

# APPENDIX K

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## Individual Responses to Comments

### Individual Responses

In this section, responses are provided for each comment received. All comment letters, coded to delineate individual comments as described above, are provided in Appendix J.

#### **Letter 1 – Responses to Comments from Mojave Desert Air Quality Management District (MDAQMD)**

- 1-1 The MDAQMD's concurrence with Applicant Proposed Measures (APMs) AIR-1 and AIR-2 is noted.
- 1-2 The discussion of Rule 403 (page 3.2-8) has been revised to clarify that fugitive dust best management practices are required during both the grading and construction phases of the Project.

#### **Letter 2 – Responses to Comments from the Dean Family**

- 2-1 Support for the Project is noted.

#### **Letter 3 – Responses to Comments from Department of Toxic Substances Control (DTSC)**

- 3-1 The Phase 1 Environmental Site Assessment, which is cited in Section 3.9, *Hazards and Hazardous Materials* (Tetra Tech, 2011) and included in the administrative record for the Draft PA/EIS, describes the database search conducted by Environmental Data Resources, Inc. (EDR) for the Project site and a 0.5- to 1-mile buffer area around the site, depending on the nature of the potential hazard. EDR reviewed the databases noted by DTSC, including: the National Priorities List (NPL); Comprehensive Environmental Response, Compensation; and Liability Information System (CERCLIS); Resource Conservation and Recovery Act (RCRA) Information System (RCRAInfo, formerly RCRIS); federal Emergency Response Notification System (ERNS) list; federal mines master index file; State Hazardous Waste List (i.e., EnviroStar); state landfills and solid waste disposal sites (i.e., the Solid Waste Information System or SWIS); leaking underground storage tank (LUST) and registered underground storage tank (UST) list (i.e., GeoTracker); Toxic Chemical Release Inventory System (TRIS); and several other government records. As

described on page 3.9-2, this search found no “Recognized Environmental Conditions” and no evidence of any releases of hazardous substances or petroleum products on the Project site or in the immediate vicinity.

Because it does not appear that the U.S. Army Corps of Engineers (USACE) Formerly Used Defense Sites (FUDS) database was included in this search, a search was conducted in response to this comment. The FUDS list for California lists 41 sites in Riverside County. Within the vicinity of the Project, only the Blythe Army Airfield is identified (USACE, 2010). This site is now the location of the Blythe Airport, located about 4 miles southeast of the Project site, and is not within the 1-mile search area used for the above described database search (California State Military Museum, 2008). However, the proximity of the Blythe Army Airfield to the Project site and its historic military use was described in the Draft PA/EIS on page 3.22-4.

Section 3.9 acknowledges that “an additional environmental concern at the Project site is the potential presence of unexploded ordnance due to its use as a military practice area during the World War II era,” i.e., the California-Arizona Maneuver Area (CAMA), as described in Section 3.22.2, *Unexploded Ordnance*. The potential health and safety risks related to unexploded ordnance are described, and mitigation proposed, in Section 4.22, *Additional NEPA Considerations*.

- 3-2 Because after an extensive database search, as described in Response 3-1, no evidence was found of any releases of hazardous substances or petroleum products on the Project site or in the immediate vicinity (p. 3.9-2), no further investigation or remediation is required.
- 3-3 See Responses 3-1 and 3-2. The Phase I Environmental Site Assessment is summarized in the PA/EIS. Because no further investigation, sampling, and/or remediation is required, no workplan for hazardous substance cleanup is necessary.
- 3-4 No existing buildings, structures, asphalt, or concrete are present on the site, nor would any be demolished as part of the Project.
- 3-5 See Response 3-1. No evidence of contaminated soils was found on site. However, in response to comments concerning the potential for hazardous materials in soils due to historic military debris, Mitigation Measure HAZ-1 has been added to Section 4.9. Mitigation Measure HAZ-1 requires the Applicant to prepare and implement a site-specific Hazardous Materials Safety Plan that shall identify the chemicals potentially present in on-site soils, health and safety hazards associated with those chemicals, monitoring to be performed during site activities, soil handling and disposal methods required to minimize the potential for harmful exposures, appropriate personal protective equipment, and emergency response procedures. As described on page 2-44, all fill materials brought to the site would be free of hazardous materials.
- 3-6 As described on page 3.9-4, the nearest sensitive receptors are over 2.5 miles from the Project site. Implementation of dust suppression measures in APMs AIR-1 and AIR-2

- would reduce the potential for worker exposure to any hazardous materials that may be present in site soils by reducing the amount of dust released from construction and operation activities. No Health Risk Assessment is required.
- 3-7 The requirements of the California Hazardous Waste Control Law are described on page 3.9-9 and the Hazardous Waste Control Regulations (California Code of Regulations, Title 22, Division 4.5) on page 3.9-10. As described on page 2-27, the Applicant or its contractor would obtain a hazardous waste generator identification number from DTSC prior to generating any hazardous waste. As described on pages 4.9-4 through 4.9-6, Project construction, operation, maintenance, and decommissioning would require the routine use, storage, transportation, and disposal of hazardous materials. As described on page 4.9-5, “The Applicant must prepare a HMBP that describes the hazardous materials handled and demonstrates facility compliance with applicable handling, storage and disposal regulations. The HMBP must be reviewed and approved by the local CUPA, the Riverside County Department of Environmental Health, which would be responsible for facility inspections.”
- 3-8 As described on pages 4.9-4 and 4.9-6, during construction and decommissioning, the Applicant would store all hazardous materials in the manner specified by the manufacturer and in accordance with local, state, and federal regulations. Additionally, as described on pages 4.9-5, the Applicant would prepare a HMBP that describes the hazardous materials handled and demonstrates facility compliance with applicable handling, storage and disposal regulations.
- 3-9 Comment noted. No cleanup of the site is required (see Responses 3-1, 3-2, and 3-3).

#### **Letter 4 – Responses to Comments from Palo Verde Irrigation District (PVID)**

- 4-1 The PA/EIS provides a discussion of the Palo Verde Mesa Groundwater Basin (PVMGB) and the Palo Verde Valley Groundwater Basin (PVVGB), and delineates distinctions among them, on pages 3.20-1 and 3.20-4. In some portions of the PA/EIS, these groundwater basins are referred to collectively as the Palo Verde Groundwater Basin (PVGB). As explained in the PA/EIS, this notation is used for some of the analyses because there are no physical constraining features between the two groundwater basins. Similar delineations were used in Appendix G, although with slightly different terminology. In Appendix G, the groundwater model was configured to include both the mesa (PVMGB) and the valley/floodplain (PVVGB) areas. Appendix G uses the term “Valley” to refer to both basins collectively (p. G-13). BLM acknowledges PVID’s observations regarding what could potentially be three groundwater basins in the area. However, this characterization does not fit with other available delineations, and is of minimal consequence with respect to modeling assumptions and results, as the existing groundwater model is currently set up.

- 4-2 The assumptions utilized for the groundwater model with respect to PVID's system are contained in Appendix G. BLM acknowledges that PVID's system of irrigation and groundwater management is complex and encompasses many management and physical details that are affected by PVID operations. However, no groundwater model can observe and account for *all* fluctuations and localized variability in operations within a large system such as the PVGB. Accordingly, key potential sources of variability and influencing factors to be included in the model analysis were selected and modeled. As with any groundwater modeling effort, many potential sources of variability which, based on professional judgment, were not likely to substantially inform Project modeling results, were not accounted for.

As noted on page G-16, the key workings of PVID's system that are most relevant to the groundwater modeling completed for the Project are diversion and return of water via PVID's system for agricultural supply, and PVID's management of water resources that have maintained groundwater levels in the PVVGB as relatively stable since the mid to late 1980s. These were therefore accounted for in the groundwater balance and modeling. Other detailed considerations are not expected to considerably inform either groundwater basin balance or groundwater levels and dynamics, as affected by Project pumping. Most of the details about PVID's system operation fall into this category. Therefore, although select specific details regarding PVID's system operation, such as a localized reduction of groundwater levels by 2.5 feet in the area indicated by the commenter, such details are unlikely to noticeably alter the results of the groundwater model or the anticipated level of impact to groundwater supplies incurred as a result of Project implementation.

- 4-3 As noted in Response 4-1 and in Appendix G, the PVMGB and the PVVGB were modeled collectively as a single basin. This assumption is consistent with a lack of physical restrictive layers or formations between the two groundwater basins. Delineation and modeling some type of physical boundary between the two basins would not be consistent with on-site geology or groundwater dynamics. For additional information, please refer to Section 3.20 and Appendix G. BLM concurs that groundwater from the Colorado River does not reach the Project site. For additional discussion of this matter, see PA/FEIS Section 5.5.4.3, Common Response 3.
- 4-4 The BLM understands PVID's concern regarding potential for interference with water accounting policies and requirements along the Colorado River. For a discussion of these issues, see PA/FEIS Section 5.5.4.3, Common Response 3.
- 4-5 See PA/FEIS Section 5.5.4.3, Common Response 3.
- 4-6 BLM acknowledges and appreciates PVID's disclosure regarding the potential underestimation of irrigation return flows in the groundwater modeling completed for the Project. However, updating of the groundwater model is not necessary, because increasing irrigation return flows would not change the anticipated effects of the Project.

- The existing model assumptions deliberately incorporate lesser agricultural return flows to generate a more conservative analysis, whereby the model will tend to under-predict the total volume of groundwater contained in the groundwater basin. If the groundwater model were updated to account for increased irrigation return flows, groundwater model results would either show no noticeable change or a slight reduction in groundwater drawdown.
- 4-7 Differences in the values for recharge from precipitation in Draft PA/EIS Tables 3.20-4 and 3.20-5 reflected differences in the approach to estimating infiltration into the basin by CEC (2010) and AECOM (2010b). However, these values (3,086 AFY from Table 3.20-4 and 7,184 AFY from Table 3.20-5) do not vary substantially from the recharge value that was utilized in the groundwater model (5,000 AFY) when compared to the total recharge value from all percolation sources of 196,250 AFY (Appendix G-1, p. G-45). Based on a review by the model authors, updating the annual precipitation recharge rates to either of these infiltration values would not significantly affect groundwater pumping effects predicted by the model. Therefore, no revisions have been made to the model. However, upon reviewing the source of the infiltration value provided in Draft PA/EIS Table 3.20-4, it was determined that a water balance was available that utilizes values more closely resembling those used in the groundwater model and thus, Table 3.20-4 in PA/FEIS Section 3.20 was revised and now uses a value for recharge from precipitation that is closer to that in shown in Table 3.20-5.
- 4-8 The modeled analysis and the PA/EIS disclose and account for potential effects of evaporation. As shown in Table 3.20-5, the total average annual volume of precipitation that falls within the basin is approximately 102,878 AFY. However, an average of only about 5 percent of this volume, or roughly 5,000 AFY as estimated in the model, actually infiltrates. The remaining volume of water is lost to evaporation and other processes. Note that as discussed in Response 4-7, the groundwater model completed for the Project assumed an infiltration rate of 5,000 AFY (see also Appendix G). No revisions have been made.
- 4-9 See PA/FEIS Section 5.5.4.3, Common Response 3.
- 4-10 The BLM acknowledges that, prior to the early 1980s, agricultural related pumping resulted in depressed groundwater levels within the groundwater basin. This is noted in PA/EIS Appendix G, pages G-14 and G-16. However, since that time, as discussed in Section 3.20 and Appendix G, groundwater levels have been maintained at relatively stable levels. The BLM acknowledges that stability may be supported by PVID activity and management actions. However, updating the model to more fully reflect historic reductions in groundwater levels would not change current conditions on site, and therefore would not affect model results. No revisions have been made.
- 4-11 Upon further review, the estimated volume of inflow from the PVVGB into the PVMGB presented in CEC, 2010 was found to be unsourced and therefore potentially unreliable, and because it is not pertinent to the groundwater model and has no bearing on the analysis of the Project's effects on groundwater, it has been removed from Section 3.20.

4-12 As noted on PA/FEIS page 3.20-6 the agricultural groundwater use rate includes areas both within PVID's service area and outside of PVID's service area, specifically on the mesa. Upon review of the water balance provided in Draft PA/EIS, Table 3.20-4 has been revised to present values that are more relevant to the groundwater model relied on for the analysis of impacts to groundwater resources. Thus, the 6,600 AFY value previously used in the Draft PA/EIS has been revised to 3,600 AFY. This value is taken from AECOM's water balance as presented in its "Results of Numerical Groundwater Modeling Report" (AECOM, 2011a, Table 1), and is based on an assumption of 724 acres of agricultural land on the mesa that use groundwater for irrigation (364 acres of inside the PVID boundary that use private wells and 360 acres of agricultural land outside the PVID boundary that use groundwater for irrigation). The 3,600 AFY value accounts for considerations of crop efficiency. The PA/FEIS, page 3.20-5, indicates that an assumed 25 to 30 percent of the 3,600 AFY would be recharged to groundwater. The BLM acknowledges that a larger portion of total return flows could conceivably be percolated to groundwater. However, if this is the case, then the model under-predicts agriculture-related infiltration, and therefore is conservatively low in terms of the overall basin balance. This condition would slightly over-predict the Project's potential effects on groundwater levels. Therefore, updating the model to assume a greater portion of infiltrated irrigation return flows would not increase the level of impact indicated by the model.

The BLM acknowledges that the 3,600 AFY value does not account for domestic use. The PA/FEIS has been revised to indicate that municipal and domestic uses of groundwater in the PVGB account for 7,500 AFY, as assumed in AECOM's model.

4-13 Upon review of the water balance given in Draft PA/EIS Table 3.20-4, this table has been revised to present values that are more relevant to the groundwater model relied on for the analysis of impacts to groundwater resources. Thus, the value of 760 AFY previously used in the Draft PA/EIS has been revised to 3,500 AFY. The 3,500 AFY rate is taken from AECOM's water balance as presented in its "Results of Numerical Groundwater Modeling Report" (AECOM, 2011a, Table 1), and is based on estimates of 4.5 to 5.85 AF/ac/year and a crop efficiency of 70 to 75 percent on 2,683 acres on the mesa. The BLM acknowledges that PVID's estimates of percolation to groundwater are higher than the estimates provided in the PA/EIS. However, assuming higher groundwater recharge rates from agricultural return flows would only increase the total modeled supply of groundwater that is potentially available for the Project. Therefore, the existing analysis based on the model is conservative and slightly over-estimates the Project's effect on groundwater levels; increasing recharge rates would not significantly change the outcome of the modeling or the Project impact analysis. See Response 4-12.

4-14 Table 3.20-4 has been revised as described in Responses 4-7, 4-12, and 4-13. For a discussion of potential for groundwater connectivity to the Colorado River, please see PA/FEIS Section 5.5.4.3, Common Response 3.

4-15 Comment noted. Page 3.20-10 of the PA/FEIS has been revised as follows:

The bedrock topography in the study area has not been determined but appears to lie at depths exceeding 1,000 feet bgs in Parker Valley, which is located over approximately 3 miles to the northeast, and is not indicated to be a significant source of water (Metzger et al., 1973).

- 4-16 Comment noted. Pages 3.20-10 and 3.20-11 have been updated as follows:

Water level elevation contours for the PVMGB and PVVGB drawn from year 2000 water level data gathered from the USGS database and the water level measured south of the MSEP site in October 2009 show that, north of the MSEP site, the groundwater flows to the southeast towards the Colorado River, following the general axial trend of McCoy Wash (AECOM, 2011a). ~~Beneath the MSEP site and in areas south of the MSEP site, groundwater flow “turns” (in response to influence from the Colorado River) towards the south-southeast following the general flow path of the Colorado River (AECOM, 2011a).~~ Based on the 2000 water level data in the USGS and DWR databases (USGS, 2009; as cited in BLM, 2010; DWR, 2009) for wells located approximately 2 to 3 miles east of the MSEP site, the hydraulic gradient is about 0.007 ft/ft. Groundwater from the PVMGB is also influenced by the PVID drain along the toe of the mesa and bedrock extensions associated with the McCoy Mountains to the east.

- 4-17 BLM acknowledges the difficulties in attempting to determine the root causes of some of the observed trends in groundwater levels in the area. However, the commenter has not presented conclusive data. Therefore, the first paragraph of the subsection titled “Historic Groundwater Levels and Flow” has been updated as follows:

AECOM (2009, as cited in CEC, 2010) reported that the water level data from 1971 show local variations in water level contours in the area east of the MSEP site, which suggests localized pumping in support of agriculture. Water level data from 2000 show that the water levels had recovered in the area due east of the site and show a southerly flow of groundwater coincident with the flow in the Colorado River. Recovery of groundwater levels may have also been influenced by the application of canal water to mesa crops by PVID, in order to manage salinity. Groundwater flow in the PVMGB is from the north, southeast through McCoy Wash at a gradient of 0.001 ft/ft, then south-southwest at gradients of between about 0.0003 and 0.0008 ft/ft in a direction coincident with the flow of the Colorado River (AECOM, 2009).

- 4-18 The BLM acknowledges that application of PVID irrigation water for recharge could have a net beneficial effect on groundwater quality. The first paragraph of the subsection titled “Groundwater Quality” has been updated to reflect the potential for this to occur.

In general, water quality in the PVMGB is generally higher near the edge of the Palo Verde Mesa adjacent to the Colorado River floodplain. The amount of dissolved solids becomes progressively higher away from the Colorado River

floodplain and with depth (AECOM, 2011c), although the application of surface water in select portions of the PVMGB could result in localized net reductions in dissolved solids concentrations. The groundwater in the area beneath the MSEP site and its vicinity is generally sodium sulfate-chloride in character (DWR, 2003). According to AECOM (2011c), the Total Dissolved Solids (TDS) content of shallow groundwater in the basin ranges from 730 to 3,100 milligrams per liter (mg/L), while the TDS of deeper groundwater is higher at 4,500 mg/L.

4-19 Page 3.20-16 has been revised as follows:

There are no permanent bodies of water located on the MSEP site. Surface water in Palo Verde Mesa drains to the southeast into the Palo Verde Valley floodplain, where it floods fields, canals, and PVID drains ~~Colorado River.~~

4-20 Comment noted. The following text has been added as a footnote to PA/FEIS Table 3.20-9:

Based on the Project's Pre/Post-Development Hydrology Report (AECOM, 2011b), Section 2.4.5, the stormwater flows contained in Table 3.20-9 are based on 10- and 100-year, 24-hour storm events. These precipitation events "were obtained from NOAA's Precipitation Frequency Data Server for the Project vicinity. It is assumed that the 24-hour duration rainfall event is spatially distributed evenly over the hydrologic (HEC-HMS) and hydraulic (FLO-2D) model extents. Precipitation was distributed temporally as a Type II storm, in accordance with the U.S. Soil Conservation Service (now NRCS) Technical Release 55 recommendation for southeastern California. Rainfall depths used for the 10- and 100-year return periods were 2.22 inches and 3.93 inches, respectively" (AECOM, 2011b).

4-21 The BLM acknowledges that many of the sites listed in PA/FEIS Table 3.20-10 are PVID canals or drains. The text on page 3.20-18 has been revised to indicate that, according to PVID, these sites are expected to collect only limited irrigation runoff water. Also, a negative sign has been added the longitudinal coordinates in the table to indicate their direction (West).

4-22 The indicated figures were drawn in accordance with DWR's Bulletin 118. The precise definition of the boundary between the two groundwater basins is of minimal consequence to the analysis provided in the PA/EIS, because there is no physical boundary to groundwater movement between the two basins. Therefore, no changes have been made to the figures.

4-23 The comment is noted. Appendix G-1, *Assessment of Proposed Groundwater Use – Results of Numerical Groundwater Modeling*, was prepared by the Applicant's consultant, not by the BLM. No revisions have been made to that document.

## Letter 5 – Responses to Comments from Riverside County Transportation Department

- 5-1 As described in Section 4.17, construction-related vehicles (passenger cars and haul trucks) would utilize the I-10 freeway and local roadways (i.e., Mesa Drive, Hobson Way, Black Rock Road). Any wear-and-tear to existing roadways would be associated with the number of haul trucks traversing such roadways on a daily basis during construction of the Project (roadway wear-and-tear caused from regular-size, passenger vehicles is negligible, per industry standards). As described on page 4.17-3, construction-related activities associated with the Project would result in approximately 10 to 20 deliveries per day, with an expected peak of approximately 25 to 30 deliveries per day during the months of July 2015 through November 2016 for delivery of the modules, trackers, and cabling. As an interstate freeway, I-10, which carries more than 7,000 heavy vehicles on a daily basis in proximity to the Project site according to the most recent data published by Caltrans (2010), is built to provide adequate load bearing capacity to support heavy vehicle use. While the potential of wear-and-tear to local roads exists, the temporary low-level increase in heavy vehicles would not substantially contribute to the incremental effect of heavy vehicles over the life span of roadway pavement.
- 5-2 See Response 5-1, regarding the effect of the Project's use of heavy vehicles on pavement conditions on area roadways. Should Project-generated truck trips cause damage, beyond normal wear-and-tear, to area roads, Mitigation Measure TRN-1 (Item 10) requires that the Applicant and/or its contractor repair and restore adversely affected roadway pavements to their pre-construction condition.
- 5-3 As described on page 2-16, a secondary access gate, similar in construction to the main gate, would be used for emergency purposes only. A Fire Department Knox Box or other access device and emergency contact placard would be provided at the main gate and secondary access gate to provide emergency access. The emergency access gate would be located south of the main entry gate and would be accessed via Black Rock Road.
- 5-4 The Traffic Impact Analysis report will not be appended to the PA/FEIS, but is available in the administrative record, and the public may obtain it and all other Project-related public records from the BLM by contacting Jeff Childers, Project Manager, California Desert District. Contact information is provided in PA/FEIS Section 5.4.
- 5-5 There would be no Project-related construction activities within the public right-of-way, and therefore, an encroachment permit and franchise agreement would not be required. Section 4.17.3.1 has been revised to clarify this as follows:

Construction activities primarily would occur on-site, within the boundaries of the Project; however, construction and installation of the proposed gen-tie line would require construction vehicles to access the tower sites along adjacent roadways. No construction activity would occur within the public right-of-way.

- 5-6 As stated in Mitigation Measure TRN-1, the Applicant and/or its contractor shall identify truck routes designated by applicable jurisdictions (i.e., Riverside County, City of Blythe, and Caltrans). The “dedicated truck routes within each jurisdiction” would be the jurisdiction-designated roads, which would be subject to the above-cited jurisdiction coordination, but are expected to be I-10, Mesa Drive, Hobson Way, and Black Rock Road.
- 5-7 As described on page 4.17-4, the average annual growth rate of 1.3 percent was derived based on peak-hour traffic volumes collected by Caltrans in 2004 and 2008 (the last years that traffic counts were conducted, according to Caltrans’ web site at the time the analysis was prepared). In order to determine Year 2015 and Year 2016 baseline traffic conditions, the analysis applied the annual growth to the 2010 traffic volumes collected for the analysis. Although a different (and possibly higher) growth rate could occur between 2010 and 2015/2016, the findings of Project impacts would be the same as presented in the Draft PA/EIS, given reported existing and projected LOS A conditions.
- 5-8 The source of the statements about queuing on the freeway ramps from the I-10 ramp/Mesa Drive intersection referenced by the commenter (on pp. 4.17-4 and 4.17-5) is professional traffic engineering judgment. Such judgment is based on the relatively low traffic volumes (and corresponding good level of service) on the multi-lane I-10 freeway, and implementation of Applicant Proposed Measure (APM) TRANS-1, which would split construction crews with staggered start times to reduce peak arrivals by about half, and schedule Project deliveries and truck trips for off-peak hours, further reducing potential traffic impacts during the peak commute periods. Therefore, queuing analysis is not required.
- 5-9 See Response 5-8 regarding the basis for the statements about queuing on the freeway ramps from the I-10 ramp/Mesa Drive intersection.
- 5-10 See Responses 5-1, 5-3, 5-5, and 5-8 regarding potential Project impacts to pavement conditions, emergency access, the absence of need for an encroachment permit, and queuing on freeway ramps. No additional mitigation measures are warranted.

## **Letter 6 – Responses to Comments from Basin and Range Watch**

- 6-1 As stated on page 1-2, the BLM’s purpose and need for the MSEP is to respond to the Applicant’s application for a ROW grant to construct, operate, maintain, and decommission a solar facility on public lands *in compliance with FLPMA, BLM ROW regulations, and other applicable federal laws*, including NEPA and the Endangered Species Act. See also PA/FEIS Section 5.5.4.1, Common Response 1.
- 6-2 FLPMA’s “multiple use” mandate charges the BLM with managing the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people. As directed by Secretarial Order 3285, the BLM has identified renewable energy projects on federally managed

- lands as a priority use of the lands it manages. Consideration of the proposed renewable energy project on public lands is consistent with this direction. See also PA/FEIS Section 5.5.4.1, Common Response 1.
- 6-3 See PA/FEIS Section 5.5.4.1, Common Response 1.
- 6-4 See Response 6-1 and PA/FEIS Section 5.5.4.1, Common Response 1. The BLM's statement of purpose and need includes the need to comply with all applicable federal laws, including NEPA, which requires the consideration and feasible mitigation of potential impacts to biological, hydrological, cultural, visual, and recreational resources, as well as other areas of environmental concern.
- 6-5 As of October 12, 2012, the Department of the Interior has authorized over 10,000 MW of renewable power projects on public lands. As described on page 1-2, Section 211 of the Energy Policy Act of 2005 directs the Secretary of the Interior to authorize *at least* 10,000 MW of renewable power projects by 2015. Accordingly, the department may continue to approve renewable power projects on the public lands even after reaching this goal. Additionally, at the time of preparation of the Draft EIS, this goal had not yet been met, and is therefore relevant to the purpose and need for the Project. Consideration of the proposed renewable energy project on public lands is consistent with this direction. See also PA/FEIS Section 5.5.4.1, Common Response 1.
- 6-6 See PA/FEIS Section 5.5.4.1, Common Response 1.
- 6-7 See PA/FEIS Section 5.5.4.1, Common Response 1.
- 6-8 See PA/FEIS Section 5.5.4.1, Common Response 1. Potential effects of all of the alternatives on wildlands, biological resources (wildlife and vegetation), cultural resources, recreation, socioeconomics, visual resources, and water resources (including drainage considerations) are analyzed in PA/FEIS Chapter 4. Energy generated by the project, if approved, would interconnect to the grid at SCE's Colorado River Substation. Potential impacts to the ratepayers of publicly owned utilities, such as SCE, are within the purview of the California Public Utilities Commission, not the BLM. The analysis of potential impacts to ratepayers is beyond the scope of the PA/FEIS.
- 6-9 The comment is noted. The range of alternatives considered in the Desert Renewable Energy Conservation Plan is outside of the scope of this analysis.
- 6-10 None of the alternatives considered in this PA/EIS would confer a conservation designation on the ROW grant area. Please see Section ES.3.1 and Section 2.2.1 for an explanation of why Alternative 6 has not been carried forward for consideration in the PA/FEIS.
- 6-11 As described on page 4.2-1, construction is expected to occur over 46 months. The potential air quality impacts and the Applicant Proposed Measures and Mitigation Measures related to air quality are addressed in Section 4.2.

- 6-12 The Draft PA/EIS addressed the prevalence and risk of Coccidioidomycosis (Valley Fever) in Section 3.9 (p. 3.9-5). Although the incidence of Valley Fever in Riverside County is low compared to other counties, this fungus is known to occur in desert soils. Further discussion of the potential risk to public health associated with Valley Fever has been added to Section 4.9.3.1. These changes, together with other related revisions, are as follows:

### **Public Health**

#### **Construction**

As described in Section 3.9.1.4, incidence of WNV in Riverside County, and therefore the risk of public health from this vector-borne disease, is extremely low. Implementation of Mitigation Measure WATER-3, which requires a comprehensive drainage, stormwater, and sedimentation control plan, would reduce the potential for unintentional ponding of water on-site or downstream of the Project. This would reduce the risk of mosquito breeding on or near the site, and would therefore reduce the risk for workers and the public of contracting vector-borne diseases.

Additionally, as described in Section 3.9.1.4, incidence of Valley Fever in Riverside County is also low. However, fugitive dust generated during Project construction could expose workers to Coccidioides fungal spores that may be present in desert soils. Implementation of APM AIR-1 and Mitigation Measure AQ-2 would reduce fugitive dust during the construction phase, which would reduce the risk to workers of contracting Valley Fever.

#### **Operation and Maintenance**

Similar to construction, implementation of Mitigation Measure WATER-3 during operation and maintenance would reduce risk of vector-borne diseases. Implementation of APM AIR-2 and Mitigation Measure AQ-2 would reduce fugitive dust, which would reduce the risk of Valley Fever infections.

#### **Decommissioning**

Similar to construction, implementation of Mitigation Measure WATER-3 during decommissioning would reduce risk of vector-borne diseases. Implementation of APM AIR-1 and Mitigation Measure AQ-2 during decommissioning would reduce fugitive dust, which would reduce the risk of Valley Fever infections.

As discussed on pages 4.2-7 and 4.2-8, the Applicant has proposed measures (APMs AIR-1 and AIR-2) to minimize fugitive dust emissions due to wind erosion during both the construction and operation phases of the Project. APMs AIR-1 and AIR-2 include measures to pave or stabilize access and construction roads; limit vehicle speed on unpaved areas; covering soil storage piles and disturbed areas; and use of wind control erosion techniques, such as windbreaks, and application of water and/or chemical dust suppressants. These measures would limit fugitive dust on high wind days.

- 6-13 PA/FEIS Mitigation Measure AQ-1 (formerly, Mitigation Measure AQ-2 in the Draft PA/EIS) would require the application of non-toxic soil stabilizers to all areas where desert pavement would be disturbed. Implementation of Mitigation Measure AQ-1 would reduce the Project's contribution to long-term cumulative fugitive dust impacts associated with the potential disruption of desert pavement. Project-related construction emissions, in conjunction with emissions generated by other projects within the MDAB constructed concurrently with the Project would result in short-term PM10 emissions that would exceed the MDAQMD thresholds even with implementation of APMs AIR-1 and AIR-2. However, the closest sensitive receptors (i.e., residences) are at a distance of approximately 2.6 miles from the proposed plant site, and approximately 0.6 mile (3,200 feet) from a location along the gen-tie line south of I-10. Therefore, the Project's contribution to cumulative impacts that would affect public health would be minimal.
- 6-14 Potential impacts to the groundwater underlying the Project site are discussed on page 4.20-1 for construction, and pages 4.20-2 through 4.20-4 for the operation and maintenance period. As discussed therein, an update to the Palo Verde Groundwater Model was used to evaluate potential impacts associated with groundwater pumping. The model assumes that a total volume of 750 acre-feet would be withdrawn from the aquifer during construction, and that a total of 30 AFY would be withdrawn during operations. Model results are presented in Figures 4.20-1 to 4.20-3. The model predicted that drawdown outside of the solar plant boundary would be less than 0.1 foot, both at the end of construction and at the end of operational pumping. Consequently, potential impacts to groundwater are anticipated to be minimal.
- 6-15 It would not be practicable to limit construction activities to periods when wind speeds would be less than 10 miles per hour because wind speeds of this or greater happen with relative frequency; however, the Applicant has proposed to implement measures that would minimize fugitive dust emissions due to wind erosion during both construction and operation phases of the Project. For example, APMs AIR-1 and AIR-2 include measures to pave or stabilize access and construction roads; limit vehicle speed on unpaved areas; cover soil storage piles and disturbed areas; and use of wind control erosion techniques, such as windbreaks and application of water and/or chemical dust suppressants. PA/FEIS Mitigation Measure AQ-1 also requires that a non-toxic soil stabilizer be applied to areas of desert pavement disturbed during Project construction. Implementation of these measures would be effective in reducing wind-generated fugitive dust emissions.
- The commenter also suggests that construction should be limited during the three hottest months of the year, but offers no explanation as to why this limitation should be applied to the project, or what effect it would have on project emissions.
- 6-16 Comment noted. As shown in Table 4.15-1 on page 4.15-3, in addition to the direct employment of 324 workers from Riverside County, Project construction would result in approximately 57 jobs due to indirect impacts (business-to-business, or supplier, transactions following expenditures by a project) and 122 jobs due to induced impacts

(expenditures by households of workers employed by the Project and by the chain of suppliers to the Project). Because there is sufficient temporary housing within the local study area to house workers expected to travel from outside this area to work on the Project (p. 4.15-3), many of these indirect and induced jobs could be produced locally in response to spending by construction employees. However, the precise impact on local employment cannot be predicted.

Furthermore, Section 4.15 describes the Riverside County tax revenues that would be generated by the Project; however, the BLM has no jurisdiction over the County's allocation of these revenues.

- 6-17 The commenter expresses the opinion that other high profile renewable energy projects have fallen short of their mitigation requirements to control dust. Compliance and enforcement monitoring would be key components of any approval of the requested ROW grant.
- 6-18 The monsoonal flood event that occurred at the Genesis solar site during July, 2012 is characterized as a 100-year event, wherein 5.6 to 6 inches of rain occurred over a 2-day period (Veerkamp and Conway, 2012). Note that a 100-year event refers to a flood event that has a 1 percent chance of occurrence each year. If a 100-year event occurs during a given year, its occurrence does not affect the probability of a similar flood event occurring during the following year. Therefore, although the probability is low, more than one 100-year event could occur within the span of a few years.

As noted by the commenter, damage occurred at the Genesis site (under construction during the flood event) as a result of flooding during this event. More limited damage has also occurred at other sites. The discussion provided below focuses on the Genesis site, because that was the site with the largest amount of damage, and also because more substantial documentation is available for the damage that occurred on that site.

As discussed by Veerkamp and Conway (2012), the flood related damage at the Genesis site was primarily caused by the temporary and partial filling of flood control channels, in order to facilitate the construction process. Briefly, the flood control strategy employed at the Genesis site is substantially different from that proposed for the Project. At the Genesis site, the entire site is protected from flooding by berms and flood control channels that prevent flood water from flowing onto the site and channel floodwaters around the perimeter of the site. At the Project site, as discussed in Chapter 2 and Section 4.20, flood waters would be allowed to pass under the solar arrays with only minimal obstruction. Protective berms would not be deployed around the entire facility. Select flood sensitive facilities on site, such as proposed buildings, would be elevated to above the 100-year flood level.

At the Genesis site, during the construction process, a portion of one of the perimeter flood control channels was filled in to create an earthen bridge. This is shown in

**Figure K-1.** As shown, the earthen bridge fills nearly the entire flood control channel. Relatively small pipe culverts can be noted at the foot of the earthen bridge, within the flood control channel. However, as shown, these were insufficiently sized to carry the full capacity of the flood control channel. When the July 30-31 storm event occurred, the earthen bridge was still in place and effectively prevented the flood control channel from conveying flood waters. As a result, flood waters backed up behind the bridge and then spilled over the existing flood control structure and onto the Genesis site. This is shown in **Figure K-2**. Other damage on site resulted from ditches that were not yet completed, underground piping filling with water, and the unfinished condition of one of the flood control channels. Direct damage to solar mirrors occurred as a result of wind damage.

Thus, in light of the effects of flooding at the Genesis site, flood related impacts occurred as a result of (1) the concentration of flood flows and their subsequent (accidental) release onto the Genesis site, and (2) by stormwater that was able to enter into unfinished facilities that were still under construction, including drainage ditches and flood control conveyances.

The observed construction period failings at the Genesis site provide an interesting reference point with which to consider potential construction period flood impacts at other sites, including the Project. However, because the Project site employs a different flood management strategy from the Genesis project, the types of flood-related impacts that could occur during construction are different from those that occurred at the Genesis site. For example, the Project would not result in the concentration and conveyance of flows around the margins of the facility, and therefore there are no opportunities to interrupt such flows during the construction process. Instead, flows would fan across the surface of the site, and/or be conveyed in existing natural channels. Concentration of flows does, however, occur naturally in select locations on site, including along more defined channels that cross the site. During flood events, as discussed in Sections 3.20 and 4.20, these waterways could become inundated. It is not anticipated that construction activities would result in the construction of an earthen bridge or other structure in these areas that could restrict or reroute flood flows. Additionally, in areas where flood waters would fan out across the solar array installation area, structures such as elevated roads or other large elevated structures could interfere with flood flows, thereby concentrating flows and causing damage similar to that experienced at the Genesis site.

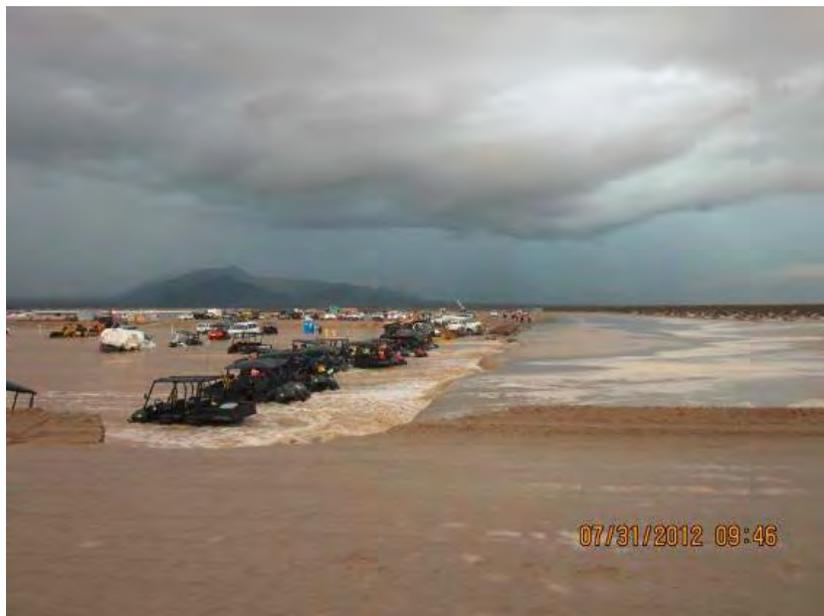
With respect to the second category of impacts noted at the Genesis site – namely those where damage was caused due to incomplete construction of facilities – such impacts could occur at the Project site during construction. Construction of the MSEP would proceed over time in a step by step process, wherein a major flood could occur at any time during that process. Therefore, a storm event could occur during periods when drainage and stormwater management facilities have not yet been entirely completed, or when facilities are partially excavated or otherwise temporarily susceptible to flood related damage. Therefore, it is difficult to entirely offset or avoid potential damage to facilities due to construction period flooding. However, certain construction period

**Figure K-1**  
**Temporary Earthen Bridge Crossing Genesis Solar Energy**  
**Project's Engineered Flood Corridor, June, 2012**



SOURCE: Veerkamp and Conway, 2012

**Figure K-2**  
**Water Overflowing the Genesis Flood Control Channel Due to**  
**Earthen Bridge (photo taken Atop the Bridge)**



measures can be taken to reduce potential for flood related damage, in the event of a major storm event. For example, timing of the construction of select facilities, especially localized drainage features and features such as trenches and pipelines that could be inundated, should be managed so as to minimize potential for exposure to flooding, to the extent practicable.

As a result of these considerations, the PA/EIS has been updated to include additional discussion of potential construction period flood impacts, and implementation of mitigation that would minimize potential for construction period flood damage to occur on site. The following text has been added to Section 4.20.3.1:

**Flooding**

In the event that a major storm event occurs during construction of the MSEP, unanticipated flooding could potentially occur on site. Potential for damage to facilities due to on-site flooding would be exacerbated during the construction period. This is because a major flood event could occur at any time, including prior to the completion of the proposed stormwater management facilities on site. Therefore, unless construction practices and procedures are carefully managed, construction period flooding could result in damages to on site facilities, interference with the construction process, and potential exposure of employees to flood conditions. To minimize potential for construction period flooding to affect on site facilities, implementation of Mitigation Measure WATER-6 would be required.

The following mitigation measure has been added to Section 4.20.10:

**WATER-6: Construction period flood protection.** The Applicant shall ensure that during construction, temporary construction related structures such as bridges, roads, berms, and other facilities, would be constructed so as to avoid interference with 100-year flood flows. Temporary installation of the following types of facilities shall be avoided: temporary elevated earthen structures such as roads and berms; earthen bridges or other structures within a waterway or flood conveyance that could interfere with flood flows; dams; unnecessary ditches; other major structures that could concentrate flood flows. Additionally, to the extent practicable, the Applicant shall ensure that the construction process proceeds in a manner so as to minimize exposure of facilities to construction period flooding. Temporary ditches and trenches (such as for pipes, wires, or other infrastructure) should be completed and backfilled as quickly as possible, and should not be left open for extended periods. Drainage infrastructure should be installed prior to installation of the solar arrays and other facilities on site. Other facilities that may be susceptible to flood damage during construction should be managed so as to minimize construction time of those facilities.

- 6-19 The PA/EIS does not quantify the area of desert pavement located on-site that could be affected by the Project. However, potential impacts to desert pavement would be minimized to the extent practicable. The Applicant has proposed to avoid the disturbance of desert pavement to the extent feasible (APM AIR-1, item 14, page 4.2-8). Additionally, as noted by the commenter, to the extent that desert pavement promotes infiltration, it is conceivable that some net reduction in infiltration could occur in areas where desert pavement is disturbed. However, due to the sandy nature of soils at the Project site and its vicinity, infiltration capacities in the area are generally quite high. Therefore, while disturbance to existing desert pavement could result in a reduction in infiltration capacity, soils would still remain very permeable, and no noticeable reduction in groundwater levels or overall infiltration capacity within the region is anticipated.

The Project will result in the direct and permanent loss of desert pavement on the solar plant site and the resulting loss or displacement of most wildlife species that presently occur on-site. The cumulative effects discussion in Section 4.4.9.3 (p. 4.4-21), identifies that, “(i)n the context of other existing and reasonably foreseeable projects, the proposed Project has the potential to further reduce wildlife habitat and incrementally degrade adjacent habitat.” Furthermore, “(t)he development of numerous large-scale projects such other solar generation facilities would result in the permanent conversion of wildlife habitat to industrial and commercial uses.” Most vegetation on the solar plant site including phreatophytes (deep-rooted plants that are characteristic of arid areas) will be directly removed during construction.

- 6-20 Section 4.15, *Social and Economic Effects*, acknowledges that most construction workers are expected to come from western Riverside County, but that it is possible that some workers will come from the Blythe area or La Paz County, Arizona (p. 4.15-2). As stated on page 2-55, during operation, approximately 20 permanent, full-time personnel would be employed at the solar plant site. Temporary personnel would be employed, as needed, during seasonal periods when panel washing is required. Although the BLM does not have the authority to require that the Applicant use particular hiring practices, this concern will be considered during decision making. See also Response 6-16.
- 6-21 The visual effects of the MSEP for visitors to the surrounding wilderness areas have been addressed in *Section 4.19.3, Alternative 1: Proposed Action*. As discussed in the subsection titled “Impacts to Special Designations (Wilderness Areas)” on pages 4.19-13 and 4.19-14, the visual impacts on the wilderness areas surrounding the MSEP would be minor to moderate. The presence of microphyll habitat in McCoy Wash is not proper justification for using the wash as a KOP location.
- 6-22 The criteria for selecting KOPs is not to depict *all* of the visual impact scenarios, but to choose locations that are representative of views experienced by the public. The rationale for the selection of KOPs is fully detailed on page 4.19-3, and the locations of KOPs selected are shown in Figure 3.19-2. The KOPs represent an appropriate range of viewer types, view distances, and view angles. In addition, the effect of glint and glare was

- analyzed on pages 4.19-12 and 4.19-13. As discussed in Section 4.19.1.3, the simulations provided in the Draft PA/EIS were created assuming optimal atmospheric conditions, without having blended the facility in with the level of atmospheric haze present at the time the photographs were taken. The degree of visual exposure of the MSEP (i.e., angle of observation, view duration, and relative size/scale) is discussed throughout Section 4.19 at an appropriate level of detail.
- 6-23 The MSEP is required to conform to the VRM Class III objective, with a limited segment of the gen-tie line required to conform to the VRM Class II objective, as discussed in Section 3.19.1.7, *Interim Visual Resource Management Class Recommendations*. The VRM Class I objective would only apply to land-disturbing activities within areas classified as VRM Class I, such as designated wilderness. The MSEP does not overlie any VRM Class I land.
- 6-24 See Response 6-23. In addition, compliance (or non-compliance) with VRM objectives is different from an evaluation of the Project's cumulative impacts as required under NEPA. See 4.19.9 for a comprehensive evaluation of cumulative impacts to visual resources.
- 6-25 As stated in Responses 6-21 and 6-22, the purpose of choosing KOP locations for simulating the Project's effects is to represent views of the Project from locations that the public frequents (i.e., developed areas, highways, local roads, and OHV routes). The simulation from KOP 3 was provided to approximate views for visitors to the surrounding designated wilderness, in recognition that while access is difficult and visitation is very low, the sensitivity is high because visitors seek an unconfined wilderness experience. The lack of a simulation from every potential vantage point, however, does not mean that impacts were not adequately evaluated. Impacts to special designations, such as those listed by the commenter, were evaluated in Sections 4.19.2 and 4.19.9.3; the impacts with respect to lighting and dust were evaluated on pages 4.19-10 through 4.19-13; and the impacts on the night sky were evaluated on pages 4.19-11 and 4.19-12. Further, Mitigation Measure VIS-1 includes a lighting mitigation plan to minimize night-sky impacts during facility construction and operation.
- 6-26 The comment that non-nesting long-eared owls (*Asio otis*) have been observed locally is noted. The long-eared owl is a California Species of Special Concern that was not detected on-site during avian point count surveys. Mitigation Measures WIL-6 and WIL-7 will protect long-eared owls and other birds that may be encountered on the Project site during the construction, operation and maintenance phases of the Project.
- 6-27 Consistent with the comment, the PA/EIS (p. 3.4-18) acknowledges the occasional presence of burro deer on the Project site.
- 6-28 In response to the comment, the following impact discussion is added to the kit fox discussion on page 4.3-15 to address the topic of canine distemper in desert kit fox populations:

In late 2011, the first known cases of canine distemper virus (CDV) were observed in desert kit foxes about 20 miles west of Blythe on public lands managed by the BLM and leased to Genesis Solar LLC to construct the Genesis Solar Energy Project site. CDFG believes that the outbreak originated from an infected host animal entering the site, possibly a wild or domestic dog, American badger, or other carnivore. The rapid spread of CDV within the kit fox population was facilitated by the project-related displacement of infected animals from the Genesis site into new kit fox territories. Subsequently, desert kit foxes were captured for disease testing at the First Solar Desert Sunlight, Solar Millennium Palen, Genesis Ford Dry Lake, and at Southern California Edison's Colorado River substation and CDV was identified at the two later sites, which span a distance of about 40 miles on the I-10 corridor within the Chuckwalla Valley (California Energy Commission, 2012). The CDFG Wildlife Investigations Lab continues to monitor the health of desert kit foxes and is attempting to characterize the spread and significance of the disease on regional kit fox populations. To date, there has been no effort to test desert kit foxes in the Project area for distemper.

The typical practice for solar projects has been to exclude desert kit foxes from project areas during pre-construction clearing of project sites by "passive relocation" methods (i.e., by closing burrows, forcing foxes to locate to new off-site burrows). This practice has the potential to worsen the outbreak, by raising kit fox stress levels and causing increased susceptibility to infection, causing increased movement of diseased animals thereby increasing the spread of disease into new areas, or placing healthy kit foxes into contact with off-site infected animals (California Energy Commission, 2012).

Additionally, Mitigation Measure WIL-8 has been redrafted as follows to provide additional canine distemper protection to desert kit fox populations:

**WIL-8: American Badger and Desert Kit Fox Protection.** To avoid direct impacts to American badgers and desert kit fox, the Applicant shall implement the following measures:

1. **Baseline Kit Fox Census and Population Health Survey:** A qualified biologist with demonstrated mammal experience shall complete a baseline study of desert kit fox populations on the Project site and the anticipated dispersal areas from passive relocation at least 60 days prior to initiation of construction activities. The study shall characterize the demographics (e.g., size, structure, and distribution) of the kit fox population on the site and receiving areas. The Applicant shall coordinate with and fund studies by federal or State wildlife health officials [e.g., the CDFG Wildlife Investigations Lab (WIL)] to establish baseline health conditions.
2. **Prepare Desert Kit Fox Management Plan:** At least 45 days prior to construction, the Applicant shall submit a Desert Kit Fox Management Plan that: 1) incorporates baseline desert kit fox census and health survey findings into a cohesive management strategy that minimizes disease risk to kit fox populations; 2) specifically identifies preconstruction survey methods for kit

foxes and large carnivores (e.g., badgers) in the Project area; 3) describes preconstruction and construction-phase passive relocation methods from the site, and; 4) coordinates survey findings prior to and during construction to meet the information needs of wildlife health officials in monitoring the health of kit fox populations. The Plan shall include contingency measures that would be performed if canine distemper were documented in the Project area possible dispersal areas adjacent to the Project site, and measures to address potential kit fox reoccupancy of the site (as documented at the Genesis site). The contents and requirements of the Plan shall be subject to review and approval by the BLM and CDFG.

3. ***Implement Desert Kit Fox Management Plan:*** If canine distemper is not identified in the Project area or relocation areas during baseline surveys, the mitigation strategy may utilize passive means or active means with appropriate CDFG authorization to relocate kit foxes from the site. The approach below assumes that canine distemper is not detected during baseline surveys.
- a. *Pre-Construction Surveys:* Biological Monitors shall conduct pre-construction surveys for desert kit fox and American badger no more than 30 days prior to initiation of construction activities. Surveys shall also consider the potential presence of dens within 100 feet of the project boundary (including utility corridors and access roads) and shall be performed for each phase of construction. If dens are detected each den shall then be further classified as inactive, potentially active, or definitely active.
  - b. Inactive dens that would be directly impacted by construction activities shall be excavated by hand and backfilled to prevent reuse by badgers or kit fox.
  - c. Potentially and definitely active dens that would be directly impacted by construction activities shall be monitored by the Biological Monitor for three consecutive nights using a tracking medium (such as diatomaceous earth or fire clay) and/or infrared camera stations at the entrance.
  - d. If no tracks are observed in the tracking medium or no photos of the target species are captured after three nights, the den shall be excavated and backfilled by hand.
  - e. If tracks are observed, the den shall be progressively blocked with natural materials (rocks, dirt, sticks, and vegetation piled in front of the entrance) for the next three to five nights to discourage the badger or kit fox from continued use. After verification that the den is unoccupied it shall then be excavated and backfilled by hand to ensure that no badgers or kit fox are trapped in the den. BLM approval may be required prior to release of badgers on public lands.
  - f. If an active natal den (a den with pups) is detected on the site, the BLM AO and CDFG shall be contacted within 24 hours to determine the appropriate course of action to minimize the potential for animal harm or mortality. The course of action would depend on the age of the pups, location of the den on the site (e.g., is the den in a central area or in a perimeter location), status of the perimeter site fence (completed or not),

and the pending construction activities proposed near the den. A 500-foot no-disturbance buffer shall be maintained around all active dens.

- g. The following measures are required to reduce the likelihood of distemper transmission:
  - i. No pets shall be allowed on the site prior to or during construction, with the possible exception of vaccinated kit fox scat detection dogs during preconstruction surveys, and then only with prior CDFG approval;
  - ii. Any sick or diseased kit fox, or documented kit fox mortality shall be reported to CDFG and the BLM AO within 8 hours of identification. If a dead kit fox is observed, it shall be collected and stored according to established protocols distributed by CDFG WIL, and the WIL contacted to determine carcass suitability for necropsy.

6-29 The comment that Yuma mountain lion populations should be monitored in the Project area is noted. Mountain lions are secretive, highly mobile species with an expansive range that is described between 150 to 625 sq. mi. (Kucera, 1998). Given the large range of this species and protection of wildlife access and movement corridors at the base of the McCoy Mountains, no direct or indirect effects on mountain lions are anticipated from the proposed action. Therefore, no protective measures or long-term monitoring are required for this species. In the unlikely event that Yuma mountain lions are identified in the Project area prior to or during construction, including during any pre-construction surveys required for other resources, the data will be conveyed to the Designated Biologist who will determine if action is necessary to avoid potential effects to this species. No specific mitigation measures are needed to avoid effects to this species.

6-30 The nearest reported CNDDDB occurrence is a 1943 record of a banded Gila monster captured 25 miles northwest of the Project area by General Patton's tank Corps during maneuvers at the base of the Granite Mountains. Focused wildlife surveys of the Project area led by a qualified herpetologist failed to detect banded Gila monster. Based on its absence in the Project area, no protective measures are required for this species.

6-31 The PA/EIS requires that desert tortoise compensation lands be acquired within the Colorado Desert Recovery Unit, as identified in the USFWS 2011 *Revised Recovery Plan for the Mojave Population of the Desert Tortoise Colorado Desert Recovery Unit* (USFWS, 2011e). The 2001 Recovery Plan combined the formerly separate Northern and Eastern Colorado recovery units into the single Colorado Desert Recovery Unit due to minimal genetic differentiation within the recovery unit. Based on this finding, the mitigation requirement to site lands within the Colorado Desert Recovery Unit is considered appropriate.

6-32 Section 4.3, *Biological Resources – Vegetation*, discusses the potential impacts that invasive weeds on the solar plant site and other portions of the Project area, including the portions of the gen-tie line that include stabilized and partially stabilized sand dunes.

- Specific measures addressing the need for weed management are provided in APM BIO-2n and Mitigation Measure VEG-9. All required biological resource plans would be finalized and made publicly available prior to the initiation of construction activities.
- 6-33 The commenter does not provide supporting information for the view that additional dust controls are needed for the Project, nor is any evidence provided concerning the inadequacy of APM AIR-1, APM AIR-2, or PA/FEIS Mitigation Measure AQ-1 to control fugitive dust generated by the Project. Compliance and enforcement monitoring, which would be key components of any approval of the requested ROW grant, would assure that these measures are implemented appropriately. If the BLM determines that adjustment of the mitigation measures is appropriate, the agency could adjust them.
- 6-34 All required biological resource plans would be finalized and made publicly available prior to the initiation of construction activities.
- 6-35 Response 8-14 and Response 11-20 address the identification and mapping of desert dry wash woodland habitat. While focused botanical surveys identified big galleta grass on the solar plant site, this plant was not present in sufficient density to be characterized as the Creosote-Big Galleta Grass vegetation association.
- 6-36 The comment that transplanting and reseeding have a low success rate is noted, as is the recommendation to avoid botanical impacts in the Project area.
- 6-37 The mitigation requirements for rare plants are identified in Mitigation Measure VEG-10 of the PA/EIS, which describes the off-site compensation requirements for special-status plants. As identified by the commenter, compensatory mitigation shall consist of acquisition of habitat supporting the same target species as those affected by the proposed action. The amount of required compensation shall relate to the rarity of the identified species. With the posting of an appropriate security to BLM, the Applicant is required to acquire mitigation lands, in fee or in easement, no more than 18 months after the start of Project ground-disturbing activities. Due to the revision made to Mitigation Measure VEG-10, funding for a special-status plant distribution study may no longer qualify as compensatory mitigation (see Response 11-77).
- 6-38 The draft Desert Tortoise Translocation Plan is available as Appendix F of the February 2012 *McCoy Solar Energy Project Biological Assessment* (TetraTech EC Inc., 2012a), which is included in the Project administrative record.
- 6-39 The 25 mph speed limit described in APM BIO-2e is considered appropriate to minimize project effects to Mojave fringe-toed lizards from vehicle collision hazards. Construction workers will additionally receive specific environmental awareness training in response to APM BIO-2c to recognize the potential hazards to lizards in sand dune habitat. Further, the BLM could adjust these requirements if, even with their implementation, impacts are unacceptable.

- 6-40 The draft McCoy Solar Energy Project Raven Management and Control Plan is available as Appendix G of the February 2012 *McCoy Solar Energy Project Biological Assessment* (TetraTech EC Inc.,2012a), which is included in the Project administrative record.
- 6-41 The draft Avian and Bat Protection Plan that is required for the Project was completed on October 5, 2012.
- 6-42 See Response 6-28.
- 6-43 In response to the comment, the total amount of occupied Mojave fringe-toed lizard habitat was revisited and an error was detected in the original calculation that greatly overestimated the total cumulative impact and cumulative contribution of the Proposed Action. Following the updated analysis, the total amount of potentially occupied sand dune and sand sheet habitat in the Palo Verde Valley was revised upward from 1,098 acres to 12,911 acres, which is considered a small portion of the available habitat based on the large amount of similar habitat available locally. Additionally, the total cumulative impact from future projects, including the Proposed Action, was revised downward from 655 acres to 76 acres. The anticipated contribution of the Proposed Action to cumulative effects, 38 acres, includes both temporary and permanent effects. Thus, the permanent impact of the Project, 19 acres, constitutes a permanent effect to less than 0.2 percent of sand dune and sand sheet habitat in the Palo Verde Valley study area that may support this species. It is also likely that other unidentified Mojave fringe-toed lizard populations occur in the cumulative resource study area and are not included in this assessment.

In the Palo Verde Valley, the MSEP and the BSPP could potentially affect a total of 76 acres of habitat for Mojave fringe-toed lizard. The cumulative effect of these projects on Mojave fringe-toed lizard and its habitat constitutes about 0.6 percent of potential Mojave fringe-toed lizard habitat in the study area. Since over 99 percent of habitat would not be affected, the 3:1 mitigation ratio presented in the PA/EIS is appropriate to offset impacts of the Proposed Action.

The comment that the Project should be delayed until genetic studies are performed is noted. The Mojave fringe-toed lizard receives protection as a BLM Sensitive species and California Species of Special Concern. The 3:1 mitigation for habitat effects exceeds that provided to listed species in the Project area such as desert tortoise. There are no proposals to list the Mojave fringe-toed lizard as state- or federally listed species. Thus, the level of protection and compensatory mitigation provided in the PA/EIS is appropriate.

The cumulative impact analysis for Mojave fringe-toed lizard in Table 4.4-3 (p. 4.3-11) is revised as follows:

Mojave fringe-toed lizard Occupied sand dune/ sand sheet habitat in the <del>Chuckwalla and Palo Verde V</del> valleys	<del>1,098</del> <u>12,911</u> acres	35.0 acres (0.3%)	76 acres <del>(59.70.6</del> %)	38 46 acres ( <del>7.0</del> 50%)	0 acres (0%)	38 46 acres ( <del>7.0</del> 50%)	38 46 acres ( <del>7.0</del> 50%)
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In addition, potential effects to Mojave fringe-toed lizard are clarified on page 4.4-24 as follows:

The analysis of cumulative Project effects to Mojave fringe-toed lizard habitat focused on known and CNDDDB-documented populations within the ~~Chuckwalla Valley and~~ Palo Verde Valley. In these areas, populations are dependent upon areas with fine aeolian sand that occur in association with dunes, margins of dry lakes and washes, and isolated sand patches. The cumulative effects analysis identified approximately ~~1,098~~ 12,911 acres of occupied Mojave fringe-toed lizard habitat in the study area, of which approximately ~~655-76~~ acres (59.70.6 percent) occurs in areas where future projects are proposed (Table 4.4-3). Under Alternatives 1 and 3, approximately 4638 acres of habitat would be disturbed for the gen-tie line and associated access road. This represents approximately ~~4.20.3~~ percent of available Mojave fringe-toed lizard habitat that was identified in the cumulative study area and represents a contribution of about 750 percent of the total cumulative effect on this resource. The implementation of Mitigation Measures VEG-7, VEG-8, VEG-10, VEG-11, VEG-12, and WIL-10 would minimize impacts to sensitive dune and sand sheet habitat and provide suitable compensatory habitat for habitat losses.

- 6-44 As identified in Comment 6-31, desert tortoise compensation lands shall be located acquired within the Colorado Desert Recovery Unit, as identified in the USFWS 2011 *Revised Recovery Plan for the Mojave Population of the Desert Tortoise Colorado Desert Recovery Unit*.
- 6-45 No geoglyphs have been identified within the Project area. The geoglyph referenced by the commenter is not located within the Project area.
- 6-46 Alternatives to the proposed location were considered. See PA/FEIS Section 2.9.2.1, Site Alternatives, and Section 5.5.4.1, Common Response 1.
- 6-47 Comment noted. The cumulative impacts on each resource area of the Project in combination with other past, present, and reasonably foreseeable future renewable energy projects are analyzed throughout Chapter 4.
- 6-48 See Response 6-10.

## **Letter 7 – Responses to Comments from Jared Fuller**

- 7-1 The comment that the Proposed Action would impact vegetation, wildlife, soils, and visual resources is noted and such impacts are documented in the PA/EIS.
- 7-2 The commenter is correct that some environmental effects would be greater when considered in the cumulative framework with other nearby proposed actions. The cumulative effects analyses in the PA/EIS identify and disclose the potential sources for cumulative effects in the regional study area.

- 7-3 The stated preference for Alternative 4 (pursuant to which the MSEP would not be developed), Alternatives 5 and 6 (pursuant to which the MSEP would not have been developed, but which have been removed from the PA/FEIS), and Alternative 2 (the Reduced Acreage Alternative) are noted. Please see Section ES.3.1 and Section 2.2.1 for an explanation of why Alternatives 5 and 6 have not been carried forward for consideration in the PA/FEIS.
- 7-4 The commenter suggests that the Project could be improved by avoiding populations of two or more sensitive plants that occur on the solar plant site, and specifically by avoiding Las Animas colubrina and Harwood's milk vetch. The distribution of these and other special-status plants in the Project area is illustrated in Figure 3.3-3. As the figure illustrates, Las Animas colubrina is widely distributed across Solar Unit 1 and occurs in perhaps 50 percent of Solar Unit 2; while Harwood's milk vetch is distributed throughout the remaining portions of Solar Unit 2. The commenter's suggestion to avoid these rare plant populations is reflected in the PA/EIS analysis as Alternative 4, the No Action Alternative.
- 7-5 The stated preference for Alternative 3's western route is noted.

## **Letter 8 – Responses to Comments from Californians for Renewable Energy (CARE) and La Cuna de Aztlan Sacred Sites Protection Circle Advisory Committee (La Cuna)**

- 8-1 See PA/FEIS Section 5.5.4.1, Common Response 1.
- 8-2 See PA/FEIS Section 5.5.4.1, Common Response 1.
- 8-3 See PA/FEIS Section 5.5.4.1, Common Response 1.
- 8-4 See PA/FEIS Section 5.5.4.1, Common Response 1.
- 8-5 This comment refers to discussion allegedly set forth on Draft PA/EIS page 2-69; however, Chapter 2 of the Draft PA/EIS contained only 64 pages, and none contains the language quoted in the comment. Regarding the private lands alternative, see PA/FEIS Section 5.5.4.1, Common Response 1.
- 8-6 Although no land classification system context is provided, the BLM assumes that the comment refers to land that is designated in the CDCA Plan as Multiple-Use Class (MUC) I, which is an "intensive use" class. The CDCA Plan describes the purpose of the MUC-I designation as providing "for concentrated use of lands and resources to meet human needs." Only "reasonable protection" of sensitive natural and cultural values is provided on MUC-I designated lands and "[m]itigation of impacts on resources and rehabilitation of impacted areas... occur[s] only insofar as possible." By contrast, the Project site is located within lands designated "Class L," or limited use. Solar energy facilities are permitted in Class L areas provided that the BLM complies with NEPA and

follows the CDCA Plan Amendment process. For MUC-L lands, applicable guidelines from the CDCA Plan, Table 1 are as included in PA/FEIS Table 3.10-2. Because the BLM's purpose and need for the MSEP is to respond to the Applicant's application under FLPMA Title V for a specific ROW grant (see PA/FEIS Sections ES.2.1 and 1.2.1), consideration of land bearing a different MUC classification would not have satisfied the first of the NEPA alternatives development and screening criteria provided in PA/FEIS Section 2.2.

8-7 Regarding the use of alternative renewable energy generation technologies, see PA/FEIS Section 5.5.4.1, Common Response 1. The Project proposes the use of solar photovoltaic (PV), not solar thermal, technology. As stated on PA/FEIS page 2-21, the primary use of water during the operation and maintenance phase of the Project would be for panel washing and dust control because solar PV technology requires no water for the generation of electricity. Three solar thermal alternative technologies were considered (see Table 2-12 in PA/FEIS Chapter 2) but eliminated from further analysis.

8-8 Alternative 1 is the Proposed Action and would require a CDCA Plan Amendment. Alternatives 2 and 3 also propose to amend the CDCA Plan. Only Alternative 4, the No Action alternative, would not amend the CDCA Plan. Please note that there is no Alternative A for this Project.

The extent to which the Project has been located and designed to avoid sensitive resources is addressed throughout the PA/EIS, and the consideration of the Project's consistency with the CDCA Plan MUC L requirements is provided in Section 4.10, *Lands and Realty*. The comment suggests that the consideration BLM land use planning obligations in the PA/EIS is inadequate; however, it provides no specific examples as a basis for the allegation. Accordingly, the BLM is unable to provide a more detailed response.

8-9 The Draft PA/EIS does address the relationship of the Project to the Programmatic Environmental Impact Statement for Solar Energy Development in Six Southwestern States (Solar PEIS). As stated on page 2-2: "The site proposed for development of the MSEP is located within the area designated as the Riverside East solar energy zone (SEZ) as designated in the Solar Programmatic Environmental Impact Statement (PEIS) Record of Decision (ROD) signed October 12, 2012. However, since the MSEP ROW application is listed as a Pending Application in the PEIS ROD, it is not subject to that ROD (PEIS ROD Section B.1.2) or the Plan Amendments made in that decision. Accordingly, if the BLM decides to grant a ROW for this project, the CDCA Plan would be amended as required." Additional discussion of the Solar PEIS is provided on pages 2-29 (guidance for treatment of vegetation under panels); 3.10-7 through 3.10-9 (withdrawal and study of lands as solar energy study areas), 4.4-26 (portions of MSEP site have low potential for substantial resource conflicts relative to other locations considered in the PEIS); and 4.19-17 and 4.19-18 (PEIS evaluated cumulative scenario for visual resource impacts).

