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

December 20, 2012

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: Draft Supplemental Environmental Impact Statement for the Silver State Solar South Project, Clark County, Nevada [CEQ# 20120323]

Dear Mr. Helseth:

The U.S. Environmental Protection Agency has reviewed the Draft Supplemental Environmental Impact Statement for the Silver State Solar South Project. Our review and comments are provided pursuant to the National Environmental Policy Act, Council on Environmental Quality regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act.

EPA reviewed the Draft and Final Environmental Impact Statements for the Silver State Solar Energy Project and provided comments to the Bureau of Land Management on June 2, 2010 and October 8, 2010, respectively. We rated the 2010 Draft EIS 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. The 2010 Final EIS addressed our concerns about groundwater availability and included results from the most recent desert tortoise surveys, but did not provide clarification on the extent of waters, and impacts to these waters, as requested. Subsequently, the Bureau of Land Management authorized only Phase 1 (50 megawatts; Silver State North) of the Silver State Solar Energy facility, as described in the Record of Decision for the 2010 Final EIS. In conjunction with this decision, the ROD stated that any future authorization related to the application for the Silver State South Project (Phases 2 and 3; 150 and 200 MWs, respectively) may require supplemental analysis under NEPA and additional public involvement.

The BLM has prepared the subject DSEIS to address new information associated with the project analyzed in the 2010 Final EIS. In early 2011, the Applicant submitted a new Right-of-Way application for the Silver State South Project. The new ROW application encompasses an additional 5,610 acres north of the previously analyzed area, allowing for the development of two new alternatives (B & D). In addition, the DSEIS examines proposed reductions in the size of the Jean Lake/Roach Lake Special Recreation Management Area and revisions to the Visual Resource Management for the area.

We appreciate the efforts of BLM, the Applicant, and its consultants to discuss and respond to our previous comments on the 2010 Draft and Final EISs. We commend the Applicant, State, and Federal agencies for working together to develop alternatives that support environmentally preferable outcomes. We are pleased to see that the DSEIS provides further information on the extent of Clean Water Act

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(CWA) jurisdictional waters, and impacts to these waters, as we requested previously. In addition, the DSEIS provides updates on surveys conducted in the expanded ROW application area, as well as new information on the fragmentation of desert tortoise habitat within the Ivanpah Valley, an issue that was not discussed in the 2010 Final EIS.

Based on our review of the DSEIS, we have rated the document as *Environmental Concerns – Insufficient Information* (EC-2). While we commend the Applicant for identifying new alternatives that avoid jurisdictional waters (i.e., Alternatives B and D), we are concerned about the potential impacts associated with fragmentation of key desert tortoise habitat in the Ivanpah Valley, including the Ivanpah linkage corridor. This corridor extends along the eastern edge of the Ivanpah Valley, between the Silver State North Project and the Lucy Gray Mountains, and is the widest of four potential linkages that remain in the Valley. We note that the U.S. Fish and Wildlife Service has recommended[1] that BLM select the "No-Action" alternative to avoid impacting this narrow linkage corridor, and if that is not possible, create a new alternative that would minimize impacts to the linkage corridor.

In its Final Programmatic Environmental Impact Statement for Solar Energy Development in Six Southwestern States (July 2012), the BLM recognized the importance of the Ivanpah Valley and designated it as an exclusion area, where ROWs for new utility-scale solar energy projects will not be allowed in order to protect sensitive natural resources. Maintaining habitat connectivity within the Ivanpah Valley was also identified as a key issue in the Ivanpah Solar Electric Generating Station Biological Opinion (June 2011). The conclusion that connectivity would be maintained after the construction of the Ivanpah SEGS project was based, in part, on the assumption that the corridor between the Silver State Project and the Lucy Gray Mountains would be maintained. Maintaining and preserving a corridor of undisturbed desert tortoise habitat should be an integral component of the Silver State South Project, and any other project located in the Ivanpah Valley.

According to the DSEIS, the U.S. Fish and Wildlife Service has estimated that a linkage would need to be at least 1.4 miles wide to accommodate a single, circular, desert tortoise home range, with multiple ranges likely needed for optimal functioning. Under Alternative A, the BLM would not approve the Applicant's ROW application and the Ivanpah linkage corridor would remain as it is now, about 2 miles in width. Under Alternative B, the linkage would be reduced down to 100 feet, with much of the proposed footprint approximately 0.2 mile from the Lucy Gray Mountains. Under Alternative D, the linkage would be reduced to 0.5 mile, with most of the linkage having a width of about 0.8 miles. Selection of Alternative C, identified as Alternative 2 in the 2010 Final EIS, would allow for a connectivity corridor of approximately 1.5 miles, but result in up to 9.2 acres of impacts to jurisdictional waters.

