earliest convenience to discuss these permitting issues further.

EPA strongly encourages the integration of NEPA with the CWA Section 404 process to streamline permitting and to align the alternatives analyses of these processes. When these two processes occur in conjunction with one another, it can lead to significant reductions in impacts as well as greater disclosure within the EIS. In the interest of facilitating the development of the most environmentally sound renewable energy projects, we urge BLM to address these concerns in NEPA documents for future renewable energy projects. The remainder of this letter discusses these and other concerns regarding the proposed Project.

We are available to discuss all comments and 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 415-972-3843, or contact Ann McPherson, the lead reviewer for this project. Ann can be reached at 415-972-3545 or mcpherson.ann@epa.gov.

Sincerely,

/s/

Enrique Manzanilla, Director
Communities and Ecosystem Division

Enclosures: EPA Detailed Comments

cc: Ron Wenker, Bureau of Land Management
Ray Brady, Energy Policy Team Lead, Bureau of Land Management
Colonel Thomas C. Chapman, U.S. Army Corps of Engineers, Sacramento, CA
Patricia L. McQueary, U.S. Army Corps of Engineers, St. George, UT

Amy M. LaVoie, U. S. Fish and Wildlife Service, Las Vegas, NV
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U.S. EPA DETAILED COMMENTS ON THE FINAL ENVIRONMENTAL IMPACT STATEMENT FOR THE SILVER STATE SOLAR ENERGY PROJECT, CLARK COUNTY, NEVADA, OCTOBER 8, 2010

Waters of the United States

The U.S. Environmental Protection Agency (EPA) remains most concerned about impacts to aquatic resources. According to the Final Environmental Impact Statement (FEIS), the U.S. Army Corps of Engineers (USACE) will assert jurisdiction over all waterways in the proposed Project area that cross the Nevada/California border and flow into Ivanpah Dry Lake. Drainages that are tributary to Roach Dry Lake, however, are being assessed under a separate determination. The Applicant received a preliminary jurisdictional determination (JD) on April 8, 2010, indicating that there were 37.7 acres of waters of the United States (WUS). The USACE has since approved two JDs for the proposed project: 1) Ivanpah Dry Lake (Phase III) approved on July 10, 2010; and 2) Roach Dry Lake (Phases I and II) approved on September 29, 2010. According to the Ivanpah Dry Lake (Phase III) JD, approximately 583,733.8 linear feet of WUS, including wetlands, are present within the survey area and are regulated under Section 404 of the Clean Water Act (CWA). We note, however, that the JD lists tributaries to both Roach Dry Lake and Ivanpah Dry Lake and we are concerned that the estimate of WUS may be incorrect. The Roach Dry Lake JD (Phases I and II) indicates that there are approximately 287,248.8 linear feet of WUS, including wetlands, present within the survey area; however, these ephemeral drainages are considered an intrastate isolated water and are not regulated by the USACE.

We understand that the Applicant will be requesting a CWA Section 404 permit from the USACE for discharges into WUS in Phase III of the project site. To demonstrate compliance with EPA's 404(b)(1) Guidelines, the USACE may only authorize the *Least Environmentally Damaging Practicable Alternative* (LEDPA; 40 CFR Part 230). In evaluating onsite alternatives for compliance with the Guidelines, please note that the Applicant must evaluate alternatives on the 7,925 acre Right-of-Way (ROW) site, not just the Phase III area only.

In our previous comments, we asked for clarification of the geographic extent of WUS and demonstration of compliance with Section 404 of the CWA. In the response to comments, the Bureau of Land Management (BLM) indicates that the preliminary JD (April 8, 2010) stated that the USACE *will not* require a Section 404 Permit for the construction of Phase I of the Project. Furthermore, the Applicant will conduct a formal jurisdictional delineation prior to the construction of Phases II and III once final engineering is complete. The FEIS, however, states that the USACE *will* require a Section 404 Permit for the construction of Phase I of the proposed Project and the Applicant will conduct a formal jurisdictional delineation prior to the construction of Phases II and III of the Project once final engineering is complete (pg. 3-29; pg. 4-36). We understand, however, that the Applicant will be requesting a CWA Section 404 permit from the USACE for the construction of Phase III of the Project. EPA spoke to Meghan Magill (BLM) regarding these discrepancies and she confirmed that the text is, in fact, in error. The text should have stated that the USACE will require a CWA Section 404 permit for the construction of Phase III of the proposed Project, and the Applicant will conduct a formal jurisdictional delineation prior to the construction of Phases I and II. As noted, the JD for the Phase I and II areas was approved on September 29, 2010.

Discrepancies aside, the FEIS fails to quantify the geographic extent of WUS as requested in our previous comments. Via an email exchange, Pat McQueary (USACE) states that it is her understanding from the Applicant's consultants that there would be minimal impacts (less than 0.5 acres) to WUS, and most of the impacts would result from road crossings. In addition to road crossings, direct impacts to waters as a result of the proposed project may include, but are not limited to: 1) the placement of photo-voltaic (PV) panels; 2) construction of detention basins; 3) construction of transmission lines and water supply pipelines; 4) perimeter fencing; 5) placement of substations and main service station; and 6) construction of drainage control berms. In addition, the FEIS states that permanent impacts would occur outside of the perimeter fence due to access roads, fire break, service road, alternative access roads, switchyard, and the extension of the Walter M. Higgins Generating Station (pg. 4-44). It is unclear whether these activities would result in discharge of fill into WUS and, if so, whether these impacts were quantified in the FEIS. We note that the Applicant proposes to till and drum roll the entire area (2,785 acres). These activities are likely result in the redistribution of fill into WUS, which would be considered a discharge requiring a CWA Section 404 permit.