- The Final Solar PEIS was not completed until July 2012, after publication of the Draft PA/EIS. As described above, the MSEP ROW application is not subject to the PEIS ROD or the Plan Amendments made in that decision.
- 8-10 Construction of most of the planned facilities would not require closure of any travel lanes and therefore would not reduce the roadway capacity on roads that provide access to the work sites; however, installation of the gen-tie line, conductor stringing, installation of new poles, and construction of spur roads would require construction adjacent to existing roadways. Although activities associated with construction of the gen-tie line would occur over a short period in each location as construction progresses along the alignment, roadways along or adjacent to the planned alignment may require temporary closures of travel lanes and reduce roadway capacities during installation. As a result, temporary lane closures due to the aforementioned activities would adversely affect traffic conditions along surrounding roadways. Although the PA/EIS does not consider obstructed traffic flow to be an impact to air resources, Mitigation Measure TRN-1 in Section 4.17 requires the preparation and implementation of a traffic control plan to reduce construction-related impacts on local roadways. The traffic control plan includes the use of flaggers and/or signage to guide vehicles through and/or around work zones. These measures would improve traffic flow and, as a result, would reduce excess emissions indirectly resulting from Project construction that may occur due to slower vehicle speeds. Designated truck routes that minimize truck traffic on local roadways would also be utilized, minimizing emissions near sensitive receptors.
- 8-11 The majority of the electricity needs of the Project during construction would be supplied by extending an existing distribution line approximately 20,000 feet from the eastern border of the Project site. Temporary on-site portable generators would also be used during construction. Two 35-horsepower (hp) standby emergency generators would be used if necessary. Due to the large extent of the Project site (approximately 4,500 acres) it would not be feasible to provide all of the electricity needs during construction via the proposed distribution line, nor is there any evidence to suggest that such a requirement would provide a meaningful reduction in air pollutant concentrations in the region.
- 8-12 The commenter has not demonstrated a need for additional mitigation; and furthermore, it is not clear what the commenter refers to with regard to clean air engines. However, as described in Section 3.2.2, the federal non-road diesel engines and state on-road and off-road engine emission reduction programs would indirectly reduce emissions from vehicles and equipment used in Project construction through the phasing in of cleaner on-road and off-road equipment engines.
- 8-13 The geographic scope considered for potential cumulative impacts to regional air quality is the MDAB. Cumulative impacts would occur from short-term Project-related construction PM10 emissions when combined with the emissions associated the cumulative projects described in Section 4.1.5, *Cumulative Scenario Approach*, to the extent such projects would be constructed concurrently with the Project. The PA/EIS

- analyzes the cumulative impact of the construction, operation and maintenance, closure, and decommissioning of the Proposed Action, taking into account the effects in common with other past, present, and reasonably foreseeable future actions. The cumulative effects analysis includes reasonably foreseeable future actions, including those for which there are existing decisions, funding, formal proposals, or which are highly probable, based on known opportunities or trends. As disclosed in Table 4.1-4 on page 4.1-9, reasonably foreseeable future projects along the I-10 corridor were included in the cumulative analysis, including the Palen Solar Energy Project and the Genesis Solar Energy Project.
- 8-14 The Project was designed to minimize and avoid sensitive riparian habitat that occurs to the west of the Project area, including desert dry wash woodland (DDWW) habitat. Botanical surveys identified only 1.5 acres of DDWW on the Project site and an additional 2.7 acres on Project linears (see Table 3.3-1 and Figure 3.3-1). As shown in Figure 3.3-1, the identified DDWW habitat is located in a central portion of the solar plant site and avoidance may not be technically possible due to drainage concerns. However, it is likely that most impacts to DDWW habitat on linears can be avoided or minimized through the implementation of protective measures during construction. Given the small amount of DDWW in the Project area, the anticipated impact to this habitat type is considered small.
- 8-15 Mitigation Measure VEG-8, Part 17 describes performance criteria that must be met before revegetated areas can be considered restored. The plan requires a description of topsoil salvage and seeding techniques and a monitoring and reporting plan. Restoration requirements include at least 80 percent native species in disturbed areas and at least 60 percent relative cover and density. To achieve these objectives the plan will undeniably need to consider location and climate, and require that restoration efforts continue until restoration objectives are achieved. The PA/EIS is not required to identify and resolve the planting challenges that are specific to the Mojave Desert. These issues will be addressed in the Revegetation Plan and are not considered in the PA/EIS.
- 8-16 As identified in Figure 3.4-1, the Project site supports mostly medium to low-quality desert tortoise habitat. This finding is verified by the results of focused tortoise surveys on the site that identified a total of 3 desert tortoise burrows and 6 potential burrows on the solar plant site (Table 3.4-2, p. 3.4-8). As the USGS habitat model presented in Figure 3.4-1 illustrates, relatively high quality habitat is available locally. In order to meet USFWS mitigation requirements to mitigate project desert tortoise effects, compensation lands will support higher quality habitat than is currently available on the solar plant site. As a result, 1:1 compensation, as required by the USFWS, is sufficient to mitigate effects to desert tortoise habitat.
- 8-17 The PA/EIS addresses the potential direct and indirect effects of relocation on desert tortoise, including effects associated with the capture, handling, and relocation of desert tortoises on page 4.4-11 *et seq.*, and 4.4-22. Tortoise stress will be minimized during

- relocation by complying with requirements of the Desert Tortoise Relocation/Translocation Plan, which includes surveying for and relocating tortoises only during the period when they are most active in the Project vicinity (March through May or September through mid-November). The technical biological reports provided in Appendix C identify the number or tortoises detected in the Project area and the density of tortoise on the translocation site, located immediately west of the Project area.
- 8-18 Both the Project site and the primary vehicle access route to the site would be fenced to exclude kit foxes and a relocation program would be implemented to relocate kit foxes off-site prior to construction, as described in Mitigation Measure WIL-8. By excluding foxes from work sites and access routes, and providing continuing environmental monitoring during construction to identify foxes in the work area, interactions between vehicles and foxes would be infrequent. As a result, the likelihood of encountering kit foxes during active construction is considered low.
- 8-19 In response to this and other comments, the following impact discussion is added to the kit fox discussion on page 4.3-15 to address the topic of canine distemper in desert kit fox populations:

In late 2011, the first known cases of canine distemper virus (CDV) were observed in desert kit foxes about 20 miles west of Blythe on public lands managed by the BLM and leased to Genesis Solar LLC to construct the Genesis Solar Energy Project site. CDFG believes that the outbreak originated from an infected host animal entering the site, possibly a wild or domestic dog, American badger, or other carnivore. The rapid spread of CDV within the kit fox population was facilitated by the project-related displacement of infected animals from the Genesis site into new kit fox territories. Subsequently, desert kit foxes were captured for disease testing at the First Solar Desert Sunlight, Solar Millennium Palen, Genesis Ford Dry Lake, and at Southern California Edison's Colorado River substation and CDV was identified at the two later sites, which span a distance of about 40 miles on the I-10 corridor within the Chuckwalla Valley (California Energy Commission, 2012). The CDFG Wildlife Investigations Lab continues to monitor the health of desert kit foxes and is attempting to characterize the spread and significance of the disease on regional kit fox populations. To date, there has been no effort to test desert kit foxes in the Project area for distemper.

The typical practice for solar projects has been to exclude desert kit foxes from project areas during pre-construction clearing of project sites by "passive relocation" methods (i.e., by closing burrows, forcing foxes to locate to new off-site burrows). This practice has the potential to worsen the outbreak, by raising kit fox stress levels and causing increased susceptibility to infection, causing increased movement of diseased animals thereby increasing the spread of disease into new areas, or placing healthy kit foxes into contact with off-site infected animals (California Energy Commission, 2012).

Additionally, Mitigation Measure WIL-8 on page 4.4-36 has been redrafted as follows to provide additional canine distemper protection to desert kit fox populations:

**WIL-8: American Badger and Desert Kit Fox Protection.** To avoid direct impacts to American badgers and desert kit fox, the Applicant shall implement the following measures:

1. **Baseline Kit Fox Census and Population Health Survey:** A qualified biologist with demonstrated mammal experience shall complete a baseline study of desert kit fox populations on the Project site and the anticipated dispersal areas from passive relocation at least 60 days prior to initiation of construction activities. The study shall characterize the demographics (e.g., size, structure, and distribution) of the kit fox population on the site and receiving areas. The Applicant shall coordinate with and fund studies by federal or State wildlife health officials [e.g., the CDFG Wildlife Investigations Lab (WIL)] to establish baseline health conditions.
2. **Prepare Desert Kit Fox Management Plan:** At least 45 days prior to construction, the Applicant shall submit a Desert Kit Fox Management Plan that: 1) incorporates baseline desert kit fox census and health survey findings into a cohesive management strategy that minimizes disease risk to kit fox populations; 2) specifically identifies preconstruction survey methods for kit foxes and large carnivores (e.g., badgers) in the Project area; 3) describes preconstruction and construction-phase passive relocation methods from the site, and; 4) coordinates survey findings prior to and during construction to meet the information needs of wildlife health officials in monitoring the health of kit fox populations. The Plan shall include contingency measures that would be performed if canine distemper were documented in the Project area possible dispersal areas adjacent to the Project site, and measures to address potential kit fox reoccupancy of the site (as documented at the Genesis site). The contents and requirements of the Plan shall be subject to review and approval by the BLM and CDFG.
3. **Implement Desert Kit Fox Management Plan:** If canine distemper is not identified in the Project area or relocation areas during baseline surveys, the mitigation strategy may utilize passive means or active means with appropriate CDFG authorization to relocate kit foxes from the site. The approach below assumes that canine distemper is not detected during baseline surveys.
  - a. **Pre-Construction Surveys:** Biological Monitors shall conduct pre-construction surveys for desert kit fox and American badger no more than 30 days prior to initiation of construction activities. Surveys shall also consider the potential presence of dens within 100 feet of the project boundary (including utility corridors and access roads) and shall be performed for each phase of construction. If dens are detected each den shall then be further classified as inactive, potentially active, or definitely active.
  - b. **Inactive dens that would be directly impacted by construction activities shall be excavated by hand and backfilled to prevent reuse by badgers or kit fox.**

- c. Potentially and definitely active dens that would be directly impacted by construction activities shall be monitored by the Biological Monitor for three consecutive nights using a tracking medium (such as diatomaceous earth or fire clay) and/or infrared camera stations at the entrance.
- d. If no tracks are observed in the tracking medium or no photos of the target species are captured after three nights, the den shall be excavated and backfilled by hand.
- e. If tracks are observed, the den shall be progressively blocked with natural materials (rocks, dirt, sticks, and vegetation piled in front of the entrance) for the next three to five nights to discourage the badger or kit fox from continued use. After verification that the den is unoccupied it shall then be excavated and backfilled by hand to ensure that no badgers or kit fox are trapped in the den. BLM approval may be required prior to release of badgers on public lands.
- f. If an active natal den (a den with pups) is detected on the site, the BLM AO and CDFG shall be contacted within 24 hours to determine the appropriate course of action to minimize the potential for animal harm or mortality. The course of action would depend on the age of the pups, location of the den on the site (e.g., is the den in a central area or in a perimeter location), status of the perimeter site fence (completed or not), and the pending construction activities proposed near the den. A 500-foot no-disturbance buffer shall be maintained around all active dens.
- g. The following measures are required to reduce the likelihood of distemper transmission:
  - i. No pets shall be allowed on the site prior to or during construction, with the possible exception of vaccinated kit fox scat detection dogs during preconstruction surveys, and then only with prior CDFG approval;
  - ii. Any sick or diseased kit fox, or documented kit fox mortality shall be reported to CDFG and the BLM AO within 8 hours of identification. If a dead kit fox is observed, it shall be collected and stored according to established protocols distributed by CDFG WIL, and the WIL contacted to determine carcass suitability for necropsy.

8-20 The commenter states that the PA/EIS fails to address any negative impacts to burrowing owls. Potential adverse effects of the Project to burrowing owls are presented on page 4.4-25, which describes the direct loss of suitable habitat, loss of individual animals, and indirect effects from human presence that result in changes to habitat quality during construction, operation and maintenance, and decommissioning. Mitigation Measure WIL-9, Burrowing Owl Protection and Mitigation Plan, requires the Applicant to implement pre-construction surveys, a burrowing owl mitigation plan, and avoidance measures, and to acquire compensatory burrowing owl habitat.

8-21 The term “cultural resource” is not defined in the National Environmental Policy Act (NEPA) or any other Federal law. The discussion on page 3.5-1 is consistent with the definition of cultural resources provided in the BLM 8100 Manual. Cultural resources on the public lands managed by the BLM are concrete, material places and things. In compliance with several laws including NEPA and the NHPA, the BLM considers the values ascribed to these places and things, and the ways in which these places and things are used, when making decisions on actions that might affect them. The public participation processes followed by the BLM in complying with NEPA and the NHPA afford opportunities for the general public and Indian tribes to identify cultural resources of all kinds, and values relating to them, that they wish BLM to consider in its decision making.

Under the NHPA and its implementing regulations, significant cultural resources are called historic properties. Historic properties are districts, sites, buildings, structures and objects that are listed on, or eligible for listing on, the National Register of Historic Places. This definition is the only technical, operational meaning of the word “significant” as it applies to cultural resources within the context of Section 106. This does not mean that places or things not meeting this definition are unimportant. The BLM recognizes that values ascribed to places or things by social or cultural groups, including Indian tribes, may make them important and worthy of consideration even if those places or things do not meet the NRHP definition of significance. During the preparation of this PA/EIS, the general public and Indian tribes were afforded opportunities to identify cultural resources of importance to them regardless of whether those resources met the NRHP definition of significance. The cultural resources analyzed in the PA/EIS were the only cultural resources identified by the archival and field inventories, public participation opportunities, and tribal consultation efforts.

An Ethnographic Assessment to identify sites to which Tribes may attach cultural or religious significance to, and that would be affected by the Project, is currently underway. The results of that study are not yet available. See Section 5.2.2.

The BLM will continue consulting with Indian tribes throughout the Section 106 compliance process. BLM’s tribal consultation efforts are discussed in Section 5.2.2 and in Appendix D. Tribes have been invited to identify resources and places of traditional cultural and religious importance that might be affected by the project. Tribes have also been invited to participate in consultations to develop a Memorandum of Agreement for the Project that will seek to resolve adverse effects, including visual, audible and atmospheric effects, on any NRHP-eligible traditional cultural properties that may be identified.

The analysis of impacts in Section 4.5 is not restricted to NRHP-listed or eligible cultural resources. All cultural resources identified within the Area of Potential Effects are included in the analysis, regardless of whether they meet the NRHP definition of significance.

- 8-22 NHPA Section 106 and government-to-government consultation is ongoing, and BLM’s Section 106 obligations will be met prior to the Record of Decision. See also Response 8-21.
- 8-23 See PA/FEIS Section 5.2.2, which describes the APE within which the project could directly or indirectly cause alterations in the character or use of historic properties as contemplated in 36 CFR §800.16(d), discusses cultural resources identified within the APE (see also Table 1 of the draft MOA in PA/FEIS Appendix L, which lists them all), and describes how potentially affected Tribes were identified and thereafter notified and invited to participate in the Section 106 and government-to-government consultation processes. No evidence is provided that appropriate parties have been left out of the consultation processes for this project. As noted in PA/FEIS Section 5.2.2, ongoing consultation is expected to be complete in December 2012 or January 2013; prior to the conclusion of the consultation processes, it would be premature to conclude that they have not been adequate. Input from Tribes is summarized in PA/FEIS Section 5.2.2 and available in full as part of the formal administrative record for this Project. Further, members of the public may review the comments submitted by the Soboba Band of Luiseño Indians and Colorado River Indian Tribes on the Draft PA/EIS (see Letter 10 and Letter 13, respectively).
- 8-24 To date, based on ongoing NHPA Section 106 and government-to-government consultation with interested Indian tribes and preliminary ethnographic studies, no places within the Project area to which tribes attach cultural or religious significance have been identified.
- 8-25 As shown in Table 3.6-1 on page 3.6-3, the Draft PA/EIS correctly reported the percentage of *non-Hispanic* American Indian and Alaska Native population in each of the geographic areas as reported by the 2010 U.S. Census. The purpose of Table 3.6-1 is to show how the total percentage of minority population is arrived at: it consists of racial or ethnic groups other than non-Hispanic White (p. 3.6-2). The comment correctly states that the total American Indian and Alaska Native population, alone or in combination with one or more races (which includes those also reporting Hispanic origin) is higher, as follows:

Riverside County, CA	Census Tract 469	Census Tract 9810	Blythe CDD	City of Blythe	La Paz County, AZ	Colorado River Indian Reservation
2.0%	2.3%	0.9%	2.3%	1.8%	15.2%	32.3%

SOURCE: U.S. Census Bureau, 2010b

As explained on pages 4.6-1 and 2, a minority population is identified when the percentage of minority population is greater than 50 percent and/or meaningfully greater than that of the general population. None of the areas studied for environmental justice effects has an American Indian and Alaska Native population greater than 50 percent, and

only the Colorado River Indian Reservation has a population meaningfully greater than either Riverside or La Paz County. Therefore, using American Indian and Alaska Native population alone, the selection of the affected areas with respect to environmental justice would be the same as that of the Draft PA/EIS. The same is true for each other ethnic and racial group reported in the U.S. Census. Therefore, the approach taken in Section 4.6 is appropriately conservative in selecting affected areas with respect to environmental justice.

The geographic scope of the analysis in Section 4.6 consists of areas within which potential effects on the local populations could occur. The primary area includes a 6-mile radius, consistent with the range of the Project's air quality impacts, and the secondary area includes a 2-hour travel radius for commute-related effects. Thus, the appropriate larger population to which to compare local populations was the county population, not the state.

- 8-26 As described on page 4.6-3, the analysis of environmental justice effects was limited to potential health or environmental effects. By comparison, effects to cultural resources, including Native American resources, are discussed in Section 4.5, *Cultural Resources*. Analysis of the cumulative effects to cultural resources that could be caused or contributed to by the Project is summarized in PA/FEIS Section 4.5.9. This cumulative effects analysis considers the potential for impacts caused by the past, present, and reasonably foreseeable projects identified in PA/FEIS Section 4.1 (see, e.g., Tables 4.1-3 and 4.1-4) to combine with those of the MSEP. These other projects primarily include large-scale renewable energy projects that require extensive grading and development. The cumulative projects also include several transmission lines and non-renewable energy projects, as well as residential and commercial developments. As explained in Sections 4.5.10 and 4.5.11, the implementation of Mitigation Measure CUL-1, which would require the execution of an MOA in accordance with the requirements of NHPA §106, would reduce but may not fully avoid Project-related impacts on cultural resources, including Native American resources.
- 8-27 As explained in Response 8-25, the analysis of environmental justice effects was limited to potential health or environmental effects. Section 4.6, *Environmental Justice*, did not find that the Project's impacts would affect minority or low-income populations in a disproportionately adverse manner. Thus, the Project would not have a contribution to any potential cumulative effect on environmental justice resulting from other Projects. See, for comparison, the analysis of cumulative effects on cultural resources, which did consider the incremental contributory effects of all of the projects identified as BLM Renewable Energy Projects within the cumulative analysis impact area (see, e.g., PA/FEIS Table 4.1-1). These projects include the 1,000 MW BSPP (identified as project "N" in Table 4.1-4), 500 MW Palen Solar Power Project (identified in that table as project "H"), 300 MW enXco McCoy project (identified as project "I"), and other projects ranging in between 100 MW and 250 MW.

- 8-28 The comment suggests that the consideration of geological resources in the PA/EIS is inadequate; however, it provides no specific examples as a basis for the allegation. Accordingly, the BLM is unable to provide a more detailed response.
- 8-29 California's Renewables Portfolio Standard (RPS) requires investor-owned utilities (IOUs) to source 33 percent of the electricity they sell from renewable energy sources by 2020; therefore, demand for new sources of renewable energy would exist regardless of changes in consumer demand until the 33 percent renewable generation threshold is met. Thus, Project-generated electricity would replace the demand for electricity generated by existing dispatchable fossil fuel power plants and/or future plants that may be developed in the absence of the Project, as demand for new sources of electricity grows. Additionally, future consumer demand does not need to be quantified to indicate that demand exists for the Project's electrical generation because the Applicant has a Power Purchase Agreement (PPA) with Southern California Edison (SCE), and state-wide, IOUs would be likely to continue to procure electricity from new renewable energy facilities because California's three large IOUs have not yet met the 33 percent target, and must do so by 2020 (CPUC, 2012).
- 8-30 The Applicant has a PPA with Southern California Edison (SCE) for the electricity generated by the Project, signifying that existing and planned renewable energy projects are not sufficient to meet SCE's demand for electricity generated by renewable energy facilities. Therefore, SCE would be expected to use electricity generated by the proposed Project to meet customer demand and fulfill its obligation to meet the RPS goals. It is not necessary to quantify the output of existing solar generating facilities to substantiate the PA/EIS's assertion that the Project would displace future GHG emissions because it would supply renewable energy in place of some energy that otherwise would be generated by fossil fuel sources, which emit more GHGs than renewable sources.
- 8-31 As described in Response 8-29, California's RPS mandates that 33 percent of the electricity sold in California must come from renewable sources by 2020; until this goal has been met, electricity generated by renewable sources will continue to be prioritized over electricity generated by natural gas power plants. When renewable energy is available to the grid, California Independent Systems Operator (CAISO) requests turndown of fossil power production from unspecified dispatchable fossil fuel plants to make way for the use of the renewable energy resources, per the loading order first adopted in California's 2003 Energy Action Plan. Thus, as demand for electricity continues to grow through 2020, renewable energy would be likely to continue to be used throughout the state, displacing electricity that would otherwise come from existing dispatchable fossil fuel sources and/or future plants that may be developed in the absence of the Project.
- 8-32 As described in Response 8-30, the PPA for the electricity that would be produced by the Project signifies that SCE continues to have sufficient demand for electricity from renewable sources to meet customer needs and its obligation under the RPS, and

consequently that existing renewable energy facilities do not produce enough electricity to meet future energy demand. SCE would be unlikely to enter into an agreement to purchase the electricity generated by the Project in the absence of demand because it would not be profitable. Consequently, the electricity generated would not be excessive and would not cause unnecessary GHG emissions. Section 4.8 provides a quantitative analysis and adequate rationale to support its conclusions. Detailed analysis of future energy demand and the combined output of other sources is not required. As described in Response 8-31, the specific fossil fuel facility or facilities that would be turned down in response to the Project's electricity being available to the grid cannot be identified at this time, but would be determined by the CAISO based on real-time grid requirements.

- 8-33 To substantiate the claim that “the fact that solar panels can catch on fire is well-documented,” the comment cites four articles from local newspapers and online resources. Two of these articles, “Trenton firefighters battle rooftop solar-panel blazes” (Zdan, 2012) and “Solar fire raises questions about panel safety” (Wolff, 2010), describe incidents in which the inverter boxes that convert solar panels' DC output to AC caught on fire, and make no mention of the panels themselves burning. Rather, in both cases, the panels continued to produce electricity during the electrical fire in the inverter box, resulting in danger from electric shock for firefighters because the power could not quickly be disconnected. As described on page 2-6, each 2 MW block of solar panels would feed DC electricity to a PCS, or inverter unit. In the event of a fire, a type of automatic switch would break, isolating the inverter from the panels by breaking the current, and as a result would avoid this potential danger to firefighters.

Another article cited by the comment (“Solar Panels and Fire!”, SolarJuice Blog, 2010) also pertains to rooftop solar installations and states that “The risk of a roof or home catching fire because of a solar photovoltaic power installation is very unlikely.” Similarly, CAL FIRE's *Fire Operations for Photovoltaic Emergencies* states, “Many of the same hazards associated with PV technology are present at incidents where PV systems are not present. This is because they are general electrical hazards not specific to PV systems. Like other electrical systems, the components are only hazardous if the system is compromised or directly involved in fire or the protective coverings on the components are damaged” (CAL FIRE, 2010).

Mitigation Measure FIRE-1 requires the Applicant to prepare a Fire Safety Plan which, among other requirements, requires the Applicant to coordinate with the RCFD to create a training component for emergency first responders to prepare for specialized emergency incidents that may occur at the Project site, such as fire affecting inverter units that may continue to be powered with DC electricity from operational panels.

- 8-34 The Multiple Use Class (MUC) Guidelines in Table 1 of the CDCA Plan state that solar electrical generation facilities may be allowed in an MUC Limited (L) area after NEPA requirements are met and the CDCA Plan is properly amended. The Proposed Action, if approved, would amend the CDCA Plan following the process anticipated in the CDCA

Plan to identify the site as suitable for the proposed solar energy use. The CDCA Plan amendment would only apply to the BLM-administered land being evaluated for the Project. Accordingly, the proposed CDCA Plan amendment and the overall amendment process would be consistent with the CDCA Plan.

Furthermore, the Riverside East SEZ includes some Class L lands, indicating that potential solar development is anticipated on such lands.

- 8-35 The Riverside County General Plan pertains only to the portion of the Project site that is under Riverside County jurisdiction and does not control federal actions on federal land. This portion would be reviewed by the county separately from the BLM's NEPA process. Accordingly, analyzing consistency of the Proposed Action and alternatives with this plan is beyond the scope of analysis for the BLM.
- 8-36 The PA/EIS addresses potential impacts of noise on wildlife in Section 4.4. Additionally, Mitigation Measure VEG-8 (p. 4.3-23) uses the threshold of 65 dB as the baseline for determining whether or not proposed activities require breeding bird monitoring. This sound level is about equivalent to the volume of normal conversation. As a result, virtually any construction-related activity performed during the nesting season could require nesting bird monitoring.
- 8-37 As described in Section 4.13, *Paleontological Resources*, a Paleontological Resources Assessment was completed for the Project site, which involved both a literature and records search and a paleontological resources survey. The information was used to assign geologic units within the area to a PFYC class, in accordance with BLM protocol. Previous fossil discoveries on the site are described on pages 3.13-3 and 3.13-4. The PA/EIS discloses that ground-disturbing activities could uncover yet unknown undiscovered but potentially significant fossil resources. APMs Paleo-1 through Paleo-3, described on pages 4.13-1 and 4.13-2, would reduce impacts to sensitive paleontological resources throughout the Project site. The PA/EIS adequately addresses potential impacts to paleontological and fossil resources.
- 8-38 Regarding consistency with the CDCA Plan MUC Guidelines, see Response 8-34. The CDCA Plan is a comprehensive, long-range plan that was adopted in 1980; it since has been amended many times. The CDCA is a 25-million-acre area that contains over 12 million acres of BLM-administered public lands within the area known as the California Desert. The Plan initially was prepared and continues to provide guidance concerning the use of the California Desert public land holdings while balancing other public needs and protecting resources. More specifically, it establishes goals and specific actions for the management, use, development, and protection of the resources and public lands within the CDCA. It is based on the concepts of multiple use, sustained yield, and maintenance of environmental quality. The Plan anticipated that renewable power generation facilities would be proposed in the California Desert. Accordingly, it made allowances for the review of such applications, including a provision that all proposed applications "associated with power generation or transmission not identified in the

[CDCA] Plan will be considered through the Plan Amendment process.” The intention of this provision was to ensure that the BLM would take a planning view of all of the renewable energy applications proposed and that such projects would require an amendment to the CDCA Plan to maintain consistency throughout the plan. Amendments to the CDCA Plan can be site-specific or global, depending on the nature of the amendment. Thus, the Plan Amendment process is not a “loophole,” but an intentional aspect of the Plan designed to allow for both flexibility and consistency in the use and protection of public lands and resources.

- 8-39 Congress specifically recognized multiple use and sustained yield management for the CDCA, through the CDCA Plan, providing for present and future use and enjoyment of the public lands. The CDCA Plan identifies allowable uses of the public lands in the CDCA. In particular, it authorizes the location of solar power generating facilities in MUC L and other land classifications upon NEPA review. See also Responses 8-34 and 8-38.

The mitigation provided throughout the PA/EIS ensures that that public lands under consideration will be occupied only with authorized facilities and only to the extent necessary to construct, operate, maintain, and terminate the Project. Compliance with mitigation measures, the Biological Opinion, and NHPA Section 106 requirements will ensure that the Project will not unnecessarily and unduly degrade these public lands.

- 8-40 As discussed on page 3.14-1 of the Draft PA/EIS, the site is designated for Multiple-use Class L, or Limited Use. These lands are suitable for a variety of recreation activities, including backpacking and primitive unimproved site camping. Other nearby areas that provide camping opportunities include the Midland and Mule Mountains LTVAs, and the Wiley’s Well and Coon Hollow Campgrounds. The Midland LTVA is approximately 4.6 miles from the ROW boundary and the Wiley’s Well Campground is approximately 14.3 miles from the boundary. Both Wiley’s Well and Coon Hollow Campgrounds, as well as the Mule Mountains LTVA are located south of I-10. The Project would not affect access to these camping areas. Although the Midland LTVA is less than 5 miles from the Project site, access to the Midland LTVA would not be affected by any proposed road closures. Only two routes that traverse the Project site would be closed during operation of the Project: OHV routes No. 661085 and No. 660835. Neither of these routes provides direct access to the Midland LTVA; therefore, public access to the LTVA would not be affected. In addition, Mitigation Measure REC-5 would reduce the public access impact caused by the closure of these two routes by requiring the Applicant to reestablish north/south connectivity to the northeast side of the Palen-McCoy Wilderness Area and the west side of Big Maria Wilderness Area.

During construction and decommissioning these two routes, as well as several other OHV routes listed on page 4.14-1, would be temporarily closed or access would be restricted. Mitigation Measures REC-1, REC-2, and REC-3 on page 4.14-9 list multiple methods to reduce the effects of road closures during construction. These include distribution of

- interpretive materials and fact sheets describing the road closures, coordination with the BLM AO regarding construction traffic in and near recreation areas, and coordination regarding OHV road closures. According to the BLM, use of OHV routes on or in the vicinity of the Project site is very low, not exceeding 200 to 300 visits per year. Therefore, temporary or permanent access restrictions would not be anticipated to adversely affect wildlife or result in increased pollution or traffic congestion.
- 8-41 OHV access on Class L lands, such as the Project site, are restricted to authorized routes of travel. Although approximately 2 miles of OHV route No. 661085 and 1.3 miles of route No. 660835 would be closed during operation of the Project, there are multiple alternative routes that provide access to other OHV routes and recreation areas in the vicinity of the Project site. Mitigation Measure REC-3 requires that the closure of OHV routes would be publically posted, with penalties identified for any off-route OHV activities. The closure of these two routes is not anticipated to induce substantial numbers of OHV users to abandon designated OHV routes for illegal cross-country use that would result in adverse effects on plants and wildlife.
- 8-42 The California Public Utilities Commission (CPUC) sets utilities rates for all investor-owned utilities every 3 years through general rate case proceedings. Consequently, neither the Applicant nor BLM have authority over any utility rate changes that may occur as a result of the Project. The Applicant has a PPA with SCE for the electricity generated by the Project, but the rate at which the electricity is sold to SCE does not determine the rate at which electricity is sold to consumers; therefore, the Project's effect on utility rates is beyond the scope of analysis for the PA/EIS.
- 8-43 Although there are National Wilderness Areas in the Project vicinity, the Project site is not located within any designated wilderness area, and therefore is not subject to the Wilderness Act of 1964. As described on page 4.16-1, the Project would have no effect on the wilderness areas in the Project vicinity. As described on page 3.16-2 and shown in Figure 3.16-1, a portion of the northwest quadrant of Unit 2 of the Project has recently been inventoried by the BLM and determined to have wilderness characteristics. However, it has not been designated by Congress as a wilderness area, and is therefore not subject to the Wilderness Act. As described on page 4.16-1, construction, operation, maintenance, and decommissioning of the Project would prevent 1,089 acres of lands with wilderness characteristics from future consideration as wilderness by Congress. However, because these lands are not subject to the Wilderness Act, approval of the Project would not require an Act of Congress, as suggested by the comment. Mitigation Measure LWC-1 has been proposed to mitigate impacts to lands with wilderness characteristics off-site.
- 8-44 Regarding the status of the Project site as not within a wilderness area, see Response 8-43. Because the Project site is not subject to the Wilderness Act, the Act does not prohibit any uses on the site. The potential impacts of the Project on vegetation, wildlife, dust generation, weed introduction, wildlife migration, traffic, and lighting/visual resources

- are addressed throughout the PA/EIR, specifically in Sections 4.2, 4.3, 4.4, 4.17, and 4.19; however, these impacts would not affect wilderness areas in the Project vicinity.
- 8-45 The comment suggests that compliance with local and regional plans and programs, including the Regional Transportation Plan (Southern California Association of Governments), Riverside County Congestion Management Program, and Riverside County General Plan, is required. However, these plans pertain to the portion of the Project site under Riverside County jurisdiction and to other non-federal land in the vicinity of the site, and do not control federal actions on federal land. Accordingly, analyzing consistency of the Proposed Action and alternatives with these plans is beyond the scope of analysis for the BLM.
- 8-46 The main access road to the Project site would include approximately 2 miles of existing, unimproved road installed by the Blythe Solar Power Project. The Applicant would improve this access road and extend it approximately 5.5 miles from its current terminus to the MSEP power plant site. An additional approximately 2.6 miles of the main access road would be located within the solar plant site boundary. The Project would also include approximately 2.25 miles of gen-tie maintenance road and 1.0 mile of distribution line maintenance road. Other roads constructed for the Project include limited length gen-tie and distribution line spur roads. The main access road within the solar plant site and the perimeter/fence maintenance road would be located within the fenced-in solar plant site boundary; therefore, these roads would not be accessible by the public. The portion of the main access road constructed outside the solar plant boundary would be located just east of the Blythe Solar Power Project site boundary, which would also be fenced, thereby preventing illegal OHV cross-country access to areas west of the main access road. Areas east of the road (and north of the Blythe Airport) are currently accessible by several existing OHV open routes in the vicinity, including Nos. 660839, 661186, 662002, and 660835. Therefore, construction of the new access road proposed by the Project is not anticipated to provide substantial new access to areas of the open desert that are not currently accessible by other routes. Finally, Mitigation Measure REC-3 would also include notification of penalties for any off-route OHV activities.
- 8-47 Solid waste generation, water consumption, and air pollutant emissions associated with the life cycle of PV panels are not included in the analysis. It is acknowledged that there would be additional indirect solid waste generation, water consumption, and air pollutant emissions associated with these materials; however, as described on page 2-6, solar energy technologies are continuing to advance at a rapid rate, and the Applicant is continuing to evaluate the evolving benefits of various options. Thus, the assumptions that would be required to develop the analysis of life-cycle impacts would be speculative and would not likely provide an accurate representation of such waste. In addition, if thin film CdTe panels are used, the Applicant would ensure that the vendor offers a PV module recycling program through which any module may be returned for recycling (p. 2-8), and most of the components of the solar array would be reused or recycled at the end of the ROW grant period (p. 2-56 and 2-57).

- 8-48 See Response 8-47. As noted on pages 2-56 and 2-57, the Applicant anticipates that the used PV panels would be sold to secondary users when the Project authorizations expire. Panels and equipment not sold for reuse would be recycled.
- 8-49 The visual resource analysis in the Draft PA/EIS adequately identifies the potential nighttime lighting impacts of the MSEP (pp. 4.19-10 through 4.19-12), and provides a mitigation measure to reduce both construction-related and operational lighting impacts (item 10 of Mitigation Measure VIS-1).
- 8-50 The Project's water consumption is described in Chapter 2, pages 2-19 through 2-21, and throughout Section 4.20. As described in Chapter 2, the Project proposes to use solar photovoltaic technology, not concentrating solar power technology. Therefore, the report on methods to reduce the water consumption of concentrating solar power systems mentioned by the commenter (DOE, 2009) is not applicable to the Project.
- 8-51 Other commenters have expressed concern regarding potential connectivity between groundwater underlying the Project site and the Colorado River. For additional discussion regarding the lack of demonstrated connectivity of the proposed groundwater supply to the Colorado River, see PA/FEIS Section 5.5.4.3, Common Response 3.

As discussed in Section 4.20, water supply for the Project is groundwater; however, the source of that groundwater is not the Colorado River. The Project would not remove water from the Colorado River, or otherwise affect Colorado River flows. The proposed withdrawal of groundwater would minimally affect aquifer levels, as noted on pages 4.20-1 to 4.20-4, which is not considered an adverse impact of the Project.

- 8-52 Regarding the low risk of fire associated with a solar PV facility, see Response 8-33. As stated on page 3.21-3, the Project site is wholly within a moderate FHSZ as mapped by CAL FIRE. Despite the comment's suggestion that "the fire hazard risk in Riverside County is severe," as shown in CAL FIRE's Fire Hazard Severity Zone Map, nearly all of Eastern Riverside County is within a moderate FHSZ, and no high or very high FHSZs exist near the Project site (CAL FIRE, 2007). However, as acknowledged on page 4.21-3, although the probability of a wildfire to occur as a result of Project operation would be low, a wildfire that escapes control and spreads beyond the Project could result in a high level of damage to biological resources and other natural resources, such as air quality and water quality, in addition to the potential for loss of life and destruction of property. To minimize the potential for this impact to occur, the provisions of Mitigation Measure FIRE-1 would be implemented during all Project phases.

The comment cites Exhibits WF-1 through WF-3, which were neither provided with the letter nor described in the Index of Exhibits beginning on page 18 of Letter 8, so the BLM cannot provide more specific responses at this time.

- 8-53 The PA/EIS identifies cumulative projects and provides quantified and detailed information about them. See Table 4.1-1 (Cumulative Scenario). Specifically, the

cumulative analysis considers the acreage and total generating capacity of all renewable energy (solar and wind) projects existing or under consideration by the California Desert District (Table 4.1-2), which is the BLM District overseeing the CDCA. Also part of the cumulative scenario, existing projects along the I-10 corridor in eastern Riverside County are identified in Table 4.1-3 and future foreseeable projects in this area, including renewable energy projects on state and private lands, are identified in Table 4.1-4.

On an issue-by-issue basis, Chapter 4 identifies the geographic and temporal scope of the cumulative impacts analysis area, provides a basis for the boundaries of each, identifies existing conditions within each cumulative impacts assessment area, identifies the direct and indirect effects of the Project and alternatives, and identifies past, present and reasonably foreseeable future actions making up the cumulative scenario. See, for example, Section 4.3.9 (discussion of cumulative impacts on vegetation resources), Table 4.3-5 (Summary of cumulative impacts on native vegetation communities). The PA/EIS analyzes cumulative impacts of past, present and reasonably foreseeable future actions, including utility-scale renewable and other development projects, on each of the resource areas in Chapter 4, including mitigation measures to avoid or minimize cumulative impacts.

The CDCA Plan is the comprehensive, long-range plan for the management, use, development, and protection of the CDCA envisioned by Congress. The CDCA Plan amendment process, as described in PA/EIS Section 1.5.1 and in Response 8-38, maintains the CDCA Plan as vital, comprehensive, and up-to-date.

- 8-54 The area of cumulative effects varies by resource. As described in Response 8-26, the Project's contribution to potential cumulative impacts consists of impacts on the archaeological sites identified in Section 4.5, and no sacred sites or places of traditional cultural or religious importance to Indian tribes were identified within the area that would be affected by the Project. Consequently, the geographic scope used for the cumulative impacts analysis in Section 4.5 is appropriate for the cumulative impacts to which the Project's incremental effects could contribute.
- 8-55 The BLM NEPA Handbook does not, as the comment suggests, require a programmatic EIS to be prepared for the level of review being performed for this and other renewable energy projects proposed on BLM-administered lands. As stated in the handbook, "Actions are connected if they automatically trigger other actions that may require an EIS; cannot or will not proceed unless other actions are taken previously or simultaneously; or if the actions are interdependent parts of a larger action and depend upon the larger action for their justification" (BLM, 2008, p. 45). The Project does not automatically trigger, nor is it automatically triggered by, other renewable energy projects proposed on BLM-administered lands; it can and may proceed if approved by the BLM independent of other projects; and, it is not an interdependent part of a larger action that depends on the larger action for justification. Other existing, proposed, and reasonably foreseeable future renewable energy projects within the appropriate

geographic scope for the cumulative analysis for each resource are analyzed throughout Chapter 4. Additionally, see Response 8-56 regarding the Solar Programmatic EIS (PEIS) that has been prepared to assess program-level renewable energy actions in California and other western states.

- 8-56 As described in Response 8-9, the MSEP ROW application is pending, and so not subject to the PEIS ROD or the plan amendments made in that decision.

However, although this PA/EIS was prepared prior to finalization of the Solar PEIS, the cumulative effects of the Project in combination with other renewable energy and other projects in the immediate vicinity and in the CDCA are discussed throughout Chapter 4.

- 8-57 The comment suggests that the consideration of mitigation measures in the PA/EIS is inadequate; however, it provides no specific examples as a basis for the allegation. Accordingly, the BLM is unable to provide a more detailed response. Note that throughout Chapter 4, the effectiveness of mitigation measures is described for each potential Project impact, and summarized in the subsections entitled “Residual Impacts after Mitigation Incorporated” (e.g., Sections 4.2.11, 4.4.11, and 4.5.11).

- 8-58 The comment refers to a disruption in transmission “recently demonstrated in San Diego.” The BLM assumes that this refers to the outages that occurred in primarily in San Diego in September, 2011, when approximately 2.7 million customers went without electricity for up to 12 hours. A FERC/NERC report on this incident (2012) explains that this incident was caused by a disruption in a major high-voltage (500 kV) transmission line, combined with a generation level 29 percent below average peak generation, that resulted in voltage deviations and equipment overloads.

A potential disruption of the Project gen-tie line would not result in a similar disruption in the electrical grid because the grid would not rely on this line for transmission of electricity to load centers or distribution to customers. If a disruption in transmission of Project-generated electricity to the Colorado River Substation occurred, the California Independent System Operator (CAISO) would be responsible for balancing energy flows in the grid. The CAISO typically has an available reserve generation capacity equal to about 7 percent of the current demand (Lawrence Berkeley National Lab, 2012), and the Project’s peak generation capacity of 750 MW is well below the reserve capacity. Therefore, it is not anticipated that a disruption of the Project’s transmission of electricity to the grid could result in transmission or distribution outages.

- 8-59 The Project’s gen-tie would deliver electricity from each Unit to the Colorado River Substation and, as described in Response 8-58, would not pose a significant risk to the electrical grid in the event of an outage. The PA/EIS does address intentionally destructive acts, including the possibility of an act of terrorism, in Section 4.9. As described on page 4.9-8, the BLM has determined that the MSEP would fall into the “low vulnerability” category based on U.S. Department of Justice Chemical Vulnerability Assessment Methodology, NERC guidelines, and U.S. Department of Homeland Security

- regulations. The Applicant's security measures would minimize the potential for power disruptions or hazardous materials release caused by outside parties.
- 8-60 See PA/FEIS Section 5.5.4.1, Common Response 1.
- 8-61 See Responses 8-58 and 8-59.
- 8-62 See PA/FEIS Section 5.2.2, which describes the NHPA Section 106 process and the reasonable, good faith efforts undertaken by the BLM in exercising its responsibilities in implementing it for this Project. As explained therein, individuals from 15 federally recognized tribes formally were notified and invited to participate in the Section 106 and tribal consultation processes. Public involvement also is a key factor in a successful Section 106 consultation; accordingly, the views of CARE, La Cuna, and other members of the public were solicited in the NOI published for this Project in the Federal Register (77 Fed. Reg. 31386-01) and oral and written comments were considered during the scoping process (see, e.g., the Scoping Report included as Appendix B to this PA/EIS), and considered throughout the process.
- 8-63 As indicated in Sections 1.2.1, 1.4.1, and elsewhere, the BLM processes applications for commercial solar energy facilities as right-of-way authorizations under Title V of FLPMA. FLPMA establishes public land policy; guidelines for administration; and provides for the management, protection, development, and enhancement of public lands. In particular, the FLPMA's relevance to the Project is that Title V, §501, establishes BLM's authority to grant rights-of-way for generation, transmission, and distribution of electrical energy. FLPMA mandates that BLM manage the public lands for multiple uses. Multiple use means the "management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people. ..." As identified in FLPMA, this includes "providing for the long-term needs for future generations for renewable and nonrenewable resources." The BLM is processing the Applicant's application within the FLPMA framework.
- 8-64 Regarding conformance with the CDCA Plan, see Responses 8-34 and 8-38.
- 8-65 The alternatives development and screening process employed in the PA/EIS is described in PA/FEIS Section 2.2, Sections 2.3 through 2.8 describe the alternatives that were analyzed in detail, and Section 2.9 describes those that were considered but not carried forward for more detailed evaluation. Potential impacts of the proposed action and alternatives are analyzed in PA/FEIS Section 4.5. As indicated in that section, Alternative 2 (Reduced Acreage Alternative) would affect a total of 86 fewer archaeological sites when compared to the Proposed Action, including eight fewer NRHP-eligible archaeological sites (PA/FEIS Section 4.5.4). Among the potential gen-tie and access road combinations, the Central Route would affect a total of 20 fewer archaeological sites when compared to the Proposed Action, and the Western Route would affect a total of 24 fewer archaeological sites when compared to the Proposed Action (PA/FEIS

- Section 4.5.5). By comparison, Alternative 4 (No Action Alternative) would not result in any of the impacts to cultural resources that were described for the Proposed Action (PA/FEIS Section 4.5.6).
- 8-66 See Response 8-34.
- 8-67 The PA/EIS acknowledges that the Project will result in the irreversible and irretrievable commitments of natural and cultural resources in Section 4.23.

## **Letter 9 – Responses to Comments from NextEra Energy Resources, LLC**

- 9-1 The referenced sentence on page 2-18 has been changed to read: “If required, well permits would be obtained from the Riverside County Department of Public Health, Environmental Health Services, Safe Drinking Water Permit Section.”
- 9-2 Comment noted. The size of the study area on page 3.3-1 was revised to 13,897 acres.
- 9-3 See Response 9-2.
- 9-4 Comment noted. The comment that the Desert Dry Wash Woodland plant community is not synonymous with Blue Palo Verde-Ironwood Woodland Alliance is noted. In response to the comment, the second paragraph on page 3.3-5 is revised as follows:

This community is dominated by an open tree layer of blue palo verde and ironwood. Common understory species include, ~~and smoke tree, with an understory of big galleta grass, desert starvine (*Brandegea bigelovii*), creosote bush, desert lavender (*Hyptis emoryi*), catclaw acacia (*Senegalia gregii*), among other species (TetraTech EC Inc, 2011) scrub and Russian thistle (*Salsola* sp.) (Solar Millennium, 2009a and AECOM, 2010a as cited in CEC, 2010b).~~

- 9-5 Comment noted. In response to data provided in the comment, the last paragraph on page 3.3-8 is revised as follows:

Mediterranean tamarisk or salt cedar (*Tamarix ramosissima*) is a riparian plant and is therefore restricted to habitats where there is perennial saturation such as springs and seeps, or runoff from poorly maintained water pipelines or well pumps. Botanical surveys detected twenty Mediterranean tamarisk in an engineered swale north of and paralleling I-10, and two plants were found in the southwestern corner of the Solar Plant Site. It was observed ~~interspersed throughout desert dry wash woodland within the study area.~~

- 9-6 Comment noted. The second sentence of the second paragraph on page 3.3-10 is as follows to reflect the presence of *E. harwoodii* on the solar plant site. The presence of this species on-site is otherwise correctly reflected in the PA/EIS.

~~Six~~Seven special-status plants were observed within the study area during spring 2011 floristic surveys, and include: desert unicorn plant, Harwood's milk-vetch, Harwood's eriastrum, Las Animas colubrina, ribbed cryptantha, Utah milkvine, and Abram's spurge (Tetra Tech EC and Karl, 2011a; 2011b).

- 9-7 Comment noted. Based on the findings of completed botanical surveys on the solar plant site and Project linears, the "Presence to Occur or Presence on Site" column of Table 3.3-3 on page 3.3-17 is revised for Arizona spurge as follows:

Arizona spurge has a low potential to occur within the study area due to the presence of suitable habitat and appropriate elevation range of the Project site. Surveys are pending for this species on the Alternative 3 routes.

- 9-8 Based on the comment that California ditaxis was observed outside the Project area, the "Presence to Occur or Presence on Site" column of Table 3.3-3 on page 3.3-18 is revised for California ditaxis as follows:

This species was not observed in the Project area during spring 2011; though it was detected off-site. There is a possibility that populations may occur due to the presence of suitable habitat ~~is present~~ in the study area.

- 9-9 Comment noted. To clarify the Wildlife Resources study area and maintain consistency with Table 2-1, the second and third sentences of the first paragraph on page 3.4-1 is revised as follows:

The Wildlife Resources study area describes the area characterized and surveyed for biological resources and included the 4,496-acre Project site with general and focused wildlife surveys performed at 100 percent ground coverage, an additional 500-foot buffer for burrowing owls that was surveyed at 100 percent ground coverage, and two walking transects at 1,310 feet (400 meters) and 1,970 feet (600 meters) for desert tortoise. The 13,897-acre ~~total~~ study area ~~thus~~ included up to approximately 7,700 acres of public land administered by the BLM and approximately 477 acres of private land under the land use jurisdiction of the County.

- 9-10 Comment noted. It is clear from the PA/EIS text that the 314-square mile golden eagle survey area referred to in the text is specific to golden eagles. This represents the only use of the term "survey area" in Section 3.4, thus, there is little room for ambiguity. The PA/EIS intentionally uses the term "study area" in Section 3.4 to refer to areas that received ground-based surveys of on-site resources.

- 9-11 In response to the comment that chuckwalla is no longer considered a Species of Special Concern by the California Department of Fish and Game (CDFG), this species has been removed from the wildlife resources analysis in Sections 3.4 and 4.4, including in Table 3.4-1 and the second and third paragraphs on page 3.4-10 has been removed.

The following responses correspond to the portion of Comment 9-11 that related to the protection status of birds in Table 3.4-1 on page 3.4-3:

1. The status of LeConte’s thrasher is updated as follows:

<b>Le Conte’s thrasher</b>	<i>Toxostoma lecontei</i>	<b>WL/BCC/BLM Sensitive</b>
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2. The most recent CDFG Special Animals List (January 2011) identifies California horned lark as a Watch List (WL) species; thus, the status of this species is correctly presented in Table 3.4-1.

3. The status of ferruginous hawk is updated as follows:

Ferruginous hawk	<i>Buteo regalis</i>	WL/BCC/BLM Sensitive
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4. On May 11, 2011 the USFWS formally withdrew their proposed rule to list the mountain plover as threatened. The status of this bird is correctly presented in Table 3.4-1.
5. Black-tailed gnatcatcher occurrences are mapped by the CNDDDB; however, this species presently has no formal federal or state protective status, as correctly identified in Table 3.4-1. Due to CDFG interest in tracking blacktailed gnatcatcher populations, the description of this species is retained in the PA/EIS.

6. The following bird status changes are made to Table 3.4-1 on page 3.4-3:

<b>Golden eagle</b>	<i>Aquila chrysaetos</i>	<b>CFP/BCC/BLM Sensitive</b>
Gilded flicker	<i>Colaptes chrysoides</i>	SE/BCC/___
Yellow warbler	<i>Dendroica petechia sonorana</i>	CSC/BCC/___
Prairie falcon	<i>Falco mexicanus</i>	WL/BCC/___
American peregrine falcon	<i>Falco peregrinus anatum</i>	CFP/BCC/___
Gila woodpecker	<i>Melanerpes uropygialis</i>	SE/BCC/___
<b>Brewer’s sparrow</b>	<b><i>Spizella breweri</i></b>	<b>___/BCC/___</b>
Bendire’s thrasher	<i>Toxostoma bendirei</i>	CSC/BCC/BLM Sensitive

9-12 See Response 9-11.

9-13 The August 2011 Biological Resources Technical Report (BRTR) (TetraTech EC and Karl, 2011a; p. 20) specifically identifies that three desert tortoise transects were performed outside the Project boundary at distances of 500 feet, 1,310 feet and 1,970 feet. The comment that four additional burrowing owl transects performed at 100 foot intervals from the Project site additionally characterized desert tortoise sign is noted for the project record; however, this statement was not reflected in the desert tortoise survey methods presented in the BRTR.

9-14 In response to the comment, the third sentence of the second paragraph on page 3.4-7 is revised as follows:

Spring 2011 surveys of the Project site included 21 adult desert tortoise (one of the solar plant site and on the linear corridor), 30 tortoise carcasses, 7 scat, 242 known or potential burrows, and 2240 tortoise shell fragments or fragment groups remains (Table 3.4-2) (Tetra Tech EC and Karl, 2011a).

9-15 The BRTR (TetraTech EC and Karl, 2011a; p. F-1) states that common chuckwalla were observed in spring 2011 during surveys of the Project site and translocation area; however, the location was not disclosed in the BRTR. The comment that potential habitat occurs west of the solar plant site and gen-tie route clarifies where potential habitat is present but does not clarify the quality of potential habitat on the Project site and does not disclose the location where chuckwalla were observed in 2011. The comment does not provide sufficient detail to maintain that chuckwalla habitat is absent from the Project site, and is noted.

9-16 In response to the comment, the following is added after the first sentence of the first full paragraph on page 3.4-11:

Additional surveys were performed following fall 2011 rains; however, precipitation was not sufficient to initiate spadefoot breeding.

9-17 In response to the comment, the first sentence of the second full paragraph on page 3.4-11 is revised as follows:

Potential breeding habitat was detected at seven nine swales pools and ponds on the gen-tie line and access road route and one location in the southwest portion of the solar plant site.

9-18 In response to the comment, the first and second sentences of the third paragraph on page 3.4-12 are revised as follows:

Focused surveys identified 10 recently active owl burrows and one two burrowing owl pairs on the solar plant site, mostly from the eastern portion of the site. Two ~~An~~ owl pairs and one active burrow were also noted on the gen-tie line and access road route north of I-10.

9-19 In response to the comment, the following paragraph is added following the first full paragraph on page 3.4-14:

In addition to helicopter survey results, two golden eagles were incidentally observed flying overhead south of the solar plant site during wildlife surveys in spring 2011. No eagles were observed during focused avian point counts in 2011 (TetraTech EC, Inc. and Karl, 2011a).

- 9-20 In response to the comment, the first sentence of the third full paragraph on page 3.4-15 is revised as follows to reflect that black-tailed gnatcatchers were identified on both the solar plant site and gen-tie line:

Black-tailed gnatcatchers were observed on 11 instances during point count surveys on the solar plant site and gen-tie line, occurring predominantly in association with vegetated areas dominated by creosote bush scrub/desert dry wash woodland.

- 9-21 The Draft PA/EIS has been revised to remove Mitigation Measure AQ-1 because: 1) the established mass emission indicator and threshold for the identification of adverse emissions of NO<sub>x</sub>, as defined in Draft PA/EIS Section 4.2.1.4, would not be exceeded; and 2) the majority of the PM10 that would be generated during construction would be in the form of fugitive dust, and the reductions in PM10 exhaust that would be achieved under Mitigation Measure AQ-1 would be negligible (i.e., less than one percent of total PM10 emissions). Therefore, the measure is unwarranted.

- 9-22 In response to the comment, the sand dune impact figures from the Biological Assessment have are incorporated into the third sentence of the last paragraph of page 4.3-5, as follows:

The 240-foot wide study corridor includes 38.0 acres of dune habitat. Half of this area (19 acres) are subject to ; however, permanent impacts would be limited to a fraction of this area (e.g., perhaps 10 percent, or about 4 acres) and the remaining area (19 acres) are subject to temporary impacts.

- 9-23 In response to the comment and other input from the Applicant, impacts to ephemeral drainages have been clarified and the first sentence of the first full paragraph on page 4.3-6 is revised as follows:

Direct impacts include permanent loss of hydrological, geomorphic, and biological functions and values in up to ~~186.0~~165.2 acres of ~~desert dry wash woodland~~, vegetated ephemeral streams, and unvegetated ephemeral dry washes and 4.2 acres of desert dry wash woodland on the Project site, gen-tie line and distribution line (Figure 3.3-3; Table 4.3-4).

- 9-24 The statement presented in the PA/EIS is correct. As shown in Table 4.3-2 (p. 4.3-10), overall impacts to Harwood's milkvetch, Harwood's eriastrum, and ribbed cryptantha populations would be slightly less under Alternative 2 compared to Alternative 1.

- 9-25 In response to the comment, Table 4.3-1 has been clarified to reflect that unvegetated areas are within drainages and not desert pavement.

Additionally in response to the comment that there must be ephemeral drainages with no trees in the Alternative 3 routes, habitat mapping for the alternative routes that was inadvertently omitted from PA/EIS is presented in the revised Figure 3.3-1.

- 9-26 Electronic data regarding the distribution of vegetation communities on the Blythe Solar Power Project was provided for the PA/EIS analysis by the BLM. Vegetation communities on the BSPP site are mapped in revised Figure 3.3-1.
- 9-27 Figure 3.3-3 inadvertently omitted plant distribution data that was presented in the Fall 2011 Plants and Supplemental Wildlife Survey Report (TetraTech EC, Inc. and Karl, 2011b). The figure has been revised to include this information, as shown in PA/FEIS Table 4.3-2.
- 9-28 The commenter notes that some rare plant species that were identified on the Blythe Solar Power Project (BSPP) site may not be represented in Figure 3.3-3. Specifically, the commenter notes the potential underrepresentation of *Las Animas colubrina*, *Utah cynanchum*, and desert unicorn plant in the figure. As noted in Response 9-27, Figure 3.3-3 in the PA/EIS has been updated to include some vegetation data that was inadvertently omitted. Relative to the Alternative 3 routes on the BSPP site, the commenter notes that botanical surveys were performed during a low rainfall year and may not represent the full distribution of this species on the site. Mitigation Measure VEG-10(B) on page 4.3-29 specifically addresses the potential need for additional fall botanical surveys on the Alternative 3 routes.
- 9-29 In response to the comment, sand dune impacts have been added to Table 4.3-3 on page 4.3-10, as follows:

Desert Dry Wash Woodland (Blue Palo Verde-Ironwood Woodland Alliance)	4.2	0.9 <sup>a</sup>	<del>3.4 (1.5)</del> <sup>b</sup> <u>1.2</u>	10.3 ( <del>9.0</del> ) <sup>e</sup>
Creosote Bush-Big Galleta Grass Association	0.0	0.0	0.0	0.4
<u>Sand Dunes<sup>b</sup></u>	<u>19 (19)</u>	<u>0.0</u>	<u>19 (19)</u>	<u>19 (19)</u>

NOTES:

<sup>a</sup> The 0.9-acre impact area includes impacts for the solar plant (0.0 acre) and distribution line (0.9 acre); if selected, Alternative 2 could be supported by either the proposed Eastern Route or the alternative Central Route.

<sup>b</sup> The Central Route gen-tie line impact area totals 3.4 acres, of which 1.5 is in the area unique to the Central Route.

<sup>c</sup> The Western Route gen-tie line impact area totals 10.3 acres, of which 9.0 is in the area unique to the Western Route.

<sup>d</sup> All creosote bush-big galleta grass vegetation occurs within areas unique to the Central and Western alternatives.

<sup>e</sup> Impacts to sand dunes are equivalent for all gen-tie alternatives and include 19 acres of permanent impacts and 19 acres of temporary impacts.

SOURCE: Tetra Tech EC, Inc. and Karl, 2011a, 2011b; Tetra Tech EC, Inc. 2012a, 2012b

- 9-30 To clarify the assessment of non-listed cacti and trees on the Project site, the first sentence of the last paragraph on page 4.3-10 is revised as follows:

Botanical surveys of the Project site ~~reported the occurrence of~~ quantified non-listed cacti and trees on the Project site, but their distribution was ~~did~~ not mapped ~~cacti distribution or quantify abundance on the Project site.~~

- 9-31 To clarify impacts to native desert trees on the Project site, the fifth sentence of the first paragraph on page 4.3-11 is revised as follows:

Other native desert trees were described within vegetated ephemeral swales on the Project site, for which 2.8 acres of vegetated ephemeral channel (wash-dependent vegetation with sparsely scattered trees) ~~tree-dominated swale~~ habitat would be impacted on the solar plant site under Alternative 2 (Table 4.3-1).

- 9-32 The analysis has been revised to be consistent with changes made to Tables 4.3-1 and 4.3-3.

- 9-33 See Response 9-32.

- 9-34 Based on the comment, the direct and indirect impact of the Central Route on rare plants (p. 4.3-12) is revised as follows:

Direct impacts to special-status plants would be incrementally ~~smaller~~ greater under the Central Route compared to the comparable portion of Alternative 1, with slightly ~~reduced~~ greater impacts to Harwood's milk-vetch (seven plants for the Central Route and three for Alternative 1) and Utah milkvine (about 50 plants for the Central Route and none for Alternative 1) (Table 4.3-2). The Central Route would not impact desert unicorn plant for which one plant occurs on the comparable portion of Alternative 1. Direct impacts to other special-status plants would be largely the same as Alternative 1, and reduced following the implementation of Mitigation Measures VEG-7, VEG-8, VEG-10, and VEG-11.

- 9-35 Based on the comment, the direct and indirect impact of the Western Route on rare plants (p. 4.3-13) is revised as follows:

~~Similar to the Central Route, d~~ Direct impacts to special-status plants would be ~~incrementally smaller under the Western Route compared to the comparable portion of~~ between the Western Route and Alternative 1. ~~The Western Route with slightly~~ would have reduced fewer impacts to Harwood's milk-vetch (no plants for the Western Route and three for Alternative 1) and desert unicorn plant (no plants for the Western Route and one for Alternative 1), and greater impacts to ~~and~~ Utah milkvine (four plants for the Western Route and none for Alternative 1) and Las Animas colubrina (one plant for the Western Route and none for Alternative 1) (Table 4.3-2). Direct impacts to other special-status plants would be largely the same as Alternative 1.

- 9-36 Mitigation measures included in Section 4.3 include those that apply to the protection of both vegetation and wildlife resources. For ease of presentation, mitigation measures that pertain to protection of vegetation resources (such as minimizing the Project footprint) are presented in Section 4.3. The measures identified by the commenter (Measures 4, 8,

- 9, 10, 11, and 12) include both vegetation and wildlife protection provisions, which cannot easily be separated.
- 9-37 Measure VEG-8.8 provides avian monitoring to minimize construction impacts to nesting birds. Given that several drainages extend into the west side of the active construction area and potential breeding areas therefore occur near work areas, bird monitoring is required to confirm that nesting birds are not affected by construction activities.
- 9-38 In response to the comment addressing the handling of collected dead animals, the first sentence of Measure VEG-8.12 on page 4.3-24 is revised as follows:

***Dispose of Road-killed Animals.*** Road-killed animals or other carcasses detected on roads near the Project area shall be ~~picked up~~ immediately reported to the Designated Biologist and picked up within 24 hours and delivered to the Biological Monitor. ~~The Designated Biologist shall be responsible for securing all required federal or State permits to handle and dispose of collected animals, including handling and disposal for scientific use.~~

- 9-39 Based on the comment that importation of materials onto the site may be necessary, Measure VEG-9 (1c) on page 4.3-26 is revised as follows:

***Weed-free Products:*** Any use of hay or straw bales on the Project site will be limited to certified weed-free material. Other products such as gravel, mulch, and soil may also carry weeds and these products, too, will be certified weed-free. If needed, mulch will be made from the local, on-site native vegetation cleared from the Project area. ~~Soil will not be imported onto the Project site from off site sources.~~

- 9-40 Based on the comment that mechanical weed removal may be impractical in some areas, Measure VEG-9 (1e) on page 4.3-26 is revised as follows:

***Mechanical Weed Removal:*** The Applicant primarily will use mechanical weed removal techniques with the use of herbicides restricted to BLM-approved usage in areas that are not accessible through mechanical means or where mechanical weed removal is impractical.

- 9-41 In response to the comment, Item C of Mitigation Measure VEG-10 on page 4.3-31 has been revised to reflect conditions on the project, as follows:

**C) Avoidance Requirements for Special-Status Plants**

~~This measure outlines the level of avoidance required for plants detected during the summer fall surveys, based on the species' rarity and status codes.~~

~~The Applicant shall apply the following avoidance standards to late blooming special status plants that might be detected during late summer/fall season surveys. Avoidance and/or the mitigation measures described in Mitigation Measure VEG-10.D below would reduce impacts to these special status plant species.~~

The Applicant shall avoid impacts to special-status plant populations whenever possible, as described below.