Of the three action alternatives described in the DSEIS, Alternative C would allow for the widest linkage corridor, although CWA jurisdictional waters would be adversely affected. We believe that it may be possible to reduce these impacts to jurisdictional waters further by considering variations to the proposed site layout. We note that a substantial portion of the new ROW area is not proposed for development under any of the alternatives. By shifting more of the proposed Project to the northern section of the ROW area, or closer to the southern edge of Silver State North, further reductions in

[1] Memorandum from the U.S. Fish and Wildlife Service to the Bureau of Land Management on the review of the Draft Supplemental EIS for the Silver State South Project, November 16, 2012.

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impacts to jurisdictional waters may be achieved, while allowing for the preservation of a suitable linkage corridor through desert tortoise habitat. Further reductions may also be possible by minimizing the number of road crossings over washes. We encourage BLM and the Applicant to fully consider these options. If such a modified alternative is selected, reevaluation of existing drainage plans and some updates to resource information presented in the DSEIS would likely be needed.

We understand that the Applicant currently has a power-purchase agreement for 250 MW, rather than 350 MW (which is the Applicant's proposed total power output). We recommend that the Final EIS more clearly explain the relationship between the current power-purchase agreement and the proposed total 350 MW output. We also recommend that BLM and the Applicant consider the feasibility of modifying Alternative C to support a 250 MW alternative that allows for both the preservation of a suitable corridor through the Ivanpah Valley and the minimization of impacts to jurisdictional waters.

We encourage BLM and the Applicant to meet with the EPA, USFWS, and the U.S. Army Corps of Engineers to determine the feasibility of developing an optimized design configuration that maximizes avoidance of critical areas and minimizes impacts to jurisdictional waters, as required by Section 404 of the Clean Water Act, while protecting biological resources and providing connectivity of desert tortoise habitat within the Ivanpah Valley. The Final EIS should include a discussion of all avoidance, minimization, and mitigation measures proposed for the Project, sufficient to demonstrate their likely effectiveness, and include an outline of the requirements of a compensatory mitigation plan.

We also recommend that the Final EIS include a discussion of how the proposed action would comply with Endangered Species Act (ESA) requirements, including any necessary ESA Section 7 consultation efforts with the USFWS regarding potential impacts to the desert tortoise. We recommend that any relevant documents associated with the ESA Section 7 consultation process, including any Biological Assessments and Biological Opinions, be summarized and included in an appendix in the Final EIS.

Impacts to biological soil crusts were not identified in the 2010 Final EIS. Site inspections conducted during preparation of the SDEIS, however, indicate that biological soil crusts are present throughout the ROW application area and proposed Project footprint. Construction of the proposed project could disturb and remove as much as 3,855 acres of biological crusts through site preparation, grading, and construction. The SDEIS concludes that Applicant-Proposed Measures (APM) to remove and stockpile biological soil crusts and restore biological soil crusts during project decommissioning would reduce this impact to less than significant. We are concerned that the relevant APMs do not include firm commitments to stockpile soil crusts or restore them. For example, APM-2 states that cryptobiotic soil crusts *may* also be salvaged. APM-10 states that a Facility Decommissioning Plan would be developed at least 6 months prior to commencement of the site closure activities, and closure activities *may* include re-establishment of cryptobiotic soils. We recommend that BLM and the Applicant quantify the acreage of cryptobiotic soils that would be disturbed for each alternative; incorporate project design changes to minimize such impacts; and revise the APMs in the Final EIS to include firm commitments to stockpile soil crusts and restore them.

Some portions of the proposed Project, particularly those areas located in the central or northern section of the ROW area, would be located in areas of very high flood risk, which raises environmental concerns due to increased erosion, migration of channels, and local scour. The 2010 Final EIS included

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a map that illustrated the geologic flood hazard class for the Silver State Solar Project. Updated information on the geologic flood hazard class for the acreage in the new ROW application area, however, was not included in the DSEIS. Given the potential instability of the central and northern portions of the proposed Project footprint during flood events, we remain concerned about the proposed siting of the Project in these high flood hazard areas and recommend that BLM and the Applicant consider options for redesigning the project to avoid such areas to a greater degree.

We recommend that the Final EIS include a specific commitment to maintain natural vegetation and contours under the solar panels and avoid grading within the project boundary to the maximum extent feasible. Changes to existing drainage systems should be avoided, especially in sensitive areas, and grading should be minimized to reduce flooding and maintain natural infiltration rates. Drainage plans should be designed to preserve on-site hydrological functions by utilizing existing natural drainage channels to the greatest extent practicable, and minimizing placement of support structures in ephemeral washes. The Final EIS should include an updated drainage plan to facilitate assessment of impacts and effectiveness of mitigation measures.

We are available to discuss all comments and recommendations provided. Please send one hard copy and one CD copy of the Final SEIS 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,

Enrique Manzanilla, Director
Communities and Ecosystem Division

cc: Amy Lueders, Bureau of Land Management
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