In our previous comments, we also expressed concern regarding the statement that the USACE will assert jurisdiction over all waterways greater than 3 feet in width (pg. 4-35). As noted in our Draft Environmental Impact Statement (DEIS) comments, the lateral extent of federal jurisdiction on drainages is determined by the presence of an ordinary high water mark, not by an arbitrary channel width. Without more detailed information, we are unable to verify the extent of waters on the Project site, as well as impacts to these waters. We remain concerned that the impacts may be of a magnitude that is of a significant environmental concern, especially within an arid ecosystem.

We recommend the Record of Decision (ROD) include results from both approved JDs (July 10, 2010 and September 29, 2010). The ROD should include a robust discussion of all avoidance and mitigation measures proposed for the Project and include an outline of the requirements of a compensatory mitigation plan. If avoidance and mitigation measures cannot be determined because final engineering site design is not yet complete, we recommend delaying the publication of the ROD until these issues have been fully vetted. We also recommend that BLM publish an errata sheet to correct all errors identified in the FEIS, including the sections on jurisdictional delineation.

Construction in Areas of High Flood Risk

Some portions of the Project, particularly Phase I, would be located in areas of very high flood risk, which raises environmental as well as engineering and financial sustainability concerns due to increased erosion, migration of channels, local scour, and potential destabilization and damage to valuable facilities and equipment. The FEIS states that flood zones in the Proposed Project area are primarily low to none, although areas of moderate, high, and very high are present. We note, however, that most of the Phase I project area is located in the very high flood hazard class, and that significant portions of the Phase II project area are also located in the high and very high hazard class. As noted in the DEIS, this information suggests that the northern portion of the site may be unstable during flood events. We remain concerned

about the proposed siting of this Project in these high flood hazard areas and recommend that these areas be avoided whenever possible.

Translocation of Desert Tortoises

We are pleased to see that the FEIS presents results from the most recent desert tortoise surveys, conducted in May 2010, including those for the Phase I portion of the proposed Project (715.5 acres), the proposed relocation site (6,125 acres), and the proposed translocation site (598.2 acres). As noted, the Biological Opinion (BO) was not completed prior to the publication of the FEIS, but was signed on September 16, 2010. The BO includes more detailed information regarding the number of tortoises to be relocated, requirements for a translocation site, and issues related to the development of Phases II and III of the proposed Project. The BO also contains detailed information on proposed avoidance and minimization measures, including: general protective measures, remuneration fees ($774/acre x 2,966 acres), and relocation/translocation.

Desert tortoises located during Phase I of the proposed Project would be translocated to the east of the project site. Desert tortoises found during Phases II and III would be translocated to multiple release points within another area. Translocations would not be permitted in summer (June to August) nor winter (November to February). Approximately 88 sub-adult and adult desert tortoises and no more than 129 juvenile desert tortoises are estimated to occur within the fenced area (2,966 acres) of the proposed Project. We note that the number of carcasses found at the proposed relocation site is high (90 carcasses) in comparison to the Phase I site (23 carcasses) although the number of burrows is similar (70 burrows at the proposed relocation site; 62 burrows at the Phase I site; pg. 3-44). We are concerned that this could indicate an increased risk of mortality for the relocated turtles and urge the U.S. Fish and Wildlife Service (FWS) to investigate this issue further prior to relocation. We are also concerned that it may not be feasible to locate, test, and move the desert tortoises prior to November 2010.

We recommend that the BO be included in the ROD and that any additional mitigation measures needed to protect these species from potential adverse effects of the proposed activities be listed within the ROD, accordingly. We also recommend that the Applicant work closely with the U.S. Geological Survey on the desert tortoise translocation effort as they have substantial expertise and specialized experience monitoring impacts to these species. Consistent monitoring and reporting protocols should be applied to all translocation efforts. Implementing post-translocation monitoring and adaptive management strategies will be crucial in evaluating the impacts to species and the success rate of the experimental translocation program.

Other Special Status Species

The FEIS presents data from recent botanical surveys (April 2010). These document the presence of one special status species, the Death Valley ephedra. As noted above, the FEIS specifies that the entire 2,785 acre site within the perimeter fence (pg. 4-44) will be tilled and drum rolled. Although the site will be allowed to revegetate, permanent adverse impacts are inevitable. The potential for reestablishment of the Death Valley ephedra is uncertain and depends on many factors including the availability of seeds, soil alterations, and frequency of

mowing. As noted in the FEIS, however, a complete assessment of impacts cannot be made at this time. We urge BLM to identify additional mitigation measures to reduce potential impacts to special status plant species, including the Death Valley ephedra.

Finally, as we noted previously, the DEIS states that there is the potential for the occurrence of 16 special status reptile species within the proposed Project area (pg. 4-45), while only 15 were listed in table 3.6-1. The FEIS, however, states that there are only 3 special status reptile species (pg. 4-54). The response to comments on the FEIS should explain this discrepancy.