1. ~~Mitigation for CNDDDB Rank 1 Plants (Critically Imperiled) — Avoidance Required: If late blooming species with a CNDDDB rank of 1 are detected within the Project Disturbance Area, the Applicant shall prepare and implement a Special Status Plant Mitigation Plan (Plan). The goal of the Plan shall be to retain at least 75 percent of the local population of the affected species. The Plan shall include, at a minimum, the following components and definitions:~~
  - a. ~~A description of the occurrences of the CNDDDB rank 1 species on the Project, ecological characteristics such as micro-habitat requirements, ecosystem processes required for maintenance of the habitat, reproduction and dispersal mechanisms, pollinators, local distribution, a description of the extent of the population off-site, the percentage of the local population affected, and a description of how these occurrences would be impacted by the Project, including direct and indirect effects. The “local population” shall include the number of individuals occurring within the Palo Verde Watershed boundaries. Occurrences shall be considered impacted if they are within the Project footprint, and if they would be affected by Project-related hydrologic changes or changes to the local sand transport system.~~
  - b. ~~A description of the avoidance and minimization measures that would achieve complete avoidance of occurrences on the Project linear corridors and construction laydown areas, unless such avoidance would create greater environmental impacts in other resource areas (e.g. Cultural Resource Sites) or other restrictions (e.g., Caltrans ROW or other restrictions for placement of transmission poles).~~
  - c. ~~A description of the measures that would be implemented to avoid or minimize impacts to occurrences on the solar facility. Avoidance is generally considered not feasible if the species is located within the Permanent Project Disturbance Area (bounded by the permanent tortoise exclusion fence and the drainage channels).~~
  - d. ~~If avoidance on the linear corridors, construction laydown areas, and solar facility combined protect less than 75 percent of the local population of the affected species, the Applicant shall implement off-site mitigation that demonstrates that the impacts will not cause a loss of viability for that species. Implementation of the compensatory off-site mitigation must meet the performance standards described in Mitigation Measure VEG-10.D, and may include land acquisition or implementation of a restoration/enhancement program for the species.~~
  - e. ~~“Avoidance” shall include protection of the ecosystem processes essential for maintenance of the protected plant occurrence. For all but one of the late blooming plant species with potential to occur, the plant species are annuals that depend on a viable seed bank to maintain population health and persistence. The primary goal of avoidance for these annual species will be protection of the soil integrity and the seed bank that is closely associated with undisturbed soils. Any impacts to the soil structure or surface features will be considered an impact, but measures like temporary mowing or brush removal that does not disturb the soil will not be considered impacts to the population. Isolated ‘islands’ of protected plants disconnected by the Project from natural fluvial, aeolian (wind), or other processes essential for~~

~~maintenance of the species, shall not be considered to be protected and shall not be credited as contributing to the 75 percent avoidance requirement because such isolated populations are not sustainable.~~

12. Mitigation for CNDDDB Rank 1, 2, and 3 Plants (~~Imperiled~~) – Avoidance on Linear Corridors Required: If species with a CNDDDB rank of 1, 2, or 3 are detected within the Project Disturbance Area, the Applicant shall prepare and implement a Special-Status Plant Mitigation Plan (Plan) that describes measures to achieve complete avoidance and minimize impacts to plant populations of occurrences on the Project linear corridors and construction laydown areas, unless such avoidance would create greater environmental impacts in other resource areas (e.g. Cultural Resource Sites) or other restrictions (e.g., FAA or other restrictions for placement of transmission poles). The Applicant shall provide compensatory mitigation, ~~at a ratio of 2:1,~~ as described below in Mitigation Measure VEG-10.D for impacts to Rank 1, 2, and 3 plants that ~~cannot~~could not be avoided. The content of the Plan and definitions shall be as described above in Mitigation Measure VEG-10.C (1).
- ~~3. Mitigation for CNDDDB Rank 3 Plants – No On Site Avoidance Required Unless Local or Regional Significance: If species with a CNDDDB rank of 3 are detected within the Project Disturbance Area, no on-site avoidance or compensatory mitigation shall be required unless the occurrence has local or regional significance, in which case the plant occurrence shall be treated as a CNDDDB rank 2 plant species. A plant occurrence would be considered to have local or regional significance if:~~
  - ~~a. It occurs at the outermost periphery of its range in California;~~
  - ~~b. It occurs in an atypical habitat, region, or elevation for the taxon that suggests that the occurrence may have genetic significance (e.g., that may increase its ability to survive future threats), or;~~
  - ~~c. It exhibits any unusual morphology that is not clearly attributable to environmental factors that may indicate a potential new variety or sub-species.~~
- ~~4. Pre Construction Notification for State or Federally Listed Species, or BLM Sensitive Species. If a state or federally listed species or BLM Sensitive species is detected, the Applicant immediately shall notify the CDFG, USFWS, and the BLM AO.~~
25. Preservation of the Germplasm of Affected Special-Status Plants. For all significant impacts to special-status plants, regardless of whether compensatory mitigation is required, mitigation shall include seed collection from the affected special-status plants on-site prior to construction to conserve the germplasm and provide a seed source for restoration efforts. The seed shall be collected under the supervision or guidance of a reputable seed storage facility such as the Rancho Santa Ana Botanical Garden Seed Conservation Program, San Diego Natural History Museum, or the Missouri Botanical Garden. The costs associated with the long-term storage of the seed shall be the responsibility of the Applicant. Any efforts to propagate and reintroduce special-status plants from seeds in the wild shall be carried out under the direct supervision of specialists such as those listed above and as part of a Habitat Restoration/Enhancement Plan approved by the BLM AO.

9-42 The BLM has determined that the continued use of CNDDDB State Rank is appropriate to the analysis and required mitigation for the McCoy Solar Energy Project. The August 29, 2011 Notice of Intent established the analytical baseline for the Proposed Action; however, if the CNDDDB officially reduced the State rank of special-status plants prior to issuance of the Notice of Determination based on plant distribution data collected since the Notice of Intent was filed, BLM would be willing, but not required, to entertain a reduced mitigation requirement.

9-43 In response to the comment, the following sentence is added at the end of Mitigation Measure VEG-11, Provision 1 (Acquire Off-Site State Waters) on pages 4.3-40 to 4.3-41:

If security is posted in accordance with Provision 2 below (Security for Implementation of Mitigation), the Applicant shall acquire, in fee or in easement, the land, no more than 18 months after the start of Project ground-disturbing activities.

9-44 Based on the comment, references to 213.3 acres of state jurisdictional waters for mitigation lands in Measure VEG-11 have been revised to 215.2 acres.

9-45 Based on the comment, a timeline for preparing a Channel Decommissioning and Reclamation Plan has been provided in VEG-12 on page 4.3-42 as follows:

**VEG-12: Channel Decommissioning and Reclamation Plan.** At least 12 months prior to ~~Upon~~ Project closure, the Applicant shall ~~prepare~~ ~~implement~~ a draft final Decommissioning and Reclamation Plan to remove the engineered diversion channels from the Project site, and implement the final plan upon site closure.

9-46 Based on the comment, the first two sentences on page 4.3-43 have been deleted, as follows:

~~The disturbance area for each project Phase and resource type is provided in the tables below. This table shall be refined prior to the start of each construction phase with the disturbance area adjusted to reflect the final Project footprint for each phase.~~

9-47 In response to the comment and other information provided by the Applicant, impacts to state-jurisdictional ephemeral drainages have been revised and clarified on page 4.3-43, as follows:

The Project would have major impacts to vegetation resources, eliminating all of the Sonoran creosote bush scrub and other native plant and wildlife communities within the disturbance area of Alternatives 2 and 3. The Project also would directly and indirectly affect an extensive network of desert washes comprising approximately 165.2 acres of vegetated ephemeral streams and unvegetated ephemeral dry washes and 4.2 acres of desert dry wash woodland, which are regulated

as ~~60.4 to 194.3~~ acres of state-jurisdictional ephemeral drainages. Alternatives 1 and 3 would impact vegetation resources on the more biologically diverse west side of the Study Area, which would be avoided under Alternative 2. The APMs and proposed mitigation measures would avoid, minimize, or compensate for the loss and would offset many of the impacts in varying, but unquantified degrees, though net losses in waters of the state wetland and vegetation resources would occur.

9-48 In response to the comment, a minor text correction was made to the first sentence of the third paragraph on page 4.4-4, as follows:

**Construction Monitoring:** No construction will occur in unfenced areas (see BIO-1[b], *Desert Tortoise Exclusion Fencing*) or on the linear facilities without BMs present.

9-49 In response to the comment, impact acreages for the solar plant site Units 1 and 2, string pulling, the distribution line, and the Alternative 3 Central Route presented in Table 4.4-1 have been revised to reflect the recent impact acreages presented in Table 1 of the *Supplemental Information to the Biological Assessment for the McCoy Solar Energy Project* prepared by TetraTech EC, Inc. (2012c), which reflects recent changes in the Project boundaries based on consultation with the USFWS. Permanent impacts in the revised Table 4.4-1 include 38 acres of impact to sand dune habitat that do not provide desert tortoise habitat. Therefore, the impacts presented in the revised Table 4.4-1 do not precisely mirror Table 1 in the Biological Assessment. Additionally, the impact acreages for the Alternative 3 Western Route have been revised to be consistent with disturbance acreages presented in Table 4.3-1, and are estimated for the entire gen-tie line alignment at the ROW width of approximately 100 feet in the absence of more specific information about where disturbance would occur within that ROW. Revisions to Table 4.4-1 are presented below.

Project Component	Project Alternative Disturbance Area (Acres) (Permanent/Temporary)			
	Alternative 1	Alternative 2	Alternative 3 Central Route	Alternative 3 Western Route
Solar Plant Site Unit 1 and Ancillary Facilities	2,259 <del>438.0</del> / 0.0	2,259 <del>438.0</del> / 0.0	--	--
Solar Plant Site Unit 2 and Ancillary Facilities	2,178 <del>067.0</del> / 0.0	--	--	--
Gen-Tie Line, Access Road, and 230 kV Switchyard	<del>53.5 493.8</del> / <u>50.3</u> 0.0	--	<u>94.3 490.5</u> / 0.0	<u>148.7 200.0</u> / 0.0
String Pulling Sites	0.0 / <u>34.5 4.2</u>	--	0.0 / <u>34.5 4.2</u>	0.0 / <u>34.5 4.2</u>
Distribution Line	<del>5.5 7.3</del> / <u>1.9 0.0</u>	<del>5.5 7.3</del> / <u>1.9 0.0</u>	--	--
<b>Total Disturbance Acreage</b>	<b><u>4,496 306</u> / <u>86.7 4.2</u></b>	<b><u>2,264.5 38.0</u> / <u>1.9 0.0</u></b>	<b><u>94.3 490.5</u> / <u>34.5 4.2</u></b>	<b><u>148.7 200.0</u> / <u>34.5 4.2</u></b>

9-50 Based on the comment, the following portions of the PA/EIS are revised to reflect information presented in the *McCoy Solar Energy Project Biological Resources Technical Report* (TetraTech EC Inc., and Karl, 2011a) that potential pallid bat (and not big free-tailed bat) habitat may occur on site:

1. The third sentence of the second paragraph on page 4.4-9 is revised as follows:

Also, potential roosting habitat for pallid ~~big free-tailed~~ bat and California leaf-nosed bat is restricted to a single location on the solar plant site.

2. A portion of Table 4.4-2 on page 4.4-10 is updated to correctly indicate the potential presence of pallid bat:

<u>Pallid</u> <del>Big free-tailed</del> bat	P	P	P
--	---	---	---

9-51 In response to the comment, Table 4.4-2 on page 4.4-10 has been updated as follows:

<del>Chuckwalla</del>	€	€	€
Swainson's hawk	<u>C (non-breeding)</u>	<u>C (non-breeding)</u>	<u>C (non-breeding)</u>
Vaux's swift	<u>C</u>	<u>C</u>	<u>C</u>
Northern harrier	P (foraging only)	P (foraging only)	P (foraging only)
Yellow warbler	<u>C (non-breeding)</u>	<u>C (non-breeding)</u>	<u>P (non-breeding)</u>
Prairie falcon	<u>P (foraging only)</u>	<u>P (foraging only)</u>	<u>P (foraging only)</u>
American peregrine falcon	<u>P (foraging only)</u>	<u>P (foraging only)</u>	<u>P (foraging only)</u>
Nelson's bighorn sheep	<u>U</u> <del>P</del>	U	U

9-52 In response to the comment, the last paragraph on page 4.4-10 and continuing on 4.4-11 is revised as follows to reflect acreage changes identified in Response 9-49.

The permanent and temporary removal of habitat would have a direct effect on wildlife species through habitat loss (see below for separate discussions of impacts on special-status wildlife species and wildlife movement and breeding). Impacts include the permanent removal of ~~4,437~~ 4,195 acres of habitat on the solar plant site (Table 4.4-1). An additional ~~59~~ 44 acres of habitat would be permanently impacted and 87 acres temporarily impacted by construction of the gen-tie line, access road, 230 kV switchyard, and distribution line ~~and string pulling would result in temporary disturbance of 4.2 acres of habitat.~~ In addition to disturbance-related impacts, the exclusion fence that would preclude most terrestrial wildlife species from using the solar plant site would encompass approximately 4,437 acres (of which ~~4,195~~ are the disturbance-related impacts described above), ~~resulting in an additional 597-acre loss of habitat on the solar plant site.~~

9-53 See Response 9-52.

- 9-54 In response to the comment, the first sentence of the fourth paragraph on page 4.4-12 is updated as follows:

The capture, handling, and relocation of desert tortoises from the Project site following the installation of perimeter wildlife exclusion fencing ~~could~~ ~~would~~ result in the harassment and mortality of juvenile and adult desert tortoises during relocation.

- 9-55 In response to the comment, the last sentence of the fifth paragraph on page 4.4-12 is updated as follows:

The addition of external site fencing also could present a movement barrier to off-site tortoises that would ~~alter~~ ~~decrease~~ their home range and could separate individuals from the regional tortoise population.

- 9-56 Because chuckwalla is no longer considered a California Species of Special Concern, the discussion of potential Project effects to this species are removed from Section 4.4.4. These changes are reflected in the following locations:

1. Page 4.4-13 (includes revisions to identified in Comment 9-56 related to Mojave fringe-toed lizard):

#### **Mojave Fringe-toed and Chuckwalla Lizards**

The Mojave fringe-toed lizard has wide distribution in portions of the gen-tie line alignment located south of I-10, with ~~263~~ ~~188~~ lizards identified in the study area during surveys. This species does not occur on the solar plant site. Chuckwalla were also casually noted during wildlife surveys, though their distribution was not specifically mapped in the Project area (Tetra Tech EC, Inc. and Karl, 2011a; 2011b). Direct impacts to Mojave fringe-toed lizards during construction of the gen-tie line, distribution line, and associated access roads would occur due to the permanent loss of ~~19.0~~ ~~28.7~~ acres ~~and~~ temporary disturbance to an additional 19.0 acres of undifferentiated sand and sand sheet habitat that is occupied by Mojave fringe-toed lizards, and accidental mortality of lizards from vehicle strikes (see Table 4.3-3). Indirect Project impacts include increased predation on lizards by raptors, ravens, and other birds such as loggerhead shrike; the introduction and spread of exotic vegetation species; fragmentation and degradation of occupied dune habitat; and hazards associated with the spraying of herbicides and dust suppression chemicals within occupied habitat.

~~Direct and indirect construction impacts to chuckwalla would be similar to those described for the desert tortoise.~~

2. The first paragraph on page 4.4-16 is revised to read:

Similar impacts would be anticipated to Mojave fringe-toed lizard ~~and~~ ~~chuckwalla~~.

3. The first paragraph on page 4.4-21 is revised to remove mention of chuckwalla.
  4. The last sentence of the second paragraph on page 4.4-27 is removed:

~~Similar cumulative effects are anticipated to chuckwalla habitat in the Palo Verde Valley.~~
  5. The final paragraph on page 4.4-47 is revised to remove mention of chuckwalla.
- 9-57 The second sentence of the last paragraph on page 4.4-13 has been updated to reflect changes to Section 4.3, as follows:
- Though not confirmed within the Project area, potential breeding habitat was detected at seven swales on nine shallow pools within the gen-tie line and access road route and at one location in the southwest portion of the solar plant site.
- 9-58 The third full paragraph on page 4.4-14 is updated based on the comment to distinguish potential burrowing owl impacts on the solar plant site from those on linear corridors, as follows:
- It is anticipated that all identified active burrows on the solar plant site would be removed during Project construction and those on the linear corridor would be avoided where feasible. The entire Project area is considered to provide suitable burrowing owl foraging habitat.
- 9-59 Based on the comment and other sources, the discussion of Nelson's bighorn sheep use of the Project site is revised on page 4.4-14 as follows:

#### **Nelson's Bighorn Sheep and Burro Deer**

The intermountain valley floor within the solar plant site ~~could~~ is unlikely to serve as a potential movement corridor for Nelson's bighorn sheep attempting to move from one mountain range to another during seasonal migration or dispersal based on their documented absence from the McCoy Mountains. Presently, the McCoy Mountains are considered an unoccupied portion of the bighorn's range. Repopulation in the McCoy Mountains could happen naturally or could happen deliberately via translocation ~~and development of new water sources~~ of breeding individuals. The CDFG has successfully re-established bighorn in some ranges in the past. ~~The Project area has the potential to be used by bighorn sheep as seasonal foraging habitat and, if reestablished, bighorn sheep could use portions of the Project site as spring foraging habitat. The Project would result in the loss of 186 acres of spring foraging habitat (desert dry wash woodland, vegetated swales, and unvegetated washes), and have a minor impact on a regional connectivity corridor for the bighorn sheep because the corridor is maintained to the west, north, and east of the solar plant site. Due to the absence of bighorn sheep from the Project area, the construction phase of the Project~~

would not adversely affect habitat for this species or cause effects to individual sheep or sheep populations.

- 9-60 Based on the suggestion, the discussion of burro deer habitat use in the Project area is revised on page 4.4-14 as follows:

Direct and indirect construction impacts to burro deer ~~would be similar to those described for the Nelson's bighorn sheep~~ include the loss of foraging habitat in desert dry wash woodlands, vegetated swales, and Sonoran creosote bush scrub habitat, and potential barriers to local and regional deer movement. The Project would not present a barrier to regional movement because deer still could disperse around the site to the west, north, and east.

- 9-61 Based on changes made to Section 3.3 to reflect potential habitat for pallid bat on the solar plant site, the following revision is made to the fifth paragraph on page 4.4-15:

One potential bat roost was identified in Unit 2 of the solar plant site. This roost exhibited a small amount of bat guano, but no current use by bats (Tetra Tech EC, Inc. and Karl, 2011a). This cavity may have been used as a roost by California leaf-nosed bat or pallid bat, ~~western mastiff bat, or other bat species~~. All habitats within the solar plant site are suitable for bat foraging; though potential roost sites are limited to the single identified cavity. The Project would avoid this potential bat roost, as it is located in a wash that would be avoided ~~could result in direct loss of this bat roosting site during construction~~. Direct and indirect impacts to bat species are expected if construction activities were to disrupt nighttime foraging activities.

- 9-62 Based on the comment, the level of risk to bats from collisions with structures in the fourth paragraph on page 4.4-17, has been clarified as follows:

There is a low risk ~~an unquantified~~ risk that special-status bat could collide with new monopoles, H-frame structures, or lines associated with the gen-tie line and distribution line.

- 9-63 Based on the comment, impact to Mojave fringe-toed lizard have been corrected in the fourth sentence of the first paragraph of page 4.4-24, as follows:

Under Alternatives 1 and 3, approximately ~~4638~~ 4638 acres of habitat would be disturbed for the gen-tie line and associated access road. This represents approximately ~~4.20.2~~ percent of available Mojave fringe-toed lizard habitat that was identified in the cumulative study area and represents a contribution of ~~75.0~~ percent of the total cumulative effect on this resource.

- 9-64 See Response 9-56.

9-65 In response to this and other comments, the BLM has revisited the Project's potential to affect habitat for Nelson's bighorn sheep and has determined that the Project is not located within a Nelson's bighorn sheep WHMA and would not result in the loss of habitat for this species within a WHMA.

9-66 In response to the comment, a typo on page 4.4-27 is corrected as follows:

PAR for Mojave Fringe-toed ~~Flat-tailed Horned~~ Lizard compensation

9-67 In response to the comment, the purpose of flagging the fencing routes has been clarified in the third sentence of the last paragraph on page 4.4-27, as follows:

All fencing installation corridors shall be flagged to assist biologists in studying the fence route and surveyed within 24 hours prior to the initiation of fence construction.

9-68 In response to the comment, the desert tortoise survey and clearance discussion on 4.4-28 and 4.4-29 is updated, as follows:

1. ***Desert Tortoise Clearance Surveys within the Plant Site.*** Clearance surveys shall be conducted in accordance with the final USFWS-approved *Desert Tortoise Translocation Plan, McCoy Solar Energy Project (Appendix F in the Biological Assessment; TetraTech EC Inc., 2012a) Desert Tortoise Field Manual (Chapter 6—Clearance Survey Protocol for the Desert Tortoise—Mojave Population)* and shall consist of two surveys covering 100 percent the Project area by walking transects no more than 15 feet apart. If a desert tortoise is located on the second survey, a third survey shall be conducted. Each separate survey shall be walked in a different direction or parallel but offset to allow opposing angles of observation. Clearance surveys for non-linear areas of Phase 1A may be conducted outside the active season. Clearance surveys of the remaining portions of the power plant site may only be conducted when tortoises are most active in the Project vicinity (April through May or September through October/mid-November). Clearance surveys of linear features may be conducted during anytime of the year. Surveys outside of the active season in areas other than Phase 1A require approval by USFWS and CDFG. Any tortoise located during clearance surveys of the power plant site and linear features shall be relocated and monitored in accordance with the Desert Tortoise Relocation/Translocation Plan:

a. ***Burrow Searches.*** During clearance surveys all desert tortoise burrows, and burrows constructed by other species that might be used by desert tortoises, shall be examined by the Designated Biologist, who may be assisted by the Biological Monitors, to assess occupancy of each burrow by desert tortoises and handled in accordance with the *Desert Tortoise Field Manual*. To prevent reentry by a tortoise or other wildlife, all burrows shall be collapsed once absence has been determined, but only on the last survey pass and if not occupied by other wildlife. Tortoises taken from burrows and from elsewhere on the power plant site shall be relocated or translocated as described in the Desert Tortoise Relocation/Translocation Plan.

- b. *Burrow Excavation/Handling.* All potential desert tortoise burrows located during clearance surveys would be excavated by hand, tortoises removed, and collapsed or blocked to prevent occupation by desert tortoises. All desert tortoise handling and removal, and burrow excavations, including nests, would be conducted by the Designated Biologist, who may be assisted by a Biological Monitor in accordance with the *Desert Tortoise Field Manual*.
- c. *Monitoring Following Clearing.* Following the desert tortoise clearance and removal from the power plant site and utility corridors, workers and heavy equipment shall be allowed to enter the Project site to perform clearing, grubbing, leveling, and trenching. A Designated Biologist shall directly monitor site clearing and shall be on-site during grading activities to find and move tortoises missed during the initial tortoise clearance survey. Should a tortoise be discovered, it shall be relocated or translocated as described in the Desert Tortoise Relocation/Translocation Plan.

9-69 In response to the comment, the second paragraph of Measure WIL-4 on page 4.4-31 has been updated as follows:

The timing of the mitigation shall correspond with the timing of the site disturbance activities. However, if security is posted in accordance with 3.g. below (Mitigation Security), the Applicant shall acquire, in fee or in easement, the land, no more than 18 months after the start of Project ground-disturbing activities. If compensation lands are acquired in fee title or in easement, the requirements for acquisition, initial improvement and long-term management of compensation lands include all of the following:

9-70 Comment noted. The PA/EIS requires the siting of desert tortoise mitigation lands within the Colorado Desert Recovery Unit. The BLM considers that effects to desert tortoise habitat that occurs within one mile of the base of the McCoy Mountains may have affect habitat connectivity or linkages for this species.

9-71 In response to the comment, the introductory sentence of Measure WIL-7 on page 4.4-35 has been clarified as follows:

**WIL-7: Pre-construction Nest Surveys.** Pre-construction nest surveys shall be conducted if construction activities would ~~occur~~ begin from February 1 through July 31.

9-72 In response to the comment, Measure WIL-8, Part 6 has been clarified to define the term “natal den”, as follows:

If an active natal den (a den with pups) is detected on the site, the BLM AO and CDFG shall be contacted within 24 hours to determine the appropriate course of action to minimize the potential for animal harm or mortality.

- 9-73 In response to updated impact data reflected in Comment 9-22, the Mojave fringe-toed lizard mitigation requirement in Measure WIL-10 on page 4.4-38 is updated as follows:

To mitigate for permanent habitat loss and direct impacts to Mojave fringe-toed lizards the Applicant shall provide compensatory mitigation at a 3:1 ratio, which may include compensation lands purchased in fee or in easement in whole or in part, for impacts to stabilized or partially stabilized desert dune habitat (19 acres x 3 = 57.0 ~~86.4~~ acres); or the three times (3X) the acreage of sand dune/partially stabilized sand dune habitat permanently impacted by the final Project footprint, whichever is greater).

- 9-74 Following discussions with the BLM, the mitigation requirement to compensate for the loss of spring foraging habitat for Nelson's bighorn sheep has been eliminated from the EIS, with mitigation instead focusing on the acquisition and protection of off-site spring foraging habitat. This change was due, in part, to the current unoccupied status of the McCoy Mountain range by bighorns, and other potential wildlife impacts associated with the importing a new water source (e.g., potential attraction of ravens and other desert tortoise predators). The revised mitigation strategy will more greatly benefit bighorns with fewer unintentional effects on other wildlife species.

- 9-75 The incorporation of habitat survey methods and results (e.g., the location of known and potential breeding sites) is appropriate to include in the Couch's Spadefoot Toad Protection and Mitigation Plan.

The second paragraph of Measure WIL-14 on page 4.4-42 has been revised to reflect that habitat surveys are complete, as follows:

The Protection and Mitigation Plan shall address methods to achieve this avoidance and minimization, and shall include avoidance, minimization, and mitigation measures that would be required if additional habitat or Couch's spadefoot toad are found during ~~habitat~~ focused wildlife surveys in fall 2012. Habitat surveys in the Project area have been completed.

The absence of demonstrated species presence shall not be used to assume species absence from suitable habitat. Thus, mitigation shall be required as described in WIL-14 for all potential Couch's spadefoot habitat losses, unless appropriately-timed focused surveys can demonstrate species absence.

- 9-76 See Response 9-56.

- 9-77 The number of unevaluated sites within the APE has been corrected throughout the PA/EIS.

- 9-78 The text in paragraph 4 of Section 4.5.9 of the PA/EIS has been corrected in response to this comment.

- 9-79 The HPTP is a detailed planning document that would document the specific procedures to be undertaken in order to carry out the measures stipulated in the MOA. The HPTP would be appended to the MOA.
- 9-80 Avoidance to historic resources is the preferred means of mitigating or avoiding impacts to resources. Should previously unknown resources be encountered during Project construction, the resources should be avoided if feasible. The MOA and HPTP will provide specific procedures to be followed in the event of inadvertent discoveries.
- 9-81 The text in subsection “d” of Mitigation Measure CUL-1 has been corrected to change “Data Recovery” to “Additional Measures.” Public interpretation may be an appropriate form of mitigation in some situations, and will not be deleted from the text.
- 9-82 Page 4.9-3 has been revised to indicate that the Applicant must submit FAA Form 7460-1 at least 45 days prior to the proposed start of construction and that a Determination of No Hazard to Air Navigation would be required prior to the start of construction.
- 9-83 The reference to RWQCB review and approval of the SWPPP has been removed.
- 9-84 The closure of portions of open route No. 661085 on adjacent areas to the north and south of the Project site on the enXco McCoy and BSPP sites, respectively, is discussed on pages 4.14-8 and 4.14-9 of the Draft PA/EIS. Mitigation Measure REC-5 requires reestablishment of north/south OHV connectivity to areas in the vicinity of the Palen-McCoy Wilderness Area and Big Maria Wilderness Area or instead would allow the Applicant to permit continuous public access along Black Rock Road while providing for separate site security to the solar facilities. The BSPP also requires reestablishment of this connectivity through that project’s Mitigation Measure BLM-OHV-2. Therefore, while the link between the Project site and I-10 may be interrupted by the BSPP, connectivity ultimately would be reestablished through the aforementioned mitigation measures.
- 9-85 Mitigation Measure REC-2 is revised to eliminate the acknowledged redundancy.
- 9-86 Based on further consideration of the measure and in light of revisions to REC-5, which would address public access, REC-6 has been deleted
- 9-87 Mitigation Measure VIS-1 has been revised to remove reference to painting the backs of solar panels. The applicant gives compelling reasons for why such a measure would not appreciably reduce visual contrast in most viewing situations and for why the measure may not ultimately be feasible. The elimination of this particular item in Mitigation Measure VIS-1 would not substantially change the significance of the visual impact of the Project. As acknowledged in the Draft PA/EIS, implementation of Mitigation Measure VIS-1 would reduce the visual contrast of the MSEP slightly, but not to such a degree as to substantially change the degree of visual contrast from common viewpoints. Therefore, eliminating the requirement to paint the backs of the solar panels would not result in a substantial change in the visual impact of the MSEP.

- 9-88 It is acknowledged that New Source Review air quality permitting would not be applicable to the Project. Therefore, Section 5.1.5, *Mojave Desert Air Pollution Management District*, has been removed from PA/FEIS page 5-2.
- 9-89 Figure 3.3-1 has been updated to reflect the stated revisions.
- 9-90 Figure 3.3-1 has been updated to reflect the stated revision to dune habitat.
- 9-91 Figure 3.3-3 has been updated to reflect the stated revision.
- 9-92 Figure 3.3-3 has been updated to reflect the stated revision.
- 9-93 Figure 3.4-1 has been updated to show desert tortoise habitat quality on the Project site.
- 9-94 Abram's spurge data was inadvertently missing from Figure 3.3-3, and has been added.

## **Letter 10 – Responses to Comments from Soboba Band of Luiseño Indians**

- 10-1 This introductory comment regarding the Soboba Band's traditional ties the Project area is noted.
- 10-2 The BLM and its environmental consultant have thoroughly reviewed the comments provided by the Soboba Band, and have responded to each comment as indicated herein. The BLM has invited the input and participation of the Soboba Band as indicated in PA/FEIS Section 5.2.2, and representatives from the Soboba Band attended a government-to-government consultation with BLM staff on May 8, 2012. Neither NHPA Section 106 nor Executive Orders nor regulations and policies of the DOI or BLM require more. In any event, in response to this comment, a subsequent Section 106 meeting between several tribes, including the Soboba Band, and the BLM was held on October 10, 2012, and a second government-to-government meeting with the Soboba Band will be scheduled in response to the request received on September 18, 2012.
- 10-3 This introductory comment regarding the Soboba Band's traditional ties the Project area is noted.
- 10-4 Comment noted.
- 10-5 The BLM has defined the APE for the McCoy Solar Energy Project based on consideration of both direct and indirect impacts. The APE was established based on the consultation and identification procedures required in BLM's *Statewide Protocol Agreement* (Protocol) with the California and Nevada SHPO and consistent with 36 C.F.R. § 800.4. The BLM considers a 0.5-mile radius surrounding the Project to be an appropriate APE for indirect impacts to historic properties. The requested change has not been made.

- 10-6 The 15 federally recognized tribes that formally were notified and invited to participate in the tribal consultation processes are identified in PA/FEIS Section 5.2.2. They are not separately identified in the description of the NHPA Section 106 process in PA/FEIS Section 4.5.1.2 (p. 4.5-2).
- 10-7 See PA/FEIS Section 5.2.2.1. The BLM acknowledges that a federally recognized tribe does not have to have assumed the responsibilities of the SHPO under NHPA Section 101(d) to participate in the tribal consultation processes described in PA/FEIS Section 5.2.2.
- 10-8 Although foreclosure could potentially constitute or lead to adverse effects on a historic property, this list of possible adverse effects on page 4.5-3 was intended to represent examples of adverse effects to historic properties, and not to encompass all possible types of adverse effect. The requested change has not been made.
- 10-9 NEPA requires analysis of effects on not only historic properties, but also other types of cultural resources. As used in the PA/EIS, the term “cultural resources” encompasses the term “historic property” unless explicitly stated otherwise. As stated on page 4.5-4, upon review of the Applicant Proposed Measures, BLM staff determined that these measures were not sufficiently detailed to be considered in the analysis, and were not included in the PA/EIS for this reason.
- 10-10 NEPA requires analysis of effects on not only historic properties, but also other types of cultural resources. As used in the PA/EIS, the term “cultural resources” is understood to encompass the term “historic property” unless explicitly stated otherwise.
- 10-11 The requested detail regarding monopole foundations has been added to the text.
- 10-12 The Project has not yet been approved by BLM; therefore, it is not certain that Project impacts will occur. The word “will” implies certainty and inevitability and is not appropriate in the context of this statement. The requested change has not been made.
- 10-13 See Response 10-12.
- 10-14 Five archaeological sites located within the APE have not been evaluated for eligibility to the NHRP; however, as discussed on page 4.5-5, impacts to these sites would be avoided by Project design and through the imposition of site management conditions. These archaeological sites would be treated as eligible for the NRHP under Criterion D and their significant values would be avoided. Because the sites would not be impacted, and would be treated as eligible for the NRHP, they will not be formally evaluated for eligibility to the NRHP.
- 10-15 The Native American government-to-government consultation process is ongoing and the BLM plans to conduct further government-to-government consultation between now and publication of a ROD. Any information the Soboba would like to provide regarding the

- traditional importance of the Project area to the Soboba will be taken into account by the BLM.
- 10-16 Neither NEPA nor the NHPA require complete avoidance of all Project-related impacts on cultural resources. Section 106 of the NHPA requires that the federal lead agency “to seek ways to avoid, minimize or mitigate adverse effects” (36 CFR 800.6). Implementation of the HPTP required by Mitigation Measure CUL-1 will ensure that affected historic properties are treated consistent with the values that make them significant. The requested changes have not been made.
- 10-17 Please see Response 10-10.
- 10-18 As stated on page 4.5-6, because operation and maintenance activities would be limited to the approved construction footprint of the Project, no additional direct or indirect impacts to cultural resources are anticipated during operation and maintenance. The requested change has not been made.
- 10-19 Please see Response 10-18.
- 10-20 The 15 federally recognized tribes that formally were notified and invited to participate in the government-to-government consultation process are identified in PA/FEIS Section 5.2.2. They are not separately identified in the discussion of operation and maintenance related effects of Alternative 1.
- 10-21 See Response 10-15.
- 10-22 See Response 10-10.
- 10-23 See Response 10-10.
- 10-24 See Response 10-16. The word “resolve” is used in the regulations implementing the NHPA (36 CFR Part 800.6) in reference to avoiding, minimizing or mitigating adverse effects on historic properties. In addition, as stated in Section 4.5.11, the BLM acknowledges that implementation of Mitigation Measure CUL-1 would reduce, but may not fully avoid, Project-related impacts on cultural resources, and that residual effects would remain after mitigation.
- 10-25 See Response 10-10.
- 10-26 See Response 10-20.
- 10-27 See Response 10-7.
- 10-28 The last sentence of the first paragraph of page 4.5-9 contains examples of measures to resolve adverse effects that may be developed through the Section 106 consultation

- process; the use of the word “may” in this context is appropriate. The requested change has not been made.
- 10-29 Paragraph 2 on page 4.5-10 has been modified to clarify that the HPTP will contain measures to avoid, minimize, or mitigate effects to historic properties.
- 10-30 The HPTP will contain measures to avoid, minimize, or mitigate effects to historic properties. Avoidance of resources is one, but not the only, method of accomplishing this and may not be operationally feasible. The requested change has not been made.
- 10-31 See Response 10-10.
- 10-32 As indicated in the draft MOA included as PA/FEIS Appendix L, an Historic Properties Treatment Plan (HPTP) would be included as an appendix to the MOA. The second paragraph of page 4.5-10 has been clarified to reflect this. The SHPO would be a signatory party to the MOA, and its participation in the Section 106 process and in the development of the MOA is described in PA/FEIS Section 5.2.2.
- 10-33 The government-to-government consultation with Indian tribes is ongoing. Specific details regarding the necessity, timing, duration, and location of possible participation of tribal cultural consultants have yet to be established through development of the HPTP and MOA.
- 10-34 See Response 10-33.
- 10-35 The requested change has been made.
- 10-36 Regarding tribal consultants, see Response 10-33. Regarding notification of the find to the BLM, a plan to manage the inadvertent discovery of cultural resources during project implementation will be developed through consultation as part of the MOA. Regarding appropriate treatment measures, these would be contingent upon the type and significance of the find. The requested change has not been made.
- 10-37 See Response 10-10.
- 10-38 The discussion of effects to cultural resources in the PA/EIS satisfies the requirements of NEPA, and the execution of an MOA, which is being prepared through consultation with SHPO, Indian tribes, and other interested consulting parties, and which will be executed prior to the ROD, will signify the completion of the BLM’s requirements under Section 106 of the NHPA.

The regulations implementing the National Historic Preservation Act (NHPA), found at 36 CFR Part 800, provide for the use of a Memorandum of Agreement (MOA) to describe measures designed to resolve adverse effects on historic properties. MOAs are commonly used to comply with Section 106 of the NHPA on projects like the MSEP. Development of the MOA for the Project will provide an opportunity for determining

mitigation consistent with the values of the historic properties involved, prior to construction or other activities that could affect them.

Neither NEPA nor the NHPA require complete avoidance of all Project-related impacts on cultural resources. However, implementation of the HPTP required by Mitigation Measure CUL-1 will ensure that affected historic properties are treated consistent with the values that make them significant. In addition to addressing known historic properties, the HPTP will include provisions for monitoring construction activities and identifying, evaluating and treating buried cultural resources that may be discovered during construction.

The MOA will be completed and signed prior to approval of the ROD. Consulting parties and stakeholders, including the State Historic Preservation Officer and Indian tribes, will have an opportunity to participate in consultations on the terms and provisions of the MOA before the Project is approved. Final measures to avoid, minimize, and mitigate impacts to cultural resources will be developed as a result of that consultation.

If cultural resources that are not historic properties are identified prior to approval of the ROD, measures to avoid, minimize or mitigate impacts on them will be developed in consultation with the people to whom they are culturally important.

- 10-39 The discussion in 3.5.1.6 referring to interrelated sites that may be part of a prehistoric trails network has been revised to clarify the nature of the resources involved. No cultural landscapes have been delineated. Studies are currently underway, independent of this Project, to examine prehistoric trails and associated sites in the Colorado Desert to determine, among other things, what sites might be included within such a network, the cultural behavior they may represent, and the importance they hold for Native Americans today. Until these landscape-level studies have been completed, it would be premature to speculate about NRHP eligibility criteria for the sites that may be included within such a network, whether the interrelated sites might qualify for nomination to the NRHP as a district, or precisely what mitigation strategies might be employed to address impacts to individual sites within the context of a larger complex of interrelated resources.
- 10-40 See Response 10-38.
- 10-41 The Soboba Band's request for the avoidance of all cultural resources is acknowledged. The BLM will take information concerning impacts to cultural resources into consideration prior to its decision to approve or deny the Project.
- 10-42 The Soboba Band's preference of Alternative 1 as the alternative which least impacts cultural resources is acknowledged. The BLM will take information concerning impacts to cultural resources into consideration prior to its decision to approve or deny the Project.

10-43 Comment noted. Consistent with its government-to-government consultation responsibilities, the BLM welcomes and invites open and candid discussion of tribal concerns about the alternatives under consideration.

10-44 See Response 10-2.

## **Letter 11 – Responses to Comments from California Unions for Reliable Energy (CURE)**

11-1 NEPA requires federal agencies to assess and consider the environmental effects of proposed actions before making decisions, and to disclose information about the proposed action, alternatives, and environmental effects to the public. As explained in Section 6.8.1.2 of the BLM NEPA Handbook, “The effects analysis must demonstrate that the BLM took a “hard look” at the impacts of the action. The level of detail must be sufficient to support reasoned conclusions by comparing the amount and the degree of change (impact) caused by the proposed action and alternatives (40 CFR 1502.1).” An EIS is prepared for all “major Federal actions significantly affecting the quality of the human environment” (42 U.S.C. §4332).

Steps to be followed in the preparation of an EIS include scoping, consultation and coordination with other agencies, news releases, circulation of a Draft EIS for agency and public comment, one or more public meetings about the Draft EIS, and circulation of the Final EIS. Each of these steps was followed for the MSEP. See, e.g., Appendix B (Scoping Report); PA/FEIS Section 1.7, identifying areas of controversy addressed in the document that were identified during the scoping process; Chapter 2, which describes the proposed action and alternatives; Chapter 3, which describes the Affected Environment; Chapter 4, which describes the direct, indirect and cumulative environmental effects of the MSEP and alternatives, identifies mitigation measures to address effects, and discusses the relationship between short-term uses and long-term productivity of the BLM-administered public land now under consideration; and Chapter 5, which describes consultation, coordination and public involvement efforts undertaken in connection with the MSEP; and public notices published in the Federal Register for the Project, including the August 29, 2011, Notice of Intent to Prepare a Joint EIS/EIR and Possible Land Use Plan Amendment (76 Fed. Reg. 53693) and the May 25, 2012, Notice of Availability of a Draft EIS and Possible Land Use Plan Amendment (77 Fed. Reg. 31386-01). Public meetings were held on June 27, 2012, University of California Riverside’s Palm Desert Campus and on June 28, 2012, at the City of Blythe Multi-Purpose Room to assist the public in preparing comments for the Draft PA/EIS. MSEP-specific notices, announcements, and public participation opportunities also are available on the BLM’s webpage dedicated to the Project ([http://www.blm.gov/ca/st/en/fo/palmsprings/Solar\\_Projects/McCoy.html](http://www.blm.gov/ca/st/en/fo/palmsprings/Solar_Projects/McCoy.html)).

For these and other reasons, the BLM disagrees with the suggestion that the Draft PA/EIS does not comply with NEPA. More specific bases for this general suggestion are provided as they appear in the letter. See also PA/FEIS Section 5.5.4.4, Common

- Response 4, which explains that a Supplemental PA/EIS is not being prepared (and the Draft PA/EIS is not being recirculated) for the MSEP.
- 11-2 To the extent that the comment letter quotes from and cites the technical appendices provided, the BLM has provided responses to these appendices. The BLM has considered all of the information provided, including in the appendices, but has not provided specific responses to items in the appendices not specifically addressed in the commenter's letter.
- 11-3 The cumulative impacts of the Project and other projects in the cumulative scenario, including other renewable energy projects proposed and approved on BLM-administered lands (see Tables 4.1-1 through 4.1-4), are described throughout Chapter 4.
- 11-4 This comment regarding the discovery of cultural resources and human remains at the Genesis Solar project site does not directly address the adequacy of the Draft PA/EIS. However, regarding buried resources, see Response 11-105.
- 11-5 Impacts to air resources are disclosed in PA/EIS Section 4.2. See, for example, Section 4.2.11, which states, "There would be a substantial residual Project-specific and cumulative impact related to short-term construction emissions of PM10 after mitigation measures have been incorporated because emissions would not be reduced to below MDAQMD thresholds."). Impacts to biological resources are disclosed in PA/EIS Section 4.3 and 4.4. Impacts to cultural resources are disclosed in PA/EIS Section 4.5. See, for example, Section 4.5.11, which concludes in part that, "given the scale and potential significance of the resources identified, impacts may remain significant under NEPA despite implementation of the MOA" that would be required by Mitigation Measure CUL-1. Impacts to water resources are disclosed in PA/EIS Section 4.20. Impacts related to hazards and hazardous materials are disclosed in PA/EIS Section 4.9.
- As discussed in Chapter 2 and Section 4.20, existing natural channels, as well as overland flow, would provide the primary means of drainage on site, as opposed to engineered channels. Limited engineered drainages within the site would be used to convey stormwater, but note that these do not refer to major flood conveyance channels. Final engineering will not be completed until closer to construction; however, the effects of site drainage have been addressed in Section 4.20.
- 11-6 In response to discussions with the Applicant, the requirement to provide a supplemental water source for bighorn sheep was eliminated from the EIS (see Response 9-74). Removing this water source from the Project reduces the potential for unintentional effects on desert tortoise and other wildlife species. For Couch's spadefoot, if seasonal pools that would be impacted by the Project are shown to support this species, the creation or restoration of comparable nearby pools would not substantially alter site conditions or create additional Project effects. Created spadefoot pools would be required to pool water for at least 9 days to facilitate spadefoot breeding. As designed, pools would be very short-lived and would fill with water at times when standing water would be available in comparable natural pools located nearby. It is unlikely that any the

- addition of between 1 and 9 small ephemeral pools will alter wildlife behavior patterns or jeopardize wildlife populations.
- 11-7 See Responses 11-5 and 11-6. As explained in PA/FEIS Section 5.5.4.4, Common Response 4, the Draft PA/EIS for the MSEP is not being recirculated for public review and comment.
- 11-8 See Response 11-1 regarding the BLM's compliance with NEPA in the PA/EIS; PA/FEIS Chapter 2, which provides an adequate and sufficiently complete description of the MSEP and alternatives; PA/FEIS Chapter 4 and these responses to comments regarding the analysis and mitigation of impacts; and PA/FEIS Section 5.5.4.4, Common Response 4, which explains that the Draft PA/EIS is not being recirculated for public review and comment.
- 11-9 Botanical surveys were completed for the solar plant site and Project linears and the full survey results are incorporated into the EIS. Botanical surveys are partially available for the Alternative 3 routes that traverse the BSPP site; however, surveys were performed during a low rainfall year and may not fully represent the distribution of some special-status species within the alignments. The updated botanical survey needs for the Project are reflected in Response 23-46. The PA/EIS acknowledges known and potential impacts to special-status plants and provides adequate mitigation for anticipated effects.
- 11-10 Couch's spadefoot surveys were performed in spring and fall 2011, as reflected in Response 9-16. Based on survey findings, the scale of the potential Project effect to Couch's spadefoot is well described; this species may be affected in seven swales on the gen-tie line and access road route and one location in the southwest portion of the solar plant site. Surveys in fall 2012 will additionally be performed to determine whether or not toads are present within identified potential suitable habitat. The mitigation strategy is to verify species presence or absence, avoid potential habitat, and mitigate for impacts to occupied habitat will fully mitigate potential Project effects to Couch's spadefoot toad.
- 11-11 Impacts to cultural resources are fully and adequately analyzed in Section 4.5 of the PA/EIS. As explained therein, a Class III pedestrian survey covering 6,321 acres, including the 4,792-acre APE, was conducted for this Project, and the resources identified during this survey are analyzed in Section 4.5. Additionally, landscape-level studies currently underway, independent of this Project, are disclosed in Section 3.5. However, the PA/EIS has been revised to eliminate discussion of draft cultural landscapes because there can be no adverse effect upon a delineated cultural landscape until the delineation process is complete. Until these landscape-level studies have been completed, it would be premature to speculate about NRHP eligibility criteria for the sites that may be included within such a network, whether the interrelated sites might qualify for nomination to the NRHP as a district, or precisely what mitigation strategies might be employed to address impacts to individual sites within the context of a larger complex of interrelated resources.

The execution of an MOA, which is being prepared through consultation with SHPO, Indian tribes, and other interested consulting parties, and which will be executed prior to the ROD, will signify the completion of the BLM's requirements under Section 106 of the NHPA. The MOA will detail the process for activities to proceed in areas where historic properties are not now known to exist, such as buried cultural resources, and that will contain procedures for treatment of inadvertent discoveries. However, Sections 3.5 and 4.5 of the PA/EIS have been modified in order to clarify and emphasize the Project area's sensitivity for buried resources and the potential impacts to buried resources. A draft of the MOA is provided in PA/FEIS Appendix L.

The regulations implementing the National Historic Preservation Act (NHPA), found at 36 CFR Part 800, provide for the use of a Memorandum of Agreement (MOA) to describe measures designed to resolve adverse effects on historic properties. MOAs are commonly used to comply with Section 106 of the NHPA on projects like the MSEP. Development of the MOA for the Project will provide an opportunity for determining mitigation consistent with the values of the historic properties involved, prior to construction or other activities that could affect them.

The MOA will be completed and signed prior to approval of the ROD. Consulting parties and stakeholders, including the State Historic Preservation Officer and Indian tribes, will have an opportunity to participate in consultations on the terms and provisions of the MOA before the Project is approved. Final measures to avoid, minimize, and mitigate impacts to cultural resources will be developed as a result of that consultation.

- 11-12 Residual impacts that may remain after recommended mitigation measures are implemented are described in each resource- and issue-specific section of PA/FEIS Chapter 4. See, for example, PA/FEIS Section 4.5.11, which states: "Implementation of Mitigation Measure CUL-1 would reduce but may not fully avoid Project-related impacts on cultural resources. Cultural resources damaged or destroyed by construction activities, even if subjected to mitigation measures, would be permanently lost from the archaeological record. These cultural resources therefore would be unavailable for future study to address future research needs when more advanced investigative techniques and methods of analysis might be available. Unavoidable adverse effects on cultural resources would result from construction, operation, maintenance, and decommissioning of all of the Project components under Alternative 1. Consultations may raise issues that cannot be resolved through the implementation of mitigation measures. Prescribed treatments may resolve adverse effects under NHPA §106. However, given the scale and potential significance of the resources identified, impacts may remain significant under NEPA despite implementation of the MOA."

The PA/EIS establishes the environmental setting in Chapter 3, Affected Environment, for each resource and issue area considered in the analysis; describes the proposed Project and alternatives in Chapter 2, Proposed Action and Alternatives, and discusses direct, indirect, and cumulative effects of the Project and alternatives throughout

- Chapter 4, Environmental Consequences. Mitigation Measures also are identified in PA/EIS Chapter 4 where they are relevant, reasonable, and could improve the Project. No specific examples, facts, reasonable assumptions predicated upon facts, or other evidence are provided in support of the comment's suggestions that the Draft PA/EIS failed to: adequately establish the environmental setting, fully or fairly describe the Proposed Action, discuss impacts, and recommend adequate mitigation measures. Without more information, the BLM is unable to provide a more detailed response to these concerns. For these reasons and as explained in PA/FEIS Section 5.5.4.4, Common Response 4, the Draft PA/EIS is not being recirculated for public review and comment.
- 11-13 As discussed in Response 11-5, limited engineered drainages within the site would be used to convey stormwater, but these do not refer to major flood conveyance channels, as the comment describes. Potential impacts from created Couch's spadefoot toad breeding pools are addressed in Response 11-10. As described in Response 11-6, supplemental bighorn sheep watering sources are no longer proposed.
- 11-14 It appears that the commenter is making reference to Couch's spadefoot toad surveys in this comment. The comment correctly notes that the spring 2011 survey that characterized the location of potential breeding habitat locations for this species was performed outside of the period of active toad breeding. As identified in Response 11-10, follow-up surveys were performed in fall 2011 during the correct period to identify this species and an additional survey is needed in fall 2012 to accurately characterize species presence or absence in potential habitat that was identified in the Project area.
- 11-15 Baseline conditions for biological resources are fully and accurately described in the PA/EIS and in the supporting technical reports provided in Appendix C of the PA/EIS.
- 11-16 The NECO Plan relied upon GIS-based habitat models to identify areas of high ecological value and inform the development of management areas. The analyses resulted in the development of Desert Wildlife Management Areas (DWMAs) for desert tortoise, Bighorn Sheep Wildlife Habitat Management Areas (WHMAs), and Multi-species Wildlife Habitat Management Areas. The solar plant site is not located within one of these special management areas. To facilitate this analysis, the BLM ranked ecological values of BLM lands to identify ecological "Hot Spots." The resulting map set provides a gross-scale regional representation of ecological value that was intended to define target protection levels for natural areas and define the most sensitive areas, which were characterized as DWMAs and WHMAs. The proximity of these areas to the Project site are shown in Figure 3.4-7.

The large-scale "hot spot" mapping effort used one quarter of a USGS 7.5-minute quadrangle sheet as the smallest unit of resolution. Relatively flat, undisturbed portions of the NECO Plan area generally received relatively higher rankings than mountainous areas, with flat sites generally mapped from Class 3 to Class 6. The solar plant site is within areas identified as Class 0 to Class 6, with the majority of the solar plant site mapped within a Class 5 area. Thus, the somewhat moderate ecological values

on the Project site were increased by their close proximity to McCoy Wash, located downslope from the solar plant site within the same quarter quad area. The ecological values of the Project area are well described in the EIS and reflect a level of site analysis that exceeds the landscape-level “hot spot” GIS analysis.

As the commenter notes, the Project site is located at the fringe of an “unfragmented” area described in the NECO Plan, though the eastern half of the Project site is outside this area.

11-17 As the EIS discloses, the proposed Project would displace nearly 4,500 acres of natural habitat with resulting adverse effects on native plants and wildlife. Measures proposed in the EIS would minimize direct and indirect Project effects on sensitive species and habitats, largely through a program of animal relocation, habitat compensation, and preservation. The off-site habitat compensation requirement will partially offset lost ecological values from site development. Long-term site reclamation following site decommissioning would additionally improve on-site ecological values from the as-built condition and assist in restoring affected habitat values.

11-18 The EIS was revised to reflect the presence of three sensitive vegetation communities in the Project area: Desert Dry Wash Woodland (Blue Palo Verde-Ironwood Woodland Alliance), Creosote Bush-Big Galleta Grass Association, and sand dunes (see Table 4.3-3). Despite the presence of desert lavender in the Project area, Desert Lavender Scrub habitat does not occur in the Project area. An artificially created borrow pit immediately north of I-10 supports 0.5 acre of honey mesquite-palo verde bosque-ironwood bosque habitat; however, this area does not fall into the Sawyer, Keeler-Wolf and Evens’ (2009) Mesquite Woodland Alliance; where groundwater is naturally available and hosts a suite of different species in addition to honey mesquite. Due to its artificial origin, this vegetation community is not considered sensitive.

The Creosote Bush-Big Galleta Grass Association was mapped in drainages throughout the Blythe Solar Power Project (BSPP), south of the solar plant site; however, habitat on the solar plant site are sufficiently different from the BSPP site that the Creosote Bush-Big Galleta Grass Association does not occur on the former site. Therefore this vegetation community not characterized in supporting biological reports provided in Appendix C of the PA/EIS. Data regarding the distribution of this vegetation community on the BSPP site was assembled from the BLM and is presented in the revised Figure 3.3-1 in this PA/FEIS.

11-19 While big galleta grass (*Pleuraphis* (= *Hilaria*) *rigida*) is present on the solar plant site, as described in the Biological Resources Technical Reports provided in Appendix C of the PA/EIS, this species was not prevalent enough to constitute a vegetation community that was distinct from creosote bush scrub. Big galleta grass occurs more commonly to the south of the solar plant site, to the extent that a Creosote Bush-Big Galleta Grass Association was described in large portions of the BSPP site. This community, however, does not occur on the solar plant site.

- 11-20 While there is extensive desert dry wash woodland (DDWW) habitat within the study area for vegetation resources, the distribution of this vegetation community on the solar plant site and Project linears is limited. As identified in Response 8-14, the Project was designed to minimize and avoid sensitive riparian habitat that occurs to the west of the Project area, including DDWW habitat. The biological resources technical reports provided in Appendix C of the PA/EIS identify the distribution of habitat on the Project site and within the greater study area and describe the methodology used to arrive at the conclusions made. The analysis distinguished between “desert dry wash woodland” habitat and non-woodland areas characterized as “Wash-Dependent Vegetation with Sparsely-Scattered Trees” and vegetated ephemeral channels with no trees based on the density and character of vegetation. As identified in Table 4.3-1 of the PA/EIS, 40.9 acres of sparse tree habitat were mapped on the solar plant site, mostly in the western portion of the site, which supported 38.1 acres of the total. Consistent with the analysis of the adjacent Blythe Solar Power Project, drainages on the solar plant site with sparsely scattered trees were not considered “wooded” and were not classified as DDWW habitat.
- 11-21 See Response 11-20.
- 11-22 The study area for special-status plants extended to the edges of the solar plant site and did not include a buffer around the site. The linear corridor botanical surveys were a minimum of 240 feet wide. The plant survey protocol was approved by BLM, the U.S. Fish and Wildlife Service, and California Department of Fish and Game prior to performing the survey. Vegetation communities were characterized within the larger study area for vegetation resources. Potential indirect Project effects on special status plants are discussed on page 4.3-7 and include the spread of potential for spread of invasive plants and downstream hydrologic and geomorphic alterations. These considerations are addressed in the PA/EIS through APM BIO-2n, Mitigation Measure VEG-9, and APM HYDRO-1. As identified in Section 4.3, the implementation of these measures would reduce effects on off-site botanical resources.
- 11-23 The commenter is correct that the Applicant’s consultant did not perform botanical surveys on the Alternative 3 routes. These areas were surveyed in support of the Blythe Solar Power Project (BSPP) and rare plant survey results were included in PA/FEIS Figure 3.3-3. The results of BSPP surveys of the Alternative 3 routes were inadvertently omitted from PA/EIS Figure 3.3-1. As a result, this figure is revised to reflect plant communities on the Alternative 3 routes. As identified in Responses 9-28 and 11-9, additional botanical surveys may be needed to adequately characterize the distribution of special-status plants on the Alternative 3 routes. However, the EIS acknowledges known and potential impacts to special-status plants and provides adequate mitigation for anticipated effects.
- 11-24 Botanical surveys described in Comment 11-23 confirm that there are fewer populations of Harwood’s milk-vetch and Utah milkvine on the Alternative 3 linear Project route compared to the Alternative 1 gen-tie line, which can be confirmed by reviewing plant

- distribution in Figure 3.3-3. The PA/EIS conclusion is valid and is substantiated by botanical survey findings.
- 11-25 The biological survey data for the BSPP included public lands that are managed by the BLM; therefore, data collected for BSPP can be used for the Proposed project. The survey data for that project present the best available scientific data available for the review of potential Project impacts to rare plants on the two proposed Alternative 3 routes. Figure 3.3-3 has been revised to add a note indicating that only partial survey data is available for the Alternative 3 routes due to low rainfall during BSPP surveys. If either of the Alternative 3 routes is selected as a preferred linear corridor, additional surveys may be needed, as identified in Mitigation Measure VEG-11B, to corroborate and update BSPP survey findings.
- 11-26 The *Biological Resource Technical Report* provided in Appendix C of the PA/EIS clearly identifies the plant variety as pebble pincushion (*C. carphoclinia* var. *carphoclinia*) and not as the rarer Peirson's pincushion (*C. carphoclinia* var. *peirsonii*). Pebble pincushion is not identified as a rare species by the CDFG or the California Native Plant Society. The nearest documented population of Peirson's pincushion is greater than 70 miles from the Project area in western Imperial County.
- 11-27 The rare plant survey methods (pp. 3.3-10 and) and Mitigation Measure VEG-10B (Ensure Adequate Special-Status Plant Surveys and Reporting; pg. 4.3-29) have been updated to reflect that fall botanical surveys are complete on the solar plant site and Project linears; a single survey is outstanding on the Alternative 3 routes. The current botanical survey findings were reported in the *Fall 2011 Plants and Supplemental Wildlife Survey Report*, which was provided as Appendix C of the PA/EIS.
- 11-28 Botanical surveys were initiated in September 2012 to complete special-status plant surveys on Alternative 3 routes. Thus, surveys will be completed substantially sooner than 30 days prior to construction. Survey results will inform the effects analysis and mitigation approach if the western or central gen-tie routes are selected. It is anticipated that additional populations of Abram's spurge may be identified during surveys, as this specie appears to be locally abundant. The botanical survey data collected to date and anticipated fall 2012 survey findings of the Alternative 3 routes (e.g., additional Abram's spurge populations) adequately describe baseline conditions in the Project area and the PA/EIS provides adequate mitigation for anticipated Project effects.
- 11-29 See Response 11-28.
- 11-30 See Response 11-28. The rare plants survey findings presented in the Draft PA/EIS (as revised in this PA/FEIS) are comprehensive for the solar plant site and Project linears. Additional botanical surveys are not proposed or required in these areas. Rare plant distribution on the Alternative 3 routes has been characterized for most plants on the BSPP site through appropriately-timed botanical surveys. The botanical survey data collected to date and anticipated fall 2012 survey findings adequately describe baseline conditions in

the Project area and the PA/EIS provides adequate mitigation for anticipated Project effects.

- 11-31 The anticipated direct and cumulative effects to Mojave fringe-toed lizard and their habitat will be less than anticipated in the PA/EIS, as described in Response 6-43. The revised assessment identified the local presence of more occupied sand dune habitat in the Palo Verde Valley than characterized by the PA/EIS. The proposed Project would permanently affect about 19 acres and temporarily affect another 19 acres out of a total 12,911 acres that occurs in the local sand dune complex in the Project area. This represents about 0.3 percent of the available habitat for this species; thus, the anticipated impact would be considered minimal and would not subject the Mojave fringe-toed lizard population to significant habitat fragmentation. The presence of the lizard population in the gen-tie line was not known prior to biological surveys that were performed for the Proposed Action and the Blythe Solar Power Project (BSPP). The total cumulative risk to sand dune and sand sheet habitat from the Proposed Action and BSPP, including both temporary and permanent effects, represents about 76 acres, or approximately 0.6 percent of available habitat for this species. No other threats were identified to this Mojave fringe-toed lizard population or its habitat.
- 11-32 The commenter is correct that the Mojave fringe-toed lizard is an obligate species of sand dunes and sand sheet habitat. In response to the comment, the data layer used to map the distribution of sand dunes in Figure 3.3-1 of the PA/EIS has been revised to reflect the same sand dune area mapped in Figure 7 (p. 83) of the *Biological Resources Technical Report* (BRTR), included in Appendix C of the PA/EIS. Sand dune and sand sheet impact calculations for the Project were derived based on data provided in the BRTR; thus, no adjustments to habitat impact totals are necessary due to the map update.
- 11-33 See Response 11-32.
- 11-34 PA/FEIS Section 3.4.1 describes the affected environment for the golden eagle, including information about natural history and survey results. This description is informed by reports that were provided by the Applicant and independently reviewed by the BLM and its NEPA contractor, including: the August 2011 Biological Resources Technical Report prepared by TetraTech and Alice E. Karl (TetraTech and Karl, 2011), which summarizes the results of avian point count surveys that were conducted from April to May, 2011; the August 2011 Golden Eagle Risk Assessment prepared for the MSEP, which is included in the PA/FEIS as Appendix C-3 (Tetra Tech, 2011);<sup>1</sup> and the Winter 2011-2012 Avian Winter Point Count Survey Report (Tetra Tech and Karl, 2012). Golden eagle survey

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<sup>1</sup> This report analyzed potential direct, indirect, and cumulative impacts of the MSEP to golden eagles and identified avoidance and minimization measures that could be implemented to minimize or avoid potential risk to eagles. It concludes that the potential impacts of construction and operation of the Project to golden eagles are likely to be low.

results and the golden eagle risk assessment also are summarized in the Avian and Bat Protection Plan submitted by the Applicant on October 5, 2012 (Tetra Tech, 2012b).<sup>2</sup>

The Applicant coordinated with Tannika Engelhard and others at USFWS regarding helicopter and point count surveys to assure that those efforts would be conducted properly and generate adequate and appropriate golden eagle data for purposes of environmental review. The Golden Eagle Risk Assessment summarizes eagle nest survey results from surveys conducted in 2010 and 2011. Spring Phase 1 surveys conducted on March 26-26 and April 2-3, 2010, and a Phase 2 survey conducted on May 14, 2010 collectively identified two nests within a 10-mile-radius of the MSEP: one nest located 9.2 miles northeast, in the Big Maria Mountains, was identified as “active” based only on the presence of fresh nest material; the other nest, located 2.3 miles southwest, in the McCoy Mountains, was identified as “inactive.” As disclosed on page 4 of the Golden Eagle Risk Assessment (Tetra Tech, 2011), these surveys were conducted following the USFWS Interim Golden Eagle Inventory and Monitoring Protocols.

The Applicant provided Project-specific survey methods, including aerial golden eagle survey methods, to the USFWS for review and approval on February 11, 2011 (USFWS, 2011b), and received initial comments from USFWS on February 22, 2011 (USFWS, 2011a). The Applicant met on site with USFWS on February 23, 2011 to discuss survey methods, including golden eagle survey methods, and, on March 16, 2011, participated in a conference call with USFWS Ecological Services and Division of Migratory Birds staff members specifically to discuss methods for golden eagle surveys. On March 17, 2011, USFWS provided final comments on the survey methods (USFWS, 2011b; Karl, 2011); no comments were regarding the dates of the helicopter surveys.

Thereafter, in accordance with USFWS input, Spring Phase 1 surveys were conducted on March 23-24, 2011, and Phase 2 surveys were conducted on May 5-7, 2011. These surveys provided a second consecutive year of golden eagle nest data. The spring 2011 surveys identified five golden eagle nests within the search area; the one active nest was occupied by red-tailed hawks and the remaining four were inactive. The spring 2011 surveys also followed the USFWS Interim Golden Eagle Inventory and Monitoring Protocols (Tetra Tech, 2011, p. 4). Two golden eagles were incidentally observed south of the solar plant site on March 28, 2011; no golden eagles were observed during raptor point count surveys or helicopter surveys. No successful breeding by golden eagles was detected within or beyond the 10 mile search radius during the helicopter surveys (TetraTech and Karl, 2011).

Raptor point count surveys were conducted in spring (April/May 2011), summer (June 2011) (see Tetra Tech and Karl, 2011); as well as fall (November 2011) and winter (December 2011- 2012, January 2012) (see TetraTech and Karl, 2012). The report for fall/winter surveys was completed in March 2012; due to timing of the release of the Draft PA/EIS, the results of the fall/winter surveys were not available for inclusion in the

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<sup>2</sup> This plan was prepared pursuant to Mitigation Measure WIL-6, as presented in the Draft PA/EIS.

Draft PA/EIS. It is attached as PA/FEIS Appendix C-4. As reported in Section 4.1 of the Winter 2011-2012 Avian Point County Survey Report (TetraTech and Karl, 2012), no golden eagles were observed during winter surveys.

Because these surveys were conducted in coordination with USFWS personnel and in accordance with USFWS Interim Golden Eagle Inventory and Monitoring Protocols, BLM believes the baseline for analysis of potential impacts to golden eagle to be accurate and sound.

11-35 The analysis of direct, indirect, and cumulative impacts to golden eagle provided in PA/FEIS Section 4.4 and the identification of Mitigation Measure WIL-12, Measures to Minimize Impacts to Golden Eagles, is based on considered evaluation by the BLM and its NEPA contractor of survey results that have been determined to be adequate. See also Response 11-24.

11-36 Survey protocols for biological resources were reviewed and approved by BLM, USFWS, and CDFG prior to initiating surveys. In the case of bats, biological surveys considered the potential presence of potential roosting habitat to 0.37 mile from the Project site. This distance differs from the NECO Plan requirement; however, because habitat surrounding the Project site consists of flat desert with few trees and minimal relief, the survey methods were approved by the Resource Agencies based the general absence of bat roosting habitat and the related low likelihood that bats would be encountered.

As identified in Table 3.4-1, the Project area is within the described range of several special-status bats; however, the only available bat habitat on the solar plant site is a single roost that was identified in the study area. The location of this potential roost, shown in Figure 13 (pg. 101) in the *Biological Resources Technical Report (BRTR)* included in Appendix C of the PA/EIS, is within the Wildlife Resources study area; however, is outside of the area of direct Project effects. While it is possible that a tree-roosting bat may temporarily seek refuge in a Project area tree, no significant bat roosts occur on the site. Furthermore, biological surveys performed to the south for the Blythe Solar Power Project detected no bat roosts and surveys of the desert tortoise translocation area to the west identified no bat roosts. Direct visual wildlife surveys performed out to 1,970 feet (0.37 mile) north and east of the Project area did not detect bat roosts, and bat habitat observations in the BRTR (p. 25) noted that the flat areas on the solar plant site and surrounding area have few trees, minimal topographic relief, and no nearby reliable water sources. The BRTR concluded that no bats are known to roost or hibernate in the sparse creosote bush scrub that typifies the study area. On the basis of this characterization surveys did not detect bat roosts to the south or west of the solar plant site and it is reasonable to conclude based on field observations that no significant bat roosts occur in areas located within 1.0 mile north and east of the Project site. The presence of small trees and rocks does not constitute significant bat habitat.

- 11-37 To clarify the commenter's statement, some bat roosts occur within creosote bush habitat; however, creosote bush habitat does not provide bat roosting habitat. For example, the on-site cave roost is technically located within creosote bush habitat. However, the cave is the required element that may attract roosting bats to the Project area. In reviewing the Revised Staff Assessment prepared for the Genesis Solar Energy Project, as cited by the commenter, the 300 California leaf-nosed bats documented "near the McCoy Mountains in creosote bush scrub habitat" were specifically documented in the California Natural Diversity Database (CNDDDB) from the SE McCoy Mine, which is surrounded by creosote bush scrub. The bats were encountered in the mine and were not roosting in creosote bushes. Of the 45 California leaf-nosed bat occurrences described in the CNDDDB in October 2012, 44 were roosting or night emergence observations associated with mines, caves, tunnels, and one building. The CNDDDB describes this species as requiring "rocky, rugged terrain with mines or caves for roosting," which does not occur in the Project area aside from the single described feature.
- 11-38 See Response 11-36.
- 11-39 As described in Response 11-36, the potential roost identified during biological surveys is within the Wildlife Resources study area; however, further review indicates that the cave is located in a wash that would be avoided by the Project (see Response 9-61). Surveying wildlife biologists did not find bats in the feature and no mitigation is required for potential impacts to special-status bats or their habitat.
- 11-40 Morrison's blister beetle (*Lytta morrisoni*) was inadvertently identified in the December 2011 *Fall Plants and Supplemental Wildlife Survey Report* included in Appendix C of the PA/EIS (p. D-4). Despite being listed as on-site, the surveying biologists confirm that this Central Valley species was not detected during surveys. Consequently, no measures are needed to address potential Project effects to this species.
- 11-41 The CDFG has no specific focused survey protocol for rosy boa, therefore, the potential presence of this species was characterized in the PA/EIS based by reviewing available habitat in the Project area and the findings of walking transect surveys that were performed at 30-foot intervals. The PA/EIS characterized desert rosy boa habitat based on Zeiner et al. (1990c) and the NECO Plan (BLM, 2002) as areas with moderate to dense vegetation and rocky cover, such as desert canyons, washes, and mountains. This species is largely associated with rocky areas, canyons and available a regular water source. The general absence of these habitat features from the solar plant site and Project area make the occurrence of rosy boa unlikely, as presented in Table 3.4-3 (pg. 3.4-21). Additionally, rosy boas were not detected during focused wildlife surveys of the site. The PA/EIS and supporting technical reports provide an adequate basis to predict the potential presence of rosy boa in the Project area.
- 11-42 While ferruginous hawks do not breed in California, wintering populations are granted identical protection to other non-listed raptor species that occur in the State of California. The potential presence of wintering (foraging) habitat in the Project area was disclosed in

the PA/EIS, as was the low-to-moderate potential to occur at the Project site (Table 3.4-3, pg. 3.4-21). Numerous raptors may occur in the Project area and potential impacts to these species will be addressed through the implementation of Mitigation Measures WIL-6 and WIL-7, which require an Avian Protection Plan and focused bird surveys to avoid direct Project effects to avian species.

- 11-43 Burro deer occur in the regional Project area in low numbers and are expected to seasonally browse on woody and herbaceous vegetation associated with drainages on the Project site. The commenter indicates that burro deer are highly dependent upon microphyll woodlands, which have been largely avoided through Project design. In addition, the Project maintains at least an approximately 0.5 to 1.0 mile buffer from the base of the McCoy Mountains which provides foraging and movement opportunities for burro deer.
- 11-44 In response to the comment, the biological reports included in Appendix C were revisited to verify the number of active burrowing owl burrows and owl sightings in the Project area. The commenter notes that 18 active burrows are described; however, a thorough review identified 14 active burrows. A number of additional burrows were described with owl whitewash and pellets present at entrances to active kit fox natal dens. However, these were not enumerated, as kit foxes and burrowing owls do cohabitate.

In response to the comment, the number of detected burrowing owls and active owl burrows has been updated in the third full paragraph on pg. 3.4-12 as follows:

Within the study area, 14 recently active owl burrows, two burrowing owl pairs, and four individual owls were observed on the solar plant site. Four additional owls were detected in the study area west of the solar plant site boundary. One owl pair and one active burrow also were noted on the gen-tie line and access road route north of I-10 (Tetra Tech EC, Inc. and Karl, 2011a; 2011b). Focused surveys identified 10 recently active owl burrows and two burrowing owl pairs on the solar plant site, mostly from the eastern portion of the site. An owl pair and one active burrow were also noted on the gen-tie line and access road route north of I-10. No burrowing owls or owl burrows were identified within the 500-foot buffer area.

In addition, the discussion of anticipated direct and indirect impacts to burrowing owls on page 4.4-14 is revised as follows:

Within the study area, ~~10~~14 recently active owl burrows, ~~and~~ two burrowing owl pairs, and four individual owls were observed on the solar plant site ~~generally on the eastern portion of the site~~. Four additional owls were detected in the study area west of the solar plant site boundary. ~~An~~One owl pair and one active burrow also were noted on the gen-tie line and access road route north of I-10 (Tetra Tech EC, Inc. and Karl, 2011a; 2011b). It is anticipated that all identified active burrows on the solar plant site would be removed during Project construction and those on the

linear corridor would be avoided where feasible. The entire Project area is considered to provide suitable burrowing owl foraging habitat.

- 11-45 Due to a typographical error in the PA/EIS (a missing dash), the commenter misinterpreted that three burrowing owl surveys were performed in the Project area instead of the required four surveys. In response, the burrowing owl survey results in the second paragraph on page 3.4-12 are clarified as follows:

Three-phase protocol-level burrowing owl surveys were performed from 2007 to 2011 consistent with the current CDFG survey standard, which is the California Burrowing Owl Consortium (CBOC) Guidelines (CBOC, 1993).

The burrowing owl survey methods met the suggested CDFG guidance, and additional burrowing owl survey data collected during desert tortoise and rare plant surveys provided additional data on burrowing owl distribution and habitat use in the Project area.

- 11-46 As described in the Biological Resources Technical Report included in Appendix C of the PA/EIS, burrowing owl surveys were performed by multiple surveyors from April 18 to 21, 2011 and June 14 to 16, 2011 following the 1993 Burrowing Owl Consortium Guidelines. Additional burrowing owl surveys are not needed to characterize site use by this species.
- 11-47 As identified in Appendix C of the PA/EIS, focused surveys for Gila woodpecker were performed in all possible available habitat in the Project study area. As the commenter describes, nesting sites may be available in the near-Project vicinity; however, no nesting habitat was detected on the solar plant site or along most of the Project linears and Gila woodpeckers were not observed during focused woodpecker surveys. Suitable habitat was detected east of the solar plant site in well-developed palo verde/ironwood woodland habitat in McCoy Wash. Additionally, the BRTR cites the findings of a 5-year study in McCoy Wash that detected no Gila woodpeckers between 2004 and 2008. Thus, available scientific data on local Gila woodpecker population indicates that this species is unlikely to occur and does not nest on the Project site. An occasional vagrant can be expected to the area, the commenter notes was detected at the Blythe Solar Power Project; however, such non-breeding observations of rare birds are seldom reported to the California Natural Diversity Database.
- 11-48 See Response 11-47.
- 11-49 See Response 11-47.
- 11-50 Based on the findings of focused surveys, Gila woodpeckers do not occur in the Wildlife Resources study area. No further surveys are warranted for this species.
- 11-51 See Responses 9-16, 11-6, and 11-10.

- 11-52 Because some wildlife surveys take multiple years to complete, as do those for the Couch's spadefoot toad, it is common practice during environmental review to anticipate the magnitude of the potential impact based on the greatest amount of potential habitat that may be present, and assemble a "worst case scenario" mitigation strategy that avoids, minimizes, and mitigates potential impacts based on survey results. In the case of Couch's spadefoot toad, a non-listed wildlife species, suitable habitat was identified in the Project area with seven of eight potential breeding locations identified in the gen-tie line corridor. If toads are verified in the swales on the linears it is possible that potential Project effects can be avoided or minimized through Project design. The Applicant is required to survey each of the sites identified as potential Couch's spadefoot habitat; however, such review will occur in fall 2012.
- 11-53 If Couch's spadefoot toads are identified at one or more breeding sites during focused surveys in fall 2011, Mitigation Measure WIL-14 requires the Applicant to prepare a Couch's Spadefoot Toad Protection and Mitigation Plan to avoid, minimize and mitigate impacts to Couch's spadefoot toads and their breeding habitat during construction and operation of the Project. Following surveys, if it found that toad breeding sites cannot be avoided and may be adversely affected by the Project, the engineering specifications for mitigation pools would be subject to BLM review and approval.
- 11-54 As identified in Responses 11-27 and 11-30, surveys for special-status plants are complete for the solar plant site and Project linears. Only a single botanical survey (Alternative 3 routes) is outstanding, as indicated in Response 11-28, and a single wildlife survey remains to determine the potential presence or absence of Couch's spadefoot toad in eight distinct locations in the Project area. The PA/EIS set up a clear strategy to address the potential presence of rare plants in the Alternative 3 alignment and Couch's spadefoot toad, and provides measures to avoid, minimize, and mitigate Project effects to sensitive resources that are detected during these fall 2012 surveys.
- 11-55 The term "cultural resource" is not defined in NEPA or any other federal law. The discussion on page 3.5-1 is consistent with the definition of cultural resources provided in the BLM 8100 Manual. Cultural resources on the public lands managed by the BLM are concrete, material places and things. Cultural resources may be but need not be determined eligible for the NRHP or CRHP to receive consideration under NEPA. In compliance with several laws including NEPA and the NHPA, the BLM considers the values ascribed to these places and things, and the ways in which these places and things are used, when making decisions on actions that might affect them. The public participation processes followed by the BLM in complying with NEPA and the NHPA afford opportunities for the general public and Indian tribes to identify cultural resources of all kinds, and values relating to them, that they wish BLM to consider in its decision making.

Under the NHPA and its implementing regulations, significant cultural resources are called historic properties. Historic properties are districts, sites, buildings, structures and objects that are listed on, or eligible for listing on, the NRHP. This definition is the only

technical, operational meaning of the word “significant” as it applies to cultural resources within the context of Section 106. This does not mean that places or things not meeting this definition are unimportant. The BLM recognizes that values ascribed to places or things by social or cultural groups, including Indian tribes, may make them important and worthy of consideration even if those places or things do not meet the NRHP definition of significance. During the preparation of this PA/EIS, the general public and Indian tribes were afforded opportunities to identify cultural resources of importance to them regardless of whether those resources met the NRHP definition of significance. The cultural resources analyzed in the PA/EIS were the only cultural resources identified by the archival and field inventories, public participation opportunities, and tribal consultation efforts.

An Ethnographic Assessment to identify sites to which Tribes may attach cultural or religious significance to, and that would be affected by the Project, is currently underway. The results of that study are not yet available. See Section 5.2.2.

The BLM will continue consulting with Indian tribes throughout the Section 106 compliance process. BLM’s tribal consultation efforts are discussed in Section 3.5.1.6, in Section 5.2.2, and in Appendix D. Tribes have been invited to identify resources and places of traditional cultural and religious importance that might be affected by the project. Tribes have also been invited to participate in consultations to develop a MOA for the Project that will seek to resolve adverse effects, including visual, audible and atmospheric effects, on any NRHP-eligible traditional cultural properties that may be identified.

The analysis of impacts in Section 4.5 is not restricted to NRHP-listed or eligible cultural resources. All cultural resources identified within the Area of Potential Effects are included in the analysis, regardless of whether they meet the NRHP definition of significance.

11-56 See Response 11-55.

11-57 See Response 11-55.

11-58 The Draft PA/EIS correctly stated in the fifth paragraph of page 3.5-1 that “under federal and state historic preservation law, cultural resources generally must be at least 50 years old to have sufficient historical importance to merit consideration of eligibility for listing in the NRHP or in the California Register of Historical Resources (CRHR). A resource less than 50 years of age must be of exceptional historical importance to be considered for listing.” The exceptional significance standard for properties under 50 years of age (termed “Criteria Consideration G” in the NRHP) was taken into account by BLM when evaluating the eligibility of cultural resources for listing in the NHRP.

However, as also described on page 3.5-1, cultural resources may be but need not be determined eligible for the NRHP or CRHR to receive consideration under NEPA.

Accordingly, the Draft PA/EIS did not “dismiss” cultural resources not determined eligible for the NRHP. All cultural resources identified within the Area of Potential Effects are included in the analysis, regardless of whether they meet the NRHP definition of significance. To further clarify this point, page 3.5-1 has been revised to remove the discussion of eligibility criteria for the NRHP and CRHR. These criteria are also defined in Section 3.5.2, Applicable Regulations, Plans, and Standards.

11-59 See Response 11-55.

11-60 Suggestions that the PA/EIS does not address impacts to air quality are addressed in Responses 11-61 through 11-68. Responses to concerns about biological resources are provided in Responses 11-69 through 11-100. Responses to concerns about cultural resources are provided in Responses 11-101 through 11-111. Responses to concerns about hazardous materials are provided in Responses 11-112 through 11-122. Responses to concerns about water resources are provided in Responses 11-123 through 11-124. For the reasons explained in those responses and in PA/FEIS Section 5.5.4.4, and on the basis of the analysis provided elsewhere in the PA/FEIS, the BLM has taken a hard look at the environmental consequences of the Proposed Action and alternatives. Although revisions have been made to the PA/EIS based on input received during the environmental review process (including in response to comments provided on the Draft PA/EIS), supplemental environmental review is not being circulated for the MSEP. See PA/FEIS Section 5.5.4.4, Common Response 4.

11-61 As explained in more detail in Responses 11-62 through 11-68, the commenter does not provide adequate documentation to substantiate the claims that the Draft PA/EIS significantly underestimates emissions from Project construction, that it failed to identify significant impacts from nitrogen oxide and particulate matter emissions, or that it failed adequately mitigate the Project’s impacts to air quality. Responses to specific air quality-related comments are provided below in Responses 11-62 through 11-66.

11-62 The commenter claims that the construction equipment daily use hours applied in the air quality analysis for the Project are under estimated, and supports this claim based on a reference from the PA/EIS Project Description. However, the commenter mischaracterizes the reference to the Project Description by indicating that it states that construction activities would occur for 12 to 24 hours per day. In fact, the applicable reference in the Project Description states that construction generally would occur between 7 a.m. and 7 p.m., and that the startup phase of the MSEP could require equipment and system testing 24 hours per day, which presumably would not require considerable use of heavy construction equipment.

Although construction activities would be scheduled to occur between 7:00 a.m. and 7:00 p.m., it would be extremely unusual for each piece of construction equipment to operate continually during that period. In addition, it should be noted the construction equipment use assumptions in the air quality analysis came directly from the Applicant’s engineering contractor for the Project (i.e., WorleyParsons). Although BLM is currently

not in a position to reject the equipment use factors estimated by the engineering contractor for the Project, if at a later date it is determined that substantially higher equipment daily use hours would be required to construct the Project, BLM would conduct a subsequent review of the Project based on the revised daily use hours, which would be available for additional public review.

- 11-63 The commenter claims that the round-trip distances applied in the air quality analysis for purposes of determining the total vehicles miles travelled for the Project are under estimated. As with equipment use assumptions, the average daily round-trip mileage assumptions in the air quality analysis came directly from the Applicant's contractor who is in the process of engineering the Project. In addition, for the purposes of comparing criteria pollutant emissions to the Mojave Desert Air Quality Management District thresholds, off-site vehicle trip mileages were estimated from the point of entry into the Mojave Desert Air Basin (MDAB).

However, the air quality technical report prepared for the Project by AECOM (2012) did include greenhouse gas (GHG) emissions estimates associated with vehicle trips that would occur outside of the MDAB using round-trip distances that assume the solar panels would be imported through the Port of Long Beach. The GHG emissions due to these PV panel delivery trips were broken down into the round trip miles outside the MDAB from Long Beach to the air basin boundary, and within the MDAB related to round trips from the boundary to the Project site. Based emission estimates identified in Table 6, *Project Construction GHG Emissions*, of the AECOM air quality technical report (2012), the amount of GHG emissions that would be generated outside of the MDAB would be equivalent to up to 29 percent of the GHG emissions that would be generated within the MDAB. Because the percent of GHG emissions that would be generated outside of the MDAB relative to the amount of GHG emissions that would be generated within the MDAB would be expected to be roughly proportional to the percent of criteria pollutant exhaust emissions that would be generated outside of the MDAB relative to the amount of criteria pollutant exhaust emissions that would be generated within the MDAB, it is estimated that the criteria pollutant emissions that would be generated outside of the MDAB would be equal to approximately 29 percent of the criteria pollutant emissions that would generated within the MDAB. For the sake of this discussion, it is assumed that all of the emissions that would be generated outside of the MDAB would occur within air basins under the jurisdiction of the South Coast Air Quality Management District (SCAQMD).

**Table K-1** presents the maximum estimated daily construction emissions that would be generated within the MDAB and the maximum daily construction emissions that would be generated outside of the MDAB (i.e., within the SCAQMD), and compares the emissions that would be generated within the SCAQMD to the SCAQMD's significance thresholds. As described in the table, the emissions that would be generated within the SCAQMD would not exceed any of the applicable significance thresholds. Therefore, it can be concluded that Project emissions that would be generated within the SCAQMD would not result in or contribute to an exceedance of an applicable daily or hourly

ambient air quality standard, and that the associated construction impacts would be adverse, but would not be substantial.

**TABLE K-1  
PROPOSED ACTION MAXIMUM DAILY CONSTRUCTION EMISSIONS**

Emission Source <sup>a</sup>	Maximum Daily Emissions (pounds/day)					
	VOC	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM10*	PM2.5*
Total Maximum Daily Emissions Generated within the MDAB	23	135	218	0.3	136	34
Total Maximum Daily Emissions Generated within SCAQMD	7	39	63	<0.1	39	10
SCAQMD Thresholds	75	100	550	150	150	55
Exceeds SCAQMD Threshold?	No	No	No	No	Yes	No

NOTE: Total maximum daily NO<sub>x</sub> emissions include a slight rounding error.

PM10 and PM2.5 emissions that would be generated within the SCAQMD are overestimated because the majority of PM10 and PM2.5 emissions that would be generated within the MDAB would be fugitive dust, and the majority of the PM10 and PM2.5 emissions that would be generated within the SCAQMD would be exhaust emissions.

SOURCE: based on AECOM, 2012.

- 11-64 For responses related to the commenter’s claim that the air quality analysis equipment use and vehicle commute distance assumptions are under estimated, see Responses 11-62 and 11-63.
- 11-65 For responses related to the commenter’s claim that the air quality analysis vehicle commute distance assumptions are under estimated, see Response 11-63.
- 11-66 For responses related to the commenter’s claim that the air quality analysis equipment use and vehicle commute distance assumptions are under estimated, see Responses 11-62 and 11-63.
- 11-67 The commenter recommends that a mitigation measure be added to the PA/EIS that requires the presence of an air quality construction mitigation manager to ensure the efficacy of the proposed measures. As discussed in Section 4.1.6, the BLM would compile an Environmental and Construction Compliance Monitoring Plan (ECCMP) if the Project is approved to ensure the effective implementation of the mitigation measures that have been identified to address Project impacts. The comment does not state that the monitoring and enforcement mechanisms anticipated in the PA/EIS would be insufficient to serve this function, and, without more, does not persuade the BLM that the requested resource-specific monitor should be added to the team.

It should be noted that the PA/EIS has been revised to remove Mitigation Measure AQ-1 because: 1) the established mass emission indicator and threshold for the identification of adverse emissions of NO<sub>x</sub>, as defined in Draft PA/EIS Section 4.2.1.4, would not be

exceeded; and 2) the majority of the PM10 that would be generated during construction would be in the form of fugitive dust, and the reductions in PM10 exhaust that would be achieved under Mitigation Measure AQ-1 would be negligible (i.e., less than one percent of total PM10 emissions) and unwarranted. The BLM believes that APMs AIR-1 and AIR-2 include comprehensive measures that would reduce construction-related fugitive dust emissions to the reasonable extent feasible, and that additional mitigation measures are not warranted.

11-68 The commenter suggests that the effectiveness of mitigation measures be modeled similar to that for the Genesis Solar Energy Project. However, given that there are no sensitive receptors in the vicinity of any of the Project components, BLM staff has determined that modeling of air pollutant concentrations is not warranted for the MSEP.

11-69 As required in Mitigation Measure WIL-6, the Applicant is required to prepare an Avian Protection Plan to monitor the death and injury of birds from collisions with facility features such as transmission lines. The content of the Plan has been revised to reflect the commenter's statement regarding meteorological towers and potential impacts to bats.

**WIL-6: Avian and Bat Protection Plan.** The Applicant shall prepare and implement an Avian and Bat Protection Plan to monitor the death and injury of birds and bats from collisions with facility features such as transmission lines and tower structures (e.g., meteorological towers). The monitoring data shall be used to inform an adaptive management program that would avoid and minimize Project-related avian and bat impacts. The study design shall be approved by the BLM AO in consultation with CDFG and USFWS, and shall be incorporated into the Project's Biological Resources Mitigation, Implementation, and Monitoring Plan (BRMIMP; see Mitigation Measure VEG-2) and implemented.

11-70 The topic of night lighting effects on migratory birds and wildlife was discussed in Section 4.4 of the PA/EIS relative to the construction, operation and maintenance, and decommissioning phases of the Project. The description of the Proposed Action and alternatives in Chapter 2 (p. 2-17) describes that the lighting installed on the Project would kept to the minimum required for safety and security; sensors, motion detectors, and switches would be used to keep lighting turned off when not required; and all lights would be hooded and directed to minimize backscatter and off-site light. Generally, any measures that could be taken to minimize the effects of night lighting on wildlife have already been incorporated into the Project design to minimize light pollution.

The environmental setting at Laurel Mountain Substation in West Virginia is very different from the Blythe region. During a period of fog and poor visibility, several hundred birds became confused and continue to circle light sources at the substation. This scenario is relatively unlikely at the Project site because the area has good visibility and the Project will use hooded, downward directed lights that won't attract birds.

- 11-71 Chapter 2 details the Applicant's proposed construction, operation, maintenance, and decommissioning practices; the Applicant's proposal includes the possibility of blending concentrate from a reverse osmosis treatment unit with water from the on-site water wells to use for dust control. However, the PA/EIS does provide mitigation to avoid potential adverse environmental impacts associated with this practice. Mitigation Measure UTILITIES-1 (p. 4.18-7) prohibits the ground application of reverse osmosis concentrate, alone or blended with other water, in order to ensure that the selected reverse osmosis brine disposal method would not conflict with Colorado River RWQCB requirements or policies. Implementation of this measure would minimize potential for surface and groundwater quality degradation in accordance with Colorado River RWQCB policies and state and federal law.
- 11-72 The perimeter fencing design must provide site security while simultaneously excluding terrestrial wildlife species such as desert tortoises from the site and allowing unimpeded flow of stormwater runoff and overland flows. It is unlikely that top wire of the perimeter fence poses a risk to Nelson's bighorn sheep as suggested by the commenter; however, it is possible that a bird could become entangled in the barbed wire. The USFWS and BLM are closely involved in the design and approval of the perimeter fence. Thus, any requirements that the resource agencies impress on the fence design will be incorporated into the Applicant's final design. Foremost to the design, perimeter fencing needs to be able to minimize unauthorized site access. Therefore, any substantive design changes such as changes from barbed wire to smooth wire must meet the fence objectives of the Applicant.
- 11-73 See Response 11-34, which explains that adequate data was gathered and relied upon in the evaluation of impacts to golden eagle behavior and use of the Project site; this includes spring and winter surveys conducted over multiple years in coordination with USFWS personnel and in accordance with USFWS Interim Golden Eagle Inventory and Monitoring Protocols. Based on analysis provided in the PA/FEIS, implementation of the Project is not expected to result in take of golden eagles. Notwithstanding this conclusion, the requirements and obligations of other laws (such as the Bald and Golden Eagle Protection Act) apply to the Applicant and the Project independent of this NEPA analysis; accordingly, if it later is determined that take would result, the Applicant would be subject to all authorizations and approvals otherwise required by law. Documents prepared under federal laws (such as this PA/EIS prepared in accordance with FLPMA and NEPA) are not subject to state law requirements.

The Applicant provided a Project-specific Golden Eagle Risk Assessment in August 2011 (Tetra Tech, 2011) that the BLM and its NEPA contractor independently reviewed. Among other things, the Assessment evaluated Project-related impacts to golden eagles associated with the potential loss of golden eagle foraging habitat. Although it currently is unknown whether golden eagles that might nest in the McCoy, Little Maria, and Big Maria Mountains would utilize the Project Area for foraging in the future, avian point counts conducted for the Project suggest that golden eagles do not currently use the area

for foraging. Even if it is assumed that foraging could occur in the Project area, impacts related to the potential Project-related loss of such foraging habitat are likely to be minimal. This is because the area with the requested ROW represents 3 percent of the area within a 10-mile radius of the nearest eagle nest in the McCoy Mountains, which is an inactive nest located 1.7 miles to the west of the Project Area; 3 percent of the area of the next closest nest, which is an inactive nest located 3 miles to the southwest; and 1.5 percent of the area roughly central to the next closest nests, which are located 5.6 miles west-northwest and 8.4 miles northwest, respectively. Additionally, the requested ROW represents 0.4 percent of the area within a 10-mile radius of the active eagle nest in the Big Maria Mountains that was identified during spring 2010 surveys and determined in spring 2011 surveys to be occupied by red-tailed hawks. Furthermore, the habitat that would be disturbed or removed by development of the Project is neither unique nor limiting on the landscape, and does not represent a known prey concentration. Comparable or better foraging opportunities are expected to be available within the surrounding areas. For these reasons, development and operation of the Project is not expected to disturb the foraging of any eagle pairs within 10 miles of the Project site.

- 11-74 As quoted in the comment, Section 4.4.3.1 of the PA/EIS (p. 4.4.16) discloses the “potential for mortality due to collision with the gen-tie or distribution lines” based on expert analysis that independently has been reviewed by the BLM and its NEPA contractor. More specifically, as described in the PA/EIS, the Project’s approximately 14.5 mile long gen-tie line would consist of a high voltage line and fiber optic telecommunication line. Associated poles would be approximately 70 to 145 feet tall. The high voltage line could pose an electrocution hazard to golden eagles and both lines could pose a collision hazard to birds. In addition to Mitigation Measure WIL-12, Measures to Minimize Impacts to Golden Eagles, the PA/FEIS also identifies Mitigation Measure WIL-6, Avian and Bat Protection Plan. Implementation of WIL-6 would require the Applicant to prepare and implement a plan to monitor the death and injury of birds (including golden eagles) from collisions with facility features such as transmission lines. The resulting monitoring data would inform an adaptive management program to avoid and minimize Project-related impacts to avian species, including golden eagles. The study design would require BLM approval in consultation with CDFG and USFWS. Current Avian Power Line Interaction Committee (APLIC) guidelines and USFWS recommendations for the reduction of bird mortality from collision and electrocution with powerlines are provided in Mitigation Measure WIL-6. Based on relevant subject area expertise, including that which informs the BLM’s analysis, APLIC guidelines, and USFWS recommendations, the implementation of Mitigation Measure WIL-6 is expected to reduce impacts to golden eagles such that the potential for mortality due to collision with power lines is considered low.

As summarized in Response 11-34, surveys conducted over multiple years have identified only one active golden eagle nest within 10 miles of the MSEP site that is occupied by golden eagles; the nest is located 9.2 miles northeast, in the Big Maria Mountains. If an occupied nest subsequently is detected within 1 mile of the site

(including but not limited to activities conducted pursuant to the annual inventory that would be required to be conducted during construction pursuant to Mitigation Measure WIL-12), the Applicant would be required to prepare and implement a Golden Eagle Monitoring and Management Plan. As indicated in Response 11-73, the analysis and conclusions of the PA/FEIS have no effect on the applicability of any duty that the Applicant may have to comply with otherwise applicable law, including any duty to obtain a permit or other authorization under other federal laws or state law.

- 11-75 The cumulative effects analysis in Section 4.3.9.3 which is cited by the commenter acknowledges that impacts are anticipated to special-status plants and cacti and that substantial permanent conversion of desert habitat to industrial and commercial uses would remove habitat for many special-status plant species and cacti. The text has been revised to reflect that following the implementation of identified mitigation the direct and indirect effect of the proposed action to special-status plants would be substantial. While the Project would have an adverse effect on special-status plants and cacti, there are no federal or State-listed threatened or endangered plant species on the Project site and many of the identified special-status species appear to be locally abundant and more common outside of the State of California.

In response to this comment, the cumulative discussion of Project effects to special-status plants and cacti on pg. 4.3-16 is revised as follows:

~~The Project is not anticipated to substantially affect any populations of special-status plant species or cacti, although a number of individuals would be affected by each Alternative (as described above and summarized in Table 4.3-3). As discussed above, the development of numerous large-scale projects, such other wind and solar generation facilities, would result in a substantial permanent conversion of desert habitat to industrial and commercial uses, which would remove habitat for many special-status plant species and cacti. Therefore, the loss of this habitat is anticipated to result in substantial cumulative impacts on populations of many special-status plant species and cacti. However, preparation of the Habitat Enhancement/Restoration Plan, Revegetation Plan (to restore temporarily disturbed areas), Decommissioning and Reclamation Plan, and other plans as required in APM BIO-2p (*Cleanup and Restoration; Revegetation Plan*), and the implementation of Mitigation Measures VEG-7, VEG-8, VEG-10, VEG-11, VEG-12, WIL-4, WIL-10, WIL-15, and WIL-16, provide for the salvage of rare plants and cacti, avoidance of special-status plants whenever possible, compensatory mitigation, and site restoration following decommissioning and would ~~ensure that~~ minimize the loss of special-status plant species ~~is adequately compensated for and~~ protect similar habitat ~~would be protected~~ off-site. Implementation of these measures would reduce the Project's contribution to a cumulative impact on special-status plant species, but the effect remains substantial following the implementation of mitigation.~~

11-76 See Response 11-75

11-77 In response to the comment, the off-site special-status plant compensatory mitigation strategy has been revised to reflect that a rare plant distribution study cannot be substituted for special-status plant land acquisition and protection. The second paragraph under Item D, *Off-Site Compensatory Mitigation for Special-Status Plants* on pg. 4.3-33 of the DEIR is updated as follows:

Where compensatory mitigation is required under the terms of Mitigation Measure VEG-10.C, above, the Applicant shall mitigate Project impacts to special-status plant occurrences with compensatory mitigation. Compensatory mitigation shall consist of acquisition of habitat supporting the target species, or restoration/enhancement of populations of the target species, and shall meet the performance standards for mitigation described below. ~~In the event that no opportunities for acquisition or restoration/enhancement exist, the Applicant can fund a species distribution study designed to promote the future preservation, protection or recovery of the species.~~ Compensatory mitigation shall be at a ratio of 3:1 for Rank 1 plants, with 3 acres of habitat acquired or restored/enhanced for every acre of habitat occupied by the special-status plant that will be disturbed by the Project Disturbance Area (for example, if the area occupied by the special-status plant collectively measured is 0.25 acre, the compensatory mitigation will be 0.75 acre). The mitigation ratio for Rank 2 plants shall be 2:1. So, for the example above, the mitigation ratio would be 0.5 acre for the Rank 2 plants.

Additionally, the following text has been deleted from Mitigation Measure VEG-10 on pg. 4.3-39:

~~**III. Compensatory Mitigation by Conducting or Contributing to a Special-Status Plant Species Distribution Study:** As a contingency measure in the event that there are no opportunities for acquisition or restoration/enhancement, a Scientific Study of Special-Status Plant Species Distribution Study may be funded. Distribution and occurrence health data is very limited for many of the sensitive species that occur on the Project or have potential to occur on the Project, especially the late summer and fall blooming species. Some of these late blooming species are only known from a few viable occurrences in California, and historic occurrences that have not been re-located or surveyed since they were first documented. The objectives of this study would be to better understand the full distribution of the affected species, the degree and immediacy of threats to occurrences, and ownership and management opportunities, with the primary goal of future preservation, protection, or recovery. This study would include the following:~~

- ~~1. *Historical Occurrence Review.* The Study would include an evaluation of historical localities for the species known to occur on the project or with potential to occur. This would include a review of the CNDDDB database, herbarium records from regional herbaria (U.C. Riverside, San Diego Natural History Museum, etc.), other biotechnical reports from the region, and information from regional botanical experts.~~
- ~~2. *Conduct Site Visits to Historical Localities.* Historical occurrences would be evaluated in the field during the appropriate time of the year for each late~~

blooming species. If located, these occurrences would be evaluated for population size, numbers, plant associates, soils, habitat quality, and potential threats, degree and immediacy of threats, ownership and management opportunities. GPS location data would also be collected during these site visits.

3. Survey Areas with habitat potential that surround each of these species occurrences to better determine the full range of distribution. If additional populations are found, collect data (GPS and assessment) on these additional populations consistent with III.2 above.
4. *Prepare a Distribution Study Report.* A report that discusses the finding from the historical information and the range extension surveys would be prepared that summarizes the information for each of the late season surveys. This report will provide valuable information and a better understanding of the actual distribution of these late blooming species within California and will help to determine when and when not there is potential for these species to occur. This valuable information will include a better understand of the ecological factors driving the distribution of these species and will help to better target appropriate habitat for both future surveys as well as potential future mitigation lands. All data from this study will be submitted for incorporation into the CNDDDB system and the study report will be made available to resource agencies, conservation groups, and other interested parties.
5. Currently there is no program or study in place that is attempting to address the distributional issues for these late blooming species. If an existing study is identified or if one is developed prior to the study outlined here, an option to fund the existing study may be considered. If an existing study cannot be indentified then one will be developed that follows the guidelines discussed above. The funding provided for the program would be no greater than the cost for acquisition, enhancement, and long term management of compensatory mitigation lands based on impacts to late blooming sensitive plant species.

To protect all special status plants located outside of the Project Disturbance Area and within 100 feet of the permitted Project Disturbance Area from accidental and indirect impacts during construction, operation, and closure, the Applicant shall implement the following measures:

1. *Designated Botanist.* An experienced botanist who meets the qualifications described in Mitigation Measure VEG-10.B shall oversee compliance with all special status plant avoidance, minimization, and compensation measures described in this condition throughout construction and closure. The Designated Botanist shall oversee and train all other Biological Monitors tasked with conducting botanical survey and monitoring work. During operation of the Project, the Designated Biologist shall be responsible for protecting special status plant occurrences within 100 feet of the Project boundaries.

11-78 The identification of special-status plants to be established by Measure VEG-10, Item A.b, applies to plant populations located outside of the area of Project Disturbance. Because the project boundary is somewhat rigid, establishing large buffers (e.g., 250 feet as proposed in the comment) would not provide additional protection to special-status

- plants that are already located outside the perimeter site fence. The presence of potential temporary, indirect effects to surrounding vegetation was identified in the PA/EIS.
- 11-79 The targeting of conservation lands that provide suitable habitat for special-status plants based on the nearby presence of populations and suspected presence on-site is a valid means for protecting known rare plant populations, providing protective buffers around known populations, and providing opportunities to enhance habitat connectivity. The Applicant would be required to justify the potential benefit of acquisition lands to target species prior to approval by the BLM.
- 11-80 The occurrence of mineralized soil crusts and biological soil crusts, and the contribution of these crusts in controlling fugitive dust generated by wind erosion, are discussed in Sections 3.2, *Air Resources*, and 3.7, *Geology and Soils Resources*. The effects of ground disturbance on air quality, including effects related to the presence of fugitive dust, is addressed in Section 4.2, *Air Resources*.
- 11-81 Mitigation Measure VEG-8, Part 17 describes performance criteria that must be met before revegetated areas can be considered restored. The plan requires a description of topsoil salvage and seeding techniques and a monitoring and reporting plan, and at least 80 percent native species in disturbed areas and at least 60 percent relative cover and density. To achieve these objectives the plan will undeniably need to consider location and climate, and the restoration effort will continue until restoration objectives are achieved. The identification and resolution of planting challenges that are specific to the Mojave Desert will be addressed in the Revegetation Plan and are not considered in the EIS.
- The PA/EIS acknowledges that biological soil crusts would be damaged by Project activities. The components of this common desert soil community include cyanobacteria, green algae, microfungi, mosses, liverworts and lichens. The restoration of biological soil crusts is not required, though Mitigation Measure AQ-1 requires the use of non-toxic soil stabilizer in areas where desert pavement has been disturbed during construction.
- Mitigation Measure AQ-1 does account for the need to reapply soil stabilizers by requiring the Applicant to develop for review and approval by the BLM a plan that outlines the frequency of non-toxic soil stabilizer applications based on the specifications of the selected soil stabilizer. Approval by the BLM prior to the start of construction will ensure that the frequency of applications is adequate to account for the length of time for which the selected soil stabilizer is effective, according to manufacturer specifications.
- 11-82 See Responses 11-80 and 11-81 regarding the PA/EIS's analysis and mitigation of impacts to biological soil crusts.
- 11-83 The analytical baseline for the Proposed Action is the date that the Notice of Intent (NOI) was issued: August 29, 2011. The 1995 CDFG *Staff Report on Burrowing Owl Mitigation* was revised on March 7, 2012, after the NOI was issued. Therefore, the PA/EIS did not

incorporate the revised report. In reviewing the 2012 *Staff Report*, CDFG states that burrowing owl exclusion and burrow closure are not recommended where they can be avoided. In cases when owl exclusion cannot be avoided, CDFG recommends that a Burrowing Owl Exclusion Plan be developed and approved by the applicable local CDFG office. Mitigation Measure WIL-9 of the PA/EIS requires that a Burrowing Owl Mitigation Plan is prepared in consultation with CDFG. Thus, while not required to do so, the EIS generally meets with the requirements of the 2012 *Staff Report*.

11-84 The 1993 *Staff Report on Burrowing Owl Mitigation* recommends that 6.5 acres of burrowing owl foraging habitat be acquired and permanently protected per pair or unpaired resident burrowing owl. Based on the observation of four additional owls described in Response 11-44, which are presumed to be separate birds from the initial pair described on the site, an additional 26 acres of compensatory habitat is required for this species. Thus, at least 45 acres of burrowing owl habitat will be required to mitigate Project effects to burrowing owl. As identified in Response 11-44, several additional non-breeding burrowing owls were documented in the study area. If additional owl pairs are detected on the Project site, the amount of required mitigation would be adjusted correspondingly. In response to the increased number of owls documented on the Project site, Mitigation Measure WIL-9.4 on pg. 4.4-38 is revised as follows:

4. ***Acquire ~~19.5~~ Acres of Compensatory Burrowing Owl Habitat***: Consistent with CDFG mitigation guidance (CBOC, 1993), the Applicant shall acquire, in fee or in easement, at least 45~~19.5~~ acres of land suitable to support a resident population of burrowing owls and shall provide funding for the enhancement and long-term management of these compensation lands (based on three owl pairs and four unpaired owls observed during focused surveys and 6.5 acres per pair or individual bird; ~~as to be~~ adjusted based on final survey findings). The responsibilities for acquisition and management of the compensation lands may be delegated by written agreement to CDFG or to a third party, such as a non-governmental organization dedicated to habitat conservation, subject to approval by the BLM AO, in consultation with CDFG prior to land acquisition or management activities. Additional funds shall be based on the adjusted market value of compensation lands at the time of construction to acquire and manage habitat.
  - a. ***Criteria for Burrowing Owl Mitigation Lands***: The terms and conditions of this acquisition or easement shall be as described in Mitigation Measure WIL-4 [Desert Tortoise Compensatory Mitigation], with the additional criteria to include: 1) the ~~19.5~~ acres of mitigation land must provide suitable habitat for burrowing owls, and 2) the acquisition lands must either currently support burrowing owls or be no farther than 5 miles from an active burrowing owl nesting territory. The ~~19.5~~ acres of burrowing owl mitigation lands may be included with the desert tortoise mitigation lands **ONLY** if these two burrowing owl criteria are met. If the ~~19.5~~ acres of burrowing owl mitigation land is separate from the acreage required for desert tortoise compensation lands, the Applicant shall fulfill the requirements described below in this measure.

- b. *Security*: If the ~~19.5~~ acres of burrowing owl mitigation land is separate from the acreage required for desert tortoise compensation lands, the Applicant or an approved third party shall complete acquisition of the proposed compensation lands within the time period specified for this acquisition (see the verification section at the end of this measure). Alternatively, financial assurance can be provided by the Applicant to the BLM AO and CDFG, according to the measures outlined in Mitigation Measure WIL-4. These funds shall be used solely for implementation of the measures associated with the Project. Financial assurance can be provided to the BLM AO in the form of an irrevocable letter of credit, a pledged savings account, or another form of security (“Security”) prior to initiating ground-disturbing Project activities. Prior to submittal, the Security shall be approved by the BLM AO in consultation with CDFG and the USFWS to ensure funding. The final amount due will be determined by an updated appraisal and PAR analysis conducted as described in Mitigation Measure WIL-4.

11-85 See Response 11-83.

11-86 See Response 11-83. Additionally, the comment incorrectly states that the 2012 CDFG guidance recommends surveys within 14 days of construction. The 2012 guidance states that “(p)reconstruction surveys of suitable habitat at the project site(s) and buffer zone(s) should be conducted within the 30 days prior to construction to ensure no additional, burrowing owls have established territories since the initial surveys.”

11-87 In response to the comment that burrowing owls benefit from mitigation components that are located near the point of impact, Mitigation Measure WIL-9, item 2.a on pg. 4.4-37 is revised as follows:

- a. identify suitable sites as close as possible to the Project site (e.g., within 300 feet), and within 1 mile of the Project Disturbance Areas for creation or enhancement of burrows prior to passive relocation efforts;

Consistent with CDFG guidance, habitat compensation is required for all owls that are displaced by the Project, regardless of the success of off-site artificial burrows.

11-88 The PA/EIS already requires that a conservation easement be placed over burrowing owl mitigation lands. Mitigation Measure WIL-9 requires that the terms and conditions of the burrowing owl habitat acquisition or easement equal the requirements of Mitigation Measure WIL-4 (Desert Tortoise Compensatory Mitigation). Mitigation requirement WIL-4.3.b (Title/Conveyance) requires the transfer of a conservation easement or fee title to CDFG; however, a non-profit organization may hold the title to and manage compensation lands provided that a conservation easement is recorded in favor of CDFG.

11-89 See Response 11-83.

11-90 Mitigation Measure WIL-9, Item 4 requires that burrowing owl acquisition lands demonstrate the presence of suitable burrowing owl habitat. Wintering and other seasonally occupied, non-nesting burrowing owl habitat have considerable value to this species. Thus, the absence of owl nesting on compensation lands does not warrant higher compensation ratios.

11-91 As addressed in Response 9-59, due to the absence of Nelson's bighorn sheep in the regional area, the Proposed Action would not affect the movement or foraging opportunities for this species.

Burro deer populations are very sparse in the Project area due to limited available resources, the region's hot climate, and possibly due to hunting pressure. It is anticipated that deer movement patterns will change in response to the proposed action, as deer will need to adjust to the presence of one or more solar projects in order to access the valley floor and direct access through may not be readily available. Forage quality and availability and water sources are believed to be limiting factors for deer populations in the Project area. The solar plant site and McCoy Wash do not provide perennial water sources. As a result, burro deer are expected to remain near areas with available water during dry periods, venturing into other areas when water and high quality forage is available. The upper portions of washes and alluvial fans located west of the Project area will remain available for deer cover and forage following construction. Desert mule deer seasonally move considerable distances, on the order of 10 to 20 miles or farther in response to changing resource availability. As a result of this great mobility, burro deer are expected to continue movement between McCoy Mountains and other portions of the valley floor.

11-92 The western fenced boundary for the proposed Project has been adjusted since the Draft PA/EIS was released to reduce wildlife hazards and promote movement by burro deer and other mobile species along the western Project boundary. This was done by "flattening" the western edge and concurrently reducing the amount of required perimeter fence. The configuration of the enXco site and BSPP site boundaries are not finalized; however, BLM will with the USFWS to find and remove wildlife movement hazards on the western edge these sites as well.

11-93 See Response 11-91.

11-94 As described in Response 9-16, appropriately-timed surveys were performed for Couch's spadefoot toad in fall 2011; however, inadequate rainfall rendered surveys not viable. Surveys will be repeated in fall 2012. As Response 9-17 clarifies, seven swales on the gen-tie line and access road route and one location in the southwest portion of the solar plant site provide potential Couch's spadefoot breeding habitat. Thus, as the PA/EIS identifies, up to eight potential breeding sites could be directly affected by loss during construction phase of the Project. Implementation of the Couch's Spadefoot Toad Protection and Mitigation Plan required by Mitigation Measure WIL-14 will ensure that

swales are avoided as a primary means of avoiding effects to spadefoot toads, and that suitable breeding sites will be created if toads are identified during focused surveys.

11-95 See Responses 11-53 and 11-54.

11-96 The Proposed Action would avoid the single identified bat roost that was identified west of the solar plant site, as identified in Response 9-61.

11-97 In response to this and other comments (See Response 6-28), the following impact discussion is added to the kit fox discussion on page 4.3-15 to address the topic of canine distemper in desert kit fox populations:

In late 2011, the first known cases of canine distemper virus (CDV) were observed in desert kit foxes about 20 miles west of Blythe on public lands managed by the BLM and leased to Genesis Solar LLC to construct the Genesis Solar Energy Project site. CDFG believes that the outbreak originated from an infected host animal entering the site, possibly a wild or domestic dog, American badger, or other carnivore. The rapid spread of CDV within the kit fox population was facilitated by the project-related displacement of infected animals from the Genesis site into new kit fox territories. Subsequently, desert kit foxes were captured for disease testing at the First Solar Desert Sunlight, Solar Millennium Palen, Genesis Ford Dry Lake, and at Southern California Edison's Colorado River substation and CDV was identified at the two later sites, which span a distance of about 40 miles on the I-10 corridor within the Chuckwalla Valley (California Energy Commission, 2012). The CDFG Wildlife Investigations Lab continues to monitor the health of desert kit foxes and is attempting to characterize the spread and significance of the disease on regional kit fox populations. To date, there has been no effort to test desert kit foxes in the Project area for distemper.

The typical practice for solar projects has been to exclude desert kit foxes from project areas during pre-construction clearing of project sites by "passive relocation" methods (i.e., by closing burrows, forcing foxes to locate to new off-site burrows). This practice has the potential to worsen the outbreak, by raising kit fox stress levels and causing increased susceptibility to infection, causing increased movement of diseased animals thereby increasing the spread of disease into new areas, or placing healthy kit foxes into contact with off-site infected animals (California Energy Commission, 2012).

Additionally, Mitigation Measure WIL-8 on page 4.4-36 has been redrafted as follows to provide additional canine distemper protection to desert kit fox populations:

**WIL-8: American Badger and Desert Kit Fox Protection.** To avoid direct impacts to American badgers and desert kit fox, the Applicant shall implement the following measures:

1. **Baseline Kit Fox Census and Population Health Survey:** A qualified biologist with demonstrated mammal experience shall complete a baseline study of desert kit fox populations on the Project site and the anticipated dispersal areas from passive relocation at least 60 days prior to initiation of construction activities. The study shall characterize the demographics (e.g., size, structure, and distribution) of the kit fox population on the site and receiving areas. The Applicant shall coordinate with and fund studies by federal or State wildlife health officials [e.g., the CDFG Wildlife Investigations Lab (WIL)] to establish baseline health conditions.
  
2. **Prepare Desert Kit Fox Management Plan:** At least 45 days prior to construction, the Applicant shall submit a Desert Kit Fox Management Plan that: 1) incorporates baseline desert kit fox census and health survey findings into a cohesive management strategy that minimizes disease risk to kit fox populations; 2) specifically identifies preconstruction survey methods for kit foxes and large carnivores (e.g., badgers) in the Project area; 3) describes preconstruction and construction-phase passive relocation methods from the site, and; 4) coordinates survey findings prior to and during construction to meet the information needs of wildlife health officials in monitoring the health of kit fox populations. The Plan shall include contingency measures that would be performed if canine distemper were documented in the Project area possible dispersal areas adjacent to the Project site, and measures to address potential kit fox reoccupancy of the site (as documented at the Genesis site). The contents and requirements of the Plan shall be subject to review and approval by the BLM and CDFG.
  
3. **Implement Desert Kit Fox Management Plan:** If canine distemper is not identified in the Project area or relocation areas during baseline surveys, the mitigation strategy may utilize passive means or active means with appropriate CDFG authorization to relocate kit foxes from the site. The approach below assumes that canine distemper is not detected during baseline surveys.
  - a. **Pre-Construction Surveys:** Biological Monitors shall conduct pre-construction surveys for desert kit fox and American badger no more than 30 days prior to initiation of construction activities. Surveys shall also consider the potential presence of dens within 100 feet of the project boundary (including utility corridors and access roads) and shall be performed for each phase of construction. If dens are detected each den shall then be further classified as inactive, potentially active, or definitely active.
  
  - b. Inactive dens that would be directly impacted by construction activities shall be excavated by hand and backfilled to prevent reuse by badgers or kit fox.
  
  - c. Potentially and definitely active dens that would be directly impacted by construction activities shall be monitored by the Biological Monitor for three consecutive nights using a tracking medium (such as diatomaceous earth or fire clay) and/or infrared camera stations at the entrance.

- d. If no tracks are observed in the tracking medium or no photos of the target species are captured after three nights, the den shall be excavated and backfilled by hand.
- e. If tracks are observed, the den shall be progressively blocked with natural materials (rocks, dirt, sticks, and vegetation piled in front of the entrance) for the next three to five nights to discourage the badger or kit fox from continued use. After verification that the den is unoccupied it shall then be excavated and backfilled by hand to ensure that no badgers or kit fox are trapped in the den. BLM approval may be required prior to release of badgers on public lands.
- f. If an active natal den (a den with pups) is detected on the site, the BLM AO and CDFG shall be contacted within 24 hours to determine the appropriate course of action to minimize the potential for animal harm or mortality. The course of action would depend on the age of the pups, location of the den on the site (e.g., is the den in a central area or in a perimeter location), status of the perimeter site fence (completed or not), and the pending construction activities proposed near the den. A 500-foot no-disturbance buffer shall be maintained around all active dens.
- g. The following measures are required to reduce the likelihood of distemper transmission:
  - i. No pets shall be allowed on the site prior to or during construction, with the possible exception of vaccinated kit fox scat detection dogs during preconstruction surveys, and then only with prior CDFG approval;
  - ii. Any sick or diseased kit fox, or documented kit fox mortality shall be reported to CDFG and the BLM AO within 8 hours of identification. If a dead kit fox is observed, it shall be collected and stored according to established protocols distributed by CDFG WIL, and the WIL contacted to determine carcass suitability for necropsy.

11-98 The commenter suggests that sound levels of 50 dB, the equivalent of a quiet conversation, may have adverse effects on nesting birds at a distance of 1,000 meters. However, Mitigation Measure VEG-8 (p. 4.3-23) uses the reasonable and slightly higher threshold of 65 dB as the baseline for determining whether or not proposed activities require breeding bird monitoring. This sound level is about equivalent to the volume of normal conversation (not loud construction noise, as the commenter suggests). As a result, virtually any construction-related activity performed during the nesting season could require nesting bird monitoring, and consequently, this threshold is adequate to mitigate potential noise impacts to nesting birds.

11-99 In response to this and other comments, the total amount of occupied Mojave fringe-toed lizard habitat was revisited and an error was detected in the original calculation that greatly overestimated the total cumulative impact and cumulative contribution of the Proposed Action. Following the updated analysis, the total amount of potentially

occupied sand dune and sand sheet habitat in the Palo Verde Valley was revised upward from 1,098 acres to 12,911 acres, which is considered a small portion of the available habitat based on the large amount of similar habitat available locally. Additionally, the total cumulative effect was revised downward from 655 acres to 76 acres. The anticipated contribution of the Proposed Action to cumulative effects, 38 acres, includes both temporary and permanent effects. Thus, the permanent impact of the Project, 19 acres, constitutes a permanent effect to less than 0.2 percent of sand dune and sand sheet habitat in the Palo Verde Valley study area that may support this species. It is also likely that other unidentified Mojave fringe-toed lizard populations occur in the cumulative resource study area and are not included in this assessment.

In the Palo Verde Valley, two projects (the MSEP and the BSPP) could potentially affect habitat for Mojave fringe-toed lizard and total 76 acres. The cumulative effect of these projects on Mojave fringe-toed lizard and its habitat constitutes about 0.6 percent of potential Mojave fringe-toed lizard habitat in the study area. Since over 99 percent of habitat would not be affected, the 3:1 mitigation ratio presented in the PA/EIS is appropriate to offset impacts of the Proposed Action.

The cumulative impact analysis for Mojave fringe-toed lizard in Table 4.4-3 (pg. 4.3-11) is revised as follows:

Mojave fringe-toed lizard Occupied sand dune/ sand sheet habitat in the <del>Chuckwalla and Palo Verde Valleys</del>	<del>1,098</del> 12,911 acres	35.0 acres (0.3-2%)	<del>76655</del> 76 acres (0.659-7 %)	38 46 acres (507-0 %)	0 acres (0%)	38 46 acres (507-0 %)	38 46 acres (507-0 %)
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In addition, potential effects to Mojave fringe-toed lizard are clarified on page 4.4-24 as follows:

The analysis of cumulative Project effects to Mojave fringe-toed lizard habitat focused on known and CNDDDB-documented populations within the ~~Chuckwalla Valley and~~ Palo Verde Valley. In these areas, populations are dependent upon areas with fine aeolian sand that occur in association with dunes, margins of dry lakes and washes, and isolated sand patches. The cumulative effects analysis identified approximately ~~1,098~~ 12,911 acres of occupied Mojave fringe-toed lizard habitat in the study area, of which approximately ~~655-76~~ 76 acres (59.70.6 percent) occurs in areas where future projects are proposed (Table 4.4-3). Under Alternatives 1 and 3, approximately ~~4638~~ 38 acres of habitat would be disturbed for the gen-tie line and associated access road. This represents approximately ~~4-20.3~~ 0.3 percent of available Mojave fringe-toed lizard habitat that was identified in the cumulative study area and represents a contribution of about 750 percent of the total cumulative effect on this resource. The implementation of Mitigation Measures VEG-7, VEG-8, VEG-10, VEG-11, VEG-12, and WIL-10 would minimize impacts to sensitive dune and sand sheet habitat and provide suitable compensatory habitat for habitat losses.

- 11-100 As identified in Response 11-99, there was an error in the initial cumulative impact calculation. The cumulative build-out scenario would only affect about 76 acres, and the total amount of potentially occupied sand dune and sand sheet habitat in the Palo Verde Valley was revised to 12,911 acres. Thus, the permanent impact of the Project, 19 acres, constitutes a permanent effect to less than 0.2 percent of sand dune and sand sheet habitat in the Palo Verde Valley study area for this species, and total cumulative impact for all projects would be 0.6 percent of the total acreage.
- 11-101 The discussion of effects to cultural resources in the PA/EIS satisfies the requirements of NEPA, and the execution of an MOA, which is being prepared through consultation with SHPO, Indian tribes, and other interested consulting parties, and which, when executed prior to the ROD, will signify the completion of the BLM's requirements under Section 106 of the NHPA. The government-to-government consultation with Indian tribes required by Section 106 of the NHPA is ongoing.
- 11-102 The term "cultural resource" is not defined in the National Environmental Policy Act (NEPA) or any other Federal law. The discussion on page 3.5-1 is consistent with the definition of cultural resources provided in the BLM 8100 Manual. Cultural resources on the public lands managed by the BLM are concrete, material places and things. In compliance with several laws including NEPA and the NHPA, the BLM considers the values ascribed to these places and things, and the ways in which these places and things are used, when making decisions on actions that might affect them. The public participation processes followed by the BLM in complying with NEPA and the NHPA afford opportunities for the general public and Indian tribes to identify cultural resources of all kinds, and values relating to them, that they wish BLM to consider in its decision making.

Under the NHPA and its implementing regulations, significant cultural resources are called historic properties. Historic properties are districts, sites, buildings, structures and objects that are listed on, or eligible for listing on, the National Register of Historic Places. This definition is the only technical, operational meaning of the word "significant" as it applies to cultural resources within the context of Section 106. This does not mean that places or things not meeting this definition are unimportant. The BLM recognizes that values ascribed to places or things by social or cultural groups, including Indian tribes, may make them important and worthy of consideration even if those places or things do not meet the NRHP definition of significance. During the preparation of this PA/EIS, the general public and Indian tribes were afforded opportunities to identify cultural resources of importance to them regardless of whether those resources met the NRHP definition of significance. The cultural resources analyzed in the PA/EIS were the only cultural resources identified by the archival and field inventories, public participation opportunities, and tribal consultation efforts.

An Ethnographic Assessment currently is underway. Results are not yet available. See Section 5.2.2.

The BLM will continue consulting with Indian tribes throughout the Section 106 compliance process. BLM's tribal consultation efforts are discussed in Section 3.5.1.6 and in Appendix D. Tribes have been invited to identify resources and places of traditional cultural and religious importance that might be affected by the project. Tribes have also been invited to participate in consultations to develop a Memorandum of Agreement for the Project that will seek to resolve adverse effects, including visual, audible and atmospheric effects, on any NRHP-eligible traditional cultural properties that may be identified.

The analysis of impacts in Section 4.5 is not restricted to NRHP-listed or eligible cultural resources. All cultural resources identified within the Area of Potential Effects are included in the analysis, regardless of whether they meet the NRHP definition of significance.

11-103 Regarding the definition of the APE, please see Response 10-5. As discussed on page 4.5-3, BLM's analysis of adverse effects to cultural resources took into consideration types of effect other than direct physical impact, and included consideration of auditory, visual, and atmospheric effects. To date, no viewsheds of cultural value have been identified through archival research, field inventory, public comments, and tribal consultation. No sacred sites or places of traditional cultural or religious importance to Indian tribes were identified within the area that would be affected by the Project. No auditory or olfactory impacts to known resources have been identified.

11-104 Please see Response 11-102.

11-105 The PA/EIS adequately evaluates the potential effects of the Project on buried cultural resources. The paragraph on page 3.5-29 excerpted by the commenter reflects the observations concerning the distribution of surface artifacts made by the archaeological field crew during archaeological surveys, and does not directly pertain to the subject of buried cultural resources. As discussed on page 3.5-30, a geoarchaeological study was performed in order to assess the potential for buried resources to exist within the Project area. The study's findings confirmed that Holocene and Pleistocene-aged sediments within the Project area do have a potential to contain buried resources. Mitigation Measure CUL-1 requires the execution of an MOA that will detail the process for activities to proceed in areas where historic properties are not now known to exist, and that will contain procedures for treatment of inadvertent discoveries. However, Sections 3.5 and 4.5 of the PA/EIS have been modified in order to clarify and emphasize the Project area's sensitivity for buried resources and the potential impacts to buried resources.

11-106 The PA/EIS has been revised to eliminate discussion of draft cultural landscapes because there can be no adverse effect upon a delineated cultural landscape until the delineation process is complete. Studies are currently underway, independent of this Project, to examine prehistoric trails and associated sites in the Colorado Desert to determine, among other things, what sites might be included within such a network, the cultural

behavior they may represent, and the importance they hold for Native Americans today. However, until these landscape-level studies have been completed, it would be premature to speculate about NRHP eligibility criteria for the sites that may be included within such a network, whether the interrelated sites might qualify for nomination to the NRHP as a district, or precisely what mitigation strategies might be employed to address impacts to individual sites within the context of a larger complex of interrelated resources.

- 11-107 The discussion of effects to cultural resources in the PA/EIS satisfies the requirements of NEPA, and the execution of an MOA, which is being prepared through consultation with SHPO, Indian tribes, and other interested consulting parties, and which will be executed prior to the ROD, will signify the completion of the BLM's requirements under Section 106 of the NHPA.

The regulations implementing the National Historic Preservation Act (NHPA), found at 36 CFR Part 800, provide for the use of a Memorandum of Agreement (MOA) to describe measures designed to resolve adverse effects on historic properties. MOAs are commonly used to comply with Section 106 of the NHPA on projects like the MSEP. Development of the MOA for the Project will provide an opportunity for determining mitigation consistent with the values of the historic properties involved, prior to construction or other activities that could affect them.

Neither NEPA nor the NHPA require complete avoidance of all Project-related impacts on cultural resources. However, implementation of the HPTP required by Mitigation Measure CUL-1 will ensure that affected historic properties are treated consistent with the values that make them significant. In addition to addressing known historic properties, the HPTP will include provisions for monitoring construction activities and identifying, evaluating and treating buried cultural resources that may be discovered during construction.

The MOA will be completed and signed prior to approval of the ROD. Consulting parties and stakeholders, including the State Historic Preservation Officer and Indian tribes, will have an opportunity to participate in consultations on the terms and provisions of the MOA before the Project is approved. Final measures to avoid, minimize, and mitigate impacts to cultural resources will be developed as a result of that consultation.

If cultural resources that are not historic properties are identified prior to approval of the ROD, measures to avoid, minimize or mitigate impacts on them will be developed in consultation with the people to whom they are culturally important.

- 11-108 See PA/FEIS Section 5.2.2, which summarizes the BLM's ongoing government-to-government consultation with federally recognized tribes, including the Cocopah and Quechan tribes. Consistent with the BLM NEPA Handbook (p. 167), public information documents such as letters, notices, and all written correspondence with tribes, appropriately is included in and available as part of the formal administrative record for the Project. Such materials need not be included in the EIS. Insufficient detail is provided

- to support the general assertion made in the comment that the PA/EIS “completely fails to evaluate the meaning of tribal concerns” to allow for a detailed response. However, see generally PA/FEIS Section 4.5, which analyzes impacts of the alternatives under consideration to cultural resources, including tribal concerns.
- 11-109 As stated in the Notice of Intent to prepare the Draft PA/EIS for the Project, 76 Federal Register 167 (29 August 2011), pp. 53693-53694, “Federal, State, and local agencies, along with tribes and other stakeholders that may be interested in or affected by the BLM’s decision on this Project, are invited to participate in the scoping process and, if eligible, may request or be requested by the BLM to participate in the development of the environmental analysis as a cooperating agency.” Additionally, the BLM sent a press release regarding the Notice of Intent and scoping comment opportunities to numerous local news sources in the region, including the Palo Verde Valley Times, Hi-Desert Star, and Press-Enterprise. No requests to participate in consultation about historic resources were received from interested parties during the scoping period, nor have any been received during the public comment period on the Draft PA/EIS or at any other time to date. The BLM welcomes and invites the participation of other interested parties.
- 11-110 As described in PA/FEIS Section 5.2.2, the BLM consults with Indian tribes in accordance with several authorities including, for example, NEPA, the NHPA, the AIRFA, and Executive Orders. Government-to-government consultation is ongoing. As described on page 3.5-2, in addition to the Cultural Resources Survey Report, the BLM has initiated consultation with Indian tribes to identify places of traditional religious and cultural importance that may otherwise be left unidentified by these studies. Additionally, an Ethnographic Assessment currently is underway. Results are not yet available. See Section 5.2.2.
- 11-111 As discussed in PA/FEIS Section 5.2.2.1, the NHPA consultation process will conclude with the execution of an MOA that includes avoidance, protection, and mitigation measures. The draft MOA provided in PA/FEIS Appendix L includes a NAGPRA-compliant Plan of Action that will be finalized as part of the consultation process to ensure the proper treatment and protection of prehistoric human remains should any be discovered. Consistent with BLM Instruction Memorandum No. 2012-108 (April 27, 2012), *Coordinating National Historic Preservation Act and National Environmental Policy Act Compliance*, the BLM “must complete both the NHPA Section 106 process and Tribal Consultation prior to making a final decision on a proposed action.” Accordingly, the MOA (including the Plan of Action) will be finalized before the BLM makes a decision on the Project.
- 11-112 The BLM concurs with the commenter that many conventional modes of floodplain management do not transfer to desert wash or alluvial fan settings, such as are present on the Project site. However, as discussed in Chapter 2, floodplain management for the Project would be different from many of the other major solar projects that have been approved. Notably, as discussed in Section 4.20, flood flows would be permitted to flow across the

site, rather than being concentrated in channels along the edge of the facility. With respect to evaporation ponds being affected by flooding, this potential issue is disclosed and mitigated in Section 4.20 (see to page 4.20-9 and Mitigation Measure WATER-4 on page 4.20-19). With respect to potential for undermining of PV arrays, as discussed in Section 4.20, the PV panels would be located outside of and away from ephemeral channels. These areas would be avoided to preserve the channels as natural floodways. Panel mounts located in areas where overland flows would occur during flooding events could become temporarily inundated, but flow velocities in these areas would be substantially less than in ephemeral channels with concentrated flows, and are not anticipated to be of sufficient velocity to result in substantial scouring or undercutting. Consequently, because the design/layout of the Project would avoid siting of solar panels and other facilities within ephemeral channels or washes, significant impacts to arrays such as toppling is not anticipated.

- 11-113 Section 4.9 does provide evidence to substantiate its claim that if solar PV modules were damaged at the Project site, CdTe would not mobilize to the environment (Fthenakis, 2003, 2008). The comment presents new information published in July 2012 that was not available to the authors of the analysis at the time it was completed (Sinha et al., 2012). This information has been reviewed and Section 4.9 revised to reflect this new information, as shown below. The Sinha et al. report studies the scenario of commercial rooftop solar PV panels, not a utility-scale solar farm scenario like the Project. However, its findings are relevant to the Project. Sinha et al. find that “Overall, a worst case leaching scenario with screening level fate and transport modeling yields impacts to soil, air, and groundwater that are one to five orders of magnitude below human health screening levels in a California...exposure scenario” (pp. 1674-1675). This new information does not change the conclusions of the hazardous materials impact analysis; however, in response to this and other comments concerning the potential for CdTe leaching from damaged panels, Mitigation Measure HAZ-2, which requires the Applicant to prepare and implement a Broken PV Module Detection and Handling Plan if the Applicant chooses to use CdTe PV panels, has been added to Section 4.9. Implementation of this measure would minimize the potential for CdTe leaching from damaged panels.

The Applicant is considering use of PV panels that contain a thin semiconductor layer containing cadmium telluride (CdTe). While CdTe itself is a hazardous substance in an isolated form, the CdTe in the PV panels is bound and sealed within the glass sheets and a laminate material (Fthenakis, 2003, 2008). A report by the Norwegian Geotechnical Institute (NGI) notes that “If the modules are destroyed during use and are exposed to rain, emissions can occur; however, a very low vapour pressure and water solubility are expected to result in only trace emissions into the environment” (NGI, 2010, p. 13). Additionally, an article that examined the potential for CdTe leaching from commercial rooftop solar PV installations found the worst-case modeled environmental concentrations in soil, air, and groundwater in a California-based scenario, are one to five orders of magnitude below human health screening levels (Sinha et al., 2012). If the

Applicant chooses to use CdTe PV panels, implementation of Mitigation Measure HAZ-2, which requires the Applicant to prepare and implement a Broken PV Module Detection and Handling Plan, would minimize the potential for CdTe leaching from damaged panels. The CdTe within the PV modules is highly stable and, even if the modules were damaged, CdTe would not mobilize from the glass and into the environment under any plausible Project conditions (Golder, 2010).

- 11-114 The potential for flooding to inundate evaporation ponds is evaluated on page 4.20-9. As discussed therein, implementation of Mitigation Measure WATER-4 would be required, which would require protection of the proposed evaporation pond from flooding via installation of berms that would be no less than two feet above the highest anticipated flows during a 100-year storm event (p. 4.20-19). Therefore, release of water or solids from the evaporation ponds would not occur during a flood event, and no further analysis is warranted.
- 11-115 See Response 6-18. As discussed therein, the flood noted by the commenter was approximately equivalent to a 100-year event, not a 500-year event. Consideration of 500-year flood is not warranted due to the very low probability of such an event (0.2 percent chance of occurring in a single year) and the lack of previous data regarding the potential effects. Projects are typically not required to design for 500 year events because they are rare and effects of such events cannot be reliably predicted.
- 11-116 See Response 11-113 regarding the potential for CdTe to be released from PV panels. Because evidence shows that worst-case releases of CdTe from broken panels are well below levels of concern, the risk of release of CdTe during a potential flood event is considered to be very low.
- 11-117 See Response 11-115.
- 11-118 See Response 11-113 regarding the potential for CdTe to be released from PV panels. A mitigation measure has been added to Section 4.9 as described therein. Also see Response 11-114 regarding the potential for flooding to inundate evaporation ponds.
- 11-119 The PA/EIS notes and evaluates requirements for a Title 27 discharge permit and associated waste discharge requirements (WDRs) on page 4.20-10. As discussed therein, adherence to the conditions of this permit would ensure that potential for water quality degradation is minimized, in accordance with state and federal laws. Permits for the placement of fill and other modifications to natural waterways are discussed in Sections 3.3 and 4.3, *Biological Resources - Vegetation*, along with potential environmental impacts associated with the construction activities that are proposed for the Project site. As discussed therein, mitigation measures are applied as warranted to minimize potential impacts. For additional discussion, please refer to Sections 3.3 and 4.3 of the PA/EIS.

In general, with respect to permitting, finalized permits would be acquired prior to the initiation of construction activities on site. Permits would be received following completion of engineering-level site design, and would require adherence to various permitting conditions and requirements, as required by law. To the extent that such permitting conditions would affect or reduce environmental impacts associated with the Project, applicable permitting conditions have already been anticipated and considered within the text of the PA/EIS. The application of further or additional permitting conditions by agencies during the permitting process could result in further restrictions or compliance actions being levied, in order to minimize potential impacts. The permitting process would not, however, result in a slackening of requirements for the protection of natural resources, nor would the permitting process itself result in novel or exacerbated environmental impacts. Therefore, further discussion and analysis of applicable permits beyond that already provided by the PA/EIS is not warranted.

11-120 Section 3.9, *Hazards and Hazardous Materials*, acknowledges that “an additional environmental concern at the Project site is the potential presence of unexploded ordnance due to its use as a military practice area during the World War II era,” i.e., the California-Arizona Maneuver Area (CAMA), as described in Section 3.22.2, *Unexploded Ordnance*, in which the Draft PA/EIS disclosed the presence of military exercises and the potential for discarded military munitions, other explosives, and unexploded ordnance to be encountered on the site. The potential health and safety risks related to unexploded ordnance are described, and mitigation proposed, in Section 4.22, *Additional NEPA Considerations*. Portions of the discussion of the site’s historic military training use have been moved to Section 3.9 in response to comment 11-121, below.

11-121 As disclosed on page 3.9-2, the Phase I Environmental Site Assessment conducted for the Project site determined that lead debris from shooting target practice could be present on the Project site. Additionally, as had been described in Section 3.22.2, *Unexploded Ordnance*, incendiary and pyrotechnic materials were stored at the former Blythe Army Airfield. The commenter expresses concern about the potential for other metals, including copper, zinc, tungsten, arsenic, antimony, and nickel, as well as perchlorates, to be present in soils on the Project site. The discussion of the site’s historic military training use that was in Section 3.22.2 has been moved to Section 3.9.1.2, *Hazardous Materials* to provide context earlier in the PA/EIS for the discussion of potentially hazardous materials in soils, and additional discussion of the potential for metals and perchlorates to be present in site soils has been added to Section 3.9.1.2.

Additional discussion of the potential for worker exposure to hazardous materials in on-site soils has been added to Section 4.9 as follows:

**Environmental Site Contamination**

Ground-disturbing activities would disturb on-site soils that may contain materials such as metals and perchlorates which, if inhaled, could result in adverse health effects for workers. Although some fugitive dust would result from operation and

maintenance as described in Section 4.2, *Air Resources*, the primary concern if such materials are present on site would be construction workers potentially exposed to more dust. Because construction would be temporary, long-term exposures are not anticipated to occur. Implementation of dust suppression measures in APMs AIR-1 and AIR-2 would reduce the potential for worker exposure to any hazardous materials that may be present in site soils by reducing the amount of dust released from construction and operation activities. In addition, as described in Section 2.3.1.4.12, *Health and Safety*, construction-related safety programs and procedures would include a PPE program and respiratory protection program that would further reduce the potential for exposure to any existing on-site hazardous materials. Finally, implementation of Mitigation Measure HAZ-1, which requires the Applicant to prepare and implement a site-specific Hazardous Materials Safety Plan, would minimize potential exposures to existing hazardous materials if such materials are found to be present on site.

Additionally, Mitigation Measure HAZ-1 has been added to Section 4.9:

**HAZ-1:** The Applicant shall prepare and implement a site-specific Hazardous Materials Safety Plan. The plan shall identify the chemicals potentially present in on-site soils, health and safety hazards associated with those chemicals, monitoring to be performed during site activities, soil handling and disposal methods required to minimize the potential for harmful exposures, appropriate personal protective equipment, and emergency response procedures. The Plan shall be included in and implemented as part of the Project's larger Safety and Health Program. The plan shall be submitted to the BLM for approval prior to commencement of construction activities and shall be distributed to all construction crew members prior to construction and operation of the Project.

Implementation of Mitigation Measure HAZ-1 would reduce, but not completely avoid, the potential risks to workers from encountering hazardous materials, if such materials are present on site.

11-122 See Responses 11-120 and 11-121.

11-123 The BLM acknowledges the potential for flood flows to occur on site. Potential impacts associated with flooding are discussed on page 4.20-9. As discussed therein, the flood analysis included for the Project site considered potential flood events up to the 100-year event. As discussed briefly in Section 4.20 and more extensively in Chapter 2, flooding on-site would be managed by allowing flood flows to cross the site without imposed constrictions. Flood waters would pass underneath the solar panels. This flood management strategy is in contrast to flood management strategies employed by Genesis and select other solar projects in the region, which seek to concentrate flows and direct those flows around the site and away from solar arrays. Therefore, because no flood protection berms or other flood protection features surrounding the site are proposed, such features would not be installed prior to construction. Note, however, that select

structures on-site would require protection from flooding. These include proposed buildings, maintenance areas, designated parking lots, and the evaporation ponds. These features would require elevation above the floodplain in order to provide flood protection (see page 4.20-9 and Mitigation Measure WATER-4). The fill needed in order to elevate these structures above the floodplain would be placed prior to the installation of these facilities. Therefore, these facilities would be protected from flooding during and after construction. See also Response 6-18.

11-124 As explained in PA/FEIS Section 5.5.4.3, Common Response 3, the Draft PA/EIS has been revised to emphasize the BLM's conclusion that available data do not substantiate the hypothesis from 2009 that groundwater from the Colorado River could potentially flow through the PVVGB to the PVMGB, and to clarify that PVID's drains prevent water flow between the Colorado River and the mesa groundwater. Because there is no connectivity between the Colorado River and mesa groundwater, Project-related groundwater pumping would have no impact on the Colorado River.

11-125 See PA/FEIS Section 5.5.4.1, Common Response 1.

11-126 See PA/FEIS Section 5.5.4.1, Common Response 1.

11-127 Alternatives to the proposed Project are described in PA/FEIS Chapter 2 and analyzed on a resource by resource basis throughout Chapter 4. The alternatives development and screening criteria relied upon in selecting a reasonable range of alternatives is set forth in PA/FEIS Section 2.2. Alternative sites on and off BLM-administered land were considered (PA/FEIS Section 2.9.2). See also PA/FEIS Section 5.5.4.1, Common Response 1.

Regarding the initial siting of renewable energy projects, the BLM has considered the criteria proposed collectively by Audubon California, California Wilderness Coalition, Defenders of Wildlife, Desert Protection Council, Mojave Desert Land Trust, Natural Resources Defense Council, Sierra Club, the Nature Conservancy, the Wilderness Society, and the Wilderness Conservancy, and notes that there is some overlap with those factors emphasized by the BLM in early conversations with potential applicants about possible project proposals. As explained in PA/FEIS Section 2.9.1, the BLM worked closely with the Applicant during the pre-application phase to identify appropriate areas for the Project. BLM discouraged the Applicant from including in its application alternate BLM locations with significant environmental concerns, such as critical habitat, ACECs, DWMAAs, designated off-highway vehicle (OHV) areas, wilderness study areas, and designated wilderness areas. BLM encouraged the Applicant to locate its project on public land with few potential conflicts.

11-128 See Response 11-127 and PA/FEIS Section 5.5.4.1, Common Response 1. The affected environment is described on a resource by resource basis in the PA/FEIS (See, e.g., Section 3.3 (Vegetation), Section 3.4 (Wildlife), and Section 3.5 (Cultural Resources)).

Regarding cultural resources, see also PA/FEIS Section 5.2.2, which describes the NHPA Section 106 and government-to-government consultation processes.

11-129 See PA/FEIS Section 5.5.4.1, Common Response 1.

11-130 See PA/FEIS Section 5.5.4.1, Common Response 1.

11-131 Preference for Alternative 3's central gen-tie route is noted. See PA/FEIS Section 2.8, Agency Preferred Alternative.

11-132 See PA/FEIS Section 5.5.4.2, Common Response 2.

11-133 The Multiple Use Class (MUC) Guidelines in Table 1 of the CDCA Plan state that solar electrical generation facilities may be allowed in an MUC Limited (L) area after NEPA requirements are met and the CDCA Plan is properly amended. The Proposed Action, if approved, would amend the CDCA Plan following the process anticipated in the CDCA Plan to identify the site as suitable for the proposed solar energy use. Accordingly, the proposed CDCA Plan amendment and the overall amendment process would be consistent with the CDCA Plan.

The CDCA Plan is a comprehensive, long-range plan that was adopted in 1980; it since has been amended many times. The CDCA is a 25-million-acre area that contains over 12 million acres of BLM-administered public lands within the area known as the California Desert. The Plan initially was prepared and continues to provide guidance concerning the use of the California Desert public land holdings while balancing other public needs and protecting resources. More specifically, it establishes goals and specific actions for the management, use, development, and protection of the resources and public lands within the CDCA. It is based on the concepts of multiple use, sustained yield, and maintenance of environmental quality. The Plan anticipated that renewable power generation facilities would be proposed in the California Desert. Accordingly, it made allowances for the review of such applications, including a provision that all proposed applications “associated with power generation or transmission not identified in the [CDCA] Plan will be considered through the Plan Amendment process.” The intention of this provision was to ensure that the BLM would take a planning view of all of the renewable energy applications proposed and that such projects would require an amendment to the CDCA Plan to maintain consistency throughout the plan. Amendments to the CDCA Plan can be site-specific or global, depending on the nature of the amendment. Thus, the Plan Amendment process is an intentional aspect of the Plan designed to allow for both flexibility and consistency in the use and protection of public lands and resources.

Furthermore, the Riverside East SEZ includes some Class L lands, indicating that the development of such lands for solar development is an anticipated use.

11-134 See PA/FEIS Chapter 3, Affected Environment; Chapter 2, Proposed Action and Alternatives; Chapter 4, Environmental Consequences, and responses to prior comments

in this letter. For these reasons, as well as those provided in PA/FEIS Section 5.5.4.4, Common Response 4, the Draft PA/EIS will not be recirculated for public review and comment.

## **Letter 12 – Responses to Comments from Center for Biological Diversity (CBD)**

- 12-1 The comment is noted.
- 12-2 The comments submitted by Defenders of Wildlife, Natural Resources Defense Council, Sierra Club, the Wilderness Society, and Audubon California are addressed under Letter 22, Responses 22-1 through 22-22.
- 12-3 See PA/FEIS Section 5.5.4.2, Common Response 2.
- 12-4 See PA/FEIS Section 5.5.4.2, Common Response 2.
- 12-5 The comment is noted.
- 12-6 The stated preference for an alternative that avoids areas that are sensitive ecologically and hydrologically is noted. Conversations between the BLM, other resource agencies, and the Applicant are ongoing as to a potential realignment of the westernmost fence line of Unit 2. The ultimate decision on this point will be reflected in the ROD.
- 12-7 The comment that desert tortoise impacts would be lessened under Alternative 2, which avoids the western portion of the Project area, is consistent with the analysis in the PA/EIS and is noted.
- 12-8 The number of kit foxes identified in the Project area is presented in the technical reports provided in Appendix C, and summarized on page 3.4-16.
- 12-9 In response to this and other comments, the following impact discussion is added to the kit fox discussion on page 4.3-15 to address the topic of canine distemper in desert kit fox populations:

In late 2011, the first known cases of canine distemper virus (CDV) were observed in desert kit foxes about 20 miles west of Blythe on public lands managed by the BLM and leased to Genesis Solar LLC to construct the Genesis Solar Energy Project site. CDFG believes that the outbreak originated from an infected host animal entering the site, possibly a wild or domestic dog, American badger, or other carnivore. The rapid spread of CDV within the kit fox population was facilitated by the project-related displacement of infected animals from the Genesis site into new kit fox territories. Subsequently, desert kit foxes were captured for disease testing at the First Solar Desert Sunlight, Solar Millennium Palen, Genesis Ford Dry Lake, and at Southern California Edison's Colorado River substation and

CDV was identified at the two later sites, which span a distance of about 40 miles on the I-10 corridor within the Chuckwalla Valley (California Energy Commission, 2012). The CDFG Wildlife Investigations Lab continues to monitor the health of desert kit foxes and is attempting to characterize the spread and significance of the disease on regional kit fox populations. To date, there has been no effort to test desert kit foxes in the Project area for distemper.

The typical practice for solar projects has been to exclude desert kit foxes from project areas during pre-construction clearing of project sites by “passive relocation” methods (i.e., by closing burrows, forcing foxes to locate to new off-site burrows). This practice has the potential to worsen the outbreak, by raising kit fox stress levels and causing increased susceptibility to infection, causing increased movement of diseased animals thereby increasing the spread of disease into new areas, or placing healthy kit foxes into contact with off-site infected animals (California Energy Commission, 2012).

Additionally, Mitigation Measure WIL-8 on page 4.4-36 has been redrafted as follows to provide additional canine distemper protection to desert kit fox populations:

**WIL-8: American Badger and Desert Kit Fox Protection.** To avoid direct impacts to American badgers and desert kit fox, the Applicant shall implement the following measures:

1. **Baseline Kit Fox Census and Population Health Survey:** A qualified biologist with demonstrated mammal experience shall complete a baseline study of desert kit fox populations on the Project site and the anticipated dispersal areas from passive relocation at least 60 days prior to initiation of construction activities. The study shall characterize the demographics (e.g., size, structure, and distribution) of the kit fox population on the site and receiving areas. The Applicant shall coordinate with and fund studies by federal or State wildlife health officials [e.g., the CDFG Wildlife Investigations Lab (WIL)] to establish baseline health conditions.
2. **Prepare Desert Kit Fox Management Plan:** At least 45 days prior to construction, the Applicant shall submit a Desert Kit Fox Management Plan that: 1) incorporates baseline desert kit fox census and health survey findings into a cohesive management strategy that minimizes disease risk to kit fox populations; 2) specifically identifies preconstruction survey methods for kit foxes and large carnivores (e.g., badgers) in the Project area; 3) describes preconstruction and construction-phase passive relocation methods from the site, and; 4) coordinates survey findings prior to and during construction to meet the information needs of wildlife health officials in monitoring the health of kit fox populations. The Plan shall include contingency measures that would be performed if canine distemper were documented in the Project area possible dispersal areas adjacent to the Project site, and measures to address potential kit fox reoccupancy of the site (as documented at the Genesis site). The contents and requirements of the Plan shall be subject to review and approval by the BLM and CDFG.

3. **Implement Desert Kit Fox Management Plan:** If canine distemper is not identified in the Project area or relocation areas during baseline surveys, the mitigation strategy may utilize passive means or active means with appropriate CDFG authorization to relocate kit foxes from the site. The approach below assumes that canine distemper is not detected during baseline surveys.
- a. Pre-Construction Surveys: Biological Monitors shall conduct pre-construction surveys for desert kit fox and American badger no more than 30 days prior to initiation of construction activities. Surveys shall also consider the potential presence of dens within 100 feet of the project boundary (including utility corridors and access roads) and shall be performed for each phase of construction. If dens are detected each den shall then be further classified as inactive, potentially active, or definitely active.
  - b. Inactive dens that would be directly impacted by construction activities shall be excavated by hand and backfilled to prevent reuse by badgers or kit fox.
  - c. Potentially and definitely active dens that would be directly impacted by construction activities shall be monitored by the Biological Monitor for three consecutive nights using a tracking medium (such as diatomaceous earth or fire clay) and/or infrared camera stations at the entrance.
  - d. If no tracks are observed in the tracking medium or no photos of the target species are captured after three nights, the den shall be excavated and backfilled by hand.
  - e. If tracks are observed, the den shall be progressively blocked with natural materials (rocks, dirt, sticks, and vegetation piled in front of the entrance) for the next three to five nights to discourage the badger or kit fox from continued use. After verification that the den is unoccupied it shall then be excavated and backfilled by hand to ensure that no badgers or kit fox are trapped in the den. BLM approval may be required prior to release of badgers on public lands.
  - f. If an active natal den (a den with pups) is detected on the site, the BLM AO and CDFG shall be contacted within 24 hours to determine the appropriate course of action to minimize the potential for animal harm or mortality. The course of action would depend on the age of the pups, location of the den on the site (e.g., is the den in a central area or in a perimeter location), status of the perimeter site fence (completed or not), and the pending construction activities proposed near the den. A 500-foot no-disturbance buffer shall be maintained around all active dens.
  - g. The following measures are required to reduce the likelihood of distemper transmission:
    - i. No pets shall be allowed on the site prior to or during construction, with the possible exception of vaccinated kit fox

scat detection dogs during preconstruction surveys, and then only with prior CDFG approval;

- ii. Any sick or diseased kit fox, or documented kit fox mortality shall be reported to CDFG and the BLM AO within 8 hours of identification. If a dead kit fox is observed, it shall be collected and stored according to established protocols distributed by CDFG WIL, and the WIL contacted to determine carcass suitability for necropsy.

12-10 See Response 12-9.

12-11 See Response 12-9.

12-12 See Responses 12-8 and 12-9.

12-13 See Response 12-9.

12-14 The cumulative analysis prepared in support of the PA/EIS identified 286,084 acres of potential burrowing owl habitat in creosote bush scrub and desert pavement habitat types in the Palo Verde watershed, of which the proposed action would affect approximately 4,496 acres (1.6 percent of the total area). A formal field study of the cumulative resources study area is beyond the scope of the biological resources analysis prepared for the PA/EIS. While much of the public land in the regional area is available for study, such a large-scale effort would be hampered by the presence of inaccessible private lands and the long period of time and extensive financial resources that would be required. As a result, the PA/EIS analysis of burrowing owl distribution and potential impacts relied on focused, site-specific burrowing owl surveys, technical reports for the surrounding area (e.g., for the BSPP), and other available scientific literature.

12-15 The analytical baseline for the proposed action is the date that the Notice of Intent (NOI) was issued: August 29, 2011. The 1995 CDFG *Staff Report on Burrowing Owl Mitigation* was revised on March 7, 2012, after the NOI was issued. Therefore, the PA/EIS did not incorporate the revised report. In reviewing the 2012 *Staff Report*, CDFG states that burrowing owl exclusion and burrow closure are not recommended where they can be avoided. In cases when owl exclusion cannot be avoided, CDFG recommends that a Burrowing Owl Exclusion Plan be developed and approved by the applicable local CDFG office. Mitigation Measure WIL-9 of the PA/EIS requires that a Burrowing Owl Mitigation Plan be prepared in consultation with CDFG. Thus, while not required to do so, the EIS generally meets with the requirements of the 2012 *Staff Report*.

The 1993 *Staff Report on Burrowing Owl Mitigation* recommends that 6.5 acres of burrowing owl foraging habitat be acquired and permanently protected per pair or unpaired resident burrowing owl. Based on the observation of four additional owls described in Response 11-44, which are presumed to be separate birds from the initial pair described on the site, an additional 26 acres of compensatory habitat is required for this species. Thus, at least 45 acres of burrowing owl habitat will be required to mitigate

Project effects to burrowing owl. As identified in Response 11-44, several additional non-breeding burrowing owls were documented in the study area. If additional owl pairs are detected on the Project site, the amount of required mitigation would be adjusted correspondingly. In response to the increased number of owls documented on the Project site, Mitigation Measure WIL-9.4 on page 4.4-38 has been revised.

12-16 In response to the comment, a template for the Burrowing Owl Mitigation Plan is added to Mitigation Measure WIL-9 on page 4.4-37, as follows:

2. ***Implement Burrowing Owl Mitigation Plan:*** The Applicant shall prepare and implement a final Burrowing Owl Mitigation Plan. The Plan shall be approved by the BLM AO in consultation with USFWS and CDFG, and shall:
  - b. identify suitable sites as close as possible to the Project site, and within 1 mile of the Project Disturbance Areas for creation or enhancement of burrows prior to passive relocation efforts;
  - c. provide guidelines for creation or enhancement of at least two natural or artificial burrows per relocated owl;
  - d. provide detailed methods and guidance for passive relocation of burrowing owls occurring within the Project disturbance area; and
  - e. describe monitoring and management of the passive relocation effort, including the created or enhanced burrow location and the Project area where burrowing owls were relocated from and provide a reporting plan.
  - f. include the following elements related to artificial burrow relocation:
    - i. A brief description of the project and project site pre-construction;
    - ii. The mitigation measures that will be implemented;
    - iii. Potential conflicting site uses or encumbrances;
    - iv. A comparison of the occupied burrow site(s) and the artificial burrow site(s) (e.g., vegetation, habitat types, fossorial species use in the area, and other features);
    - v. Artificial burrow(s) proximity to the project activities, roads and drainages;
    - vi. Artificial burrow(s) proximity to other burrows and entrance exposure; Photographs of the site of the occupied burrow(s) and the artificial burrows;
    - vii. Map of the project area that identifies the burrow(s) to be excluded as well as the proposed sites for the artificial burrows;
    - viii. A brief description of the artificial burrow design;

- ix. Description of the monitoring that will take place during and after project implementation including information that will be provided in a monitoring report.
- x. A description of the frequency and type of burrow maintenance
- g. address the following elements related to the exclusion plan:
  - i. Confirm by site surveillance that the burrow(s) is empty of burrowing owls and other species by use of a fiber-optic endoscope or comparable device;
  - ii. Describe the type of scope and appropriate timing of scoping to avoid impacts;
  - iii. Describe occupancy factors to look for and what will guide determination of vacancy and excavation timing (e.g., one-way doors should be left in place 48 hours to ensure burrowing owls have left the burrow before excavation, visited twice daily and monitored for evidence that owls are inside and can't escape);
  - iv. Identify how the burrow(s) will be excavated (excavation using hand tools with refilling to prevent reoccupation is preferable whenever possible (may include using piping to stabilize the burrow to prevent collapsing until the entire burrow has been excavated and it can be determined that no owls reside inside the burrow);
  - v. Describe removal of other potential owl burrow surrogates or refugia on site; Photographing the excavation and closure of the burrow to demonstrate success and sufficiency;
  - vi. Describe required monitoring of the exclusion site to evaluate success and, if needed, to implement remedial measures to prevent subsequent owl use to avoid take;
  - vii. Identify how the impacted site will continually be made inhospitable to burrowing owls and fossorial mammals (e.g., by allowing vegetation to grow tall, heavy disking, or immediate and continuous grading) until development is complete.

12-17 The commenter summarizes the PA/EIS finding that adverse effects to burrowing owl would be lower under Alternative 2 compared to Alternative 1.

12-18 As summarized in Response 11-34, surveys conducted over multiple years have identified only one active golden eagle nest within 10 miles of the MSEP site that is occupied by golden eagles: it is located 9.2 miles northeast, in the Big Maria Mountains. In one case, a golden eagle nest identified by prior surveys as "active" was determined to be occupied by another species; in all other cases, the golden eagle nests were determined to be inactive. Two golden eagles were incidentally observed south of the solar plant site on March 28, 2011; no golden eagles were observed during raptor point count surveys or helicopter surveys and no successful breeding by golden eagles was detected within or

beyond the 10 mile search radius during the helicopter surveys (TetraTech and Karl, 2011).

The Applicant provided a Project-specific Golden Eagle Risk Assessment in August 2011 (Tetra Tech, 2011) that the BLM and its NEPA contractor independently reviewed. This Assessment evaluated potential direct, indirect, and cumulative impacts to golden eagles from development of the MSEP, including impacts related to the potential loss of golden eagle foraging habitat. Although it currently is unknown whether golden eagles that might nest in the McCoy, Little Maria, and Big Maria Mountains in the future would utilize the Project Area for foraging, avian point counts that have been conducted for the Project suggest that golden eagles do not use the area for foraging. Nonetheless, if it is assumed that they would forage in the Project Area, impacts related to the potential Project-related loss of such foraging habitat are likely to be minimal. This is because the area with the requested ROW represents 3 percent of the area within a 10-mile radius of the nearest eagle nest in the McCoy Mountains, which is an inactive nest located 1.7 miles to the west of the Project area; 3 percent of the area of the next closest nest, which is an inactive nest located 3 miles to the southwest; and 1.5 percent of the area roughly central to the next closest nests, which are located 5.6 miles west-northwest and 8.4 miles northwest, respectively. Additionally, the requested ROW represents 0.4 percent of the area within a 10-mile radius of the active eagle nest in the Big Maria Mountains that was identified during spring 2010 surveys and determined in spring 2011 surveys to be occupied by red-tailed hawks. Furthermore, the habitat that would be disturbed or removed by development of the Project is neither unique nor limiting on the landscape, and does not represent a known prey concentration. Comparable or better foraging opportunities are expected to be available within the surrounding areas. For these reasons, development and operation of the Project is not expected to disturb the foraging of any eagle pairs within 10 miles of the Project site. Accordingly, the fact that USFWS has not adopted specific guidance for the potential loss of golden eagle foraging habitat near an active nest (see Comment 18-9) does not affect the analysis of potential impacts to golden eagles related to the potential loss of such habitat.

- 12-19 The PA/EIS analyzes impacts and identifies mitigation measures for the golden eagle under NEPA. As indicated in Response 11-73 and Response 11-74, any duties or obligations that may stem from the Bald Eagle and Golden Eagle Protection Act are independent of FLPMA, NEPA, and the PA/EIS. The BLM acknowledges that the Project, if the requested ROW grant and CDCA Plan Amendment are approved, cannot proceed until all necessary permits and approvals are obtained.
- 12-20 The occurrence of mineralized soil crusts and biological soil crusts, and the contribution of these crusts in controlling fugitive dust generated by wind erosion are discussed in Section 3.2, *Air Resources*, and 3.7, *Geology and Soils Resources*. The effects of ground disturbance on air quality, including presence of fugitive dust, is addressed in Section 4.2, *Air Resources*. The PA/EIS acknowledges that biological soil crusts would be damaged by Project activities (p. 4.3-7). The components of this common desert soil community

includes cyanobacteria, green algae, microfungi, mosses, liverworts and lichens. Through APMs AIR-1 and AIR-2, the Applicant has proposed to avoid disturbance of the desert pavement during construction and operation. The restoration of biological soil crusts is not required, though Mitigation Measure AQ-1 requires the use of non-toxic soil stabilizer in areas where desert pavement has been disturbed during construction.

12-21 See PA/FEIS Section 5.5.4.4, Common Response 4.

12-22 The comment's statement of support for the No Project Alternative is noted.

### **Letter 13 – Responses to Comments from Colorado River Indian Tribes (CRIT)**

13-1 The comment regarding CRIT's traditional ties to the Project area is noted.

13-2 Regarding buried resources, as discussed on page 3.5-30, a geoarchaeological study was performed in order to assess the potential for buried resources to exist within the Project area. The study's findings confirmed that Holocene and Pleistocene-aged sediments within the Project area do have a potential to contain buried resources. Mitigation Measure CUL-1 requires the execution of an MOA that will detail the process for activities to proceed in areas where historic properties are not now known to exist, that will contain procedures for treatment of inadvertent discoveries. The comment regarding the spiritual harm that disturbance of buried cultural resources would cause to CRIT's members is noted.

13-3 The comment regarding the spiritual harm that disturbance of buried human remains would cause to CRIT's members is noted.

13-4 The BLM welcomes any information CRIT would be comfortable sharing about the cultural and spiritual practices of tribal members and would seek to accommodate those practices where mitigation can avoid, minimize or mitigate adverse effects to them.

13-5 See PA/FEIS Section 5.5.4.1, Common Response 1.

13-6 This introductory comment summarizing the commenter's opinion that the PA/EIS is insufficient with regard to NEPA and the NHPA is noted. The discussion of effects to cultural resources in the PA/EIS satisfies the requirements of NEPA, and the execution of an MOA, which is being prepared through consultation with SHPO, Indian tribes, and other interested consulting parties, and which will be executed prior to the ROD, will signify the completion of the BLM's requirements under Section 106 of the NHPA. Regarding mitigation, please see Response 13-31, below.

13-7 The term "cultural resource" is not defined in the National Environmental Policy Act (NEPA) or any other Federal law. The discussion on page 3.5-1 is consistent with the definition of cultural resources provided in the BLM 8100 Manual. Cultural resources on

the public lands managed by the BLM are concrete, material places and things. In compliance with several laws including NEPA and the NHPA, the BLM considers the values ascribed to these places and things, and the ways in which these places and things are used, when making decisions on actions that might affect them. The public participation processes followed by the BLM in complying with NEPA and the NHPA afford opportunities for the general public and Indian tribes to identify cultural resources of all kinds, and values relating to them, that they wish BLM to consider in its decision making.

Under the NHPA and its implementing regulations, significant cultural resources are called historic properties. Historic properties are districts, sites, buildings, structures and objects that are listed on, or eligible for listing on, the National Register of Historic Places. This definition is the only technical, operational meaning of the word “significant” as it applies to cultural resources within the context of Section 106. This does not mean that places or things not meeting this definition are unimportant. The BLM recognizes that values ascribed to places or things by social or cultural groups, including Indian tribes, may make them important and worthy of consideration even if those places or things do not meet the NRHP definition of significance. During the preparation of this PA/EIS, the general public and Indian tribes were afforded opportunities to identify cultural resources of importance to them regardless of whether those resources met the NRHP definition of significance. The cultural resources analyzed in the PA/EIS were the only cultural resources identified by the archival and field inventories, public participation opportunities, and tribal consultation efforts.

An Ethnographic Assessment currently is underway. Results are not yet available. See Section 5.2.2.

The BLM will continue consulting with Indian tribes throughout the Section 106 compliance process. BLM’s tribal consultation efforts are discussed in Section 3.5.1.6 and in Appendix D. Tribes have been invited to identify resources and places of traditional cultural and religious importance that might be affected by the project. Tribes have also been invited to participate in consultations to develop a Memorandum of Agreement for the Project that will seek to resolve adverse effects, including visual, audible and atmospheric effects, on any NRHP-eligible traditional cultural properties that may be identified.

The analysis of impacts in Section 4.5 is not restricted to NRHP-listed or eligible cultural resources. All cultural resources identified within the Area of Potential Effects are included in the analysis, regardless of whether they meet the NRHP definition of significance.

Regarding the 6<sup>th</sup> paragraph on page 3.5-1, this statement has been corrected to reflect the fact that NEPA does not categorize cultural resources as buildings, sites, structures, objects, and districts.

- 13-8 See Response 13-7.
- 13-9 Please see Response 13-7. The BLM has assessed the values of the archaeological sites that would be affected by the Project. Based on that assessment, the BLM has concluded that only the seven sites that have been determined eligible for the NRHP warrant the implementation of measures to avoid, minimize or mitigate impacts. The sites determined ineligible for the NRHP were professionally recorded during the field inventories conducted for the Project. The BLM has determined that these ineligible sites lack further information potential relevant to history or prehistory that would justify mitigation. Other values that may be ascribed to these sites, including traditional cultural values, have not been identified by the public, by the consulting parties, or during the tribal consultation conducted for the Project. If such values relating to the NRHP-ineligible sites are identified by CRIT during the remainder of the NEPA and Section 106 processes, they will be considered by the BLM prior to approval of the ROD.
- 13-10 The BLM recognizes that values ascribed to places or things by social or cultural groups, including Indian tribes, may make them important and worthy of consideration even if those places or things do not meet the NRHP definition of significance. During the preparation of this PA/FEIS, Indian tribes were afforded opportunities to identify cultural resources of importance to them regardless of whether those resources met the NRHP definition of significance. The cultural resources analyzed in the PA/EIS and the values ascribed to them were the only cultural resources and values identified by the archival and field inventories, public participation opportunities, and tribal consultation efforts. An Ethnographic Assessment to identify sites to which Tribes may attach cultural or religious significance to, and that would be affected by the Project, currently is underway. The results of that study are not yet available. See Section 5.2.2.
- 13-11 As noted above, an Ethnographic Assessment currently is underway. The results of that study are not yet available. See Section 5.2.2. The Project has not yet been approved by the BLM, and the BLM will take information from the ethnographic analysis, along with other information concerning impacts to cultural resources into consideration prior to its decision to approve or deny the Project.
- 13-12 As noted above, an Ethnographic Assessment currently is underway. Results are not yet available. See Section 5.2.2.
- 13-13 Regarding buried resources, see Response 13-2. As discussed on page 3.5-30, a geoarchaeological study was conducted that identified and mapped areas with a high sensitivity for buried resources. Based on this study, there is a high potential for buried deposits in the Quaternary alluvium in the modern washes (Qw), the Quaternary Aeolian sands (Qs), and some alluvial fan and alluvial valley deposits (Qa6). Alluvial deposits of Palo Verde Mesa and McCoy Wash (Qa3, Qpv, and QTmw) have a moderate potential, while Cretaceous and Jurassic bedrock deposits (Kml, KJa, and Jv) have or little to no potential for buried deposits. BLM considers the identification of areas of sensitivity for buried resources to be sufficient to allow the identification of impacts and potential

- mitigation measures in the event that the proposed Project or an alternative is approved. Your concern will be considered by the Lead Agency decision-makers.
- 13-14 See Response 13-13.
- 13-15 See Response 13-13. The comment regarding the spiritual harm that disturbance of buried cultural resources would cause to CRIT's members is noted. The BLM welcomes any information CRIT would be comfortable sharing about the cultural and spiritual practices of tribal members and would seek to accommodate those practices where mitigation can avoid, minimize, or mitigate adverse effects to them.
- 13-16 The comment that CRIT does not endorse invasive techniques to determine location of buried resources is noted.
- 13-17 Disturbance of cultural resources as a result of flash flood events would constitute an indirect Project effect. Paragraph 5 on page 4.5-4 has been modified to include damage from flash flooding as a potential indirect effect.
- 13-18 The Draft PA/EIS has been revised to eliminate discussion of draft cultural landscapes because there can be no adverse effect upon a delineated cultural landscape until the delineation process is complete. Studies are currently underway, independent of this Project, to examine prehistoric trails and associated sites in the Colorado Desert to determine, among other things, what sites might be included within such a network, the cultural behavior they may represent, and the importance they hold for Native Americans today. Until these landscape-level studies have been completed, it would be premature to speculate about NRHP eligibility criteria for the sites that may be included within such a network, whether the interrelated sites might qualify for nomination to the NRHP as a district, or precisely what mitigation strategies might be employed to address impacts to individual sites within the context of a larger complex of interrelated resources.
- 13-19 CRIT representatives have been on site visits where the redesign has been discussed; maps indicating the location of these resources and the redesigned footprint have been made available and will be forwarded to CRIT, if requested.
- 13-20 The list of projects considered in the cumulative scenario was established as of the date of the NOI (August 29, 2011), which predates the BLM's Final Solar PEIS and the White House press release mentioned in this comment. Because conditions as of August 29, 2011, establish the analytical baseline and therefore the foundation of the environmental analysis provided throughout in the PA/EIS, the cumulative projects list has not been updated to include later-identified projects. Numerous past, present, and reasonably foreseeable renewable energy and other projects are identified in PA/FEIS Section 4.1. For example, the analysis of cumulative effects on cultural resources considers the incremental contributory effects of all of the projects identified as BLM Renewable Energy Projects within the cumulative analysis impact area (PA/FEIS Table 4.1-1). These projects include the 1,000 MW BSPP (identified as project "N" in Table 4.1-4), 500 MW

Palen Solar Power Project (identified in that table as project “H”), 300 MW enXco McCoy project (identified as project “I”), and other projects ranging in between 100 MW and 250 MW. See also, PA/FEIS Table 4.1-2, which identifies all of the renewable energy projects that were known within the California Desert District as of the date of the NOI.

The analysis of cumulative effects to cultural resources acknowledges that adverse effects to cultural resources would occur. As explained in Sections 4.5.10 and 4.5.11, the implementation of Mitigation Measure CUL-1, which would require the execution of an MOA in accordance with the requirements of NHPA §106, would reduce but may not fully avoid Project-related impacts on cultural resources, including Native American resources.

- 13-21 See Response 13-20, which discusses the rationale for the geographic scope of the cumulative effects analysis for Cultural Resources. To the extent that the projects located in Arizona and summarized in Table 4.1-4 on page 4.1-13 are relevant to the geographic scope of cumulative effects for any resource area discussed in Chapter 4, the potential contributions to cumulative impacts of these projects are considered in combination with the Project’s contributions. Including further detail about individual projects in Arizona would not change the analysis of cumulative effects for those resources. No revisions have been made.
- 13-22 The Visual Resources analysis for the Project correctly analyzed impacts on visual resources to the public, including all users of BLM facilities. To the extent that tribal members use the Project vicinity as members of the public, impacts to these users related to visual resources are considered in Section 4.19. As described on page 3.5-2, in addition to the Cultural Resources Survey Report, the BLM has initiated consultation with Indian tribes to identify places of traditional religious and cultural importance that may otherwise be left unidentified by these studies. Also, as discussed on page 4.5-3, BLM’s analysis of adverse effects to cultural resources took into consideration types of effect other than direct physical impact, and included consideration of auditory, visual, and atmospheric effects. See also PA/FEIS Section 5.2.2, describing Section 106 and government-to-government consultation. Consultation is ongoing, and participants have ongoing opportunities to ensure that their concerns are addressed through this process.
- 13-23 The criteria for selecting KOPs is not to depict all of the visual impact scenarios, but to choose locations that are representative of views experienced by the public. The rationale for the selection of KOPs is fully detailed on page 4.19-3, and the locations of KOPs selected are shown in Figure 3.19-2. The KOPs represent an appropriate range of viewer types, view distances, and view angles. The BLM is coordinating its review of impacts to the human environment, including cultural resources, with its efforts to consult and coordinate with tribes. See PA/FEIS Section 5.2.2, describing Section 106 and government-to-government consultation. Section 106 consultation is ongoing, and

participants have ongoing opportunities to ensure that their concerns are addressed through those processes.

13-24 The BLM has not ignored tribal use of the affected area in this analysis. To the contrary, the BLM has considered such use and Project impacts to it in the preparation of the PA/EIS and is continuing to consider it as part of the ongoing NHPA Section 106 and government-to-government consultation processes (see PA/FEIS Section 5.2.2). The existing VRM classifications are part of the baseline condition. Unless and until those classifications are revised, the MSEP is required to conform to the VRM Class III objective, with a limited segment of the gen-tie line required to conform to the VRM Class II objective, as discussed in Section 3.19.1.7, *Interim Visual Resource Management Class Recommendations*.

13-25 The BLM would be pleased to meet with tribal members for the purpose of identifying specific places within the Project area that contain plants used for traditional purposes by tribal members. Such uses would be considered in the decision making for the Project as part of the NEPA process. The BLM would seek to accommodate the continued use of such plants by tribal members elsewhere on the public lands.

13-26 See Response 13-25.

13-27 The BLM has and continues to engage in government-to-government consultation with Indian Tribes in a good faith effort to identify and meaningfully address resources of tribal concern. The BLM would be pleased to meet with tribal council for the purpose of identifying potential effects to resources of importance to the tribe. Please see Table 5-1 in Section 5.2.2 that details the tribal outreach and communications to date for the McCoy Project.

13-28 See PA/FEIS Section 5.2.2.

13-29 As described on page 4.6-3, the analysis of environmental justice effects was limited to potential health or environmental effects; by comparison, effects related to cultural resources and the communities affected by impacts to such resources are discussed in Section 4.5, *Cultural Resources*. See Response 8-25 regarding the composition of the minority populations considered in the PA/FEIS. As explained in that response, Table 3.6-1 correctly reported the percentage of non-Hispanic American Indian and Alaska Native population in each of the geographic areas as reported by the 2010 U.S. Census. The purpose of Table 3.6-1 is to show how the total percentage of minority population is arrived at: it consists of racial or ethnic groups other than non-Hispanic White (p. 3.6-2). The BLM acknowledges that the total American Indian and Alaska Native population, alone or in combination with one or more races (which includes those also reporting Hispanic origin) is higher, as follows:

Riverside County, CA	Census Tract 469	Census Tract 9810	Blythe CDD	City of Blythe	La Paz County, AZ	Colorado River Indian Reservation
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2.0%	2.3%	0.9%	2.3%	1.8%	15.2%	32.3%
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SOURCE: U.S. Census Bureau, 2010b

As explained on pages 4.6-1 and 2, a minority population is identified when the percentage of minority population is greater than 50 percent and/or meaningfully greater than that of the general population. None of the areas studied for environmental justice effects has an American Indian and Alaska Native population greater than 50 percent, and only the Colorado River Indian Reservation has a population meaningfully greater than either Riverside or La Paz County. Therefore, using American Indian and Alaska Native population alone, the selection of the affected areas with respect to environmental justice would be the same as that of the Draft PA/EIS. The same is true for each other ethnic and racial group reported in the U.S. Census. Therefore, the approach taken in Section 4.6 is appropriately conservative in selecting affected areas with respect to environmental justice.

The geographic scope of the analysis in Section 4.6 consists of areas within which potential effects on the local populations could occur. The primary area includes a 6-mile radius, consistent with the range of the Project’s air quality impacts, and the secondary area includes a 2-hour travel radius for commute-related effects.

13-30 Section 3.6 identifies whether minority and/or low-income populations meet or exceed the numeric threshold (50 percent) used for the analysis based on CEQ guidance, as explained on page 3.6-2. Both minority and low-income populations “meaningfully greater” than the general population are identified in the description of the methodology for the analysis in Section 4.6. Specifically, CT 469 and the Colorado River Indian Reservation are identified as having low-income populations meaningfully greater than the general population on page 4.6-3. No revisions have been made.

13-31 The discussion of effects to cultural resources in the PA/EIS satisfies the requirements of NEPA, and the execution of an MOA, which is being prepared through consultation with SHPO, Indian tribes, and other interested consulting parties, and which will be executed prior to the ROD, will signify the completion of the BLM’s requirements under Section 106 of the NHPA.

The regulations implementing the National Historic Preservation Act (NHPA), found at 36 CFR Part 800, provide for the use of a Memorandum of Agreement (MOA) to describe measures designed to resolve adverse effects on historic properties. MOAs are commonly used to comply with Section 106 of the NHPA on projects like the MSEP. Development of the MOA for the Project will provide an opportunity for determining mitigation consistent with the values of the historic properties involved, prior to construction or other activities that could affect them.

Neither NEPA nor the NHPA require complete avoidance of all Project-related impacts on cultural resources. However, implementation of the HPTP required by Mitigation Measure CUL-1 will ensure that affected historic properties are treated consistent with the values that make them significant. In addition to addressing known historic properties, the HPTP will include provisions for monitoring construction activities and identifying, evaluating and treating buried cultural resources that may be discovered during construction.

The MOA will be completed and signed prior to approval of the ROD. Consulting parties and stakeholders, including the State Historic Preservation Officer and Indian tribes, will have an opportunity to participate in consultations on the terms and provisions of the MOA before the Project is approved. Final measures to avoid, minimize, and mitigate impacts to cultural resources will be developed as a result of that consultation.

If cultural resources that are not historic properties are identified prior to approval of the ROD, measures to avoid, minimize or mitigate impacts on them will be developed in consultation with the people to whom they are culturally important.

- 13-32 BLM considers the identification of cultural resources to be sufficient to allow the identification of impacts and potential mitigation measures in the event that the proposed Project or an alternative is approved. Your concern will be considered by the Lead Agency decision-makers.
- 13-33 The requested clarification, if made, would have no effect on the adequacy or accuracy of the BLM's review processes under NEPA, the NHPA, or other laws and policies governing tribal consultation, and so has not been made. See also, BLM Instruction Memorandum No. 2012-108 (April 27, 2012), *Coordinating National Historic Preservation Act and National Environmental Policy Act Compliance*, Attachment 1, p. 2 ("Resolve potential adverse effects to resources of concern; invite tribes to be a party to the Memoranda of Agreement (MOA) or Programmatic Agreement (PA) that will conclude the NHPA 106 process.") and Attachment 3, pp. 5-6 ("...the BLM executes the MOA and, when signed by all required Signatory Parties the Section 106 process is complete.").
- 13-34 See PA/FEIS Section 5.5.4.1, Common Response 1.
- 13-35 See PA/FEIS Section 5.5.4.1, Common Response 1.
- 13-36 See PA/FEIS Section 5.2.2, describing the development of the MOA. The commenter's conceptual disagreement with the MOA's ability to resolve cultural resource-related effects is noted. Section 106 consultation is ongoing, and participants have ongoing opportunities to ensure that their concerns are addressed through this process. The comment does not provide specific examples as a basis for the allegation that the MOA will not resolve cultural resource-related effects. Accordingly, the BLM is unable to provide a more detailed response at this time.

13-37 See Response 13-32. Your concern will be considered by the Lead Agency decision-makers.

## **Letter 14 – Responses to Comments from Laborers International Union of North America (LIUNA), Local Union No. 1184**

14-1 The comment is noted.

14-2 See PA/FEIS Section 5.5.4.4, Common Response 4.

14-3 The comment is noted.

14-4 The comment does not specify what, if any, mitigation measures would or could be required that have not been considered in the PA/EIS. Without further detail, the BLM cannot provide more specific responses at this time.

14-5 The mitigation measures proposed in the PA/EIS provide performance standards and specific types of actions to be taken, and contain sufficient information to inform a decision on the Project's impacts and mitigation. The contents of certain of these plans are dictated by law; in these cases the Applicant is required to comply with the law, including implementing all statutory and regulatory requirements. In all cases, plans would be required to be submitted to and approved by BLM and any other agency with regulatory oversight, as detailed in the mitigation measure, before Project construction could begin. See the Environmental and Construction Compliance Monitoring Plan (Appendix L to this PA/FEIS) for detailed information about approval and monitoring of the plans required in the mitigation measures proposed in Chapter 4.

14-6 The first referenced exhibit (Sinha et al., 2012) found modeled exposure point concentrations of cadmium in groundwater based on worst-case releases from PV modules to be 0.783 µg/L (Table 2, p. 1673), and found modeled worst-case rooftop runoff cadmium concentrations to be 4 to 6 µg/L (p. 1673). Note that these were modeled, not observed data. The second referenced exhibit (Salton Sea Restoration, Final Preferred Project Report) does not contain discussion of cadmium concentrations in water, potential cadmium releases from solar PV panels, or environmental screening levels, and so is not discussed further.

As explained by Sinha, et al., these results represent a worst-case scenario that assumes “that a broken module would remain undetected and in the field over the exposure duration. This is a screening level assumption that would likely not occur given routine inspections of modules or power output” (p. 1673). As described on page 2-55, the on-site SCADA system would offer near real-time readings of the monitored devices, which would alert operators to reduced power output of modules in the event of broken panels. Additionally, seasonal panel washing and other maintenance activities would allow for visual inspection to identify broken panels, if breakage occurred.

The comment's assertion that the "California Regional Water Quality Control Board" has established an environmental screening level (ESL) of 0.25 µg/L for cadmium in groundwater and surface water is assumed by BLM to have derived from the San Francisco Bay Regional Water Quality Control Board's (SFRWQCB) "Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater" document (2008), as neither the State Water Resources Control Board nor the Colorado River RWQCB have established such ESLs. The SFRWQCB's ESLs are applicable to the San Francisco Bay region, not the Colorado River region, and are "not intended to establish policy or regulation" or "to serve as: 1) a stand-alone decision making tool, 2) guidance for the preparation of baseline environmental assessments, 3) a rule to determine if a waste is hazardous under the state or federal regulations, or 4) a rule to determine when the release of hazardous chemicals must be reported to the overseeing regulatory agency" (p. 3). The Colorado River RWQCB (Basin Plan) sets a Maximum Contaminant Level for cadmium in waters designated for use as domestic or municipal supply at 10 µg/L (2006, p. 3-4). The findings in Sinha et al. do not suggest that CdTe leachate from PV panels could result in such concentrations under any conditions.

Sinha et al. find that "Overall, a worst case leaching scenario with screening level fate and transport modeling yields impacts to soil, air, and groundwater that are one to five orders of magnitude below human health screening levels in a California...exposure scenario" (pp. 1674-1675). This new information does not change the conclusions of the hazardous materials impact analysis; however, in response to this and other comments concerning the potential for CdTe leaching from damaged panels, Mitigation Measure HAZ-2, which requires the Applicant to prepare and implement a Broken PV Module Detection and Handling Plan if the Applicant chooses to use CdTe PV panels, has been added to Section 4.9. Implementation of this measure would minimize the potential for CdTe leaching from damaged panels.

- 14-7 As described on pages 2-56, 2-57, and 4.18-4, because it is expected that the proposed PV panels would continue to have useful electricity-producing capacity after the Project authorizations expire, the Applicant anticipates reusing and then recycling them at the end of their useful life. Many panel manufacturers now offer no-cost recycling, and it is expected that after the end of the panels' useful life, adequate opportunities and incentive would exist to recycle the panels, rather than dispose of them in landfills.
- 14-8 PA/FEIS Section 2.3.1.3.1 identifies silicon as one of the materials commonly used for PV solar cells. As explained therein, "materials commonly used include monocrystalline silicon, polycrystalline silicon, amorphous silicon, cadmium telluride, and copper indium selenide/sulfide." Also stated in that section, the "Applicant is considering the installation of both polycrystalline and cadmium telluride solar cells." Accordingly, the PA/EIS did consider the use of silicon-based PV panels, in addition to considering the use of CdTe-based panels. If the Proposed Action is approved, the Applicant could determine what panel material would be used on-site closer to the start of construction.

- 14-9 The Draft PA/EIS addressed the prevalence and risk of Coccidioidomycosis (Valley Fever) in Section 3.9 (p. 3.9-5). Although the incidence of Valley Fever in Riverside County is low compared to other counties, this fungus is known to occur in desert soils. Further discussion of the potential risk to public health associated with Valley Fever has been added to Section 4.9.3.1 (p. 4.9-7).
- 14-10 PM2.5 emissions from the combustion of diesel fuel are commonly used as a surrogate for DPM emissions. Table 4.2-3 shows that the total PM2.5 exhaust emissions that would be associated with the Project would be up to 6 pounds per day. The location of DPM emissions from construction equipment would vary across the approximately 4,496-acre Project site over the 46-month construction period, and thus would not be in a fixed location for long periods of time. Therefore, DPM emissions would not be concentrated either spatially or temporally during the construction period, and the associated impact would be negligible.
- 14-11 See Response 14-10.
- 14-12 Pursuant to 40 CFR Part 98, *Mandatory Reporting of Greenhouse Gases Rule*, USEPA requires mandatory reporting of GHG emissions for facilities that emit more than 25,000 metric tons of CO<sub>2</sub>e emissions per year. For the purposes of a conservative NEPA analysis, estimated GHG emissions for the Project were compared to the USEPA mandatory emissions reporting threshold to determine whether the GHG emissions would contribute substantially to global climate change.
- 14-13 See Response 14-12. Although the Project would emit approximately 8,313 metric tons of annual amortized CO<sub>2</sub>e emissions, the Project could displace an estimated 639,061 metric tons of CO<sub>2</sub>e annually, resulting in a net reduction of 630,748 metric tons of CO<sub>2</sub>e per year. The commenter correctly notes that the MDAQMD does not have GHG thresholds. The County of San Diego threshold is noted, but does not apply to the NEPA review of the Project.
- 14-14 See Response 14-13. In addition, the PA/EIS includes APMs and mitigation measures that require a number of the measures suggested by the comment, such as APM TRANS-1 (encourages carpooling), Mitigation Measure TRN-1 (traffic control plan, provide sufficient staging for trucks), and Mitigation Measure TRN-2 (coordination of individual traffic control plans for Project and nearby projects).
- 14-15 The CDCA Plan is a comprehensive, long-range plan that was adopted in 1980; it since has been amended many times. The Plan anticipated that renewable power generation facilities would be proposed in the California Desert. Accordingly, it made allowances for the review of such applications, including a provision that all proposed applications “associated with power generation or transmission not identified in the [CDCA] Plan will be considered through the Plan Amendment process.” The intention of this provision was to ensure that the BLM would take a planning view of all of the renewable energy applications proposed and that such projects would require an amendment to the CDCA

Plan to maintain consistency throughout the plan. Thus, the Plan Amendment process is an intentional aspect of the Plan designed to allow for both flexibility and consistency in the use and protection of public lands and resources.

Further alternative sites on other BLM-administered lands were not considered for the reasons explained in Section 2.1.1.1.1.

- 14-16 The Multiple Use Class (MUC) Guidelines in Table 1 of the CDCA Plan state that solar electrical generation facilities may be allowed in an MUC Limited (L) area after NEPA requirements are met and the CDCA Plan is properly amended. The Proposed Action, if approved, would amend the CDCA Plan following the process anticipated in the CDCA Plan to identify the site as suitable for the proposed solar energy use. Accordingly, the proposed CDCA Plan amendment and the overall amendment process would be consistent with the CDCA Plan. Furthermore, the Riverside East SEZ includes some Class L lands, indicating that the development of such lands for solar development is an anticipated use.

The decision criteria presented on page 93 of the CDCA plan are not requirements for CDCA Plan conformance; rather, they are the criteria the BLM will consider when making a decision about the Proposed Action and alternatives.

The extent to which the Project has been located and designed to avoid sensitive resources is addressed throughout the PA/EIS. The BLM and other federal regulations that restrict the placement of proposed facilities, such as the presence of designated Wilderness Areas or Desert Wildlife Management Areas, were considered in the original siting process used by the Applicant to identify potential sites for the Project.

As described on page 3.16-2 and shown on Figure 3.14-1, the nearest ACEC to the Project site is the Mule Mountains ACEC, approximately 9 miles to the south. The Project site is not within an ACEC, nor is it governed by the management prescriptions for any ACEC. Similarly, as described on page 4.16-1, the Proposed Action would have no effect on existing special designations because none occur within the Project site; therefore, no special designation-specific plans or management prescriptions apply to the site.

The comment does not specify any other local plan to which the Project would fail to conform. Local land use plans such as the Riverside County General Plan and Palo Verde Valley Area Plan pertain only to the portion of the Project site that is under Riverside County jurisdiction and do not control federal actions on federal land. This portion would be reviewed by the county separately from the BLM's NEPA process. Accordingly, analyzing consistency of the Proposed Action and alternatives with local land use plans is beyond the scope of analysis for the BLM.

As described on page 3.16-2, the consideration of wilderness characteristics in the land use planning process may result in several outcomes, including emphasizing other multiple uses as a priority over protecting wilderness characteristics.

The consideration of these and other decision criteria in the CDCA plan during decision-making process will be reflected in the ROD.

- 14-17 See PA/FEIS Section 5.2.1, which describes Federal Endangered Species Act Section 7 consultation with the USFWS. Section 7 does not require the BLM, as the consulting Federal Agency, to submit the BO for public review and comment under NEPA, as suggested by the comment. Rather, the code section cited by the comment (50 C.F.R. §401.12(g)(5)) states, “If requested, the Service shall make available to the Federal agency the draft biological opinion for the purpose of analyzing the reasonable and prudent alternatives. ... The applicant may request a copy of the draft opinion from the Federal agency. All comments on the draft biological opinion must be submitted to the Service through the Federal agency, although the applicant may send a copy of its comments directly to the Service. ...” Furthermore, 40 C.F.R. §1502.25 requires a federal lead agency to prepare draft EISs concurrently with and integrated with analyses, surveys, and studies required by the Federal Endangered Species Act to the fullest extent possible. The BO has been prepared by USFWS after review of the BA, concurrently with the BLM’s preparation of the Draft PA/EIS and PA/FEIS, and in consultation with the BLM as described in Section 5.2.1.
- 14-18 As explained in PA/FEIS Section 5.5.4.4, Common Response 4, revisions to the Draft PA/EIS do not trigger recirculation.
- 14-19 Comment noted. The comment letter and all attachments are available in the administrative record for the PA/FEIS, and may be obtained along with all other Project-related public records from the BLM by contacting Jeff Childers, Project Manager, California Desert District. Contact information is provided in PA/FEIS Section 5.4.

## **Letter 15 – Responses to Comments from Metropolitan Water District of Southern California (MWD)**

- 15-1 MWD requests that the final EIR provide analysis of potential effects to its facilities, but does not describe what specific potential impacts should be analyzed. As described in Section 3.10.1.3, “Within the immediate and surrounding areas of the Project, there are no communications sites, land use permits, leases or easements of record, nor are any land tenure issues identified in close proximity to or that would be affected by the Project.” Furthermore, as described in Section 4.10, *Lands and Realty*, no impacts to lands and realty were identified south of I-10 or west of the Palen Mountains, where MWD’s facilities are located as indicated on the map provided in the comment letter. No other MWD facilities, including fee-owned rights-of-way, were identified closer to the Project site where impacts related to lands and realty could occur.

The Draft PA/EIS contains sufficient information to evaluate the potential lands and realty effects that would result from development of the Project.

- 15-2 See PA/FEIS Section 5.5.4.3, Common Response 3. For the reasons explained in Common Response 4, Project-related groundwater pumping would have no impact on PVID return flows to the Colorado River; therefore, it would cause no reduction in MWD's Colorado River water supply.
- 15-3 See PA/FEIS Section 5.5.4.3, Common Response 3.
- 15-4 See PA/FEIS Section 5.5.4.3, Common Response 3. As explained therein, Project-related groundwater pumping would have no impact on MWD's Colorado River-sourced supplies. Accordingly, MWD will not be copied on the requested reports but nonetheless may obtain them and all other Project-related public records from the BLM by contacting Jeff Childers, Project Manager, California Desert District. Contact information is provided in PA/FEIS Section 5.4.
- 15-5 In Table 3.20-10, site number 4 was confirmed to be correctly listed. However, the latitudes and longitudes for site numbers 5, 6, and 7 (USGS Location Numbers 09533300, 09534550, and 09534500) were found to have been erroneously reported as being closer to the Project site. Because these sites are further than 15 miles from the Project site, they have been removed from the table.

## **Letter 16 – Responses to Comments from Renewable Resources Group, Inc.**

- 16-1 The name and ownership of cumulative project "X" in Table 4.1-4, on page 4.1-12, have been revised "Palo Verde Mesa Solar Project" and "Renewable Resources Group, Inc.," respectively, to reflect the input of the commenter. References to "CUP03677" have been revised to "Palo Verde Mesa Solar Project" in Sections 4.7, 4.9, and 4.20.
- 16-2 The acreage and description of cumulative project "X" have been revised to reflect the input of the commenter and additional material published by the Riverside County Planning Department since publication of the Draft PA/EIS. Although the precise acreage of the Palo Verde Mesa Solar Project site was not known at the time of publication of the Draft PA/EIS, the analysis assumed that the entire project site would be developed as a solar plant, a larger area than is actually planned for development according to the commenter. Therefore, the analysis presented in the Draft PA/EIS was appropriately conservative, and no new or more severe impacts would result from the newly incorporated details about this cumulative project. No revisions have been made to cumulative impact conclusions.

## **Letter 17 – Responses to Comments from U.S. Environmental Protection Agency (USEPA), Region IX**

- 17-1 Scoping comments received from USEPA Region IX are provided in full and summarized in Appendix B, *Scoping Report*, and were considered during the preparation of the Draft PA/EIS.

- 17-2 Comment noted. The detailed discussion of groundwater and surface water modeling is provided in Section 4.20, *Water Resources*.
- 17-3 See PA/FEIS Section 2.8 regarding the Agency Preferred Alternative.
- 17-4 In the PA/EIS, disturbance associated with the Project is treated generally, based on the footprint area of the Project site and the anticipated construction methods that would be used. Grading effects on water quality is considered in Section 4.20, page 4.20-2 (although the term “disc-and-roll” is not explicitly mentioned in Section 4.20). The effects of the Project on hydrology, including effects of all anticipated grading activities and facilities installation, is discussed on pages 4.20-4 through 4.20-9, as related to stormwater drainage and flooding, and largely based upon surface water models developed for the Project. The effectiveness of the proposed mitigation to account for stormwater drainage impacts during operation is discussed on pages 4.20-8 and 4.20-9. Additionally, evaluation of potential stormwater/flooding related impacts during the construction period has been added to the PA/EIS, in response to recent flooding events at other solar project sites. For a discussion of this analysis, please refer to Response 6-18. For a discussion of potential impacts associated with engineered channels, see Response 17-11.
- 17-5 See PA/FEIS Section 5.5.4.3, Common Response 3. As explained therein, there is no subsurface connectivity between the Colorado River and mesa groundwater.
- 17-6 See Responses 17-16, 17-17, 17-18, and 17-20, below, for individual responses to each of the commenter’s suggestions for additional mitigation measures.
- 17-7 As indicated in PA/FEIS Section 5.2.2, tribal consultation processes for this Project remain in progress, although they will be concluded before the Project is considered for approval. Accordingly, it would be premature in the PA/FEIS to describe the outcome of consultation before the processes are complete.
- 17-8 The DRECP is intended to advance federal and state conservation goals in the California desert region while facilitating the timely permitting of renewable energy projects under applicable federal and state laws. However, because the DRECP process remains underway, it does not govern the BLM’s decision-making efforts for the Project.
- The Final Solar PEIS was issued in July 2012, after publication of the Draft PA/EIS. Because the MSEP ROW application meets the definition of Pending Application in the Solar PEIS ROD, it is not subject to that decision or the Plan Amendments it made. Consequently, the Solar PEIS and the decisions the BLM has made based on its analysis do not govern BLM’s decision-making efforts for this Project.
- 17-9 See PA/FEIS Section 2.8 regarding the Agency Preferred Alternative.
- 17-10 Comment noted.

17-11 As discussed in Chapter 2 and Section 4.20, existing natural channels, as well as overland flow, would provide the primary means of drainage on site, as opposed to engineered channels. Limited engineered drainages within the site would be used to convey stormwater, but note that these do not refer to major flood conveyance channels as have been proposed and implemented for the Genesis Solar Energy Project and other solar projects. The commenter suggests various additional measures. Several of these have, however, already been implemented. For example, with respect to the placement of PV panels and other facilities in existing washes, the existing site designs account for the locations of existing washes and seek to avoid placement of PV panels and other facilities in those areas whenever possible.

With respect to quantifying the anticipated disc-and-roll acreage, the acreage of disc-and-roll that would occur on site will not be known until construction is underway, and will depend on area-specific considerations. However, the stormwater model and analysis provided on pages 4.20-4 through 4.20-9 accounts for grading and installation of facilities as applicable across the Project site. Mitigation is provided for associated impacts. Engineered channels would be utilized sparingly to convey on-site runoff. Modeled impacts associated with stormwater flows are already summarized and mitigated on pages 4.20-4 through 4.20-9.

In order to ensure that potential impacts associated with drainage and flooding are minimized in accordance with applicable suggestions by USEPA, Mitigation Measure WATER-3 on pages 4.20-18 and 4.20-19 has been revised to include the following:

Additionally, the number of road crossings over washes shall be minimized and necessary crossings shall be designed to provide adequate flow-through capacity during storm events, up to the 100-year event. In order to minimize disturbance to existing floodplains and natural channels, final facility designs shall be employed which minimize, to the extent practicable, the footprints of roads, parking lots, and other proposed facilities.

17-12 Completion of a finalized drainage plan was not possible prior to circulation of this document. However, a 60 percent design drainage plan document has been completed. For a discussion of flooding related issues raised by the recent flooding event at the Genesis Solar Energy Project, and a review of updated analysis, please refer to Response 6-18.

17-13 See PA/FEIS Section 5.5.4.3, Common Response 3, and Response 17-5. No entitlement to Colorado River water would be needed to construct, operate, maintain, or decommission the Project.

17-14 The cumulative and climate change analyses presented in the PA/EIS are meant to address potential for climate change effects such as drought or reduced groundwater recharge to affect water resources, as well as potential for impacts from other anticipated future projects to result in cumulative impacts to groundwater levels (as well as other

resource areas). Thus the cumulative scenario anticipates future projects and other activities that could result in a net increase in demand on available groundwater resources. Potential effects of climate change on water supply available to the Project are discussed in Section 4.8. As discussed on page 4.8-10, climate change could result in some degree of reduction of precipitation at the Project site and vicinity. This could reduce groundwater recharge from rainfall. However, such an effect would occur slowly over time, and the Project would only draw about 30 AFY (page 4.20-3) during its operation period. This volume is anticipated to be available even if climate change affects groundwater recharge to some degree; thus Project operation would not be affected and no mitigation is required. With respect to water rights, the Project lies in an unadjudicated groundwater basin, and, as discussed in PA/FEIS Section 5.5.4.3, Common Response 3, would not draw water from the Colorado River or another surface water source. Therefore water rights would not be affected.

Cumulative impacts to groundwater are discussed on page 4.20-15, with cumulative scenario impacts illustrated on Figure 4.20-8, based on groundwater modeling results. As shown and as discussed in Section 4.20, anticipated changes, even under the cumulative scenario, would be minimal. Therefore, no additional mitigation is required.

- 17-15 The Draft PA/EIS referred to a Figure 4.20-9 on page 4.20-15. This was an editorial error and should have referred to Figure 4.20-8, *Cumulative Impacts Assessment – Predicted Drawdown 2043*. There is no Figure 4.20-9, and this reference has been revised in the PA/FEIS.
- 17-16 The commenter provides two suggestions for mitigation to reduce impacts to desert pavement. The intent of the first suggestion is covered by measure 6 identified in APM AIR-1, which requires the disruption of desert pavement be minimized to the extent feasible. From an air quality perspective, the intent of the second suggestion is covered by PA/FEIS Mitigation Measure AQ-1 (formerly referred to as Mitigation Measure AQ-2 in the Draft PA/EIS), which requires that all areas where desert pavement has been disturbed during construction of the Project be applied with a non-toxic soil stabilizer prior to Project operation (see page 4.2-19). Therefore, implementation of the suggested measures is not necessary. Potential project effects on desert pavement related to biological and cultural resources are considered in Sections 4.3, 4.4., and 4.5.
- 17-17 The comment does not indicate that the measures in APMs AIR-1 and AIR-2 would be ineffective or otherwise inadequate at reducing fugitive dust emissions; however, the comment indicates that there are additional SCAQMD Rule 403 dust control measures that should be incorporated as mitigation for the Project, but makes no mention of which specific measures should be incorporated. SCAQMD Rule 403 measures are generic and relative to a variety of activities and sources such as construction sites, bulk material hauling, rock crushing, and disturbed soil in open areas and vacant lots. Many of the Rule 403 measures would not be directly applicable to the Project. As stated in Section 4.2.2, the Applicant has committed to implementing APMs AIR-1 and AIR-2 to minimize

impacts that would be associated with Project-related fugitive dust. These APMs include 20 individual dust control measures, many of which are unique for the Project. In lieu of any specific recommendations, the BLM believe that APMs AIR-1 and AIR-2 include comprehensive measures that would reduce construction-related fugitive dust emissions to the reasonable extent feasible, and that additional mitigation measures are not warranted.

As the NEPA lead agency for the project, the BLM would be required by law to ensure that the Mitigation Measure AQ-1 if adopted by the MSEP ROD is implemented as written, prior to the commencement of Project operations.

For a list of all the proposed mitigation measures applicable to the Project, as well as a description of how the measures would be made an enforceable part of the project implementation schedule, refer to PA/FEIS Appendix M.

- 17-18 The commenter recommends that a mitigation measure be added to the PA/EIS that requires the presence of an air quality construction mitigation manager to ensure the efficacy of the proposed measures. As discussed in Section 4.1.6, the BLM would compile an Environmental and Construction Compliance Monitoring Plan (ECCMP) if the Project is approved to ensure the effective implementation of the mitigation measures that have been identified to address Project impacts. The comment does not state that the monitoring and enforcement mechanisms anticipated in the PA/EIS would be insufficient to serve this function, and, without more, does not persuade the BLM that the requested resource-specific monitor should be added to the team.

It should be noted that the Draft PA/EIS has been revised to remove Mitigation Measure AQ-1 because: 1) the established mass emission indicator and threshold for the identification of adverse emissions of NO<sub>x</sub>, as defined in Draft PA/EIS Section 4.2.1.4, would not be exceeded; and 2) the majority of the PM10 that would be generated during construction would be in the form of fugitive dust, and the reductions in PM10 exhaust that would be achieved under Mitigation Measure AQ-1 would be negligible (i.e., less than one percent of total PM10 emissions) and unwarranted. The BLM believes that APMs AIR-1 and AIR-2 include comprehensive measures that would reduce construction-related fugitive dust emissions to the reasonable extent feasible, and that additional mitigation measures are not warranted.

- 17-19 The 25 mph speed limit described in APM BIO-2e is considered appropriate to minimize project effects to Mojave fringe-toed lizards from vehicle collision hazards. If the requested ROW grant is approved, compliance and enforcement monitoring would be implemented as a requirement of the ROD. Consequently, further restricting speed limits for the purpose of protecting wildlife from vehicle collision hazards is not warranted. Additionally, the 25 mph speed limit for stabilized unpaved roads with no visible dust emissions described in APM AIR-1 is considered appropriate to minimize fugitive dust under such circumstances. In the event that APM BIO-2e and APM AIR-1 apply to the same unpaved road segment, the more restrictive speed limit would apply. Compliance

with applicable speed limits will be monitored and enforced during implementation of the Environmental and Construction Compliance Monitoring Plan (ECCMP), which will be appended to the ROD if and when the Project is approved (see PA/EIS Section 4.1.6, which describes the ECCMP).

- 17-20 As described in Section 4.2.9, cumulative impacts would occur from short-term Project-related construction PM10 emissions when combined with the emissions associated the cumulative projects, to the extent such projects would be constructed concurrently with the Project. The cumulative effects analysis includes reasonably foreseeable future actions, including those for which there are existing decisions, funding, formal proposals, or which are highly probable, based on known opportunities or trends. Given the moderate to high level of uncertainties associated with the cumulative projects identified in Table 4.1-1, it would not be possible to accurately estimate the cumulative emissions from the Project combined with the cumulative projects. Thus, this EIS provides a qualitative approach to assessing cumulative impacts (see Section 4.2.9) and PA/FEIS Mitigation Measure AQ-1 would be implemented to reduce the Project's long-term contribution to cumulative fugitive dust impacts associated with the potential disruption of desert pavement.
- 17-21 See PA/FEIS Section 5.2.1, which provides an update on the Federal Endangered Species Act Section 7 consultation with the USFWS.
- 17-22 Implementation of the Mitigation Measures set forth in PA/FEIS Section 4.4.10 (including WIL-6, Avian and Bat Protection Plan, and WIL-12, Measures to Minimize Impacts to Golden Eagles) would reduce impacts to eagles by reducing the potential electrocution and collision hazards, and by addressing hazards specific to the construction and decommissioning phases of the project. For example, utility lines (both transmission and distribution) can result in electrocution of birds that have a wing-span large enough for the bird simultaneously to contact two conductors or a conductor and grounded hardware. Therefore, any structures that would allow this to occur pose an electrocution risk. To protect eagles from possible electrocution, APLIC recommends a horizontal separation of 60 inches and a vertical separation of 40 inches between phase conductors or between a phase conductor and grounded hardware. The design and maintenance of separations in accordance with APLIC guidelines would render unlikely the potential for the MSEP electrocution impacts to eagles.

NEPA does not require an EIS to explain how Project approval would comply with other laws; instead, an EIS documents the agency's consideration of the environmental consequences of a proposed action before making a decision on that action. Compliance with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act imposes separate obligations, independent of the NEPA process.

The BLM has reviewed the Service's February 18, 2011, Notice of Availability of the Draft Eagle Conservation Plan Guidance (76 FR 9529-01), the draft guidance itself (USFWS, 2011c), the related Fact Sheet (USFWS, 2011d). As explained in the summary

of the NOA, “The Guidance provides recommendations for agency staff and developers to use an iterative process to avoid and minimize negative effects on eagles and their habitats resulting from the construction, operation and maintenance of *land-based, wind energy facilities* in the United States” (76 FR 9529-01, emphasis added). Peer review of the draft guidance had not yet occurred when the NOA was issued in February, and agency and public comments were being invited but had not yet been considered or integrated as appropriate. At least these things must occur before the draft guidance can be finalized. The MSEP is not a wind project, and the draft guidance has not yet been adopted. For these reasons, the BLM has not applied the draft guidance, including the proposed no-net-loss standard, to this Project.

- 17-23 Consultation between the BLM and USFWS is ongoing regarding adjustments to the westernmost edge of Unit 2 as it relates to wildlife movement. The results of these discussions will be reflected in the Record of Decision.

The research study identified by the commenter (Barrows, 2011) was reviewed in support of the analysis and does not change the conclusions of the PA/EIS with regard to potential impacts to wildlife movement west of the Project area.

- 17-24 In support of the analysis, available wildlife habitat in the regional Project area was calculated for desert tortoise, Mojave fringe-toed lizard, burrowing owl, Nelson’s bighorn sheep, and other species. The assessment provided in Table 4.4-3 is a species-by-species assessment of available habitat and habitat impacts from foreseeable future projects. The resulting figures show that these projects would cumulatively affect about 3.3 percent of habitat for desert tortoise (86,523 acres out of 2.6 million total acres in the Eastern Colorado Recovery Unit). The Project would affect about 0.2 percent of available desert tortoise habitat in the recovery unit; and 0.3 percent of Mojave fringe-toed lizard habitat (38 out of 12,911 acres available locally in Palo Verde Valley). Without specifically identifying any lands that may serve as worthy mitigation areas, given the large amount of available privately held lands in the regional Project area relative to the scale of the impact, the amount of mitigation habitat is not considered a limiting factor. The required Project mitigation for impacts to special-status plants in the Project area will be considerable (on the order of several thousand acres); however, it is expected that such compensatory mitigation for impacts to plants can be provided concurrently with desert tortoise mitigation. This is also the case for burrowing owl, which often co-occurs on lands that are occupied by desert tortoise.

As identified in Response 9-69, the time table to provide compensatory mitigation has been clarified in the PA/FEIS and requires the Applicant to acquire compensatory lands in fee or easement no more than 18 months after the start of Project ground-disturbing activities.

- 17-25 See Response 17-8. As the comment notes, the DRECP is not scheduled to be completed until 2013. Because the DRECP process remains underway, it does not govern the BLM’s decision-making efforts for the Project.

The BLM has a responsibility to perform a timely environmental review in response to individual applications. For this reason, the BLM will consider the Project pursuant to FLPMA, NEPA, and applicable planning documents, in accordance with the BLM's existing Solar Energy Development Policy. Recognized as a pending application in the Solar PEIS ROD, neither the ROD nor the plan amendments made in that decision apply to the Project.

17-26 As indicated in PA/FEIS Section 5.2.2.1, the BLM has identified 114 archaeological resource sites, of which nine have been determined eligible for inclusion on the National Register; seven of the nine would be adversely affected by the alternatives under consideration. Although the tribal consultation processes remain in progress for this project, these processes will be concluded before the Project may be approved. Therefore, while it is premature to describe the outcome of consultation before the processes are complete, a draft MOA is provided in PA/FEIS Appendix L and issues raised by the tribes (as well as efforts taken to address them) are summarized in PA/FEIS Section 5.2.2. The NHPA Section 106 process (including eligibility determinations) is described and discussed in Section 5.2.2.1 and the government-to-government consultation process is described and discussed in Section 5.2.2.2.

17-27 As described in Section 4.9, if solar PV modules were damaged at the Project site, CdTe would not be likely to mobilize to the environment (Fthenakis, 2003, 2008). New information submitted by commenters (See Responses 11-113, 11-116, 14-6, and 14-7) that was published in July 2012 was not available to the authors of the analysis at the time it was completed (Sinha et al., 2012). This information has been reviewed and Section 4.9 revised to reflect this new information. Sinha et al. find that "Overall, a worst case leaching scenario with screening level fate and transport modeling yields impacts to soil, air, and groundwater that are one to five orders of magnitude below human health screening levels in a California...exposure scenario" (pp. 1674-1675).

Additionally, the comment cites a response from the Fraunhofer Institute (2010) to a number of studies on CdTe and safety concerns. One of these is Fthenakis et al. (2005), which studied the risk of CdTe release from fires in rooftop solar arrays. The Fraunhofer Institute statement notes that "Based on the results Fthenakis concludes that released Cd emissions of typical residential fires (~750°C-900°C) are negligible. This study has been criticized by stating that the tests did not reflect the conditions of real fire cases, in particular in terms of changing temperature distributions during fires, different orientations of modules and temperatures higher than 900°C. However, the test have carried out according to standards and evaluated as correct by the EU." Furthermore, a paper by the National Renewable Energy Laboratory (NREL), a laboratory of the U.S. Department of Energy, states that "The melting point of CdTe is 1041°C, and evaporation starts at 1050°C. Sublimation occurs at lower temperatures, but the vapor pressure of CdTe at 800°C is only 2.5 torr (0.003 atm). ... Preliminary studies at Brookhaven and at the GSF Institute of Chemical Ecology in Germany showed that CdTe releases are unlikely to occur during residential fires or during accidental breakage. The thin layers of

CdTe and CdS are sandwiched between glass plates; at typical flame temperatures (800°–1000°C), these compounds would be encapsulated inside the molten glass so that any Cd vapor emissions would be unlikely. In any case, the fire itself and other sources of emissions within the burning structure are expected to pose an incomparably greater hazard than any potential Cd emissions from PV systems” (NREL, 2003, p.4). These studies represent the best currently available research on CdTe solar panel hazards.

Although the above-referenced studies examine solar panels in residential or small rooftop commercial applications, it can be expected that maintenance and inspection of panels for breakage or other damage would be greater at a utility-scale scenario like the Project than a smaller installation because, as described on page 2-55, the on-site SCADA system would offer near real-time readings of the monitored devices, which would alert operators to reduced power output of modules in the event of broken panels. Additionally, seasonal panel washing and other maintenance activities would allow for visual inspection to identify broken panels, if breakage occurred.

Because the Applicant has not yet determined the model of PV module that would be used for the Project, the exact amount of CdTe present in the panels cannot yet be determined. However, NREL (2003) estimates an average of 7 grams CdTe per square meter of solar panels. As shown in Table 2-2, Chapter 2, a 0.72-square-meter panel has an 85 W capacity. Therefore, a 750 MW solar plant may contain approximately 44.5 kilograms, or 98 pounds of CdTe.<sup>3</sup> Approximately 49 percent of the mass of CdTe is cadmium, so the total amount of cadmium would be approximately 48 pounds. In response to comments regarding the potential for CdTe leaching from panels, Mitigation Measure HAZ-2, which requires the Applicant to prepare and implement a Broken PV Module Detection and Handling Plan if the Applicant chooses to use CdTe PV panels, has been added to Section 4.9. Implementation of this measure would minimize the potential for CdTe leaching from damaged panels.

- 17-28 The mitigation measures proposed in the PA/EIS that require plans and studies provide performance standards and specific types of actions to be taken, and contain sufficient information to inform a decision on the Project’s impacts and mitigation without needing to analyze the completed plans. Some plans cannot be completed until closer to construction in order to reflect current site conditions and to be representative of final Project plans, which also must be prepared closer to construction for the same reasons. The contents of certain of the studies and plans required by mitigation measures are dictated by law; in these cases the Applicant is required to comply with the law, including implementing all statutory and regulatory requirements. In all cases, plans would be required to be submitted to and approved by BLM and any other agency with regulatory oversight, as detailed in the mitigation measure, before Project construction could begin. See the Summary of BLM Mitigation and Monitoring (Appendix M to this PA/FEIS) for more detailed information about approval and monitoring of the plans required in the mitigation measures proposed in Chapter 4.

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<sup>3</sup>  $(0.72 \text{ m}^2/85 \text{ W}) * 750,000 \text{ W} * (7 \text{ g CdTe/m}^2) = 44,470 \text{ g CdTe}$

## Letter 18 – Responses to Comments from U.S. Fish and Wildlife Service (USFWS)

- 18-1 Comment noted. See PA/FEIS Section 5.2.1, which provides an update on the Federal Endangered Species Act Section 7 consultation with the USFWS.
- 18-2 Comment noted.
- 18-3 Comment noted. Also see PA/FEIS Section 2.8 regarding the Agency Preferred Alternative.
- 18-4 Comment noted.
- 18-5 The BLM has had ongoing discussions with the USFWS regarding adjustments to the westernmost edge of Unit 2, including site visits on August 14, 2012 and October 9, 2012 when this issue was discussed. A final decision regarding the location of western boundary of the proposed action will be reflected in the Record of Decision.
- 18-6 Discussions regarding the possibility of an alternative fence alignment along the western boundary of Unit 2 that could reduce potential wildlife-related edge effects of the project as proposed have continued since the agency/Applicant meeting of August 14, 2012, including at a site visit held on October 9, 2012. A decision on this issue will be reflected in the Record of Decision.
- 18-7 The BLM supports the protection of the desert tortoise movement corridor located on upper alluvial fans at the base of the McCoy Mountains. However, the permanent protection of these areas cannot be included in the current agency action. The BLM is not currently entertaining any proposal for the development of the areas identified in the comment and these areas are not part of the right-of-way corridor that is currently under consideration.
- 18-8 Consistent with NEPA, the analytical baseline for purposes of the PA/EIS was established as of the date the NOI was published in the Federal Register, i.e., August 29, 2011. Project-specific survey data relied upon in the analysis of environmental impacts to golden eagles were generated in accordance with USFWS's Interim Golden Eagle Inventory and Monitoring Protocols (Pagel et al., 2010) and in coordination with USFWS (USFWS, 2011a; USFWS, 2011b; Karl, 2011). For example, in 2010, Phase 1 helicopter surveys were conducted on March 25-26 and April 2-3 and a Phase 2 helicopter survey was conducted on May 14, each in accordance with the Service's Interim Golden Eagle Inventory and Monitoring Protocols. The Applicant provided Project-specific survey methods, including aerial golden eagle survey methods, to the USFWS for review and approval on February 11, 2011 (USFWS, 2011b), and received initial comments from USFWS on February 22, 2011 (USFWS, 2011a). The Applicant met on site with USFWS on February 23, 2011 to discuss survey methods, including golden eagle survey methods, and, on March 16, 2011, participated in a conference call with USFWS Ecological

Services and Division of Migratory Birds staff members specifically to discuss methods for golden eagle surveys. On March 17, 2011, USFWS provided final comments on the survey methods (USFWS, 2011b; Karl, 2011); no comments were regarding the dates of the helicopter surveys. In accordance with input provided by USFWS, Phase 1 surveys were conducted on March 23-24, 2011, and Phase 2 surveys were conducted on May 5-7, 2011. No more recent biological information about golden eagles has been provided in the context of the BLM's environmental analysis of the Proposed Action.

- 18-9 Two golden eagles were incidentally observed south of the solar plant site on March 28, 2011; no golden eagles were observed during raptor point count surveys or helicopter surveys and no successful breeding by golden eagles was detected within or beyond the 10 mile search radius during the helicopter surveys (TetraTech and Karl, 2011). Further, surveys conducted over multiple years have identified only one active golden eagle nest within 10 miles of the MSEP site that is occupied by golden eagles: it is located 9.2 miles northeast, in the Big Maria Mountains. The absence is noted of USFWS guidance regarding the mitigation of potential loss of golden eagle foraging habitat near an active nest.

The Applicant provided a Project-specific Golden Eagle Risk Assessment in August 2011 (Tetra Tech, 2011) that the BLM and its NEPA contractor independently reviewed. This Assessment evaluated potential direct, indirect, and cumulative impacts to golden eagles from development of the MSEP, including impacts related to the potential loss of golden eagle foraging habitat. Although it currently is unknown whether golden eagles that might nest in the McCoy, Little Maria, and Big Maria Mountains in the future would utilize the Project Area for foraging, avian point counts that have been conducted for the Project suggest that golden eagles do not use the area for foraging. Nonetheless, if it is assumed that they would forage in the Project Area, impacts related to the potential Project-related loss of such foraging habitat are likely to be minimal. This is because the area with the requested ROW represents 3 percent of the area within a 10-mile radius of the nearest eagle nest in the McCoy Mountains, which is an inactive nest located 1.7 miles to the west of the Project Area; 3 percent of the area of the next closest nest, which is an inactive nest located 3 miles to the southwest; and 1.5 percent of the area roughly central to the next closest nests, which are located 5.6 miles west-northwest and 8.4 miles northwest, respectively. Additionally, the requested ROW represents 0.4 percent of the area within a 10-mile radius of the active eagle nest in the Big Maria Mountains that was identified during spring 2010 surveys and determined in spring 2011 surveys to be occupied by red-tailed hawks. Furthermore, the habitat that would be disturbed or removed by development of the Project is neither unique nor limiting on the landscape, and does not represent a known prey concentration. Comparable or better foraging opportunities are expected to be available within the surrounding areas. For these reasons, development and operation of the Project is not expected to disturb the foraging of any eagle pairs within 10 miles of the Project site. Accordingly, the fact that USFWS has not adopted specific guidance for the potential loss of golden eagle foraging habitat near an

- active nest does not affect the analysis of potential impacts to golden eagles related to the potential loss of such habitat.
- 18-10 The analysis of cumulative effects to golden eagles has been revised in PA/FEIS Section 4.4.9 to reflect the recommended 140-mile geographic area of cumulative consideration for this species. Within this larger cumulative study area (the Draft PA/EIS evaluated cumulative effects within a 10-mile radius of the site), development of the MSEP is not expected to contribute significantly to adverse cumulative effects on golden eagles in the area.
- 18-11 Consultation between the BLM and USFWS is ongoing regarding adjustments to the westernmost edge of Unit 2 as it relates to wildlife movement. The results of these discussions will be reflected in the Record of Decision.

### **Letter 19 – Responses to Comments from Colorado River Board of California**

- 19-1 See PA/FEIS Section 5.5.4.3, Common Response 3.
- 19-2 See PA/FEIS Section 5.5.4.3, Common Response 3. In response to PVID Comment 4-5, the estimated annual underflow from the Colorado River that was presented in Draft PA/EIS Section 3.20 has been removed.
- 19-3 See PA/FEIS Section 5.5.4.3, Common Response 3. No entitlement to Colorado River water would be needed to construct, operate, maintain, or decommission the Project.
- 19-4 See PA/FEIS Section 5.5.4.3, Common Response 3.

### **Letter 20 – Responses to Comments from U.S. Bureau of Reclamation**

- 20-1 See PA/FEIS Section 5.5.4.3, Common Response 3.
- 20-2 See PA/FEIS Section 5.5.4.3, Common Response 3. As explained therein, no entitlement is required.
- 20-3 See PA/FEIS Section 5.5.4.3, Common Response 3. As explained therein, construction, operation, maintenance, and decommissioning of the Project would have no impact on the Colorado River.

### **Letter 21 – Responses to Comments from La Cuna de Aztlan Sacred Sites Protection Circle**

- 21-1 Opposition to the Project is noted.

- 21-2 Written comments included in this letter are noted, and responses are provided. It was made clear at the public meetings held June 27 and June 28, 2012, that, although meeting attendees were welcome to speak, responses would be provided in the PA/FEIS only to comments that had been submitted in writing. Comment cards were made available at the meeting for that purpose, and the presentation materials included the Project-specific email address as well as a physical address where comments could be sent. Nonetheless, oral input provided during those public meetings was summarized and the summary included in the formal Administrative Record for the Project.
- 21-3 The commenter did not provide a copy of the MOU referred to in the comment; however, the BLM understand the reference to be to Amendment No. 1 to the Memorandum of Understanding between the United States Department of the Interior Bureau of Land Management and the Southern Low Desert Resources and Conservation and Development Council (BLM & SLDRCDC, 2008). Alfredo Figueroa signed this document on behalf of La Cuna on February 15, 2008; Jim Shiplay signed it on behalf of the Blythe Area Chamber of Commerce and Tourist Information Center on February 29, 2009; Thomas Burgin, President of the Southern Low Desert Resources and Conservation and Development Council, signed it on March 6, 2008, and James T. Shoaff, Field Manager of the BLM's Yuma Field Office, signed it on March 14, 2008. By its terms, this document relates to the protection of cultural resources in the BLM Yuma Field Office planning area (BLM & SLDRCDC, 2008). It does not apply to cultural resources in the BLM Palm Springs-South Coast Field Office planning area, where the MSEP has been proposed.
- 21-4 Ethnographic resources represent the heritage of a particular ethnic or cultural group, such as Native Americans or African, European, Latino, or Asian immigrants. They may include traditional resource-collecting areas, ceremonial sites, value-imbued landscape features, cemeteries, shrines, or ethnic neighborhoods and structures.
- 21-5 Section 3.5 discusses the methods and results of the studies undertaken to identify cultural resources within the Project area. Section 4.5 analyzes the potential effects of the proposed Project on cultural resources, and provides a mitigation measure to reduce, avoid, or mitigate these effects.
- 21-6 The comment on the cultural importance of cultural resources is noted.
- 21-7 Section 4.5 analyzes the potential effects of the proposed Project on cultural resources, and provides a mitigation measure to reduce, avoid, or mitigate these effects. Section 4.5.11 acknowledges that although the proposed Mitigation Measure CUL-1 would serve to minimize or mitigate most of the proposed Project's effects on cultural resources, these effects cannot be fully mitigated and some residual effects would remain even after mitigation.
- 21-8 The comment summarizes the importance of the Mule Mountains to the commenter and is noted. This comment does not directly address the adequacy of the PA/EIS.

- 21-9 This comment refers to a project other than the one considered in the PA/EIS, but the comment regarding the Mule Mountains is noted.
- 21-10 The Project is neither connected to the Blythe Solar Power Project nor related to any natural gas-fired power plant. See Section 5.5.3.2. The comment does not address the adequacy or accuracy of the environmental analysis and does not identify any other significant environmental issue requiring a response.
- 21-11 This comment refers to a project other than the one considered in the PA/EIS. This comment does not directly address the adequacy of the PA/EIS.
- 21-12 The comment, which regards a different solar project, is noted.
- 21-13 This comment regarding the location of the project within the McCoy Valley is noted. This comment does not directly address the adequacy of the PA/EIS.
- 21-14 This comment regarding the location of the project within the McCoy Valley is noted. This comment does not directly address the adequacy of the PA/EIS.
- 21-15 No geoglyphs, monuments, or mazes have been identified within the McCoy Solar project area. The geoglyph referenced by the commenter is not located within the project area.
- 21-16 This comment summarizes the geoglyphs located in vicinity of project area. This comment does not directly address the adequacy of the PA/EIS, but is noted for the record.
- 21-17 Impacts to biological resources and wildlife are addressed in Section 4.4. The BLM would be pleased to meet with tribal members for the purpose of identifying specific places within the Project area that contain plants used for traditional purposes by tribal members. Such uses would be considered in the decision making for the Project as part of the NEPA process. The BLM would seek to accommodate the continued use of such plants by tribal members elsewhere on the public lands.
- 21-18 The comment does not address the adequacy or accuracy of the environmental analysis and does not identify any other significant environmental issue requiring a response. The status of solar panel manufacturers and security of long-distance high-voltage transmission lines is outside of the scope of this PA/EIS.
- 21-19 This comment refers to a statement made by the CEC with regards to the cumulative impacts of the Genesis Solar Energy Project. This comment does not directly address the adequacy of the PA/EIS.
- 21-20 The comment's statement of opposition to the Project is noted. The comment suggests that the Project is in violation of a number of laws; however, it provides no specific

examples as a basis for the allegation. Accordingly, the BLM is unable to provide a more detailed response at this time.

21-21 See PA/FEIS Section 5.5.4.1, Common Response 1.

21-22 The enclosed aerial photographs of geoglyphs will be included in the administrative record for the Project.

## **Letter 22 – Responses to Comments from Defenders of Wildlife, Natural Resources Defense Council, Sierra Club, The Wilderness Society, and Audubon California**

22-1 Discussion and analysis of climate change in the context of the Proposed Action are provided in PA/FEIS Section 3.8 (Affected Environment) and Section 4.8 (Environmental Consequences). Discussion and analysis of socioeconomics in the context of the Proposed Action are provided in PA/FEIS Section 3.15 (Affected Environment) and Section 4.15 (Environmental Consequences). As explained in PA/FEIS Section 2.9.1, the BLM worked closely with the Applicant during the application phase to identify appropriate areas for the Project. BLM discouraged the Applicant from including in its application alternate BLM locations with significant environmental concerns, such as critical habitat, ACECs, DWMAs, designated OHV areas, wilderness study areas, and designated wilderness areas. BLM encouraged the Applicant to locate its project on public land with few potential conflicts. Regarding a potential “disturbed lands” alternative, see PA/FEIS Section 5.5.4.1, Common Response 1.

22-2 The BLM has undertaken two recent program-level planning efforts for solar development on lands within the CDCA: the California Desert Renewable Energy Conservation Plan (DRECP) and the Solar PEIS.

The DRECP is intended to advance federal and state conservation goals in the California desert region while facilitating the timely permitting of renewable energy projects under applicable federal and state laws. The Renewable Energy Action Team (REAT) has not yet released a formal public draft of the DRECP and associated environmental impact analysis: the process is not yet final. Accordingly, the DRECP does not govern the BLM’s decision-making efforts for the Project.

The Final Solar PEIS was not completed until July 2012, after publication of the Draft PA/EIS for this Project. The MSEP is recognized as a “pending application” in the Solar PEIS ROD, and so neither the ROD nor the plan amendments made in that decision apply to the Project. Accordingly, if the BLM decides to grant a ROW for the MSEP, the CDCA Plan would be amended as required. Additional discussion of the Solar PEIS is provided on pages 2-29 (guidance for treatment of vegetation under panels); 3.10-7 through 3.10-9 (withdrawal and study of lands as solar energy study areas), 4.4-26 (portions of MSEP site have low potential for substantial resource conflicts relative to other locations

considered in the PEIS); and 4.19-17 and 4.19-18 (PEIS evaluated cumulative scenario for visual resource impacts).

The BLM has a responsibility to perform a timely environmental review in response to individual applications. For this reason, the BLM will consider the Project pursuant to FLPMA, NEPA, and applicable planning documents, in accordance with the BLM's existing Solar Energy Development Policy.

- 22-3 The Project was designed to minimize and avoid sensitive riparian habitat that occurs to the west of the Project area, including desert dry wash woodland (DDWW) habitat. Botanical surveys identified only 1.5 acres of DDWW on the Project site and an additional 2.7 acres on Project linears (see Table 3.3-1 and Figure 3.3-1). As shown in Figure 3.3-1, the identified DDWW habitat is located in a central portion of the solar plant site and avoidance may not be technically possible due to drainage concerns. However, it is likely that most impacts to DDWW habitat on linears can be avoided or minimized through the implementation of protective measures during construction (see APM HYDRO-1 and Mitigation Measures VEG-7, VEG-8, VEG-10, and VEG-11). Given that the large size of the Project, the anticipated impact to DDWW habitat is considered small.
- 22-4 The comment is noted.
- 22-5 The comment letter provides more specific comments regarding lands with wilderness characteristics at comments 22-7 and 22-8. See Responses 22-7 and 22-8, below, for detailed responses to these comments.
- 22-6 The PA/EIS is intended to satisfy the requirements of NEPA, but is not intended to satisfy the requirements of the California Environmental Quality Act (CEQA). As described on page 1-5, "Riverside County would be responsible for complying with the California Environmental Quality Act (CEQA) before the County may approve the portion of the MSEP under its land use jurisdiction." As described in the Executive Summary, the County was involved in the preparation of a joint NEPA/CEQA document with BLM, but as of March 2012, was no longer participating in that process. The PA/EIS states that the County "may rely on this Draft PA/EIS in accordance with CEQA to document the analysis of potential environmental impacts that could result from its approval of permits for the Project" (page ES-14). However, this is not intended to suggest that the BLM has prepared this document to satisfy CEQA requirement, but that the County may rely on the information and analysis contained in the PA/EIS to the extent that CEQA allows. The County, and not the BLM, would be responsible for compliance with CEQA requirements and would determine whether and to what extent to rely on the PA/EIS in meeting these requirements. Issues related to CEQA requirements are not within the scope of the PA/EIS.
- 22-7 As described on page 3.16-2, the consideration of wilderness characteristics in the land use planning process may result in several outcomes, including emphasizing other

- multiple uses as a priority over protecting wilderness characteristics. Additionally, as described on page 3.16-4, the CDPA §103(d) states, “The Congress does not intend for the designation of wilderness areas in §102 of this title to lead to the creation of protective perimeters or buffer zones around any such wilderness area.” The impacts of the Project on vegetation communities and wildlife are described in Sections 4.3 and 4.4.
- 22-8 See Response 22-7. As described in Section 4.16, the Proposed Action would have a direct impact on the 1,089 acres within Unit 2 of the Project which have been identified as lands with wilderness characteristics. Construction, operation, maintenance, and decommissioning of the Project would prevent this acreage from future consideration as wilderness by Congress. This is primarily because the 1,089 acres occupied by the Project would no longer meet the criteria of being in a “natural condition.” No statute or regulation requires offsets, compensation, or funding for wilderness restoration to mitigate impacts to lands with wilderness characteristics. However, Mitigation Measure LWC-1 has been proposed to mitigate impacts to lands with wilderness characteristics off-site through restoration in the Big Maria Mountains and/or Palen-McCoy Wilderness Areas. Alternative 2 would have no impact on lands with wilderness characteristics because they would not be present within Unit 1. As described on page 3.16-2, the consideration of wilderness characteristics in the land use planning process may result in several outcomes, including emphasizing other multiple uses as a priority over protecting wilderness characteristics.
- 22-9 See Response 22-3.
- 22-10 The distribution of woodland habitat was mapped in the Project area and the resulting biological technical reports were provided in Appendix C of the PA/EIS. As identified in these reports, the Proposed Action does not overlap with McCoy Wash or desert dry wash woodland habitat associated with this drainage.
- 22-11 The BLM supports the protection of the desert tortoise movement corridor located on upper alluvial fans at the base of the McCoy Mountains. However, the permanent protection of these areas cannot be included in the current agency action. The BLM is not currently entertaining any proposal for the development of the areas identified in the comment and these areas are not part of the right-of-way corridor that is currently under consideration.
- 22-12 The comment is noted. The location of the Project site within the Colorado Desert Recovery Unit is discussed on page 3.4-6.
- 22-13 The comment is noted.
- 22-14 The comment that certain lands should be excluded from the Project is equivalent to stating that Alternative 2 would have greater adverse effects to desert tortoise than Alternative 1. The comment is noted.

- 22-15 See PA/FEIS Section 5.5.4.2, Common Response 2.
- 22-16 Support for Alternative 2 is noted.
- 22-17 Support for Alternative 2 is noted. Regarding consistency of the Proposed Action with the CDCA Plan's MUC classification of the project site, see PA/FEIS Section 1.5.1, Relationship of the Proposed Action to BLM Policies, Plans, and Programs; Section 3.10 (including Table 3.10-2) regarding the CDCA Plan's MUC land use and resource management guidelines; and Section 4.10 regarding impacts the land use plans.
- 22-18 Support for Alternative 2 is noted.
- 22-19 Figure 4.1-1 and Table 4.1-4 of the PA/FEIS describe portions of the cumulative scenario, which assumes for purposes of the analysis that the development of or operations on these sites would cause impacts that could interact with those of the Project to cause or contribute to cumulative effects. Therefore, while the BLM did consider a disturbed lands alternative, this potential alternative was eliminated from detailed analysis (see PA/FEIS Section 2.9.2.1.3). Nonetheless, the BLM did consider alternative locations for the Project: see Section 5.5.4.1, Common Response 1; and Section 2.9.2.1, Site Alternatives.
- 22-20 As indicated in PA/FEIS Section 5.5.4.1, Common Response 1, the BLM did consider a disturbed lands alternative; however, this potential alternative was eliminated from detailed analysis as described in Response 22-19.
- 22-21 PA/FEIS Section 5.5.4.1, Common Response 1; see also Response 22-19, explaining why the locations proposed by the commenter as a separate "disturbed lands alternative" were not considered in detail in the PA/FEIS.
- 22-22 Regarding coordinated environmental review, see PA/FEIS Section 5.5.4.2, Common Response 2. Regarding the range of alternatives considered in the PA/FEIS, see Section 5.5.4.1, Common Response 1. Because the MSEP and BSPP are separate, distinct projects under NEPA, the BLM declines to consider them together in a "combined projects" alternative as suggested by this comment. As explained in PA/FEIS Section 5.5.4.4, Common Response 4, the Draft PA/EIS for the MSEP is not being recirculated for public review and comment.
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## References

- Barrows, C.W. 2011. Sensitivity to climate change for two reptiles at the Mojave-Sonoran Desert interface. *Journal of Arid Environments*. 75 (2011) 629-635. [<http://www.fws.gov/southwest/ES/Documents/Barrows%202011.pdf>]
- Bureau of Land Management (BLM) and U.S. Department of Energy. 2012. Final Programmatic Environmental Impact Statement (PEIS) for Solar Energy Development in Six Southwestern States. Executive Summary. [[http://solareis.anl.gov/documents/fpeis/Solar\\_FPEIS\\_ExecutiveSummary.pdf](http://solareis.anl.gov/documents/fpeis/Solar_FPEIS_ExecutiveSummary.pdf)]
- Bureau of Land Management and the Southern Low Desert Resources and Conservation and Development Council (BLM & SLDRCDC), 2008. Amendment No. 1 to Memorandum of Understanding Between United States Department of Interior Bureau of Land Management and the Southern Low Desert Resource Conservation and Development Council.
- California Department of Forestry and Fire Protection (CAL FIRE). 2010. Fire Operations for Photovoltaic Emergencies. [<http://osfm.fire.ca.gov/training/pdf/Photovoltaics/Fire%20Ops%20PV%20lo%20resl.pdf>]
- California Energy Commission (CEC), 2012. Energy Commission Staff's Brief in Response to Topics Identified in Notice of March 19, 2012 Status Conference, In the Matter of: Application for Certification for the Rio Mesa Solar Electric Generating Facility, Docket No. 11-AFC-4, March 9, 2012. [[http://www.energy.ca.gov/sitingcases/riomesa/documents/2012-03-09\\_staff\\_brief\\_in\\_response\\_to\\_notice\\_TN-64071.pdf](http://www.energy.ca.gov/sitingcases/riomesa/documents/2012-03-09_staff_brief_in_response_to_notice_TN-64071.pdf)]
- California Public Utilities Commission (CPUC), 2012. California Renewables Portfolio Standard (RPS). [<http://www.cpuc.ca.gov/PUC/energy/Renewables/index.htm>] Accessed October 4, 2012.
- California State Military Museum. 2008. Blythe Army Air Field. December 20. [<http://www.militarymuseum.org/BlytheAAF.html>]
- Colorado River Regional Water Quality Control Board (RWQCB), 2006. Water Quality Control Plan Colorado River Basin- Region 7. [[http://www.waterboards.ca.gov/coloradoriver/publications\\_forms/publications/docs/basinplan\\_2006.pdf](http://www.waterboards.ca.gov/coloradoriver/publications_forms/publications/docs/basinplan_2006.pdf)]
- Federal Energy Regulatory Commission (FERC) and North American Electric Reliability Corporation (NERC). 2012. Arizona-Southern California Outages on September 8, 2011: Causes and Recommendations. April. [<http://www.ferc.gov/legal/staff-reports/04-27-2012-ferc-nerc-report.pdf>]
- Fthenakis, V.M., M. Fuhrmann, J. Heiser, A. Lanzirrotti, J. Fitts, and W. Wang, 2005. Emissions and Encapsulation of Cadmium in CdTe PV Modules During Fires. [[http://clca.columbia.edu/papers/Emissions\\_Encapsulation\\_Fires.pdf](http://clca.columbia.edu/papers/Emissions_Encapsulation_Fires.pdf)]
- Karl, Alice, 2011. Email from Alice E. Karl, Ph.D. to Tannika Engelhard (USFWS) with copies to Mark Massar and Larry LaPre (BLM) and others RE: McCoy Solar Energy Project Biology Protocols (March 17).

- Kucera, T., 1998. Yuma mountain lion, *Felis concolor browni*. Pp. 135 to 138 in Terrestrial Mammal Species of Special Concern in California, Bolster, B.C., Ed., 1998. [<http://www.dfg.ca.gov/wildlife/nongame/ssc/docs/mammal/species/42.pdf>]
- Lawrence Berkeley National Lab (LBNL), 2012. California's Electricity System Status Details. [<http://currentenergy.lbl.gov/ca/mapInfo.html>] accessed September 28, 2012.
- National Renewable Energy Laboratory (NREL), 2003. CdTe PV: Real and Perceived EHS Risks. [<http://www.nrel.gov/docs/fy03osti/33561.pdf>]
- Page, Joel E., Diana M. Whittington, and George T. Allen, 2010. Interim Golden Eagle Inventory and Monitoring Protocols; and Other Recommendations. U.S. Fish and Wildlife Service. February.
- San Francisco Bay Regional Water Quality Control Board (SFRWQCB), 2008. Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater. Revised May.
- SolarJuice Blog. 2010. Solar Panels and Fire! [<https://solarjuice.com/blog/buildings-and-pv/solar-panels-and-fire/>] accessed September 28, 2012.
- TetraTech and Karl, 2011. Biological Resources Technical Report [prepared for the] McCoy Solar Energy Project, Riverside County, CA. August.
- TetraTech and Karl, 2012. Winter 2011-2012 Avian Winter Point Count Survey Report [prepared for the] McCoy Solar Energy Project, Riverside County, CA. March.
- TetraTech, 2011. Golden Eagle Risk Assessment [prepared for the] McCoy Solar Energy Project, Riverside County, CA. August 2011.
- TetraTech, 2012a. McCoy Solar Energy Project Draft Biological Assessment. February.
- TetraTech, 2012b. Avian and Bat Protection Plan [prepared for the] McCoy Solar Energy Project, Riverside County, CA. October 5.
- TetraTech, 2012c. Supplemental Information to the Biological Assessment for the McCoy Solar Energy Project. November.
- The Fraunhofer Institute, 2010. Scientific Comment of Fraunhofer to Life Cycle Assessment of CdTe Photovoltaic's. [<http://www.en.iwm.fraunhofer.de/news/details/id/149/>] Accessed October 5, 2012.
- U.S. Army Corps of Engineers (USACE). 2010. Formerly Used Defense Sites (FUDS) Projects Per State: California. September 30. [[http://www.usace.army.mil/Portals/2/docs/Environmental/FUDS/FUDS\\_Inventory/FUDS\\_Inventory\\_California.pdf](http://www.usace.army.mil/Portals/2/docs/Environmental/FUDS/FUDS_Inventory/FUDS_Inventory_California.pdf)]
- U.S. Census Bureau, 2010. 2010 Demographic Profile Data for California and Arizona.
- U.S. Department of Energy. 2009. Concentrating Solar Power Commercial Application Study: Reducing Water Consumption of Concentrating Solar Power Electricity Generation, Report to Congress. [[http://www1.eere.energy.gov/solar/pdfs/csp\\_water\\_study.pdf](http://www1.eere.energy.gov/solar/pdfs/csp_water_study.pdf)]

- U.S. Fish and Wildlife Service (USFWS), 2011a. Email from Tannika Engelhard (USFWS) to Mark Massar and Larry LaPre (BLM) and others Re: Biological Survey Protocols for McCoy Solar Project from NextEra and TetraTech (February 22).
- U.S. Fish and Wildlife Service (USFWS), 2011b. Email from Tannika Engelhard (USFWS) to Mark Massar and Larry LaPre (BLM) and others Re: McCoy Solar Energy Project Biology Protocols (March 17).
- U.S. Fish and Wildlife Service (USFWS), 2011c. Draft Eagle Conservation Plan Guidance. [[http://www.fws.gov/windenergy/docs/ECP\\_draft\\_guidance\\_2\\_10\\_final\\_clean\\_omb.pdf](http://www.fws.gov/windenergy/docs/ECP_draft_guidance_2_10_final_clean_omb.pdf)] (January).
- U.S. Fish and Wildlife Service (USFWS), 2011d. Draft Eagle Conservation Plan Guidance Fact Sheet. [[http://www.fws.gov/windenergy/docs/Draft\\_Eagle\\_Conservation\\_Plan.pdf](http://www.fws.gov/windenergy/docs/Draft_Eagle_Conservation_Plan.pdf)] (February).
- U.S. Fish and Wildlife Service (USFWS), 2011e. Revised Recovery Plan for the Mojave Population of the Desert Tortoise (*Gopherus agassizii*). Region 8, Pacific Southwest Region U.S. Fish and Wildlife Service Sacramento, California. [[http://ecos.fws.gov/docs/recovery\\_plan/RRP%20for%20the%20Mojave%20Desert%20Tortoise%20-%20May%202011\\_1.pdf](http://ecos.fws.gov/docs/recovery_plan/RRP%20for%20the%20Mojave%20Desert%20Tortoise%20-%20May%202011_1.pdf)]
- Veerkamp, E., and M. Conway, 2012. Report on July 30-31, 2012 Storm Event at the Genesis Solar Energy Project Construction Site. [[http://www.energy.ca.gov/sitingcases/genesis\\_solar/compliance/documents/2012-09-06\\_Storm\\_Report.pdf](http://www.energy.ca.gov/sitingcases/genesis_solar/compliance/documents/2012-09-06_Storm_Report.pdf)]
- Wolff, Eric. 2010. Solar fire raises questions about panel safety. North County Times, April 10. [[http://www.nctimes.com/business/article\\_8a32fb03-9e3f-58ca-b860-9c7fe1e28c7e.html](http://www.nctimes.com/business/article_8a32fb03-9e3f-58ca-b860-9c7fe1e28c7e.html)] accessed September 28, 2012.
- Zdan, Alex. 2012. Trenton firefighters battle rooftop solar-panel blazes. The Times of Trenton, March 28. [[http://www.nj.com/mercer/index.ssf/2012/03/trenton\\_firefighters\\_battle\\_ro.html](http://www.nj.com/mercer/index.ssf/2012/03/trenton_firefighters_battle_ro.html)] accessed September 28, 2012.

# **APPENDIX L**

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## Draft Memorandum of Agreement

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**MEMORANDUM OF AGREEMENT  
AMONG THE  
BUREAU OF LAND MANAGEMENT-CALIFORNIA,  
MCCOY SOLAR, LLC,  
THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER,  
AND THE ADVISORY COUNCIL ON HISTORIC PRESERVATION  
REGARDING  
THE MCCOY SOLAR ENERGY PROJECT  
RIVERSIDE COUNTY, CALIFORNIA**

**WHEREAS**, McCoy Solar, LLC (Applicant) has applied for a right-of-way (ROW) grant on public lands managed by the Bureau of Land Management (BLM) and has submitted a plan of development (POD) to construct, operate and maintain a photovoltaic solar electric generation facility and a 230 kilovolt (kV) generation tie line (gen-tie) on public lands managed by the BLM, including construction of access and maintenance roads, laydown and staging areas, and support facilities and infrastructure (hereinafter, the “undertaking”); and

**WHEREAS**, the BLM has determined that the issuance of a ROW (proposed federal action) to the Applicant in accordance with the Federal Land Policy and Management Act (FLPMA) 43 U.S.C. § 1701, et seq., and authorization of the Project is an undertaking subject to Section 106 of the National Historic Preservation Act (NHPA), 16 U.S.C. § 470(f), and its implementing regulations at 36 C.F.R. § 800 (2004); and

**WHEREAS**, the BLM has consulted with the California State Historic Preservation Officer (SHPO) pursuant to 36 CFR Part 800 and has determined to comply with the NHPA Section 106 by means of a federal agency program alternative, as authorized by 36 C.F.R. § 800.14 and as summarized in this Agreement; and

**WHEREAS**, in accordance with the regulations at 36 C.F.R. § 800.6(a)(1), BLM has notified the Advisory Council on Historic Preservation (ACHP) regarding the effects of alternatives of the undertaking on historic properties and has invited the ACHP to participate in consultation to resolve the potential effects on historic properties, and as per their letter dated March 2, 2012, the ACHP is participating; and

**WHEREAS**, Riverside County is the lead State agency for compliance with the California Environmental Quality Act (CEQA) and has certain responsibilities under State laws and regulations to take into account and mitigate the impacts on historical resources eligible for or included in the California Register of Historical Resources (CRHR), Cal. Pub. Res. Code, Sec. 5024.1, and has participated in consultation and is invited to participate in this Agreement as a Concurring Party; and

**WHEREAS**, the Applicant has participated in this consultation per 36 C.F.R. § 800.2(c)(4), will be the entity to whom the BLM may grant a ROW, and has the responsibility for carrying out the specific terms of this Agreement under the oversight of the BLM, and is an Invited Signatory to this Agreement; and

**WHEREAS**, the BLM has authorized the Applicant to conduct specific identification efforts for this undertaking including a review of the existing literature and records, cultural resource surveys, ethnographic studies, and geomorphological studies to identify historic properties that might be located within the Area of Potential Effect (APE) as defined at 36 C.F.R. § 800.16(d); and

**WHEREAS**, the reports entitled *Cultural Resources Class III Survey Report for the Proposed McCoy Solar Energy Project, Riverside County, California*, prepared by AECOM, November 2011, and; *Results of Archaeological Testing and Evaluation of Site CA-RIV-9696 at the McCoy Solar Energy Project*, letter report prepared by AECOM, January, 2012, and; *Literature Review for the Native American Ethnographic Assessment for the McCoy Solar Energy Project, Riverside County, California*, prepared by AECOM, June 2012, and; <insert final ethnographic assessment report here>, prepared by AECOM, September 2012, present the results of identification and evaluation efforts; and

**WHEREAS**, the BLM has identified 114 archaeological sites within the APE which are described in Appendix A to this Agreement, and has determined, in consultation with SHPO, that the archaeological sites designated CA-RIV-2486, CA-RIV-3419, CA-RIV-10194, CA-RIV-10225, CA-RIV-10240, CA-RIV-10242, CA-RIV-10245, CA-RIV-10246, and CA-RIV-10222 are eligible for inclusion on the National Register of Historic Places (NRHP); and

**WHEREAS**, the BLM has determined, in consultation with SHPO, that alternatives are under consideration that would have an adverse effect on seven archaeological sites designated CA-RIV-10194, CA-RIV-10225, CA-RIV-10240, CA-RIV-10242, CA-RIV-10245, CA-RIV-10246, and CA-RIV-10222, and the Desert Training Center/California-Arizona Maneuver Area which are eligible for inclusion on the NRHP; and

**WHEREAS**, the BLM will manage all unevaluated archaeological sites within the APE as eligible for inclusion on the NRHP under 36 C.F.R. § 60.4(d) (hereinafter “Criterion D”) for project management purposes, and through the imposition of monitoring and avoidance measures, the BLM has found that the significant information values retained by these resources would not be affected by the undertaking; and

**WHEREAS**, pursuant to 36 C.F.R. § 800.2(c)(2)(ii) and Executive Order 13175, the BLM is responsible for government-to-government consultation with federally recognized Indian tribes and is the lead federal agency for all tribal consultation and coordination; and

**WHEREAS**, the BLM has formally notified and invited federally recognized tribes including the Agua Caliente Band of Cahuilla Indians, Augustine Band of Cahuilla Indians, Cabazon Band of Mission Indians, Cahuilla Band of Mission Indians, Chemehuevi Indian Tribe, Cocopah Indian Tribe, Colorado River Indian Tribes, Fort Mojave Indian Tribe, Fort Yuma Quechan Tribe, Morongo Band of Mission Indians, Ramona Band of Mission Indians, San Manuel Band of Mission Indians, Soboba Band of Luiseno Indians, Torres-Martinez Desert Cahuilla Indians and Twenty-nine Palms Band of Mission Indians (Tribes) to consult on the undertaking and participate in this Agreement as Concurring Parties; and

**WHEREAS**, the BLM recognizes its government-to-government obligation to consult with Indian tribes that may attach religious and cultural significance to historic properties that may be affected by the proposed undertaking and will continue to consult with the affected tribes regarding their concerns under Section 106; in addition, the BLM will comply with the American Indian Religious Freedom Act, Native American Graves Protection and Repatriation Act (NAGPRA), and Executive Orders 13007 and 13175;

**WHEREAS**, the California Unions for Reliable Energy, as an organizations, and Mamie Harper, Priscilla Eswonia, Stacia Baillie, Michael Tsosie, and David Harper, as individuals, have been invited to consult on this undertaking and this Agreement, have been afforded consulting party status pursuant to 36 C.F.R. 800.3(f)(4), and have been invited to be Concurring Parties to this Agreement. The BLM will continue to consult with any consulting party that request such consultation regardless of their decision to concur by signature in this Agreement. BLM shall continue to consult throughout the implementation of this Agreement, however only consulting parties that have concurred in this Agreement by signature shall have rights with regard to implementation of the terms of this Agreement; and

**NOW, THEREFORE**, the BLM, SHPO, and ACHP (hereinafter “Signatories”), and the Applicant (hereinafter “Invited Signatory”), agree that the undertaking shall be implemented in accordance with the following stipulations in order to take into account the adverse effect of the undertaking on historic properties, resolve such adverse effects through the process set forth in this Agreement, and provide the ACHP with a reasonable opportunity to comment in compliance with Section 106.

## **STIPULATIONS**

The BLM shall ensure that the following measures are implemented:

### **I. DEFINITIONS**

The definitions found at 36 C.F.R. § 800.16 and in Appendix B shall apply throughout this Agreement. If there is a conflict between the definitions in the implementing regulations and Appendix B, the regulations shall govern.

### **II. AREA OF POTENTIAL EFFECTS**

The APE is depicted in Appendix C to this Agreement. The APE, as currently defined, encompasses an area sufficient to accommodate all of the proposed and alternative Project components under consideration as of the date of execution of this Agreement. If BLM selects a Project alternative for implementation, the APE shall be defined by operation of this Agreement to exclusively encompass the area of that selected alternative. If it is determined in the future that the undertaking may directly or indirectly affect historic properties located outside the defined APE, then the BLM, in consultation with SHPO and pursuant to 36 C.F.R. § 800.4(a)(1), shall determine and document modifications to the APE using the following process:

- a) Consulting Parties to this Agreement may propose that the APE established herein be modified. If the Signatories and Invited Signatory decide that such modification is warranted, the BLM shall modify the APE as agreed. Modifications of the APE (Appendix C) made as a result of continuing consultation among the Consulting Parties do not require the Agreement to be amended.
- b) If the Signatories and Invited Signatory agree to the proposal, then the BLM will prepare a description and a map of the modification to which the Signatories and Invited Signatory agree. The BLM will keep copies of the description and the map on file for its administrative record and distribute copies of each to the other Consulting Parties within 30 days of the day upon which agreement was reached.
- c) Where modification to the APE adds a new geographic area, the BLM shall take the steps necessary to identify, evaluate and take into account the effects of the undertaking on historic properties in the new geographic area in accordance with this Agreement.
- d) If the Signatories and Invited Signatory cannot agree to a proposal for the modification of the APE, then they will resolve the dispute in accordance with Stipulation XI of this Agreement.

### **III. AVOIDANCE, PROTECTION, AND MITIGATION MEASURES**

#### a) Avoidance and Protection Measures

Where archaeological resources can be avoided, the BLM will implement the management or protective measures identified in Table 1 of Appendix A and the following:

- i. Archaeological sites that can be protected from direct impacts, but are within 100 feet, including buffer areas, of proposed construction activities will be identified and labeled as Environmentally Sensitive Areas (ESAs). This includes archaeological sites determined eligible for inclusion in the NRHP and sites that have not been formally evaluated, but are being treated as eligible and avoided for project management purposes.
- ii. The ESAs will be designated by marking the boundaries of sites with appropriate buffer zones (generally a buffer of 50 feet beyond the outer limits of the site extent, as demonstrated by surface and/or subsurface indications) using temporary fencing or other easily recognizable boundary defining materials.
  - (1) These areas will be shown on the engineering plans for the undertaking as off-limits to construction activities.
  - (2) Once established, an ESA will define areas where construction activities cannot occur, in order to prevent effects to historic properties within the designated ESA.

- iii. ESAs will be identified and established prior to initiation of ground disturbing activities in the vicinity of the site and will be maintained and monitored for the duration of the work effort in the ESA vicinity.
- iv. Violations of permits, stipulations or other requirements will be investigated by the BLM and subject to requirements and/or penalties under the Act for the Preservation of American Antiquities of 1906 (Antiquities Act), Archaeological Resources Protection Act of 1979 (ARPA), Federal Land Policy and Management Act of 1976, the rights-of-way regulations at 43 C.F.R. § 2805.12 and/or other relevant laws and regulations.

b) Mitigation of Adverse Effects

Should BLM approve an alternative that adversely affects archaeological site CA-RIV-10194, CA-RIV-10225, CA-RIV-10240, CA-RIV-10242, CA-RIV-10245, CA-RIV-10246, CA-RIV-10222, and the Desert Training Center/California-Arizona Maneuver Area (DTC/C-AMA) the BLM will resolve the adverse effects as follows:

- i. The BLM shall ensure that the adverse effect of the undertaking on archaeological site CA-RIV-10222 is resolved through sampling, scientific study and the capping of the remainder of the site. Due to the property's scientific or information values as defined in Criterion D of 36 C.F.R. §60.4, the qualifying criteria for inclusion on the NRHP, sampling, scientific study, and capping is the appropriate treatment for the archaeological values at the site. A historic properties treatment plan (HPTP) will be prepared and included as Appendix E to this Agreement. Amendment of the HPTP will not require amendment of this Agreement.
- ii. The adverse direct effects of the undertaking on the Criterion D values of archaeological sites CA-RIV-10194, CA-RIV-10225, CA-RIV-10240, CA-RIV-10242, CA-RIV-10245, CA-RIV-10246, as defined in 36 C.F.R. § 60.4, will be resolved through extensive and detailed mapping of all features at each site.
- iii. **Historic Properties of Religious or Cultural Significance/Traditional Cultural Properties (TO BE DEVELOPED IN CONSULTATION)**
- iv. The adverse cumulative effects of the undertaking on the Criterion A-C values of the DTC/C-AMA as defined in 36 C.F.R. §60.4, will be resolved through the development of a 30 minute documentary film to be made available to the public. The BLM will ensure that the Applicant will conduct interviews of WWII veterans who trained at the DTC/C-AMA. These interviews should be conducted using high-definition video recording techniques. A historian familiar with the DTC/C-AMA should be present at all interviews. The interviews should be used to create the 30 minute documentary film about the DTC/C-AMA.

- c) Within 45 days of the issuance of the notice to proceed for this Project, the Applicant will identify to the BLM the consultant(s) who, under contract to the Applicant, will be

responsible for developing and completing the mitigation products described in items III(b)(i) – (iv) above.

- i. Prior to carrying out any activities related to any mitigation measure, the consultant(s) shall meet with the BLM and the Applicant to discuss the goals of the Project and work plan requirements, including lines of communication, deliverables, schedules, and any terms and conditions.
- ii. Within 45 days of meeting with the BLM and the Applicant, and prior to initiation of any work, the consultant(s) will provide the BLM with draft Work Plans for completing work required in the mitigation measures.
  - (1) Each work plan shall document lines of communication, key personnel, and provide appropriate natural and cultural context to support the research design and methods proposed for completion of the mitigation measure. The work plans shall also include a schedule of milestones and timeline for completion of the work.
  - (2) The BLM will provide copies of the draft work plans to the Consulting Parties in accordance with the communication and reporting procedures in Section VII of the Agreement.
- i. Upon approval of each work plan by the BLM, the BLM will authorize the Applicant and the consultant(s) to initiate work on the mitigation measure.

d) General Mitigation Stipulations

- i. Any products or studies described in the mitigation measures required by this Agreement will be developed in a manner to allow other proposed undertakings that may occur in the region to augment or expand the scope of the products or studies, provided that such augmentation or expansion proposed by other undertakings are the result of consultation under Section 106 or is an appropriate mitigation measure developed through the National Environmental Policy Act (NEPA) or CEQA process, cost sharing is provided as appropriate and developed in consultation with the Applicant and the BLM, and that no additional burden (e.g., cost or schedule) be placed on the Applicant.
- ii. Should the undertaking be approved by the BLM, mitigation measures will be implemented after the ROW is granted and prior to the issuance of a Notice to Proceed for construction in those portions of the undertaking addressed by the subject mitigation measures.
- iii. Within thirty (30) days after the BLM has determined that all work required by a work plan has been completed, the BLM shall notify and submit a summary report to the Consulting Parties. Within twelve (12) months after BLM has determined that all work required by a work plan has been completed, or pursuant to an alternative

schedule required by any work plan implementing the terms of this Agreement, the Applicant will submit a written draft technical report to the BLM that documents the results of implementing the work plan. The BLM will provide draft technical reports for each work plan to the Consulting Parties for review as provided in Stipulation VII(a).

- iv. Copies of the final technical reports documenting the results of implementing each work plan will be distributed by BLM to the Consulting Parties and to the appropriate California Historical Resources Information Survey (CHRIS) Regional Information Center.

#### **IV. MONITORING**

##### a) Archaeological Monitoring

- i. The Applicant, in consultation with the other Consulting Parties to this Agreement, may develop a comprehensive archaeological monitoring plan that will be in effect during construction of the Project. A comprehensive archaeological monitoring plan that has been approved by the BLM shall take precedence over those stipulations regarding monitoring provided below. A draft comprehensive archaeological monitoring plan may be incorporated into the plan for post-review discoveries and unanticipated effects and attached as Appendix E to this Agreement. In the absence of a comprehensive archaeological monitoring plan, Paragraphs (1) through (4) of Stipulation IV shall apply.

- (1) The Applicant shall ensure that archaeological monitors will be on site during construction to observe grading, trenching or other ground disturbing activities for any facilities, roads or other Project components related to the undertaking near ESAs and in other areas designated for full-time monitoring, as detailed in Stipulation III, Appendix A, and/or Appendix E.

- (2) The Applicant shall ensure that archaeological monitors will meet the standards specified in Stipulation VIII(a), will be approved and permitted by the BLM, will be familiar with the types of historic and prehistoric archaeological resources that may occur in the APE, and will be directly supervised by a principal archaeologist (PA).

- (3) The Applicant shall ensure that the PA will submit bi-weekly documentation of archaeological monitoring activities to the BLM by email. Documentation will include the location of archaeological monitoring activities for the reporting time period, as well as a description of any archaeological resources identified and any actions taken. The PA will prepare a monthly field monitoring verification report with the compiled monitoring observations, results, and actions taken for submission and approval to the BLM. The BLM will provide copies of bi-weekly and monthly archaeological monitoring reports to the Consulting Parties, unless otherwise directed by a Consulting Party.

- (4) Upon completion of all archaeological monitoring tasks and requirements related to Project construction and implemented pursuant to this Agreement, the Applicant shall ensure that the PA will submit within three months of completion of Project construction a final monitoring report to the BLM for review and approval. The final monitoring report will describe the monitoring program and its findings and results, and present a detailed professional description, analysis, and evaluation of any cultural resources that were encountered and evaluated during construction. The BLM will provide a copy of the monitoring report to the Consulting Parties.
- ii. Long Term Management Plan for Sites within the APE
    - (1) The Applicant, in consultation with the other Consulting Parties to this Agreement, will establish and fund a Long Term Management Plan (LTMP) for the post-construction archaeological monitoring, and condition assessment of sites in the APE of the selected alternative which could be affected by on-going operation and maintenance activities. The Applicant shall submit a draft LTMP to the BLM within nine (9) months from the date of the issuance of the Notice to Proceed for the undertaking. The BLM will submit the LTMP to the Consulting Parties for review following the provisions of Stipulation VII(a). The LTMP will be made Appendix F to this Agreement.

## **V. POST-REVIEW DISCOVERIES AND UNANTICIPATED EFFECTS**

- a) The Applicant, in consultation with the other Consulting Parties to this Agreement, shall develop a comprehensive plan to manage post-review discoveries and unanticipated effects which shall be attached as Appendix E to this Agreement.
- b) If human remains and/or associated funerary objects compose all or part of the discovery, then the BLM shall follow the process described in Stipulation VI.
- c) The BLM, at its discretion, but in consultation with SHPO, can assume eligibility of the discovered archaeological property under Criterion D pursuant to 36 C.F.R. § 800.13 (2)(c), and notify all Consulting Parties to the Agreement within 48 hours of the discovery. The adverse effects to the historic property will be resolved through implementation of the archaeological data recovery plan included in Appendix E to this Agreement. A report of the completed actions will be provided to all Consulting Parties.

## **VI. TREATMENT OF HUMAN REMAINS OF NATIVE AMERICAN ORIGIN**

- a) The BLM shall ensure that any Native American human remains, funerary objects, sacred objects, and/or objects of cultural patrimony discovered on BLM administered lands during implementation of the terms of the Agreement will be treated in accordance with the requirements of the Native American Graves Protection and Repatriation Act (NAGPRA) (Pub. L. 101-601) and 43 C.F.R. § 10.

- b) In consultation with the Tribes, the BLM shall seek to develop a written plan of action pursuant to 43 C.F.R. 10.5(e) to manage the inadvertent discovery or intentional excavation of human remains, funerary objects, sacred objects, or objects of cultural patrimony. The finalized plan of action shall be included as Appendix G to this Agreement.
- c) The BLM shall ensure that Native American human remains, funerary objects, sacred objects, and/or objects of cultural patrimony on non-federal lands are treated in accordance with the California Public Resources Code at Sections 5097.98 and 5097.991, and of the California Health and Human Safety Code at Section 7050.5(c).

## **VII. COMMUNICATION AND REPORTING**

- a) The BLM shall submit all documents relating to the Agreement to the Consulting Parties in complete but draft form for review. Consulting Parties will be afforded 30 days following receipt of a draft document to submit written comments to BLM unless otherwise mutually agreed to by the Consulting Parties. The BLM will provide Consulting Parties with written documentation indicating whether and how the document will be modified in response to comments. Unless Consulting Parties object to the revisions in writing to the BLM within 30 days following receipt of the revised document, BLM may finalize the document.
  - i. If a Consulting Party objects to the revisions during the comment period, the BLM will consult with the objecting party for no more than 30 days to resolve the objection. If the objection is resolved, the BLM will notify Consulting Parties of the resolution and may revise and finalize the document. If the objection cannot be resolved, the BLM shall follow the procedures in Stipulation XI(c).
  - ii. The BLM will provide a copy of the final document to the Consulting Parties.
- b) The BLM shall prepare a letter report on a biennial schedule summarizing the fulfillment of the stipulations contained within this Agreement. The report will be submitted to all Consulting Parties to this Agreement by December 31, 2013, for the initial reporting period and every two years thereafter for the duration of this Agreement.
  - i. The implementation and operation of this Agreement shall be evaluated on a biennial basis by the parties. This evaluation, to be conducted after the receipt of the BLM letter report, may include in-person meetings or conference calls among these parties, and may provide suggestions for modifications or amendments.
  - ii. During the construction phase of the undertaking, the Consulting Parties will meet annually between January and March to discuss the fulfillment of the stipulations contained within this Agreement.

## **VIII. ADMINISTRATIVE STANDARDS**

- a) **PROFESSIONAL QUALIFICATION STANDARDS.** All actions prescribed by this Agreement that involve the identification, evaluation, analysis, recordation, treatment, monitoring, and disposition of historic properties and that involve the reporting and documentation of such actions in the form of reports, forms or other records, shall be carried out by or under the direct supervision of a person or persons meeting, at a minimum, the Secretary of the Interior's Professional Qualifications Standards (PQS), as appropriate (48 Fed. Reg. 44738-44739 dated September 29, 1983). However, nothing in this Stipulation may be interpreted to preclude any party qualified under the terms of this paragraph from using the services of persons who do not meet the PQS, so long as the work of such persons is directly supervised by someone who meets the PQS.
- b) **DOCUMENTATION STANDARDS.** Reporting on and documenting the actions cited in this Agreement shall conform to every reasonable extent with the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (48 Fed Reg. 44716-40 dated September 29, 1983), as well as, the BLM 8100 Manual, the California Office of Historic Preservation's Preservation Planning Bulletin Number 4(a) (December 1989), Archaeological Resource Management Reports (ARMR): Recommended Contents and Format (ARMR Guidelines) for the Preparation and Review of Archaeological Reports, and any specific and applicable county or local requirements or report formats.
- c) **CURATION STANDARDS.** On BLM-administered land, all records and materials resulting from the actions required by this Agreement shall be curated in accordance with 36 C.F.R. § 79, and the provisions of the NAGPRA regulations, 43 C.F.R. § 10, as applicable. To the extent permitted under Sections 5097.98 and 5097.991 of the California Public Resources Code and by private property owners, the materials and records resulting from the actions required by this Agreement for private lands shall be curated in accordance with 36 C.F.R. § 79. The BLM will seek to have the materials retrieved from private lands donated through a written donation agreement.

## **IX. IMPLEMENTATION OF THE UNDERTAKING**

- a) The BLM may authorize construction activities, including but not limited to those listed below, to proceed in specific geographic areas where there are no historic properties; where there will be no adverse effect to historic properties; where an archaeological monitoring and post-review discovery process or plan is in place per Stipulation IV and V, or in areas where a mitigation plan has been approved and initiated, and field work completed. Such construction activities may include:
  - i. Demarcation, set up, and use of staging areas for construction of the undertaking;
  - ii. Conduct of geotechnical boring investigations or other geophysical and engineering activities;
  - iii. Grading and construction of buildings and support facilities;
  - iv. Construction of transmission lines.

- b) Initiation of any construction activities on federal lands shall not occur until after the BLM issues the Record of Decision, ROW grant, and Notice(s) to Proceed.

## **X. AMENDMENTS TO THE AGREEMENT**

This Agreement may be amended only upon written agreement of the Signatories and Invited Signatory.

- a) Upon receipt of a request to amend this Agreement, the BLM will immediately notify the other Consulting Parties and initiate a 30 day period to consult on the proposed amendment, whereupon all Consulting Parties shall consult to consider such amendments.
- b) If agreement to a proposed amendment cannot be reached within the 30 day period, resolution of the issue may proceed by following the dispute resolution process set forth in Stipulation XI.
- c) Amendments to this Agreement shall take effect on the dates that they are fully executed by the Signatories and Invited Signatories.
- d) Modifications, additions, or deletions to the appendices made as a result of continuing consultation among the Consulting Parties do not require the Agreement to be amended.
- e) The terms of this Agreement are a condition of any ROD and the ROW grant that the BLM may issue and are binding on the Applicant. For purposes of this Agreement, changes in the corporate name of the Applicant or reassignment of the ROW to a subsidiary company or other entity may be authorized by the BLM and does not require the Agreement to be amended.

## **XI. DISPUTE RESOLUTION**

- a) Should the Signatories or Invited Signatory object at any time to the manner in which the terms of this Agreement are implemented, the BLM will immediately notify the other Signatories and Invited Signatory and consult for no more than 30 days to resolve the objection.
- b) If the objection can be resolved within the consultation period, the BLM may authorize the disputed action to proceed in accordance with the terms of such resolution.
- c) If the objection cannot be resolved through such consultation, the BLM will forward all documentation relevant to the objection to the ACHP with copies to the Consulting Parties to the Agreement. Any comments provided by the ACHP within 30 days after its receipt of all relevant documentation will be taken into account by the BLM in reaching a final decision regarding the objection. The BLM will notify Consulting Parties in writing of its final decision within 14 days after it is rendered.

- d) The BLM's responsibility to carry out all other actions under this Agreement that are not the subject of the objection will remain unchanged.
- e) At any time during implementation of the terms of this Agreement, should an objection pertaining to the Agreement be raised by a Concurring Party or a member of the interested public, the BLM shall immediately notify the Consulting Parties, consult with the SHPO about the objection, and take the objection into account. The other Consulting Parties may comment on the objection to the BLM. The BLM shall consult with the objecting party for no more than 30 days. Within 14 days following closure of consultation, the BLM will render a final decision regarding the objection and proceed accordingly after notifying all parties of its decision in writing. In reaching its final decision, the BLM will take into account all comments from the parties regarding the objection.

## **XII. TERMINATION**

- a) If any Signatory or Invited Signatory to this Agreement determines that its terms will not or cannot be carried out, that party shall immediately consult with the other Signatories and Invited Signatory to amend this Agreement in accordance with Stipulation X above. If resolution regarding an amendment has not been reached within sixty (60) days, a Signatory or Invited Signatory may terminate the Agreement upon 10 days' written notification to the other Signatories and Invited Signatory. Following written notification, the terminating Signatory or Invited Signatory will inform the Concurring Parties.
- b) If the Agreement is terminated, and prior to work continuing on the undertaking, the BLM shall either (a) execute a new Agreement pursuant to 36 C.F.R. § 800.6 or (b) request, take into account, and respond to the comments of the ACHP under 36 C.F.R. § 800.7. Each party shall notify the other Signatories and Invited Signatory to the Agreement as to the course of action that it will pursue.

## **XIII. ADDITION/WITHDRAWAL OF PARTIES TO/FROM THE AGREEMENT**

- a) Should conditions of the undertaking change such that other federal agencies, state agencies, Indian tribes, tribal organizations or other organizations or individuals not already party to this Agreement request in writing to participate, the BLM will notify the Consulting Parties and consider the request to participate in the Agreement. Should the BLM agree to the request to participate, the Agreement shall be amended following the procedures in Stipulation X.
- b) In the event that the Applicant applies for additional federal funding or other federal approvals, such funding or approving agency may comply with Section 106 and 36 C.F.R. § 800.2 (a)(2) by agreeing in writing to the terms of this Agreement and notifying and consulting with SHPO and ACHP. Any necessary modifications will be considered in accordance with Stipulation X to this Agreement.

- c) Should a Concurring Party determine that its participation in this Agreement is no longer warranted, the Concurring Party may withdraw from participation by informing the BLM. The BLM shall inform the Consulting Parties of the withdrawal. Withdrawal of a Concurring Party to the Agreement does not require an amendment of the Agreement.

#### **XIV. DURATION OF THIS AGREEMENT**

- a) This Agreement will expire if construction has not been initiated and the BLM ROW grant expires or is withdrawn, or the stipulations of this Agreement have not been initiated, within five (5) years from the date of execution. Prior to such time, the BLM may consult with the other Signatories and Invited Signatory to reconsider the terms of the Agreement and amend it in accordance with Stipulation X above.
- b) Unless the Agreement is terminated pursuant to Stipulation XII, another agreement executed for the undertaking supersedes it, or the undertaking itself has been terminated, this Agreement will remain in full force and effect for the 30 year term of the ROW grant or until BLM, in consultation with the other Signatories and Invited Signatory, determines that implementation of all aspects of the undertaking has been completed and that all terms of this Agreement have been fulfilled in a satisfactory manner. The effective period of this Agreement may be extended as provided in Stipulation X. Upon a determination by BLM that implementation of all aspects of the undertaking have been completed and that all terms of this Agreement have been fulfilled in a satisfactory manner, BLM will notify the Consulting Parties in writing of the agency's determination. This Agreement will terminate and have no further force or effect 30 days after BLM so notifies the Consulting Parties to this Agreement, unless BLM retracts its determination before the end of that period.

#### **XV. EFFECTIVE DATE**

- a) This Agreement and any amendments shall take effect on the date that it has been fully executed by the Signatories.
- b) Execution and implementation of this Agreement is evidence that the BLM has taken into account the effect of the undertaking on historic properties, afforded the ACHP a reasonable opportunity to comment, and that the BLM has satisfied their responsibilities under Section 106. The BLM shall be responsible for managing historic properties within the APE for this undertaking pursuant to the NHPA. The Signatories and Invited Signatory to this Agreement represent that they have the authority to sign for and bind the entities on behalf of whom they sign.

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**SIGNATORY PARTIES**

U.S. BUREAU OF LAND MANAGEMENT

BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
John Kalish  
Manager, Palm Springs – South Coast Field Office

CALIFORNIA STATE HISTORIC PRESERVATION OFFICER

BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
Carol Roland-Nawi  
State Historic Preservation Officer

ADVISORY COUNCIL ON HISTORIC PRESERVATION

BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
John M. Fowler  
Executive Director

**INVITED SIGNATORY PARTIES**

McCoy Solar, LLC

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**Invited Signatory**

MCCOY SOLAR, LLC

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

TITLE: \_\_\_\_\_

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## **PARTIES INVITED TO CONCUR IN THE AGREEMENT**

RIVERSIDE COUNTY  
AGUA CALIENTE BAND OF CAHUILLA INDIANS  
AUGUSTINE BAND OF CAHUILLA INDIANS  
CABAZON BAND OF MISSION INDIANS  
CAHUILLA BAND OF MISSION INDIANS  
CHEMEHUEVI INDIAN TRIBE  
COCOPAH INDIAN TRIBE  
COLORADO RIVER INDIAN TRIBES  
FORT MOJAVE INDIAN TRIBE  
FORT YUMA QUECHAN TRIBE  
MORONGO BAND OF MISSION INDIANS  
RAMONA BAND OF MISSION INDIANS  
SAN MANUEL BAND OF MISSION INDIANS  
SOBOBA BAND OF LUISENO INDIANS  
TORRES-MARTINEZ DESERT CAHUILLA INDIANS  
TWENTY-NINE PALMS BAND OF MISSION INDIANS  
MAMIE HARPER  
PRISCILLA ESWONIA  
STACIA BAILLIE  
MICHAEL TSOSIE  
DAVID HARPER

**Concurring Party**

RIVERSIDE COUNTY

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

TITLE: \_\_\_\_\_

DRAFT

**Concurring Party**

AGUA CALIENTE BAND OF CAHUILLA INDIANS

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

TITLE: \_\_\_\_\_

DRAFT

**Concurring Party**

AUGUSTINE BAND OF CAHUILLA INDIANS

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

TITLE: \_\_\_\_\_

DRAFT

**Concurring Party**

CABAZON BAND OF MISSION INDIANS

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

TITLE: \_\_\_\_\_

DRAFT

**Concurring Party**

CAHUILLA BAND OF MISSION INDIANS

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

TITLE: \_\_\_\_\_

DRAFT

**Concurring Party**

CHEMEHUEVI INDIAN TRIBE

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

TITLE: \_\_\_\_\_

DRAFT

**Concurring Party**

COCOPAHI INDIAN TRIBE

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

TITLE: \_\_\_\_\_

DRAFT

**Concurring Party**

COLORADO RIVER INDIAN TRIBES

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

TITLE: \_\_\_\_\_

DRAFT

**Concurring Party**

FORT MOJAVE INDIAN TRIBE

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

TITLE: \_\_\_\_\_

DRAFT

**Concurring Party**

FORT YUMA QUECHAN TRIBE

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

TITLE: \_\_\_\_\_

DRAFT

**Concurring Party**

MORONGO BAND OF MISSION INDIANS

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

TITLE: \_\_\_\_\_

DRAFT

**Concurring Party**

RAMONA BAND OF MISSION INDIANS

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

TITLE: \_\_\_\_\_

DRAFT

**Concurring Party**

SAN MANUEL BAND OF MISSION INDIANS

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

TITLE: \_\_\_\_\_

DRAFT

**Concurring Party**

SOBOBA BAND OF LUISENO INDIANS

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

TITLE: \_\_\_\_\_

DRAFT

**Concurring Party**

TORRES-MARTINEZ DESERT CAHUILLA INDIANS

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

TITLE: \_\_\_\_\_

DRAFT

**Concurring Party**

TWENTY-NINE PALMS BAND OF MISSION INDIANS

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

TITLE: \_\_\_\_\_

DRAFT

**Concurring Party**

MAMIE HARPER

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

TITLE: \_\_\_\_\_

DRAFT

**Concurring Party**

PRISCILLA ESWONIA

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

TITLE: \_\_\_\_\_

DRAFT

**Concurring Party**

STACIA BAILLIE

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

TITLE: \_\_\_\_\_

DRAFT

**Concurring Party**

MICHAEL TSOSIE

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

TITLE: \_\_\_\_\_

DRAFT

**Concurring Party**

DAVID HARPER

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

TITLE: \_\_\_\_\_

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**APPENDIX A: CULTURAL RESOURCES WITHIN THE APE AND PROPOSED TREATMENT/MANAGEMENT STRATEGY**

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**Table 1: Cultural Resources within the APE and Proposed Treatment/Management Strategy**

<b>Site Designation</b>	<b>Site Description</b>	<b>Eligibility Recommendation / Criteria or Values</b>	<b>Associated Project Component</b>	<b>Effects / Management</b>
CA-RIV-2846	Sparse, extensive flaked stone scatters and other features across Pleistocene pebble terrace	Eligible under D, Not eligible under A-C	Linear Feature Corridor	Avoided; No effect; Implement ESA Monitoring and Management Prescriptions
CA-RIV-3419	Sparse, extensive flaked stone scatters and other features across Pleistocene pebble terrace	Eligible under D, Not eligible under A-C	Linear Feature Corridor	Avoided; No effect; Implement ESA Monitoring and Management Prescriptions
CA-RIV-7175	Lithic scatter	Eligible under D, Not eligible under A-C	Linear Feature Corridor	None - Avoided (No longer in APE)
CA-RIV-9510	Historical debris scatter	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-9513	Historical debris scatter and cairns	Unevaluated A-D	Solar Facility Footprint	None - Avoided (No longer in APE)
CA-RIV-9633	Historical debris scatter	Not eligible A-D	Linear Feature Corridor	None - Not Eligible (No longer in APE)
CA-RIV-9634	Historical debris scatter	Not eligible A-D	Linear Feature Corridor	None - Not Eligible (No longer in APE)
CA-RIV-9635	Historical debris scatter	Not eligible A-D	Linear Feature Corridor	None - Not Eligible (No longer in APE)
CA-RIV-9636	Historical debris scatter	Not eligible A-D	Linear Feature Corridor	None - Not Eligible (No longer in APE)
CA-RIV-9637	Historical debris scatter	Not eligible A-D	Linear Feature Corridor	None - Not Eligible
CA-RIV-9639	Historical debris scatter	Not eligible A-D	Linear Feature Corridor	None - Not Eligible (No longer in APE)
CA-RIV-9641	Historical debris scatter	Not eligible A-D	Linear Feature Corridor	None - Not Eligible
CA-RIV-9642	Historical debris scatter	Not eligible A-D	Linear Feature Corridor	None - Not Eligible
CA-RIV-9643	Historical debris scatter	Not eligible A-D	Linear Feature Corridor	None - Not Eligible
CA-RIV-9680	Historical debris scatter	Not eligible A-D	Linear Feature Corridor	None - Not Eligible (No longer in APE)
CA-RIV-9681	Historical structure foundations	Not eligible A-D	GenTie & Distribution Line	None - Not Eligible
CA-RIV-9688	Historical debris scatter and hearth	Not eligible A-D	Linear Feature Corridor	None - Not Eligible
CA-RIV-9691	Historical debris scatter	Not eligible A-D	Linear Feature Corridor	None - Not Eligible (No longer in APE)
CA-RIV-9696	Historical debris scatter with structural ruins	Not eligible A-D	Linear Feature Corridor	None - Not Eligible
CA-RIV-9713	Historical debris scatter	Not eligible A-D	Linear Feature Corridor	None - Not Eligible

<b>Site Designation</b>	<b>Site Description</b>	<b>Eligibility Recommendation / Criteria or Values</b>	<b>Associated Project Component</b>	<b>Effects / Management</b>
CA-RIV-9714	Historical debris scatter	Not eligible A-D	Linear Feature Corridor	None - Not Eligible
CA-RIV-9724	Historical debris scatter	Not eligible A-D	Linear Feature Corridor	None - Not Eligible (No longer in APE)
CA-RIV-9727	Historical debris scatter	Not eligible A-D	Linear Feature Corridor	None - Not Eligible
CA-RIV-9729	Historical debris scatter	Not eligible A-D	Linear Feature Corridor	None - Not Eligible
CA-RIV-9730	Historical debris scatter with emplacements	Not eligible A-D	Linear Feature Corridor	None - Not Eligible
CA-RIV-9752	Historical debris scatter	Not eligible A-D	Linear Feature Corridor	None - Not Eligible (No longer in APE)
CA-RIV-9754	Lithic and ceramic isolates with historical debris scatter	Not eligible A-D	Linear Feature Corridor	None - Not Eligible
CA-RIV-9755	Historical debris scatter	Not eligible A-D	Linear Feature Corridor	None - Not Eligible
CA-RIV-9756	Historical debris scatter	Not eligible A-D	Linear Feature Corridor	None - Not Eligible
CA-RIV-9760	Blythe/Eagle Mountain Utility Line	Not eligible A-D	Linear Feature Corridor	None - Not Eligible
CA-RIV-9762	Historical debris scatter	Not eligible A-D	Linear Feature Corridor	None - Not Eligible
CA-RIV-9763	Historical debris scatter	Not eligible A-D	Linear Feature Corridor	None - Not Eligible
CA-RIV-9768	Historical debris scatter	Not eligible A-D	Linear Feature Corridor	None - Not Eligible
CA-RIV-9770	Lithic and ceramic isolates with historical debris scatter	Not eligible A-D	Linear Feature Corridor	None - Not Eligible
CA-RIV-9778	Lithic scatter with historical debris	Not eligible A-D	Linear Feature Corridor	None - Not Eligible
CA-RIV-9780	Lithic scatter with emplacements	Not eligible A-D	Linear Feature Corridor	None - Not Eligible
CA-RIV-9797	Lithic scatter with historical-period debris scatter and possible privy	Not eligible A-D	Linear Feature Corridor	None - Not Eligible
CA-RIV-9798	Lithic scatter with fortified positions	Not eligible A-D	Linear Feature Corridor	None - Not Eligible
CA-RIV-9801	Ceramic scatter with historical debris scatter	Not eligible A-D	Solar Facility Footprint	None - Avoided (No longer in APE)
CA-RIV-9813	Thermal cobble features	Not eligible under A-C, Unevaluated under D	Linear Feature Corridor	Avoided; No effect; Implement ESA Monitoring and Management Prescriptions
CA-RIV-9817	Thermal cobble feature	Not eligible under A-C, Unevaluated under D	GenTie & Distribution Line	Avoided; No effect; Implement ESA Monitoring and Management Prescriptions

Site Designation	Site Description	Eligibility Recommendation / Criteria or Values	Associated Project Component	Effects / Management
CA-RIV-9818	Thermal cobble features	Not eligible under A-C, Unevaluated under D	Linear Feature Corridor	Avoided; No effect; Implement ESA Monitoring and Management Prescriptions
CA-RIV-9819	Lithic scatter and thermal cobble feature	Not eligible A-D	Distribution Line	None - Not Eligible
CA-RIV-9820	Thermal cobble feature	Not eligible under A-C, Unevaluated under D	Linear Feature Corridor	Avoided; No effect; Implement ESA Monitoring and Management Prescriptions
CA-RIV-9821	Thermal cobble feature and ceramic scatter	Not eligible under A-C, Unevaluated under D	Linear Feature Corridor	Avoided; No effect; Implement ESA Monitoring and Management Prescriptions
CA-RIV-9981	Historic Road	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-9982	Historic Road	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-9983	Historic Road	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10077	Historical debris scatter	Not eligible A-D	Linear Feature Corridor	None - Not Eligible
CA-RIV-10180	Historical debris scatter	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10181	Historical debris scatter, emplacement	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10182	Hearth	Unevaluated A-D	Solar Facility Footprint	None - Avoided (No longer in APE)
CA-RIV-10183	Rock feature	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10184	Rock feature	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10185	Temporary camp site	Unevaluated A-D	Solar Facility Footprint	None - Avoided (No longer in APE)
CA-RIV-10186	Rock feature	Unevaluated A-D	Solar Facility Footprint	None - Avoided (No longer in APE)
CA-RIV-10187	Ceramic scatter	Unevaluated A-D	Solar Facility Footprint	None - Avoided (No longer in APE)
CA-RIV-10188	Trail	Unevaluated A-D	Solar Facility Footprint	None - Avoided (No longer in APE)
CA-RIV-10189	Glass scatter	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10190	Historical debris scatter, flake	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10191	Historical debris scatter, emplacement	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10192	Historical debris scatter	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10193	Historical debris scatter	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10194	Military encampment, associated debris	Eligible under A and D, Not eligible under B and C	Solar Facility Footprint	Yes/Project-specific data recovery program

<b>Site Designation</b>	<b>Site Description</b>	<b>Eligibility Recommendation / Criteria or Values</b>	<b>Associated Project Component</b>	<b>Effects / Management</b>
CA-RIV-10195	Military encampment, associated debris	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10196	Military emplacements	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10197	Cairn	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10198	Habitation debris, concrete pad	Unevaluated A-D	Solar Facility Footprint	None - Avoided (No longer in APE)
CA-RIV-10199	Lithic scatter, rock ring	Unevaluated A-D	Solar Facility Footprint	None - Avoided (No longer in APE)
CA-RIV-10200	Historical debris scatter, feature	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10201	Mining prospect	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10202	Historical debris scatter	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10203	Historical debris scatter	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10204	Historical debris scatter	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10205	Historical debris scatter	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10206	Historical debris scatter	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10207	Historical debris scatter	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10208	Historical debris scatter	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10209	Historical debris scatter	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10210	Historical debris scatter	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10211	Historical debris scatter	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10212	Historical debris scatter	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10213	Historical debris scatter	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10214	Lithic scatter	Unevaluated A-D	Solar Facility Footprint	None - Avoided (No longer in APE)
CA-RIV-10215	Rock feature, 2 tools	Unevaluated A-D	Solar Facility Footprint	None - Avoided (No longer in APE)
CA-RIV-10216	Cairn	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10217	Cairn	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10218	Lithic scatter	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10219	Hearth, milled wood	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10220	Hearth, milled wood	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10221	Military emplacements	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10222	Ceramic scatter	Eligible under D, Not eligible A-C	Solar Facility Footprint	Yes/Project-specific data recovery program
CA-RIV-10223	Can dump	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10224	Household debris deposit	Not eligible A-D	Solar Facility Footprint	None - Not Eligible

<b>Site Designation</b>	<b>Site Description</b>	<b>Eligibility Recommendation / Criteria or Values</b>	<b>Associated Project Component</b>	<b>Effects / Management</b>
CA-RIV-10225	Historic debris/desert training	Eligible under A and D, Not eligible under B and C	Solar Facility Footprint	Yes/Project-specific data recovery program
CA-RIV-10226	Mining	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10227	Temporary camp site	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10239	Ceramic scatter	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10240	Historic deposit, military debris, tracks	Eligible under A and D, Not eligible under B and C	Solar Facility Footprint	Yes/Project-specific data recovery program
CA-RIV-10241	Tank tracks	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10242	Military debris, tank tracks	Eligible under A and D, Not eligible under B and C	Solar Facility Footprint	Yes/Project-specific data recovery program
CA-RIV-10243	Military debris scatter	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
CA-RIV-10244	Single lithic reduction area	Unevaluated A-D	Solar Facility Footprint	None - Avoided (No longer in APE)
CA-RIV-10245	WWII training area	Eligible under A and D, Not eligible under B and C	Solar Facility Footprint	Yes/Project-specific data recovery program
CA-RIV-10246	Military activity	Eligible under A and D, Not eligible under B and C	Solar Facility Footprint	Yes/Project-specific data recovery program
P-33-009670	Historical debris scatter	Not eligible A-D	Linear Feature Corridor	None - Not Eligible (No longer in APE)
P-33-020053	Rock feature	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
P-33-020055	Cairn	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
P-33-020058	Cairn	Unevaluated A-D	Solar Facility Footprint	None - Avoided (No longer in APE)
P-33-020071	Cairn	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
P-33-020093	Cairn	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
P-33-020222	Rock pile	Unevaluated A-D	Solar Facility Footprint	None - Avoided (No longer in APE)
P-33-020223	Cairn/rock ring	Not eligible A-D	Solar Facility Footprint	None - Not Eligible
P-33-020224	Rock pile	Not eligible A-D	Solar Facility Footprint	None - Not Eligible

## APPENDIX B - DEFINITIONS

- a) **Applicant.** Refers to McCoy Solar, LLC, and to the same organization in the event of a change of the name of the company, provided the Signatories are notified in writing of the name change.
- b) **Area of Potential Effect.** The APE is defined as the total geographic area or areas within which the undertaking may directly or indirectly cause alterations in the character or use of historic properties per 36 C.F.R. § 800.16(d). The APE is influenced by the scale and nature of an undertaking and includes those areas which could be affected by an undertaking prior to, during and after construction.
- c) **Concurring Parties.** Collectively refers to parties (not Signatories or Invited Signatory) with a demonstrated interest in the undertaking, who agree, through their signature, with the terms of this Agreement. Concurring Parties may propose amendments to this Agreement.
- d) **Cultural Resource.** A cultural resource is an object or definite location of human activity, occupation, use, or significance identifiable through field inventory, historical documentation, or oral evidence. Cultural resources are prehistoric, historic, archaeological, or architectural sites, structures, buildings, places, or objects and locations of traditional cultural or religious importance to specified social and/or culture groups. Cultural resources include the entire spectrum of objects and places, from artifacts to cultural landscapes, without regard to eligibility for inclusion on the National Register of Historic Places (NRHP) or California Register of Historical Resources (CRHR).
- e) **Consulting Parties.** Collectively refers to the Signatories, Invited Signatory and Concurring Parties who have signed this Agreement.
- f) **Historic Properties.** Properties (cultural resources) that are included in, or eligible for inclusion in, the NRHP maintained by the Secretary of the Interior and per the NRHP eligibility criteria at 36 C.F.R. § 60.4 and may include any prehistoric or historic district, site, building, structure, traditional cultural property or object. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization that meet the NRHP criteria. The term “eligible for inclusion on the NRHP” refers both to properties formally determined as such in accordance with regulations of the Secretary of the Interior and all other properties that meet the NRHP criteria.
- g) **Historical Resources.** Historical resources are cultural resources that meet the criteria for listing on the CRHR as provided at California Code of Regulations Title 14, Chapter 11.5, Section 4850 and may include, but are not limited to, any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California.
- h) **Invited Signatory.** Invited Signatories are parties that have specific responsibilities as defined in this Agreement. The Invited Signatory who signs this Agreement has the same rights with regard to seeking amendment or termination of this Agreement as the Signatories, but whose signature is not required for execution of the Agreement. The Invited Signatory to this Agreement is the Applicant.

- i) ***Lands Administered by the U.S. Department of Interior, Bureau of Land Management*** (BLM) means any federal lands under the administrative authority of the BLM.
- j) ***Literature Review***. A literature review is one component of a BLM class I inventory, as defined in BLM Manual Guidance 8100.21(A)(1), and is a professionally prepared study that includes a compilation and analysis of all reasonably available cultural resource data and literature, and a management-focused, interpretive, narrative overview, and synthesis of the data. The overview may also define regional research questions and treatment options.
- k) ***Records Search***. A records search is one component of a BLM class I inventory and an important element of a literature review. A records search is the process of obtaining existing cultural resource data from published and unpublished documents, BLM cultural resource inventory records, institutional site files, state and national registers, interviews, and other information sources.
- l) ***Signatories***. Signatories are parties that have the sole authority to execute, amend or terminate this Agreement. Signatories to this Agreement are the BLM, SHPO, and the ACHP.
- m) ***Traditional Cultural Property***. A traditional cultural property is defined generally as a property that is important to a living group or community because of its association with cultural practices or beliefs that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community. It is a place, such as a traditional gathering area, prayer site, or sacred/ceremonial location that may figure in important community traditions. These places may or may not contain features, artifacts, or physical evidence, and are usually identified through consultation. A traditional cultural property may be eligible for inclusion in the NRHP.
- n) ***Tribes***. The federally recognized Indian tribes that the BLM is consulting with on this undertaking.
- o) ***Undertaking***. Collectively refers to all projects, activities, or programs funded in whole or in part under the direct or indirect jurisdiction of the federal agencies (BLM) that are party to this Agreement, including those carried out by or on behalf of the federal agency; those carried out by federal financial assistance; and those requiring a federal permit, license, or approval.
- p) ***Windshield Survey***. A windshield survey is the driving or walking of surveyors along streets and roads of a community in order to observe and record the buildings, structures, and landscape characteristics seen from those vantage points. A windshield survey is a method commonly utilized in reconnaissance surveys to identify built-environment resources, such as buildings, objects, and structures.

## APPENDIX C-1: AREA OF POTENTIAL EFFECT

1. The BLM has defined the APE for the McCoy Solar Energy Project based on consideration of both direct and indirect impacts. The APE was established based on the consultation and identification procedures required in BLM's *Statewide Protocol Agreement* (Protocol) with the California and Nevada SHPO and consistent with 36 C.F.R. § 800.4.
2. An area (see Appendix C-2:Reference Maps for the Area of Potential Effect) within which historic properties could sustain direct effects as a result of the undertaking and the BLM will establish Environmentally Sensitive Areas (ESA) and implement the management or protective measures as described in Stipulation III(a) of the Agreement. These areas include:
  - a) The area within which historic properties could sustain direct effects as a result of the undertaking is defined to include:
    - i) The block area of installation of the proposed photovoltaic solar power generation facility, which includes approximately 4,315 acres of BLM-managed federal land and 477 acres of private land, and generally includes; portions of Sections 19, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, and 35 of Township 5S and Range 21E, portions of Sections 1, 5, 8, 9, 10, 13, 14, 15, 22, 23, 26, and 35 of Township 6S and Range 21E, portions of Section 6, 7, and 18 of Township 6S and Range 22E, and portions of Sections 2, 3, 4, 5, and 6 of Township 7S, Range 21E (all San Bernardino Base Meridian).
    - ii) All linear elements of the undertaking including:
      - (1) A ROW for construction of the 230 kV transmission line. The ROW is approximately 100-foot wide and 14.5 miles long and extends from the eastern side of the solar facility south and west to Southern California Edison's Colorado River Substation. The survey corridor for cultural resources for this linear element was established as a 50-foot wide buffer on either side of the center line (100-foot wide corridor).
      - (2) An access road for the solar facility follows the existing Black Rock Road. The access road extends north from the frontage road north of Interstate 10 to the east side of the solar facility.
3. The area within which historic properties could sustain indirect effects, including visual, auditory, atmospheric, and contextual, as a result of the undertaking includes:
  - i) Historic properties within a one-half mile of the Project footprint that are identified through a review of existing literature and records search, information or records on file with the BLM or at the Eastern Information Center, interviews or discussions with local professional or historical societies and local experts in history or archaeology.

- (1) Historic properties identified through archaeological or other field investigations for this undertaking that, as a result of Project redesign to avoid direct effects to cultural resources, are no longer within the APE.
- ii) Historic properties included in the Native American Heritage Commission Sacred Lands Files, identified through a literature review or records search, or identified by a Tribe, through consultation as having religious or cultural significance that may be affected by the undertaking.
- iii) Historic properties that have been identified by a consulting party, organization, governmental entity, or individual through consultation or the public commenting processes as having significance or being a resource of concern that may be affected by the undertaking.
- iv) Built-environment resources located within one-half mile of the Project footprint whose historic settings could be adversely affected.
- (1) On private property, historic properties within one-half mile of the Project footprint that are identified through surveys.

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**APPENDIX C-2: REFERENCE MAPS FOR THE AREA OF POTENTIAL EFFECT**

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**APPENDIX D: HISTORIC PROPERTIES TREATMENT PLAN**

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**APPENDIX E: PLAN FOR MONITORING, POST-REVIEW DISCOVERY AND UNANTICIPATED EFFECTS**

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**APPENDIX F: LONG TERM MANAGEMENT PLAN**

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**APPENDIX G: NAGPRA PLAN**

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## **APPENDIX M**

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# Summary of Bureau of Land Management Mitigation and Monitoring

### **Introduction**

The table that follows presents a compilation of APMs and mitigation measures identified in the PA/EIS for the McCoy Solar Energy Project (Project). The purpose of the table is to provide a single comprehensive list of recommended mitigation measures, the timing for their implementation, and related monitoring and reporting requirements.

If and when the Project is approved, the BLM will compile an Environmental and Construction Compliance Monitoring Plan (ECCMP) that will include a summary of mitigation and monitoring requirements that includes approved measures and any revisions to them that the BLM may make in its Record of Decision.

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Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Air Resources</b>						
<p><b>APM AIR-1:</b> To reduce construction-generated air quality impacts:</p> <ol style="list-style-type: none"> <li>The main access roads through the facility to the unit substation areas shall be either paved or stabilized using soil binders, or equivalent methods, to provide a stabilized surface that is similar for the purposes of dust control to paving, that may or may not include a crushed rock (gravel or similar material with fines removed) top layer, prior to initiating construction in the unit substation areas.</li> <li>All unpaved construction roads and unpaved operation and maintenance site roads, as they are being constructed, shall be stabilized with a non-toxic soil stabilizer or soil weighting agent that can be determined to be both as efficient or more efficient for fugitive dust control as ARB-approved soil stabilizers, and shall not increase any other environmental impacts including loss of vegetation to areas beyond where the soil stabilizers are being applied for dust control. All other disturbed areas in the project and linear construction sites shall be watered as frequently as necessary during grading; and after active construction activities shall be stabilized with a nontoxic soil stabilizer or soil weighting agent, or alternative approved soil stabilizing methods. The frequency of watering can be reduced or eliminated during periods of precipitation.</li> <li>No vehicle shall exceed 10 miles per hour on unpaved areas within the site, with the exception that vehicles may travel up to 25 miles per hour on stabilized unpaved roads as long as such speeds do not create visible dust emissions.</li> <li>Visible speed limit signs shall be posted at the site entrance(s).</li> <li>All construction equipment vehicle tires shall be inspected and washed as necessary to be cleaned free of dirt prior to entering paved roadways.</li> <li>Gravel ramps of at least 20 feet in length must be provided at the tire washing/cleaning station.</li> <li>All unpaved exits from the construction site shall be graveled or treated to prevent track-out to public roadways.</li> <li>All construction vehicles shall enter the construction site through the treated entrance roadways.</li> <li>All paved roads within the construction site shall be swept daily or as needed (less during periods of precipitation) on days when construction activity occurs to prevent the accumulation of dirt and debris.</li> <li>At least the first 500 feet of any paved public roadway exiting the construction site or exiting other unpaved roads en route from the construction site or construction staging areas shall be swept as needed (less during periods of precipitation) on days when construction activity occurs or on any other day when dirt or runoff resulting from the construction site activities is visible on the public paved roadways.</li> <li>All soil storage piles and disturbed areas that remain inactive for longer than 10 days shall be covered, or shall be treated with appropriate dust suppressant compounds.</li> <li>All vehicles that are used to transport solid bulk material on public roadways and that have potential to cause visible emissions shall be provided with a cover, or the materials shall be sufficiently wetted and loaded onto the trucks in a manner to provide at least one foot of freeboard.</li> <li>Wind erosion control techniques (such as windbreaks, water, chemical dust suppressants, and/or vegetation) shall be used on all construction areas that may be disturbed. Any windbreaks installed to comply with this measure shall remain in place until the soil is stabilized or permanently covered with vegetation.</li> <li>The disruption of desert pavement shall be minimized to the extent feasible.</li> </ol>	Prior to and during construction	BLM	Implement construction related air quality impact reduction procedures			

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Air Resources (cont.)</b>						
<p><b>APM AIR-2:</b> To reduce operation and maintenance-related air emissions:</p> <ol style="list-style-type: none"> <li>1. The main access roads through the facility to the unit substation areas shall be either paved or stabilized using soil binders, or equivalent methods, to provide a stabilized surface that is similar for the purposes of dust control to paving, that may or may not include a crushed rock (gravel or similar material with fines removed) top layer, and delivery areas for operations materials (chemicals, replacement parts, etc.) shall be paved or treated prior to taking initial deliveries.</li> <li>2. All unpaved operation and maintenance site roads shall be stabilized with a non-toxic soil stabilizer or soil weighting agent that can be determined to be both as efficient or more efficient for fugitive dust control as ARB approved soil stabilizers, and shall not increase any other environmental impacts including loss of vegetation to areas beyond where the soil stabilizers are being applied for dust control. After construction activities, all disturbed areas in the project and linear sites shall be stabilized with a nontoxic soil stabilizer or soil weighting agent, or alternative approved soil stabilizing methods.</li> <li>3. No vehicle shall exceed 10 miles per hour on unpaved areas within the site, with the exception that vehicles may travel up to 25 miles per hour on stabilized unpaved roads as long as such speeds do not create visible dust emissions.</li> <li>4. Visible speed limit signs shall be posted at the site entrance(s).</li> <li>5. All vehicles that are used to transport solid bulk material on public roadways and that have potential to cause visible emissions shall be provided with a cover, or the materials shall be sufficiently wetted and loaded onto the trucks in a manner to provide at least one foot of freeboard.</li> <li>6. The disruption of desert pavement shall be minimized to the extent feasible.</li> </ol>	Prior to and during Operations and maintenance	BLM	Implement operation and maintenance-related air emissions reduction procedures			
<p><b>MM AQ-1:</b> The Applicant shall ensure that all areas where desert pavement has been disturbed during construction of the Project shall be applied with a non-toxic soil stabilizer prior to Project operation. The Applicant shall develop, for review and approval by the BLM, a plan that outlines the frequency of non-toxic soil stabilizer applications based on the specifications of the selected soil stabilizer.</p>	After construction	BLM	Review and approve a soil stabilization application plan.			
<b>Biological Resources – Vegetation</b>						
<p><b>APM BIO-2a. Biological Resources Mitigation and Monitoring Plan (BRMMP).</b> The BRMMP will outline steps to implement the protection measures; document their implementation; and monitor their effectiveness. The BRMMP will identify the terms and conditions of any permits associated with the Project, including, but not limited to, the USFWS §7 Biological Opinion, CDFG §2081 Incidental Take Permit, and CDFG Streambed Alteration Agreement. The BRMMP will be submitted to the BLM and USFWS for approval prior to the start of ground disturbance.</p>	Prior to construction	BLM, USFWS, CDFG	Develop and implement BRMMP			
<p><b>APM BIO-2c. Worker Environmental Training.</b> The Applicant will prepare and implement site-specific Worker Environmental Training to inform Project personnel about the biological constraints of the Project. The training will be included in the BRMMP and will be developed and presented by a qualified Project biologist prior to the commencement of construction activity. All Project personnel must attend the training. The training will include information regarding the sensitive biological resources, restrictions, protection measures, and individual responsibilities associated with the Project. Special emphasis will be placed on protection measures developed for the desert tortoise and the consequences of non-compliance. Written material will be provided to employees at orientation and participants will sign an attendance sheet documenting their participation.</p>	Prior to construction	BLM	Develop and implement worker environmental training			

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Vegetation (cont.)</b>						
<p><b>APM BIO-2d. Construction-related Activities.</b> Existing roads will be utilized wherever possible to avoid unnecessary impacts. New and existing roads that are planned for either construction or widening will not extend beyond the planned impact area and will minimize surface disturbance in native habitats, where practical. All vehicles passing or turning around will do so within the planned impact area or in previously disturbed areas. Along the linear facilities, the anticipated impact zones, including staging areas, equipment access, and disposal or temporary placement of spoils, will be delineated with stakes and/or flagging prior to construction to avoid natural resources, where possible. Outside the Project boundaries, personnel will utilize established roadways (paved or unpaved) for traveling to and from the Project Area, including for transmission line construction. No work in unfenced and uncleared habitat will occur except under the direct supervision of a BM. Cross-country vehicle and equipment use outside designated work areas will be prohibited. Best Management Practices will be employed to prevent loss of habitat due to erosion caused by Project-related impacts (i.e., grading or clearing for new roads). All detected erosion will be remedied within 2-days of discovery. Additionally, fueling of equipment will take place within existing paved roads and not within or adjacent to drainages or native desert habitats. Contractor equipment will be checked for leaks prior to operation and repaired as necessary. All vehicles and equipment will be in proper working condition to minimize the potential for fugitive emissions of motor oil, antifreeze, hydraulic fluid, grease, or other hazardous materials. The AB and BM will be informed of any hazardous spills within 24 hours. Hazardous spills will be immediately cleaned up and the contaminated soil will be properly disposed of at a licensed facility. Employees and contractors will look under vehicles and equipment for the presence of desert tortoises prior to movement. No equipment will be moved until the animal has left voluntarily or an AB removes it.</p>	During construction	BLM	<ul style="list-style-type: none"> <li>Existing roads will be used when possible and road construction will not be extended beyond the impact area</li> <li>BMPs will be implemented to prevent loss of habitat</li> <li>Fueling of equipment will take place on paved areas and vehicles will be checked for leaks</li> <li>Hazardous spills will be reported to the AB and BM within 24 hours and immediately cleaned up</li> <li>Workers will check for tortoises under vehicles</li> </ul>			
<p><b>APM BIO-2n. Weed Management Plan.</b> The Applicant will prepare and implement a Weed Management Plan to prevent the spread of existing weeds and the introduction of new weeds to the Project Area.</p>	Prior to Construction	BLM	Develop and implement a Weed Management Plan			
<p><b>APM BIO-2o. Water Application for Dust Control.</b> The Applicant will ensure water is applied to the construction area, dirt roads, trenches, spoil piles, and other areas where ground disturbance has taken place to minimize dust emissions and topsoil erosion. A BM will patrol these areas to ensure water does not pool for long periods of time and potentially attract desert tortoises, common ravens, and other wildlife.</p>	During Construction	BLM	<ul style="list-style-type: none"> <li>Water will be applied for dust suppression</li> <li>A BM will ensure that water does not pool for extended periods and attract wildlife</li> </ul>			
<p><b>APM BIO-2p. Cleanup and Restoration; Revegetation Plan.</b> The Applicant will ensure that all unused material and equipment will be removed upon completion of construction activities or maintenance activities conducted outside the permanently fenced sites (this includes non-emergency and emergency repairs). Upon completion, all construction equipment and refuse, including, but not limited to wrapping material, cables, cords, wire, boxes, rope, broken equipment parts, twine, strapping, buckets, metal or plastic containers will be removed from the site and disposed of properly. Any unused or leftover hazardous products will be properly disposed of off-site. The Applicant will prepare and implement a Revegetation Plan to restore temporarily disturbed areas.</p>	Prior to construction	BLM	Develop and implement Revegetation Plan			

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Vegetation (cont.)</b>						
<p><b>APM BIO-5. Protection Measures during Decommissioning/Closure.</b> Project Decommissioning: The planned operating life of the Project is 30 years. In the event the Project permanently shuts down, and no other project will occupy the same industrial space, the Applicant will prepare and implement a Decommissioning Plan to ensure that the environment is protected during the decommissioning phase. Prior to decommissioning, a plan will be finalized and approved by the BLM. The Applicant shall retain an AB for the decommissioning phase of the Project to ensure that all environmental protection measures are implemented. The Applicant will submit the names and qualifications of all proposed biologists to the USFWS and BLM for review and approval at least 30 days prior to decommissioning activities and prior to initiation of any tortoise handling. Decommissioning activities will not begin until the ABs are approved by the aforementioned agencies.</p>	Prior to construction	BLM	Develop and Implement a Decommissioning Plan			
<p><b>VEG-1: Qualifications of Designated Biologist.</b> The Applicant shall assign at least one Designated Biologist to the Project. The Applicant shall submit the resume of the proposed Designated Biologist(s), with at least three references and contact information, to the BLM AO for approval in consultation with CDFG and USFWS.</p> <p>The Designated Biologist must meet the following minimum qualifications:</p> <ol style="list-style-type: none"> <li>1. Bachelor's degree in biological sciences, zoology, botany, ecology, or a closely related field;</li> <li>2. Three years of experience in field biology or current certification of a nationally recognized biological society, such as The Ecological Society of America or The Wildlife Society;</li> <li>3. Have at least one year of field experience with biological resources found in or near the Project area;</li> <li>4. Meet the current USFWS Authorized Biologist qualifications criteria (<a href="http://www.fws.gov/ventura/speciesinfo/protocols_guidelines">www.fws.gov/ventura/speciesinfo/protocols_guidelines</a>), demonstrate familiarity with protocols and guidelines for the desert tortoise, and be approved by the USFWS;</li> <li>5. Possess a CESA Memorandum of Understanding pursuant to §2081(a) for desert tortoise.</li> </ol> <p>In lieu of the above requirements, the resume shall demonstrate to the satisfaction of the BLM AO, in consultation with CDFG and USFWS, that the proposed Designated Biologist or alternate has the appropriate training and background to effectively implement the mitigation measures.</p>	Prior to construction	BLM, CDFG, USFWS	Approve qualifications of designated biologist.			
<p><b>VEG-2: Duties of the Designated Biologist.</b> The Applicant shall ensure that the Designated Biologist performs the activities described below during any site mobilization activities, construction-related ground disturbance, grading, boring or trenching activities. The Designated Biologist may be assisted by the approved Biological Monitor(s) but remains the contact for the Applicant and the BLM AO. The Designated Biologist Duties shall include the following:</p> <ol style="list-style-type: none"> <li>1. Advise the Applicant's construction and operation managers on the implementation of the biological resources mitigation measures;</li> <li>2. Consult on the preparation of the Biological Resources Mitigation, Implementation, and Monitoring Plan (BRMIMP) to be submitted by the Applicant;</li> <li>3. Be available to supervise, conduct and coordinate mitigation, monitoring, and other biological resources compliance efforts, particularly in areas requiring avoidance or containing sensitive biological resources, such as special-status species or their habitat;</li> <li>4. Clearly mark sensitive biological resource areas and inspect these areas at appropriate intervals for compliance with regulatory terms and conditions;</li> </ol>	During ground disturbing activities.	Applicant	Ensure that the designated biologist performs all required activities during any site disturbing activities. Ensure that any non-conformance is reported to the BLM AO.			

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Vegetation (cont.)</b>						
<p>5. Inspect active construction areas where animals may have become trapped prior to construction commencing each day. At the end of the day, inspect for the installation of structures that prevent entrapment or allow escape during periods of construction inactivity. Periodically inspect areas with high vehicle activity (e.g., parking lots) for animals in harm's way;</p> <p>6. Notify the Applicant and the BLM AO of any non-compliance with any biological resources mitigation measure;</p> <p>7. Respond directly to inquiries of the BLM AO regarding biological resource issues;</p> <p>8. Maintain written records of the tasks specified above and those included in the BRMIMP. Summaries of these records shall be submitted in the Monthly Compliance Report and the Annual Compliance Report;</p> <p>9. Train the Biological Monitors as appropriate, and ensure their familiarity with the BRMIMP, Worker Environmental Awareness Program (WEAP) training, and USFWS guidelines on desert tortoise surveys and handling procedures<sup>1</sup>; and</p> <p>10. Maintain the ability to be in regular, direct communication with representatives of CDFG, USFWS, and the BLM AO, including notifying these agencies of dead or injured listed species and reporting special-status species observations to the California Natural Diversity Data Base.</p>						
<p><b>VEG-3: Identification of Biological Monitors.</b> The Designated Biologist shall submit the resume, at least three references, and contact information of the proposed Biological Monitors to the BLM AO. The resume shall demonstrate, to the satisfaction of the BLM AO, the appropriate education and experience to accomplish the assigned biological resource tasks. The Biological Monitor is the equivalent of the USFWS-approved biologist (also "Service-approved biologist").</p> <p>Biological Monitor(s) training by the Designated Biologist shall include familiarity with the mitigation measures, BRMIMP, WEAP, and USFWS guidelines on desert tortoise surveys and handling procedures.</p>	Prior to construction.	BLM	Review and approve the proposed Biological Monitors.			
<p><b>VEG-4: Duties of Biological Monitors.</b> The Biological Monitors shall assist the Designated Biologist in conducting surveys and in monitoring of site mobilization activities, construction-related ground disturbance, grading, boring or trenching. The Designated Biologist shall remain the contact for the Applicant and the BLM AO.</p>	During site disturbing activities.	Applicant, BLM	Ensure the Biological Monitors assist the Designated Biologist.			
<p><b>VEG-5: Authority of the Designated Biologist And Biological Monitors.</b> The Applicant's construction/operation manager shall act on the advice of the Designated Biologist and Biological Monitor(s) to ensure conformance with the biological resources mitigation measures. The Designated Biologist shall have the authority to immediately stop any activity that is not in compliance with these conditions and/or order any reasonable measure to avoid take of an individual of a listed species. If required by the Designated Biologist and Biological Monitor(s) the Applicant's construction/operation manager shall halt all site mobilization, ground disturbance, grading, boring, trenching and operation activities in areas specified by the Designated Biologist. The Designated Biologist shall:</p> <ol style="list-style-type: none"> <li>1. Require a halt to all activities in any area when determined that there would be an unauthorized adverse impact to biological resources if the activities continued;</li> <li>2. Inform the Applicant and the construction/operation manager when to resume activities; and</li> <li>3. Notify the BLM AO and if there is a halt of any activities and advise them of any corrective actions that have been taken or would be instituted as a result of the work stoppage.</li> </ol>	Prior to and during construction.	Applicant	Ensure conformance with the biological resources mitigation measures and advice of the Designated Biologist and Biological Monitors.			

<sup>1</sup> Available at: [http://www.fws.gov/ventura/species\\_information/protocols\\_guidelines/](http://www.fws.gov/ventura/species_information/protocols_guidelines/)

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Vegetation (cont.)</b>						
If the Designated Biologist is unavailable for direct consultation, the Biological Monitor shall act on behalf of the Designated Biologist.						
<p><b>VEG-6: Worker Environmental Awareness Program.</b> The Applicant shall develop and implement a Project-specific Worker Environmental Awareness Program (WEAP) and shall secure approval for the WEAP from the AO. The WEAP shall be administered to all on-site personnel including surveyors, construction engineers, employees, contractors, contractor’s employees, supervisors, inspectors, subcontractors, and delivery personnel. The WEAP shall be implemented during site preconstruction, construction, operation, and closure. The WEAP shall:</p> <ol style="list-style-type: none"> <li>1. Be developed by or in consultation with the Designated Biologist and consist of an on-site or training center presentation in which supporting written material and electronic media, including photographs of protected species, is made available to all participants;</li> <li>2. Discuss the locations and types of sensitive biological resources on the Project site and adjacent areas, and explain the reasons for protecting these resources; provide information to participants that no snakes, reptiles, or other wildlife shall be harmed;</li> <li>3. Place special emphasis on desert tortoise, including information on physical characteristics, distribution, behavior, ecology, sensitivity to human activities, legal protection, penalties for violations, reporting requirements, and protection measures;</li> <li>4. Include a discussion of fire prevention measures to be implemented by workers during Project activities; request workers dispose of cigarettes and cigars appropriately and not leave them on the ground or buried;</li> <li>5. Describe the temporary and permanent habitat protection measures to be implemented at the Project site;</li> <li>6. Identify whom to contact if there are further comments and questions about the material discussed in the program; and</li> <li>7. Include a training acknowledgment form to be signed by each worker indicating that they received training and shall abide by the guidelines.</li> </ol> <p>The specific program can be administered by a competent individual(s) acceptable to the Designated Biologist and BLM AO.</p>	Prior to construction.	BLM	Approve the WEAP.			
<p><b>VEG-7: Biological Resources Mitigation Implementation and Monitoring Plan.</b> The Applicant shall develop a BRMIMP, and shall submit two copies of the proposed BRMIMP to the BLM AO for review and approval. The Applicant shall implement the measures identified in the approved BRMIMP. The BRMIMP shall incorporate avoidance and minimization measures described in final versions of the Invasive Weed Management Plan (Mitigation Measure VEG-9), the Special-Status Plant Species Impact Avoidance and Mitigation Plan (Mitigation Measure VEG-10) and Decommissioning and Reclamation Plan (Mitigation Measure VEG-12), the Desert Tortoise Relocation Translocation Plan (Mitigation Measure WIL-2), the Raven Management Plan (Mitigation Measure WIL-5), the Burrowing Owl Mitigation and Monitoring Plan (Mitigation Measure WIL-9), and all other biological mitigation and/or monitoring plans associated with the Project.</p> <p>The BRMIMP shall be prepared in consultation with the Designated Biologist and shall include accurate and up-to-date maps depicting the location of sensitive biological resources that require temporary or permanent protection during construction and operation. The BRMIMP shall include complete and detailed descriptions of the following:</p> <ol style="list-style-type: none"> <li>1. All biological resources mitigation, monitoring, and compliance measures proposed and agreed to by the Applicant;</li> </ol>	Prior to construction	BLM	Review and approve the proposed BRMIMP.			

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Vegetation (cont.)</b>						
<p>2. All biological resources mitigation measures identified as necessary to avoid or mitigate impacts;</p> <p>3. All biological resource mitigation, monitoring and compliance measures required in federal agency terms and conditions, such as those provided in the USFWS Biological Opinion;</p> <p>4. All sensitive biological resources to be impacted, avoided, or mitigated by Project construction, operation, and closure;</p> <p>5. All required mitigation measures for each sensitive biological resource;</p> <p>6. All measures that shall be taken to avoid or mitigate temporary disturbances from construction activities;</p> <p>7. Duration for each type of monitoring and a description of monitoring methodologies and frequency;</p> <p>8. Performance standards to be used to help decide if/when proposed mitigation is or is not successful;</p> <p>9. All performance standards and remedial measures to be implemented if performance standards are not met;</p> <p>10. Biological resources-related facility closure measures including a description of funding mechanism(s);</p> <p>11. A process for proposing plan modifications to the BLM AO and appropriate agencies for review and approval; and</p> <p>12. A requirement to submit any sightings of any special-status species that are observed on or in proximity to the Project site, or during Project surveys, to the CNDDDB per CDFG requirements.</p>						
<p><b>VEG-8:</b> The Applicant shall undertake the following measures to manage the construction site and related facilities in a manner to avoid or minimize impacts to biological resources:</p> <p>1. <b>Limit Area of Disturbance.</b> The boundaries of all areas to be disturbed (including staging areas, access roads, and sites for temporary placement of spoils) shall be delineated with stakes and flagging prior to construction activities in consultation with the Designated Biologist. Spoils and topsoil shall be stockpiled in disturbed areas lacking native vegetation and which do not provide habitat for special-status species. Parking areas, staging and disposal site locations shall similarly be located in areas without native vegetation or special-status species habitat. All disturbances, Project vehicles and equipment shall be confined to the flagged areas.</p> <p>2. <b>Minimize Road Impacts.</b> New and existing roads that are planned for construction, widening, or other improvements shall not extend beyond the flagged impact area as described above. All vehicles passing or turning around would do so within the planned impact area or in previously disturbed areas. Where new access is required outside of existing roads or the construction zone, the route shall be clearly marked (i.e., flagged and/or staked) prior to the onset of construction.</p> <p>3. <b>Minimize Traffic Impacts.</b> Vehicular traffic during Project construction and operation shall be confined to existing routes of travel to and from the Project site, and cross country vehicle and equipment use outside designated work areas shall be prohibited. The speed limit shall not exceed 25 miles per hour within the Project area, on maintenance roads for linear facilities, or on access roads to the Project site, except on paved access roads where the speed limit shall not exceed 45 miles per hour.</p> <p>4. <b>Monitor During Construction.</b> In areas that have not been fenced with desert tortoise exclusion fencing and cleared, the Designated Biologist shall be present at the construction site during all Project activities that have potential to disturb soil, vegetation, and wildlife. The Designated Biologist or Biological Monitor shall walk immediately ahead of equipment during brushing and grading activities.</p>	Prior to and during construction.	BLM, CDFG, USFWS	Ensure compliance with MM VEG-8			

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Vegetation (cont.)</b>						
<p>5. <b>Minimize Impacts of Transmission/Pipeline Alignments, Roads, Staging Areas.</b> Staging areas for construction on the plant site shall be within the area that has been fenced with desert tortoise exclusion fencing and cleared. For construction activities outside of the plant site (transmission line, pipeline alignments) access roads, pulling sites, and storage and parking areas shall be designed, installed, and maintained with the goal of minimizing impacts to native plant communities and sensitive biological resources. Transmission lines and all electrical components shall be designed, installed, and maintained in accordance with the Avian Power Line Interaction Committee's (APLIC's) Suggested Practices for Avian Protection on Power Lines (APLIC, 2006) and Mitigating Bird Collisions with Power Lines (APLIC, 1994) to reduce the likelihood of large bird electrocutions and collisions.</p> <p>6. <b>Avoid Use of Toxic Substances.</b> Soil bonding and weighting agents used on unpaved surfaces shall be non-toxic to wildlife and plants.</p> <p>7. <b>Minimize Lighting Impacts.</b> Facility lighting shall be designed, installed, and maintained to prevent side casting of light towards wildlife habitat.</p> <p>8. <b>Minimize Noise Impacts.</b> A continuous low-pressure technique shall be used for steam blows, to the extent possible, in order to reduce noise levels in sensitive habitat proximate to the Project. Loud construction activities (e.g., unsilenced high pressure steam blowing and pile driving, or other) shall be avoided from February 15 to April 15 when it would result in noise levels over 65 dBA in nesting habitat (excluding noise from passing vehicles). Loud construction activities may be permitted from February 15 to April 15 only if:</p> <ul style="list-style-type: none"> <li>a. the Designated Biologist provides documentation (e.g., nesting bird data collected using methods described in Mitigation Measure WIL-7 and maps depicting location of the nest survey area in relation to noisy construction) to the BLM AO indicating that no active nests would be subject to 65 dBA noise, or</li> <li>b. the Designated Biologist or Biological Monitor monitors active nests within the range of construction-related noise exceeding 65 dBA. The monitoring shall be conducted in accordance with Nesting Bird Monitoring and Management Plan approved by the BLM AO. The Plan shall include adaptive management measures to prevent disturbance to nesting birds from construction related noise. Triggers for adaptive management shall be evidence of Project-related disturbance to nesting birds such as: agitation behavior (displacement, avoidance, and defense); increased vigilance behavior at nest sites; changes in foraging and feeding behavior, or nest site abandonment. The Bird Monitoring and Management Plan shall include a description of adaptive management actions, which shall include, but not be limited to, cessation of construction activities that are deemed by the Designated Biologist to be the source of disturbance to the nesting bird.</li> </ul> <p>9. <b>Avoid Vehicle Impacts to Desert Tortoise.</b> Parking and storage shall occur within the area enclosed by desert tortoise exclusion fencing to the extent feasible. No vehicles or construction equipment parked outside the fenced area shall be moved prior to an inspection of the ground beneath the vehicle for the presence of desert tortoise. If a desert tortoise is observed, it would be left to move on its own. If it does not move within 15 minutes, a Designated Biologist or Biological Monitor under the Designated Biologist's direct supervision may remove and relocate the animal to a safe location if temperatures are within the range described in the USFWS' 2009 Desert Tortoise Field Manual.<sup>2</sup></p>						

<sup>2</sup> Available at: [http://www.fws.gov/ventura/species\\_information/protocols\\_guidelines/](http://www.fws.gov/ventura/species_information/protocols_guidelines/)

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Vegetation (cont.)</b>						
<p>10. <b>Avoid Wildlife Pitfalls:</b></p> <p>a. Backfill Trenches. At the end of each work day, the Designated Biologist shall ensure that all potential wildlife pitfalls (trenches, bores, and other excavations) outside the area fenced with desert tortoise exclusion fencing have been backfilled. If backfilling is not feasible, all trenches, bores, and other excavations shall be sloped at a 3:1 ratio at the ends to provide wildlife escape ramps, or covered completely to prevent wildlife access, or fully enclosed with desert tortoise-exclusion fencing. All trenches, bores, and other excavations outside the areas permanently fenced with desert tortoise exclusion fencing shall be inspected periodically throughout the day, at the end of each workday and at the beginning of each day by the Designated Biologist or a Biological Monitor. Should a tortoise or other wildlife become trapped, the Designated Biologist or Biological Monitor shall remove and relocate the individual as described in the Desert Tortoise Relocation/Translocation Plan. Any wildlife encountered during the course of construction shall be allowed to leave the construction area unharmed.</p> <p>b. Avoid Entrapment of Desert Tortoise. Any construction pipe, culvert, or similar structure with a diameter greater than 3 inches, stored less than 8 inches aboveground and within desert tortoise habitat (i.e., outside the permanently fenced area) for one or more nights, shall be inspected for tortoises before the material is moved, buried or capped. As an alternative, all such structures may be capped before being stored outside the fenced area, or placed on pipe racks. These materials would not need to be inspected or capped if they are stored within the permanently fenced area after the clearance surveys have been completed.</p> <p>11. <b>Minimize Standing Water.</b> Water applied to dirt roads and construction areas (trenches or spoil piles) for dust abatement shall use the minimal amount needed to meet safety and air quality standards in an effort to prevent the formation of puddles, which could attract desert tortoises and common ravens to construction sites. A Biological Monitor shall patrol these areas to ensure water does not puddle and shall take appropriate action (e.g., coordinating with the contractor to reduce watering frequency) to reduce water application where necessary.</p> <p>12. <b>Dispose of Road-killed Animals.</b> Road-killed animals or other carcasses detected on roads near the Project area shall be immediately reported to the Designated Biologist and picked up within 24 hours. The contractor and Designated Biologist shall be responsible for securing all required federal or State permits to handle and dispose of collected animals, including handling and disposal for scientific use. For special-status species roadkill, the Biological Monitor shall contact CDFG, and USFWS within 1 working day of receipt of the carcass for guidance on disposal or storage of the carcass. The Biological Monitor shall maintain and report special-status species records as described in Mitigation Measure WIL-3.</p> <p>13. <b>Minimize Spills of Hazardous Materials.</b> All vehicles and equipment shall be maintained in proper working condition to minimize the potential for fugitive emissions of motor oil, antifreeze, hydraulic fluid, grease, or other hazardous materials. The Designated Biologist shall be informed of any hazardous spills immediately as directed in the Project Hazardous Materials Plan. Hazardous spills shall be immediately cleaned up and the contaminated soil properly disposed of at a licensed facility. Servicing of construction equipment shall take place only at a designated area. Service/maintenance vehicles shall carry a bucket and pads to absorb leaks or spills.</p> <p>14. <b>Worker Guidelines.</b> During construction all trash and food-related waste shall be placed in self-closing containers and removed daily from the site. Workers shall not feed wildlife or bring pets to the Project site. Except for law enforcement personnel, no workers or visitors to the site shall bring firearms or weapons.</p>						

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Vegetation (cont.)</b>						
<p>Vehicular traffic shall be confined to existing routes of travel to and from the Project site, and cross country vehicle and equipment use outside designated work areas shall be prohibited. The speed limit when traveling on dirt access routes within desert tortoise habitat shall not exceed 25 miles per hour.</p> <p>15. <b>Implement Erosion Control Measures.</b> Standard erosion control measures shall be implemented for all phases of construction and operation where sediment run-off from exposed slopes threatens to enter “Waters of the State”. Sediment and other flow-restricting materials shall be moved to a location where they shall not be washed back into the stream. All disturbed soils and roads within the Project site shall be stabilized to reduce erosion potential, both during and following construction. Areas of disturbed soils (access and staging areas) with slopes toward a drainage shall be stabilized to reduce erosion potential.</p> <p>16. <b>Monitor Ground Disturbing Activities Prior to Pre-Construction Site Mobilization.</b> If pre-construction site mobilization requires ground-disturbing activities such as for geotechnical borings or hazardous waste evaluations, a Designated Biologist or Biological Monitor shall be present to monitor any actions that could disturb soil, vegetation, or wildlife.</p> <p>17. <b>Revegetation of Temporarily Disturbed Areas.</b> The Applicant shall prepare and implement a Revegetation Plan to restore all areas subject to temporary disturbance to pre-Project grade and conditions. Temporarily disturbed areas within the Project area include, but are not limited to: all proposed locations for linear facilities, temporary access roads, berms, areas surrounding the drainage diffusers, construction work temporary lay-down areas not converted to part of the solar field, and construction equipment staging areas. The Revegetation Plan shall include a description of topsoil salvage and seeding techniques and a monitoring and reporting plan, and the following performance standards by the end of monitoring year 2:</p> <ol style="list-style-type: none"> <li>at least 80 percent of the species observed within the temporarily disturbed areas shall be native species that naturally occur in desert scrub habitats; and</li> <li>relative cover and density of plant species within the temporarily disturbed areas shall equal at least 60 percent.</li> </ol>						
<p><b>VEG-9: Weed Management Plan.</b> Prior to beginning construction on the Project, the Applicant will prepare, circulate to the BLM for comment and approval, and then implement an Invasive Weed Management Plan (Appendix H) that meets the approval of BLM’s AO to prevent the spread of existing weeds and the introduction of new weeds to the Project Area. The objective of the Weed Management Plan shall be to prevent the introduction of any new weeds and the spread of existing weeds as a result of Project construction, operation, and decommissioning. The Weed Management Plan shall include at a minimum the following information: specific weed management objectives and measures for each target non-native weed species; baseline conditions; a map of the Weed Management Areas; weed risk assessment and measures to prevent the introduction and spread of weeds; monitoring and surveying methods; and reporting requirements.</p> <p>The Plan shall be consistent with BLM’s <i>Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States</i> (BLM, 2007) and the National Invasive Species Management Plan (National Invasive Species Council, 2008), and will be implemented by the Applicant to reduce the potential for the introduction of invasive species during construction, operation and maintenance, and decommissioning of the Project. The draft plan will be reviewed and approved by the BLM.</p> <p>The following measures are required in the Plan and will be implemented by the Applicant to monitor and control invasive species:</p>	Prior to construction	BLM	Review and approve the Weed Management Plan and ensure implementation of the Invasive Weed Management Plan (Appendix H).			

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Vegetation (cont.)</b>						
<p>1. <b>Preventative Measures During Construction.</b> Equipment Cleaning: To prevent the spread of weeds into new habitats, and prior to entering the Project work areas, construction equipment will be cleaned of dirt and mud that could contain weed seeds, roots, or rhizomes. Equipment will be inspected to ensure they are free of any dirt or mud that could contain weed seeds and the tracks, feet, tires, and undercarriage will be carefully washed, with special attention being paid to axles, frame, cross members, motor mounts, underneath steps, running boards, and front bumper/brush guard assemblies. Other construction vehicles (e.g. pick-up trucks) that will be frequently entering and exiting the site will be inspected and washed on an as-needed basis.</p> <p>a. <i>Vehicle Washing:</i> All vehicles will be washed off-site when possible. Should off-site washing prove infeasible, an on-site cleaning station will be set up to clean equipment before it enters the work area. Either high-pressure water or air will be used to clean equipment and the cleaning site will be situated away from any sensitive biological resources. If possible, water used to wash vehicles and equipment will be collected and re-used. Ingress and egress will be limited to defined routes.</p> <p>b. <i>Site Soil Management:</i> Soil management will consist of limiting ground disturbance to the minimum necessary for construction activities and using dust suppressants to minimize the spread of seeds. Disturbed vegetation and topsoil will be re-deposited at or near the area from which they are removed to eliminate the transport of soil-borne invasive weed seeds, roots, or rhizomes. During reclamation of the temporarily cleared areas, the contractor will return topsoil and vegetative material to the areas from which they were stripped. BLM-approved dust suppressants (e.g. water and/or palliative) will be minimized on the site as much as possible, but will use during construction to minimize the spread of airborne weed seeds, especially during very windy days. As appropriate, temporary drift fences may be installed to help control sand movement during construction.</p> <p>c. <i>Weed-free Products:</i> Any use of hay or straw bales on the Project site will be limited to certified weed-free material. Other products such as gravel, mulch, and soil may also carry weeds and these products, too, will be certified weed-free. If needed, mulch will be made from the local, on-site native vegetation cleared from the Project area.</p> <p>d. <i>Personnel Training:</i> Weed management will be part of mandatory site training for all construction personnel and will be included in initial Worker Environmental Awareness Program training briefings. Training will include weed identification and the threat of impacts including impacts to local agriculture, vegetation communities, wildlife, and creating fire potential. Training will also cover the importance of preventing the spread of weeds.</p> <p>e. <i>Mechanical Weed Removal:</i> The Applicant primarily will use mechanical weed removal techniques with the use of herbicides restricted to BLM-approved usage in areas that are not accessible through mechanical means or where mechanical weed removal is impractical.</p> <p>f. <i>Herbicides:</i> The Applicant will use only BLM-approved pre- and/or post-emergent herbicides, as applicable. Pre-emergent herbicides will be applied to the soil before the weed seed germinates and is usually incorporated into the soil with irrigation or rainfall. Post-emergent herbicides will be applied directly to plants. Herbicides will be investigated in detail, made a part of the Invasive Weed Management Plan, and approved by BLM before use.</p> <p>g. <i>Pesticides:</i> Pesticide use will be limited to non-persistent, immobile pesticides applied only in accordance with label and application permit directions and stipulations for terrestrial and aquatic applications. Any pesticide applications, if used, will be conducted within the framework of BLM and DOI policies, and will entail only the use of USEPA registered pesticides.</p>						

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Vegetation (cont.)</b>						
<p>2. <b>Containment and Control Measures.</b> When Project monitoring (see below) indicates that invasive species are spreading, invasive species will be removed using mechanical and chemical methods. The Applicant will use mechanical weed removal methods as the preferred method, but herbicides may be used when conditions (such as wind, proximity of native vegetation) are such that the effect on native species is expected to be minimal. During suppression or eradication activities, care will be taken to have the least affect on native plant species. Herbicides used will be limited to those approved by the BLM. Herbicides will be applied before the invasive species flower and set seed.</p> <p>If monitoring indicates the spread of athel (<i>Tamarix</i> spp.), a woody invasive species, then athel will be controlled by cutting the trees and applying GarlonTM Ultra Herbicide to the stump immediately after cutting. GarlonTM is approved for use on athel by the BLM. All cut material generated during athel clearance will be removed from the site by truck. This material will be covered with a tarp or other material that will keep athel cuttings or seed from being spread by truck movement.</p> <p>The Applicant and its contractors will follow the BLM’s Herbicide Use Standard Operating Procedures provided in Appendix B of the Record of Decision for the Final Vegetation Treatments Using Herbicides Programmatic Environmental Impact Statement (BLM, 2007). Personnel responsible for weed control will be trained in the proper and safe use of all equipment and chemicals used for weed control.</p>						
<p>3. <b>Monitoring.</b> Baseline weed conditions will be assessed during the pre-construction phase of the Project, during pre-construction surveys and staking and flagging of construction areas. A stratified random sampling technique will be used to identify and count the extent of weeds on the site.</p> <p>Monitoring will take place each year during construction, and annually for three years following the completion of construction. The purpose of annual monitoring will be to determine if weed populations identified during baseline surveys have increased in density or are spreading as a result of the Project. Control methods will be implemented when measurable weed increases, as well as visually verified increases, are detected during monitoring. This will include small patches of unusually high density weeds (e.g., concentrations in swales) that are growing as a result of Project activities.</p> <p>During construction, daily monitoring records will be kept by biological monitors that will include information relevant to invasive weeds. During Project operations and maintenance, noxious and invasive weed list and provide monitoring and management appropriate to any new species in coordination with the BLM.</p> <p>After the three years of operations monitoring is complete, general management and monitoring of the Project area will be conducted by designated site personnel each year during both the germinating and early growing season (November through April) to eliminate new weed individuals prior to seed set. Throughout construction and long-term monitoring, personnel will be trained to identify weedy and native species and work with a trained vegetation monitor to determine where elimination is necessary.</p>						
<p>4. <b>Reporting.</b> Results of monitoring and management efforts will be included in annual reports and a final monitoring report completed at the end of three years of post-construction monitoring. Copies of these reports will be kept on file at the site. Copies of each annual report as well as the final monitoring report will be sent to the BLM for review and comment. BLM will use the results of these reports to determine if any additional monitoring or control measures are necessary.</p>						
<p>5. <b>Success Criteria.</b> Weed control will be ongoing on the Project site for the life of the Project, but plan success will be determined by BLM after the three years of operations monitoring through the reporting and review process. Success criteria will be defined as having no more than ten percent increase in a weed species or in overall weed cover in any part of the Project.</p>						

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Vegetation (cont.)</b>						
<p><b>VEG-10: Special-Status Plant Species Impact Avoidance and Minimization, and Compensation.</b> For this four-part measure, the Applicant shall: A) prepare and implement a Special-Status Plant Species Impact Avoidance and Mitigation Plan that meets the approval of BLM AO; B) ensure adequate special-status plant surveys and reporting; C) avoid, minimize and mitigate for impacts to special-status plants; and D) fund or support a compensatory mitigation program for special-status plants through land acquisition, restoration/enhancement, or a combination of acquisition and restoration/ enhancement.</p> <p>The Applicant shall implement measures <b>VEG-1</b> through <b>VEG-8</b>, and <b>VEG-10</b> to avoid, minimize, and compensate for impacts to special-status plant species. In this discussion the term “Project Disturbance Area” encompasses all areas to be temporarily and permanently disturbed by the Project, including the plant site, linear facilities, and areas disturbed by temporary access roads, fence installation, construction work lay-down and staging areas, parking, storage, or by any other activities resulting in disturbance to soil or vegetation.</p> <p><b>A) Special-Status Plant Impact Avoidance and Minimization Measures</b></p> <p>This measure contains the Best Management Practices and other measures designed to avoid accidental impacts to plants occurring outside of the Project Disturbance Area and within 100 feet of the Project Disturbance Area during construction, operation, and decommissioning.</p> <p><b>Special-Status Plant Impact Avoidance and Minimization Measures.</b> The Applicant shall incorporate all measures for protecting special-status plants in close proximity to the site into the BRMIMP (Mitigation Measure VEG-7). These measures shall include the following elements:</p> <p>a) <i>Site Design Modifications:</i> Incorporate site design modifications to minimize impacts to special-status plants along the Project linears: limiting the width of the work area; adjusting the location of staging areas, lay downs, spur roads and poles or towers; driving and crushing vegetation as an alternative to blading temporary roads to preserve the seed bank, and minor adjustments to the alignment of the roads and pipelines within the constraints of the ROW. Design the engineered channel discharge points to maintain the natural surface drainage patterns between the engineered channel and the outlet of the natural washes that flow toward the south and east, downstream of the Project. These modifications shall be clearly depicted on the grading and construction plans, and on report-sized maps in the BRMIMP.</p> <p>b) <i>Establish Environmentally Sensitive Areas (ESAs).</i> Prior to the start of any ground- or vegetation-disturbing activities, a qualified Project biologist shall establish ESAs to protect avoided special-status plants that occur outside of the Project Disturbance Areas and within 100 feet of Project Disturbance Areas. This includes plant occurrences identified during the late season 2011 surveys. The locations of ESAs shall be clearly depicted on construction drawings, which shall also include all avoidance and minimization measures on the margins of the construction plans. The boundaries of the ESAs shall be placed a minimum of 20 feet from the uphill side of the occurrence and 10 feet from the downhill side. Where this is not possible due to construction constraints, other protection measures, such as silt-fencing and sediment controls, may be employed to protect the occurrences. Equipment and vehicle maintenance areas, and wash areas, shall be located 100 feet from the uphill side of any ESAs. ESAs shall be clearly delineated in the field with temporary construction fencing and signs prohibiting movement of the fencing or sediment controls under penalty of work stoppages and additional compensatory mitigation. ESAs shall also be clearly identified (with signage or by mapping on site plans) to ensure that avoided plants are not inadvertently harmed during construction, operation, or closure.</p>	Prior to, during, and after construction.	BLM	Review and approve a Special-Status Plant Species Impact Avoidance and Mitigation Plan.			

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Vegetation (cont.)</b>						
<p>c) <i>Special-Status Plant Worker Environmental Awareness Program (WEAP)</i>. The WEAP (Mitigation Measure VEG-6) shall include training components specific to protection of special-status plants that may occur in the Study Area.</p> <p>d) <i>Herbicide and Soil Stabilizer Drift Control Measures</i>. Special-status plant occurrences within 100 feet of the Project Disturbance Area shall be protected from herbicide and soil stabilizer drift. The Invasive Weed Management Plan (Mitigation Measure VEG-9) shall include measures to avoid chemical drift or residual toxicity to special-status plants consistent with guidelines such as those provided by the Nature Conservancy's The Global Invasive Species Team (Hillmer and Liedtke, 2003), the USEPA, and the Pesticide Action Network Database.<sup>3</sup></p> <p>e) <i>Erosion and Sediment Control Measures</i>. Erosion and sediment control measures shall not inadvertently impact special-status plants (e.g., by using invasive or non-native plants in seed mixes, introducing pest plants through contaminated seed or straw, etc.). These measures shall be incorporated in any required Drainage, Erosion, and Sedimentation Control Plans.</p> <p>f) <i>Avoid Special-Status Plant Occurrences</i>. Areas for spoils, equipment, vehicles, and materials storage areas; parking; equipment and vehicle maintenance areas, and wash areas shall be placed at least 100 feet from any ESAs.</p> <p>g) <i>Monitoring and Reporting Requirements</i>. The Designated Botanist shall conduct weekly monitoring of the ESAs that protect special-status plant occurrences during construction and decommissioning activities.</p> <p><b>B) Ensure Adequate Special-Status Plant Surveys And Reporting (Applies to Alternative 3 Routes)</b>                      At least 30 days prior to construction, the Applicant shall ensure that botanical surveys have been fully performed and reported on the Alternative 3 Routes, as described below:</p> <ol style="list-style-type: none"> <li><b>Survey Timing.</b> Surveys shall be timed to detect: a) summer annuals triggered to germinate by the warm, tropical summer storms (which may occur any time between June and October). Fall-blooming perennials that respond to the cooler, later season storms (typically beginning in September or October) shall only be required if blooms and seeds are necessary for identification or the species are summer-deciduous and require leaves for identification. The surveys shall not be timed to coincide with the statistical peak bloom period of the target species but shall instead be based on plant phenology and the timing of a significant storm event (i.e., a 10mm or greater rain or multiple storm events of sufficient volume to trigger germination, as measured at or within 1 mile of the Project site). Surveys shall occur at the appropriate time to capture the characteristics necessary to identify the taxon.</li> <li><b>Surveyor Qualifications and Training.</b> Surveys shall be conducted by a qualified botanist knowledgeable in the complex biology of the local flora, and consistent with CDFG protocols (CDFG, 2009). Each surveyor shall be equipped with a GPS unit and record a complete tracklog; these data shall be compiled and submitted along with the Summer-Fall Survey Botanical Report (described below). Prior to the start of surveys, all crew members shall, at a minimum, visit reference sites (where available) and/or review herbarium specimens of all BLM Sensitive plants, CNPS List 1B or 2 (Nature Serve rank S1 and S2) or proposed List 1B or 2 taxa, and any new reported or documented taxa, to obtain a search image. Because the potential for range extensions is unknown, the list of potentially occurring special-status plants shall include all special-status taxa known to occur within the Sonoran Desert region and</li> </ol>						

<sup>3</sup> Available at: <http://www.pesticideinfo.org>

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Vegetation (cont.)</b>						
<p>the eastern portion of the Mojave in California. The list shall also include taxa with bloom seasons that begin in fall and extend into the early spring as many of these are reported to be easier to detect in fall, following the start of the fall rains.</p> <p>3. <b>Survey Coverage.</b> The survey coverage or intensity shall be in accordance with the most recent BLM Survey Protocols, which specify that intuitive controlled surveys shall only be accomplished by botanists familiar with the habitats and species that may reasonably be expected to occur in the project area (BLM, 2009).</p> <p>4. <b>Documenting Occurrences.</b> If a special-status plant is detected, the full extent of the population on-site shall be recorded using GPS in accordance with BLM survey protocols. Additionally, the extent of the population within one mile of Project boundaries shall be assessed at least qualitatively to facilitate an accurate estimation of the proportion of the population affected by the Project. For populations that are very dense or very large, the population size may be estimated by simple sampling techniques. When populations are very extensive or locally abundant, the surveyor must provide some basis for this assertion and roughly map the extent on a topographic map. All but the smallest populations (e.g., a population occupying less than 100 square feet) shall be recorded as area polygons; the smallest populations may be recorded as point features. All GPS-recorded occurrences shall include: the number of plants, phenology, observed threats (e.g., OHV or invasive exotics), and habitat or community type. The map of occurrences submitted with the final botanical report shall be prepared to ensure consistency with definition of an occurrence by CNDDDB, i.e., occurrences found within 0.25 miles of another occurrence of the same taxon, and not separated by significant habitat discontinuities, shall be combined into a single ‘occurrence’. The Applicant shall also submit the raw GPS shape files and metadata, and completed CNDDDB forms for each ‘occurrence’ (as defined by CNDDDB).</p> <p>5. <b>Reporting.</b> Raw GPS data, metadata, and CNDDDB field forms shall be provided to the BLM AO within two weeks of the completion of each survey. If surveys are split into two or more periods (e.g., a late summer survey and a fall survey), then a summary letter shall be submitted following each survey period.</p> <p>6. The Final Summer-Fall Botanical Survey Report shall be prepared consistent with CDFG guidelines (CDFG, 2009), and BLM 2009 guidelines and shall include all of the following components:</p> <ul style="list-style-type: none"> <li>a) the BLM designation, NatureServe Global and State Rank of each species or taxon found (or proposed rank, or CNPS List);</li> <li>b) the number or percent of the occurrence that will be directly affected, and indirectly affected by changes in drainage patterns or altered geomorphic processes;</li> <li>c) the habitat or plant community that supports the occurrence and the total acres of that habitat or community type that occurs in the Project Disturbance Area;</li> <li>d) an indication of whether the occurrence has any local or regional significance (e.g., if it exhibits any unusual morphology, occurs at the periphery of its range in California, represents a significant range extension or disjunct occurrence, or occurs in an atypical habitat or substrate);</li> <li>e) a completed CNDDDB field form for every occurrence (occurrences of the same species within one-quarter mile or less of each other combined as one occurrence, consistent with CNDDDB methodology), and</li> <li>f) two maps: one that depicts the raw GPS data (as collected in the field) on a topographic base map with Project features; and a second map that follows the CNDDDB protocol for occurrence mapping.</li> </ul>						

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Vegetation (cont.)</b>						
<p><b>C) Avoidance Requirements for Special-Status Plants</b></p> <p>The Applicant shall avoid impacts to special-status plant populations whenever possible, as described below.</p> <ol style="list-style-type: none"> <li>1. Mitigation for CNDDDB Rank 1, 2, and 3 Plants – Avoidance on Linear Corridors Required: If species with a CNDDDB rank of 1, 2, or 3 are detected within the Project Disturbance Area, the Applicant shall prepare and implement a Special-Status Plant Mitigation Plan (Plan) that describes measures to avoid and minimize impacts to plant populations on the Project linear corridors and construction laydown areas, unless such avoidance would create greater environmental impacts in other resource areas (e.g. Cultural Resource Sites) or other restrictions (e.g., FAA or other restrictions for placement of transmission poles). The Applicant shall provide compensatory mitigation as described below in Mitigation Measure VEG-10.D for impacts to Rank 1, 2, and 3 plants that cannot be avoided. The content of the Plan and definitions shall be as described above in Mitigation Measure VEG-10.C (1).</li> <li>2. Preservation of the Germplasm of Affected Special-Status Plants. For all significant impacts to special-status plants, regardless of whether compensatory mitigation is required, mitigation shall include seed collection from the affected special-status plants on-site prior to construction to conserve the germplasm and provide a seed source for restoration efforts. The seed shall be collected under the supervision or guidance of a reputable seed storage facility such as the Rancho Santa Ana Botanical Garden Seed Conservation Program, San Diego Natural History Museum, or the Missouri Botanical Garden. The costs associated with the long-term storage of the seed shall be the responsibility of the Applicant. Any efforts to propagate and reintroduce special-status plants from seeds in the wild shall be carried out under the direct supervision of specialists such as those listed above and as part of a Habitat Restoration/Enhancement Plan approved by the BLM AO.</li> </ol> <p><b>D) Off-Site Compensatory Mitigation for Special-Status Plants</b></p> <p>This section describes performance standards for mitigation for a range of options for compensatory mitigation.</p> <p>Where compensatory mitigation is required under the terms of Mitigation Measure VEG-10.C, above, the Applicant shall mitigate Project impacts to special-status plant occurrences with compensatory mitigation. Compensatory mitigation shall consist of acquisition of habitat supporting the target species, or restoration/enhancement of populations of the target species, and shall meet the performance standards for mitigation described below. Compensatory mitigation shall be at a ratio of 3:1 for Rank 1 plants, with 3 acres of habitat acquired or restored/enhanced for every acre of habitat occupied by the special-status plant that will be disturbed by the Project Disturbance Area (for example, if the area occupied by the special-status plant collectively measured is 0.25 acre, the compensatory mitigation will be 0.75 acre). The mitigation ratio for Rank 2 plants shall be 2:1. So, for the example above, the mitigation ratio would be 0.5 acre for the Rank 2 plants.</p> <p>The Applicant shall provide funding for the acquisition and/or restoration/ enhancement, initial improvement, and long-term maintenance and management of the acquired or restored lands. The actual costs to comply with this condition will vary depending on the Project Disturbance Area, the actual costs of acquiring compensation habitat, the actual costs of initially improving the habitat, the actual costs of long-term management as determined by a Property Analysis Record (PAR) report, and other transactional costs related to the use of compensatory mitigation.</p> <p>The Applicant shall comply with other related requirements of this measure, as follows:</p>						

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Vegetation (cont.)</b>						
<p><b>I. <i>Compensatory Mitigation by Acquisition:</i></b> The requirements for the acquisition initial protection and habitat improvement, and long-term maintenance and management of special-status plant compensation lands include all of the following:</p> <ol style="list-style-type: none"> <li>1. <i>Selection Criteria for Acquisition Lands.</i> The compensation lands selected for acquisition may include any of the following three categories:               <ol style="list-style-type: none"> <li>a. Occupied Habitat, No Habitat Threats: The compensation lands selected for acquisition shall be occupied by the target plant population and shall be characterized by site integrity and habitat quality that are required to support the target species, and shall be of equal or better habitat quality than that of the affected occurrence. The occurrence of the target special-status plant on the proposed acquisition lands should be viable, stable or increasing (in size and reproduction).</li> <li>b. Occupied Habitat, Habitat Threats. Occupied compensation lands characterized by habitat threats may also be acquired as long as the population could be reasonably expected to recover with habitat restoration efforts (e.g., OHV or grazing exclusion, or removal of invasive non-native plants) and is accompanied by a Habitat Enhancement/Restoration Plan as described in Mitigation Measure VEG-10.D.II, below.</li> <li>c. Unoccupied but Adjacent. The Applicant may also acquire habitat for which occupancy by the target species has not been documented, if the proposed acquisition lands are adjacent to occupied habitat. The Applicant shall provide evidence that acquisitions of such unoccupied lands would improve the defensibility and long-term sustainability of the occupied habitat by providing a protective buffer around the occurrence and by enhancing connectivity with undisturbed habitat. This acquisition may include habitat restoration efforts where appropriate, particularly when these restoration efforts will benefit adjacent habitat that is occupied by the target species.</li> </ol> </li> <li>2. <i>Review and Approval of Compensation Lands Prior to Acquisition.</i> The Applicant shall submit a formal acquisition proposal to the BLM AO describing the parcel(s) intended for purchase. This acquisition proposal shall discuss the suitability of the proposed parcel(s) as compensation lands for special-status plants in relation to the criteria listed above, and must be approved by the BLM AO.</li> <li>3. <i>Management Plan.</i> The Applicant or approved third party shall prepare a management plan for the compensation lands in consultation with the entity that will be managing the lands. The goal of the management plan shall be to support and enhance the long-term viability of the target special-status plant occurrences. The Management Plan shall be submitted for review and approval to the BLM AO.</li> <li>4. <i>Integrating Special-Status Plant Mitigation with Other Mitigation lands.</i> If all or any portion of the acquired Desert Tortoise, Waters of the State, or other required compensation lands meets the criteria above for special-status plant compensation lands, the portion of the other species' or habitat compensation lands that meets any of the criteria above may be used to fulfill that portion of the obligation for special-status plant mitigation.</li> <li>5. <i>Compensation Lands Acquisition Requirements.</i> The Applicant shall comply with the following requirements relating to acquisition of the compensation lands after the BLM AO, has approved the proposed compensation lands:</li> </ol>						

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
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<b>Biological Resources – Vegetation (cont.)</b>						
<p>a. Preliminary Report. The Applicant, or an approved third party, shall provide a recent preliminary title report, initial hazardous materials survey report, biological analysis, and other necessary or requested documents for the proposed compensation land to the BLM AO. All documents conveying or conserving compensation lands and all conditions of title are subject to review and approval by the BLM AO. For conveyances to the state, approval may also be required from the California Department of General Services, the Fish and Game Commission and the Wildlife Conservation Board.</p> <p>b. Title/Conveyance. The Applicant shall acquire and transfer fee title to the compensation lands, a conservation easement over the lands, or both fee title and conservation easement, as required by the BLM AO. Any transfer of a conservation easement or fee title must be to CDFG, a non-profit organization qualified to hold title to and manage compensation lands (pursuant to California Government Code §65965), or to BLM or other public agency approved by the BLM AO. If an approved non-profit organization holds fee title to the compensation lands, a conservation easement shall be recorded in favor of CDFG or another entity approved by the BLM AO. If an entity other than CDFG holds a conservation easement over the compensation lands, the BLM AO may require that CDFG or another entity approved by the BLM AO, in consultation with CDFG, be named a third party beneficiary of the conservation easement. The Applicant shall obtain approval of the BLM AO of the terms of any transfer of fee title or conservation easement to the compensation lands.</p> <p>c. Initial Protection and Habitat Improvement. The Applicant shall fund activities that the BLM AO requires for the initial protection and habitat improvement of the compensation lands. These activities will vary depending on the condition and location of the land acquired, but may include trash removal, construction and repair of fences, invasive plant removal, and similar measures to protect habitat and improve habitat quality on the compensation lands. The costs of these activities are estimated to be \$330 per acre, using the estimated cost per acre for Desert Tortoise mitigation as a best available proxy, at the ratio of 3:1 for Rank 1 plants and 2:1 for Rank 2 plants, but actual costs will vary depending on the measures that are required for the compensation lands. A non-profit organization, CDFG or another public agency may hold and expend the habitat improvement funds if it is qualified to manage the compensation lands (pursuant to California Government Code §65965), if it meets the approval of the BLM AO in consultation with CDFG, and if it is authorized to participate in implementing the required activities on the compensation lands. If CDFG takes fee title to the compensation lands, the habitat improvement fund must be paid to CDFG or its designee.</p> <p>d. Property Analysis Record. Upon identification of the compensation lands, the Applicant shall conduct a PAR or PAR-like analysis to establish the appropriate amount of the long-term maintenance and management fund to pay the in-perpetuity management of the compensation lands. The PAR or PAR-like analysis must be approved by the BLM AO before it can be used to establish funding levels or management activities for the compensation lands.</p> <p>e. Long-term Maintenance and Management Funding. In accordance with Mitigation Measure VEG-13 (<i>Phasing</i>), the Applicant shall deposit in the National Fish and Wildlife Foundation's (NFWF) Renewable Energy Action Team (REAT) Account a non-wasting capital long-term maintenance and management fee in the amount determined through the PAR or PAR-like analysis conducted for the compensation lands.</p>						

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Vegetation (cont.)</b>						
<p>f. The BLM AO, in consultation with CDFG, may designate another non-profit organization to hold the long-term maintenance and management fee if the organization is qualified to manage the compensation lands in perpetuity. If CDFG takes fee title to the compensation lands, CDFG shall determine whether it will hold the long-term management fee in the special deposit fund, leave the money in the REAT Account, or designate another entity to manage the long-term maintenance and management fee for CDFG and with CDFG supervision.</p> <p>g. Interest, Principal, and Pooling of Funds. The Applicant shall ensure that an agreement is in place with the long-term maintenance and management fund (endowment) holder/manager to ensure the following requirements are met:</p> <p>i. Interest. Interest generated from the initial capital long-term maintenance and management fund shall be available for reinvestment into the principal and for the long-term operation, management, and protection of the approved compensation lands, including reasonable administrative overhead, biological monitoring, improvements to carrying capacity, law enforcement measures, and any other action that is approved by the BLM AO and is designed to protect or improve the habitat values of the compensation lands.</p> <p>ii. Withdrawal of Principal. The long-term maintenance and management fund principal shall not be drawn upon unless such withdrawal is deemed necessary by the BLM AO or by the approved third-party long-term maintenance and management fund manager, to ensure the continued viability of the species on the compensation lands.</p> <p>iii. Pooling Long-Term Maintenance and Management Funds. An entity approved to hold long-term maintenance and management funds for the Project may pool those funds with similar non-wasting funds that it holds from other projects for long-term maintenance and management of compensation lands for special-status plants. However, for reporting purposes, the long-term maintenance and management funds for this Project must be tracked and reported individually to the BLM AO.</p> <p>h. Other Expenses. In addition to the costs listed above, the Applicant shall be responsible for all other costs related to acquisition of compensation lands and conservation easements, including but not limited to the title and document review costs incurred from other state agency reviews, overhead related to providing compensation lands to CDFG or an approved third party, escrow fees or costs, environmental contaminants clearance, and other site cleanup measures.</p> <p>i. Mitigation Security. The Applicant shall provide financial assurances in accordance with Mitigation Measure VEG-13 (<i>Phasing</i>) to the BLM AO to guarantee that an adequate level of funding is available to implement any of the mitigation measures required by this condition that are not completed prior to the start of ground-disturbing Project activities. Financial assurances shall be provided to the BLM AO in the form of an irrevocable letter of credit, a pledged savings account or another form of approved security (“Security”). The amount of the Security shall be \$2,280 per acre, using the estimated cost per acre for Desert Tortoise mitigation as a best available proxy, at a ratio of 3:1 for Rank 1 plants and 2:1 for Rank 2 plants, for every acre of habitat supporting the target special-status plant species which is impacted by the project. The actual costs to comply with this condition will vary depending on</p>						

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				Initials	Date	Remarks
<b>Biological Resources – Vegetation (cont.)</b>						
<p>the actual costs of acquiring compensation habitat, the costs of initially improving the habitat, and the actual costs of long-term management as determined by a PAR report. Prior to submitting the Security to the BLM AO, the Applicant shall obtain the BLM AO's approval of the form of the Security. The BLM AO may draw on the Security if the BLM AO determines the Applicant has failed to comply with the requirements specified in this condition. The BLM AO may use money from the Security solely for implementation of the requirements of this condition. The BLM AO's use of the Security to implement measures in this condition may not fully satisfy the Applicant's obligations under this condition, and the Applicant remains responsible for satisfying the obligations under this condition if the Security is insufficient. The unused Security shall be returned to the Applicant in whole or in part upon successful completion of the associated requirements in this condition.</p> <p>j. The Applicant may elect to comply with the requirements in this condition for acquisition of compensation lands, initial protection and habitat improvement on the compensation lands, or long-term maintenance and management of the compensation lands by funding, or any combination of these three requirements, by providing funds to implement those measures into the REAT Account established with the NFWF. To use this option, the Applicant must make an initial deposit to the REAT Account in an amount equal to the estimated costs (as set forth in the Security section of this condition) of implementing the requirement. If the actual cost of the acquisition, initial protection and habitat improvements, or long-term funding is more than the estimated amount initially paid by the Applicant, the Applicant shall make an additional deposit into the REAT Account sufficient to cover the actual acquisition costs, the actual costs of initial protection and habitat improvement on the compensation lands, and the long-term funding requirements as established in an approved PAR or PAR-like analysis. If those actual costs or PAR projections are less than the amount initially transferred by the Applicant, the remaining balance shall be returned to the Applicant.</p> <p>The responsibility for acquisition of compensation lands may be delegated to a third party other than NFWF, such as a non-governmental organization supportive of desert habitat conservation, by written agreement of the Energy Commission. Such delegation shall be subject to approval by the BLM AO, in consultation with CDFG, BLM, and USFWS, prior to land acquisition, enhancement or management activities. Agreements to delegate land acquisition to an approved third party, or to manage compensation lands, shall be executed and implemented within 18 months of the BLM's certification of the Project.</p> <p><b>II. Compensatory Mitigation by Habitat Enhancement/Restoration:</b> As an alternative or adjunct to land acquisition for compensatory mitigation the Applicant may undertake habitat enhancement or restoration for the target special-status plant species. Habitat enhancement or restoration activities must achieve protection at a 3:1 ratio for Rank 1 plants and 2:1 for Rank 2 plants, with improvements applied to 3 acres, or 2 acres, respectively, of habitat for every acre of special-status plant habitat directly or indirectly disturbed by the Project Disturbance Area (for example, if the area occupied by the special-status plant collectively measured is 0.25 acre, the improvements would be applied to an area equal to 0.75 acre at a 3:1 ratio, or 0.5 acre at a 2:1 ratio). Examples of suitable enhancement projects include but are not limited to the following: i) control unauthorized vehicle use into an occurrence (or pedestrian use if clearly damaging to the species); ii) control of invasive non-native plants that infest or pose an immediate threat to an occurrence; iii) exclude grazing by wild burros or livestock from an occurrence; or iv) restore lost or degraded hydrologic or geomorphic functions critical to the species by restoring previously diverted flows, removing obstructions to the wind sand transport corridor above an occurrence, or increasing groundwater availability for dependent species.</p>						

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Vegetation (cont.)</b>						
<p>If the Applicant elects to undertake a habitat enhancement project for mitigation, the project must meet the following performance standards: The proposed enhancement project shall achieve rescue of an off-site occurrence that is currently assessed, based on the NatureServe threat ranking system (Master et al., 2009; see also Morse et al., 2004) with one of the following threat ranks: a) long-term decline &gt;30 percent; b) an immediate threat that affects &gt;30 percent of the population, or c) has an overall threat impact that is High to Very High. "Rescue" would be considered successful if it achieves an improvement in the occurrence trend to "stable" or "increasing" status, or downgrading of the overall threat rank to slight or low (from "High" to "Very High").</p> <p>If the Applicant elects to undertake a habitat enhancement project for mitigation, they shall submit a Habitat Enhancement/Restoration Plan to the BLM AO for review and approval, and shall provide sufficient funding for implementation and monitoring of the Plan. The amount of the Security shall be \$2,280 per acre, using the estimated cost per acre for Desert Tortoise mitigation as a best available proxy, at the ratio of 3:1 for Rank 1 plants and 2:1 for Rank 2 plants, for every acre of habitat supporting the target special-status plant species which is directly or indirectly impacted by the project. The amount of the security may be adjusted based on the actual costs of implementing the enhancement, restoration and monitoring. The implementation and monitoring of the enhancement/restoration may be undertaken by an appropriate third party such as NFWF, subject to approval by the BLM AO. The Habitat Enhancement/Restoration Plan shall include each of the following:</p> <ol style="list-style-type: none"> <li><b>Goals and Objectives.</b> Define the goals of the restoration or enhancement project and a measurable course of action developed to achieve those goals. The objective of the proposed habitat enhancement plan shall include restoration of a target special-status plant occurrence that is currently threatened with a long-term decline. The proposed enhancement plan shall achieve an improvement in the occurrence trend to "stable" or "increasing" status, or downgrading of the overall threat rank to slight or low (from "High" to "Very High").</li> <li><b>Historical Conditions.</b> Provide a description of the pre-impact or historical conditions (before the site was degraded by weeds or grazing or ORV, etc.), and the desired conditions.</li> <li><b>Site Characteristics.</b> Describe other site characteristics relevant to the restoration or enhancement project (e.g., composition of native and pest plants, topography and drainage patterns, soil types, geomorphic and hydrologic processes important to the site or species).</li> <li><b>Ecological Factors.</b> Describe other important ecological factors of the species being protected, restored, or enhanced such as total population, reproduction, distribution, pollinators, etc.</li> <li><b>Methods.</b> Describe the restoration methods that will be used (e.g., invasive exotics control, site protection, seedling protection, propagation techniques, etc.) and the long-term maintenance required. The implementation phase of the enhancement must be completed within five years.</li> <li><b>Budget.</b> Provide a detailed budget and time-line, and develop clear, measurable, objective-driven annual success criteria.</li> <li><b>Monitoring.</b> Develop clear, measurable monitoring methods that can be used to evaluate the effectiveness of the restoration and the benefit to the affected species. The Plan shall include a minimum of five years of quarterly monitoring, and then annual monitoring for the remainder of the enhancement project, and until the performance standards for rescue of a threatened occurrence are met. At a minimum the progress reports shall include: quantitative measurements of the projects progress in meeting the enhancement project success criteria, detailed description of remedial actions taken or proposed, and contact information for the responsible parties.</li> </ol>						

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Vegetation (cont.)</b>						
<p>8. Reporting Program. The Plan shall ensure accountability with a reporting program that includes progress toward goals and success criteria. Include names of responsible parties.</p> <p>9. Contingency Plan. Describe the contingency plan for failure to meet annual goals.</p> <p>Long-term Protection. Include proof of long-term protection for the restoration site. For private lands this would include conservations easements or other deed restrictions; projects on public lands must be contained in a Desert Wildlife Management Area, Wildlife Habitat Management Area, or other land use protections that will protect the mitigation site and target species.</p>						
<p><b>VEG-11: Mitigation for Impacts to Sensitive Riparian Habitat and State Waters.</b> The Applicant shall implement the following measures to avoid, minimize and mitigate for direct and indirect impacts to waters of the state and to satisfy requirements of California Fish and Game Code §§1600 and 1607.</p> <p>1. <b>Acquire Off-Site State Waters:</b> The Applicant shall acquire, in fee or in easement, a parcel or parcels of land that includes at least 215.2 acres of state jurisdictional waters, or comparable area based on actual project impact to jurisdictional features that meets BLM and CDFG mitigation ratios, as identified in APM HYDRO-1 (Table 2-7, <i>Applicant Proposed Measures</i>). The parcel or parcels comprising the 215.2 acres of ephemeral washes shall include at least 6 acres of desert dry wash woodland. Under Alternative 2, the mitigation requirement for impacts to riparian habitat and state waters would be a minimum of 63.3 acres that included at least 1.5 acres of desert dry wash woodland. If Alternative 3 were constructed the mitigation requirements for impacts to riparian habitat and state waters would be incrementally greater than under Alternative 1; however, would need to be finalized to include the impacts of road facilities on riparian habitat located on Project linears south of the Project. The terms and conditions of this acquisition or easement shall be as described in Mitigation Measure WIL-4 (<i>Desert Tortoise Compensatory Mitigation</i>). Mitigation for impacts to state waters shall occur within the Palo Verde and surrounding watersheds, as close to the Project site as possible. If security is posted in accordance with Provision 2 below (Security for Implementation of Mitigation), the Applicant shall acquire, in fee or in easement, the land, no more than 18 months after the start of Project ground-disturbing activities.</p> <p>2. <b>Security for Implementation of Mitigation:</b> The Applicant shall provide financial assurances to the BLM AO and CDFG to guarantee that an adequate level of funding is available to implement the acquisitions and enhancement of state waters as described in this condition. These funds shall be used solely for implementation of the measures associated with the project. Financial assurance can be provided to the BLM AO and CDFG in the form of an irrevocable letter of credit, a pledged savings account or Security prior to initiating ground-disturbing project activities. Prior to submittal to the BLM AO, the Security shall be approved by the BLM AO, in consultation with CDFG and the USFWS, to ensure funding. An estimate of \$485,640 in required Security funds was developed for land costs or the estimated costs of enhancement and endowment (see WIL-4, <i>Compensatory Mitigation for Desert Tortoise Habitat Losses</i>, for a discussion of the assumptions used in calculating the Security) based on an estimate of \$2,280 per acre (213.3 acres) to fund acquisition, enhancement and long-term management. For Alternative 2 the Security amounts is estimated to be \$144,324. The estimate for Alternative 3 is \$485,640, which does not include road impacts on portions of the Central Route or Western Route that deviates from the proposed Project gen-tie line. These this amounts may change based on land costs or the estimated costs of enhancement and endowment. The final amount due will be determined by the PAR analysis conducted pursuant to Mitigation Measure WIL-4 and approved by the BLM AO and CDFG. The final mitigation acreage is also subject to CDFG concurrence with project impacts to waters of the state that were developed by the Applicant.</p>	Before Operation.	BLM, CDFG	Ensure provision of funding by the Applicant.			

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Vegetation (cont.)</b>						
<p>3. <b>Preparation of Management Plan:</b> The Applicant shall submit to the BLM AO and CDFG a draft Management Plan that reflects site-specific enhancement measures for the drainages on the acquired compensation lands. The objective of the Management Plan shall be to enhance the wildlife value of the drainages, and may include enhancement actions such as weed control, fencing to exclude livestock, or erosion control.</p> <p>4. <b>Code of Regulations:</b> The Applicant shall provide a copy of the BRMMP and CDFG permits to all contractors, subcontractors, and the Applicant's Project supervisors. Copies shall be readily available at work sites at all times during periods of active work and must be presented to any CDFG personnel upon demand. The BLM AO reserves the right to issue a stop work order or allow CDFG to issue a stop work order after giving notice to the Applicant. If the BLM AO in consultation with CDFG, determines that the Applicant has breached any of the terms or conditions or for other reasons, including but not limited to the following:</p> <ul style="list-style-type: none"> <li>a. The information provided by the Applicant regarding streambed alteration is incomplete or inaccurate;</li> <li>b. New information becomes available that was not known to it in preparing the terms and conditions; or</li> <li>c. The Project or Project activities as described in the Staff Assessment have changed.</li> </ul> <p>5. <b>Best Management Practices:</b> The Applicant shall also comply with the following conditions to protect drainages near the Project Disturbance Area:</p> <ul style="list-style-type: none"> <li>a. The Applicant shall minimize road building, construction activities and vegetation clearing within ephemeral drainages to the extent feasible.</li> <li>b. The Applicant shall not allow water containing mud, silt, or other pollutants from grading, aggregate washing, or other activities to enter ephemeral drainages or be placed in locations that may be subjected to high storm flows.</li> <li>c. The Applicant shall comply with all litter and pollution laws. All contractors, subcontractors, and employees shall also obey these laws, and it shall be the responsibility of the Applicant to ensure compliance.</li> <li>d. Spoil sites shall not be located at least 30 feet from the boundaries and drainages or in locations that may be subjected to high storm flows, where spoils might be washed back into drainages.</li> <li>e. Raw cement/concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances that could be hazardous to vegetation or wildlife resources, resulting from Project-related activities, shall be prevented from contaminating the soil and/or entering waters of the state. These materials, placed within or where they may enter a drainage by the Applicant or any party working under contract or with the permission of the Applicant, shall be removed immediately.</li> <li>f. No broken concrete, debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete or washings thereof, oil or petroleum products or other organic or earthen material from any construction or associated activity of whatever nature shall be allowed to enter into, or placed where it may be washed by rainfall or runoff into, waters of the state.</li> <li>g. When operations are completed, any excess materials or debris shall be removed from the work area. No rubbish shall be deposited within 150 feet of the high water mark of any drainage.</li> <li>h. No equipment maintenance shall occur within 150 feet of any ephemeral drainage where petroleum products or other pollutants from the equipment may enter these areas under any flow.</li> </ul>						

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Vegetation (cont.)</b>						
<p><b>VEG-12: Channel Decommissioning and Reclamation Plan.</b> At least 12 months prior to Project closure, the Applicant shall prepare a draft Decommissioning and Reclamation Plan to remove the engineered diversion channels from the Project site, and implement the final plan upon site closure. The goal of the plan shall be to restore the site's topography and hydrology to a relatively natural condition and to establish native plant communities within the Project Disturbance Area. The Channel Decommissioning and Reclamation Plan shall include a cost estimate for implementing the proposed decommissioning and reclamation activities, and shall be consistent with the guidelines in BLM's 43 CFR 3809.550 et seq., subject to review and revisions from the BLM AO in consultation with USFWS and CDFG.</p>	Prior to Project closure.	Review and approve the Channel Decommissioning and Reclamation Plan at least 12 months prior to Project closure.				
<p><b>VEG-13: Phasing.</b> The Applicant shall provide compensatory mitigation for the total Project Disturbance Area and may provide such mitigation in multiple phases for distinct construction elements (e.g., Unit 1, Unit 2, etc.). These phases will generally include installation of fencing, clearing, grubbing and grading, and development of common facilities first, followed by the remaining power block units. All construction activities for the non-linear features during these subsequent phases will occur within desert tortoise exclusionary fenced areas that have been cleared in accordance with USFWS protocols.</p> <p>Prior to initiating each phase of construction the Applicant shall submit the actual construction schedule, a figure depicting the locations of proposed construction and amount of acres to be disturbed. Mitigation acres are calculated based on the compensation requirements for each resource type including desert tortoise (Mitigation Measure WIL-4), western burrowing owl (Mitigation Measure WIL-9), Mojave fringe-toed lizard (Mitigation Measure WIL-10), and state waters (Mitigation Measure VEG-11). Compensatory mitigation for each phase shall be implemented according to the timing required by each condition.</p>	Prior to each phase of construction.	USFWS, CDFG, RWQCB	Review and approve phasing schedule, mitigation acreage, and compensatory mitigation for each phase of construction.			
<b>Biological Resources – Wildlife</b>						
<p><b>APM BIO-1: Desert Tortoise-specific Protection Measures During Construction.</b></p> <p>a. <b>Environmental Compliance Personnel:</b> Environmental compliance personnel shall be employed to oversee the implementation of all desert tortoise protection measures in accordance with a BO. An ECM will be assigned to the Project who shall be an on-site staff member of the Project. The ECM will be responsible for facilitating implementation of the environmental conditions of the Project and for coordinating compliance with the BLM and USFWS. A Project Lead Biologist and alternate Lead Biologists with demonstrated expertise with desert tortoise shall oversee compliance with the protection measures for the desert tortoise and other special-status species. There also shall be ABs that have demonstrated expertise to conduct specific activities for desert tortoise protection; the Lead Biologist also will be an AB. Additionally, qualified BMs will assist the AB in enforcing APMs. McCoy Solar shall submit the names and qualifications of the proposed Lead Biologist(s) and all ABs to the USFWS and BLM for review and approval prior to pre-construction clearance surveys. Project activities involving ground disturbance shall not begin until the Lead Biologist and ABs are approved by the aforementioned agencies. Replacement of Lead Biologist and ABs would require USFWS and BLM approval. The ECM, ABs, and BMs shall have the authority to halt all non-emergency activities that are in violation of the protection measures, or if a desert tortoise wanders into a work site. Work will proceed only after hazards to the desert tortoise are removed, the species no longer is at risk, or the animal has been moved from harm's way by the AB. The ABs will document any incident occurring during Project activities which is in non-compliance with the protection measures stated in the BO. The Lead Biologist and ECM shall ensure that appropriate corrective action is taken. Corrective actions shall be documented by the AB or BM. The following incidents shall require immediate cessation of the Project activities causing the incident:</p>	During construction	BLM, USFWS	<p>Implement desert tortoise-specific protection measures, including:</p> <ul style="list-style-type: none"> <li>• Employment of environmental compliance personnel to oversee implementation of all desert tortoise protection measures in accordance with a BO</li> <li>• Construction of desert tortoise exclusion fencing</li> <li>• Pre-construction clearance surveys</li> </ul>			

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Wildlife (cont.)</b>						
<p>1. Imminent threat of injury or death to a desert tortoise.</p> <p>2. Unauthorized handling of a desert tortoise.</p> <p>3. Operation of construction equipment or vehicles outside of areas secured with desert tortoise fencing without a BM present, except on designated roads.</p> <p>4. Conducting any construction activity without an AB or BM present where one is required.</p> <p>b. <b>Desert Tortoise Exclusion Fencing:</b> Prior to the onset of ground disturbing activities, the entire solar plant site will be fenced with a permanent tortoise exclusion fence per current USFWS requirements (USFWS, 2009) to keep tortoises from entering the solar plant site during construction and operation phases. The fencing type will be 1-inch by 2-inch vertical mesh galvanized fence material, extending at least 2 feet above the ground and buried at least 1 foot. Where burial is impossible, the mesh will be bent at a right angle toward the outside of the fence and covered with dirt, rocks, or gravel to prevent tortoises from digging under the fence. Tortoise-proof gates will be established at all site entry points. Fence construction may be completed during any time of the year (USFWS, 2010). As necessary, linear facilities (e.g., gen-tie line and switchyard) will be temporarily fenced to prevent tortoise entry during construction. Alternatively, monitoring during construction can be used to protect tortoises instead of temporary fencing. Temporary fencing will follow current USFWS guidelines for permanent fencing and supporting stakes will be sufficiently spaced to maintain fence integrity; burial may be minimized to avoid surface disturbance. All fence construction will be monitored by an AB or BMs to ensure that no desert tortoises are harmed. Following installation, all permanent exclusion fencing will be inspected monthly and during all major rainfall events; temporary fencing will be inspected at least weekly, or more often as necessary. Any damage to the fencing will be repaired immediately. All fencing erected during a tortoise activity period or prior to tortoises exiting brumation will be inspected at least three times each day for a minimum of 2 weeks (or for a minimum of two weeks after tortoises become active following brumation), to search for any tortoises that might be fence-walking; at least one search will occur immediately prior to lethal ambient temperatures.</p> <p>c. <b>Pre-Construction Clearance Surveys:</b> Within 1 week prior to fence installation, the AB and/or approved BMs will survey the staked fence line location for all desert tortoise burrows and tortoises, covering a swath of at least 90 feet centered on the fence line, using 15-foot-wide transects. All potential desert tortoise burrows or pallets will be searched. Burrows along the fence line that must be disturbed will be excavated by ABs or approved BMs using hand tools. Tortoise burrows will be mapped using GPS, and the size and age identified. Where flagging would not attract poaching, burrows will also be flagged. All fence construction then will be monitored by BMs. A clearance survey for tortoises will be conducted inside all fenced areas. Consistent with the McCoy Desert Tortoise Translocation Plan (BIO-1[d]), a minimum of two consecutive clearance passes without finding any new tortoises must be completed and these must coincide with heightened tortoise activity from mid-March through May and September through early November, or as otherwise agreed to by BLM and USFWS. This will maximize the probability of finding all tortoises. Clearance transects will be a maximum of 15 feet (5 meters) apart per USFWS approved protocols (USFWS, 2009), except on broad patches of unvegetated, well-developed desert pavement, where the width may be increased to a maximum of 30 feet (9 meters) upon USFWS approval. Once the solar plant site is deemed free of tortoises, heavy equipment will be allowed to enter the site to perform construction activities. It is anticipated that very few tortoises will be found during clearance or monitoring activities, but if tortoises are observed, the biologists will implement the McCoy Desert Tortoise Translocation Plan. The AB and BMs also will conduct clearance surveys of construction areas outside of the solar plant site. Burrows will be avoided if at all possible (especially if this is temporary fencing). However, if a burrow must be destroyed for fencing to occur, then it will be visually and tactilely</p>			<ul style="list-style-type: none"> <li>• Preparation and implementation of Desert Tortoise Translocation Plan</li> <li>• Construction monitoring</li> <li>• Immediate notification to the BLM and USFWS if a dead, injured, or sick tortoise is observed.</li> </ul>			

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Wildlife (cont.)</b>						
<p>examined for occupancy by tortoises and other wildlife. If occupancy is negative or cannot be established, the burrow will be carefully excavated with hand tools, using standardized techniques approved by USFWS (2009) and the Desert Tortoise Council (1994), including disinfection techniques for all tools. No burrows that can be avoided will be collapsed during perimeter fence construction. Other tortoise burrows will be flagged judiciously to avoid attraction of tortoise predators or people to the burrow. All BMs, the AB, and relevant construction personnel will be informed of all potential tortoise activity adjacent to an unfenced construction area. Following Project area clearance, a report will be prepared by the Project Lead Biologist to document the clearance surveys, the capture and release locations of all desert tortoises found, post-release monitoring, individual tortoise data, and other relevant data, consistent with the McCoy Desert Tortoise Translocation Plan. This report will be submitted to the BLM and USFWS.</p> <p>d. <b>Desert Tortoise Translocation Plan:</b> The Applicant will prepare and implement a Desert Tortoise Translocation Plan that will be approved by USFWS prior to construction.</p> <p>e. <b>Construction Monitoring:</b> No construction will occur in unfenced areas (see BIO-1[b], <i>Desert Tortoise Exclusion Fencing</i>) <u>or</u> on the linear facilities without BMs present. This includes both the construction phase (construction, revegetation) and maintenance activities during the operations phase that require new surface disturbance. An adequate number of trained and experienced monitors must be present during all construction activities in unfenced areas, depending on the various construction tasks, locations, and season.</p> <p>f. <b>Dead, Injured, and Sick Desert Tortoises:</b> The Lead Biologist will notify the BLM and USFWS immediately if a dead or injured desert tortoise is observed. Written notification must be made within 2 days of the date of the finding or incident (if known) and must include: Location of the tortoise, photographs, cause of death (if known), and other pertinent information. The AB will ensure that all tortoises injured by Project activities receive prompt veterinary care at the Applicant's expense. If an injured animal recovers, the BLM and USFWS will be contacted by the Applicant for final disposition of the animal. However, if efforts to keep the injured animal separate from other tortoises and turtles are successful during the tortoise's treatment, then it is recommended that it be released at or near its capture point to continue to contribute to the persistence of the local tortoise population. Tortoises fatally injured or killed from Project-related activities will be submitted for necropsy as outlined in Salvaging Injured, Recently Dead, Ill, and Dying Wild, Free-Roaming Desert Tortoises (<i>Gopherus agassizii</i>) (Berry, 2001) at the Applicant's expense. Care will be taken by the AB in handling dead specimens to preserve biological material in the best possible state.</p>			<ul style="list-style-type: none"> <li>•</li> </ul>			
<p><b>APM BIO-2: General Protection Measures During Construction.</b></p> <p>a. <b>Biological Resources Mitigation and Monitoring Plan (BRMMP):</b> The BRMMP will outline steps to implement the protection measures; document their implementation; and monitor their effectiveness. The BRMMP will identify the terms and conditions of any permits associated with the Project, including, but not limited to, the USFWS §7 Biological Opinion, CDFG §2081 Incidental Take Permit, and CDFG Streambed Alteration Agreement. The BRMMP will be submitted to the BLM and USFWS for approval prior to the start of ground disturbance.</p> <p>b. <b>Reporting:</b> As part of implementing protection measures, regular reports will be submitted to the relevant resource agencies to document the Project activities, mitigation implemented and mitigation effectiveness, and provide recommendations as needed. A schedule of reporting will be specific to individual plans. However, the Lead Biologist will submit monthly reports to the ECM during construction, annual comprehensive reports, and special-incident reports. The Lead Biologist will be responsible for reviewing and signing reports prior to</p>	Prior to and during construction	BLM, USFWS, CDFG	Implement general protection measures during construction, including: <ul style="list-style-type: none"> <li>• BRMMP</li> <li>• Regular reporting of Project activities, mitigation implementation and effectiveness, and recommendations as needed</li> </ul>			

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Wildlife (cont.)</b>						
<p>submittal to the agencies. In addition to a regular reporting schedule, all encounters with desert tortoises will be reported to the Lead Biologist, who will report the following information in Monthly and Annual Reports:</p> <ol style="list-style-type: none"> <li>1. Location (narrative and maps) and dates of observations;</li> <li>2. General condition and health, including injuries and state of healing;</li> <li>3. Diagnostic markings, including identification numbers or markers; and</li> <li>4. Disposition (if moved).</li> </ol> <p>c. <b>Worker Environmental Training:</b> The Applicant will prepare and implement site-specific Worker Environmental Training to inform Project personnel about the biological constraints of the Project. The training will be included in the BRMMP and will be developed and presented by a qualified Project biologist prior to the commencement of construction activity. All Project personnel must attend the training. The training will include information regarding the sensitive biological resources, restrictions, protection measures, and individual responsibilities associated with the Project. Special emphasis will be placed on protection measures developed for the desert tortoise and the consequences of non-compliance. Written material will be provided to employees at orientation and participants will sign an attendance sheet documenting their participation.</p> <p>d. <b>Construction-related Activities:</b> Existing roads will be utilized wherever possible to avoid unnecessary impacts. New and existing roads that are planned for either construction or widening will not extend beyond the planned impact area and will minimize surface disturbance in native habitats, where practical. All vehicles passing or turning around will do so within the planned impact area or in previously disturbed areas. Along the linear facilities, the anticipated impact zones, including staging areas, equipment access, and disposal or temporary placement of spoils, will be delineated with stakes and/or flagging prior to construction to avoid natural resources, where possible. Outside the Project boundaries, personnel will utilize established roadways (paved or unpaved) for traveling to and from the Project Area, including for transmission line construction. No work in unfenced and uncleared habitat will occur except under the direct supervision of a BM. Cross-country vehicle and equipment use outside designated work areas will be prohibited. Best Management Practices will be employed to prevent loss of habitat due to erosion caused by Project-related impacts (i.e., grading or clearing for new roads). All detected erosion will be remedied within 2 days of discovery. Additionally, fueling of equipment will take place within existing paved or contained areas and not within or adjacent to drainages or native desert habitats. Contractor equipment will be checked for leaks prior to operation and repaired as necessary. All vehicles and equipment will be in proper working condition to minimize the potential for fugitive emissions of motor oil, antifreeze, hydraulic fluid, grease, or other hazardous materials. The AB and BM will be informed of any hazardous spills within 24 hours. Hazardous spills will be immediately cleaned up and the contaminated soil will be properly disposed of at a licensed facility. Employees and contractors will look under vehicles and equipment for the presence of desert tortoises prior to movement. No equipment will be moved until the animal has left voluntarily or an AB removes it.</p> <p>e. <b>Construction Speed Limits:</b> To minimize the likelihood for vehicle strikes of tortoises and other species during construction, a speed limit of 25 miles per hour will be established for travel on all dirt Project access roads. Signs will be posted at appropriate locations (for example, at Arizona crossings of drainages) to remind drivers to be aware of the potential for desert tortoise and other wildlife occurring on the roadways.</p> <p>f. <b>Ground Excavations:</b> The Applicant will ensure that Project features located outside the permanently fenced sites, such as open trenches, pits, bores and other excavations that might trap, entangle, or constitute as pitfalls to desert tortoises and other wildlife, be filled in, fenced, covered, or otherwise modified at the end of each work day so they are no longer a hazard to desert tortoises and other wildlife. All excavations in tortoise</p>			<ul style="list-style-type: none"> <li>• Worker environmental training</li> <li>• Use of established roadways and proper fuel use, spill prevention, and cleanup techniques</li> <li>• 25 mph speed limit</li> <li>• Cover, inspect, and remove trapped tortoises from ground excavation sites</li> <li>• Proper construction material storage and inspection for desert tortoises</li> <li>• Proper hazardous material storage and spill cleanup</li> <li>• Report road kills to a BM or AB daily, to ensure timely removal</li> <li>• No pets or firearms onsite</li> <li>• Prohibit the intentional killing or collection of all native plant or native wildlife species</li> <li>• Provide funds to the USFWS' range-wide raven monitoring and control program to support the more comprehensive goals of that program</li> <li>• Weed Management Plan</li> <li>• Apply water for dust suppression</li> <li>• Revegetation Plan</li> </ul>			

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Wildlife (cont.)</b>						
<p>habitat outside the permanently fenced sites will be inspected for trapped desert tortoises at the beginning, middle, and end of the work day, at a minimum, but also will be continuously monitored by BMs as part of monitoring construction outside of fenced areas. Should a tortoise become entrapped, the AB will remove it immediately. These Project features will not need to be inspected if they are located within the permanently fenced solar plant site after the clearance surveys have been completed. However, any such Project features inside temporarily fenced locations that have been cleared of tortoises will be inspected daily for other wildlife.</p> <p>g. <b>Construction Material Storage:</b> The Applicant will ensure that any construction pipe, culvert, or similar structure stored less than 8 inches above the ground, stored for one or more nights, and within desert tortoise habitat outside the permanently fenced sites, will be inspected for tortoises before the material is moved, buried or capped. As an alternative, all such structures may be capped before being stored on the construction site or placed on pipe racks. These materials will not need to be inspected or capped if they are stored within the permanently fenced solar plant site after the clearance surveys have been completed or inside temporarily fenced locations.</p> <p>h. <b>Hazardous Materials:</b> The Applicant will ensure all vehicles and equipment are in proper working condition to ensure that there is no potential for fugitive emissions of motor oil, fuel, antifreeze, hydraulic fluid, grease, or other hazardous materials. Contractor equipment will be checked for leaks prior to operation and repaired as necessary. Fueling of equipment will take place within existing paved roads, where possible, and not within or adjacent to drainages. Hazardous spills will be immediately cleaned up and the contaminated soil will be properly disposed of at a licensed facility. The ECM, Lead Biologist, and BLM will be informed of any significant hazardous spills within 24 hours.</p> <p>i. <b>Trash Abatement:</b> Trash and food items will be contained in secure, closed lid (raven- and coyote-proof) containers. Trash will be removed regularly (at least once a week) to reduce the attractiveness to the site to opportunistic tortoise predators such as common ravens (<i>Corvus corax</i>) and coyotes (<i>Canis latrans</i>) and to reduce the possibility of animals ingesting or becoming entangled in foreign matter.</p> <p>j. <b>Roadkill Removal:</b> To preclude providing food to scavengers, including potential tortoise predators, such as ravens and coyotes, all road kills on construction entry roads will be collected, bagged, and put in a secure trash bin, daily. All personnel will be required to report road kills to a BM or AB daily, to ensure timely removal.</p> <p>k. <b>Pets and Firearms:</b> The Applicant will prohibit workers from bringing pets or firearms to the Project.</p> <p>l. <b>Plant and Wildlife Collection:</b> The Applicant will prohibit the intentional killing or collection of all native plant or native wildlife species, including, but not limited to desert tortoise. Workers will not disturb, capture, handle, or move animals, or their nests/burrows. Violations will be reported in the monthly and annual reports.</p> <p>m. <b>Raven Management:</b> The Applicant will provide funds to the USFWS' range-wide raven monitoring and control program to support the more comprehensive goals of that program. These funds will be in lieu of extensive quantitative monitoring at the Project site. The amount will be determined through negotiation with USFWS. In addition, a Raven Management Plan will be designed and implemented to identify the conditions of concern specific to the Project that may attract ravens to the Project and to define a plan that will 1) monitor raven activity and 2) specify management and control measures. The monitoring effort is intended to provide qualitative and semi-quantitative data to ensure that ravens do not pose a threat to desert tortoises from the Project.</p> <p>n. <b>Weed Management Plan:</b> The Applicant will prepare and implement a Weed Management Plan to prevent the spread of existing weeds and the introduction of new weeds to the Project Area.</p>			•			

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Wildlife (cont.)</b>						
<p>o. <b>Water Application for Dust Control:</b> The Applicant will ensure water is applied to the construction area, dirt roads, trenches, spoil piles, and other areas where ground disturbance has taken place to minimize dust emissions and topsoil erosion. A BM will patrol these areas to ensure water does not pool for long periods of time and potentially attract desert tortoises, common ravens, and other wildlife.</p> <p>p. <b>Cleanup and Restoration; Revegetation Plan:</b> The Applicant will ensure that all unused material and equipment will be removed upon completion of construction activities or maintenance activities conducted outside the permanently fenced sites (this includes non-emergency and emergency repairs). Upon completion, all construction equipment and refuse, including, but not limited to wrapping material, cables, cords, wire, boxes, rope, broken equipment parts, twine, strapping, buckets, metal or plastic containers will be removed from the site and disposed of properly. Any unused or leftover hazardous products will be properly disposed of offsite. The Applicant will prepare and implement a Revegetation Plan to restore temporarily disturbed areas.</p>						
<p><b>APM BIO-3: Protection Measures During Operation and Maintenance.</b> Road, transmission line, and pipeline maintenance activities are expected to occur during the life of the Project. To the extent possible, major road surface maintenance activities outside the solar plant site will be scheduled for the season with the least desert tortoise activity (typically November 1 through February 28), unless accompanied by an AB. During operation, all personnel who encounter a desert tortoise will immediately report the encounter to the ECM. An AB will monitor all major maintenance activities; minor maintenance (e.g., inspections) does not have to be accompanied by an AB. Only an AB may move tortoises during the operations phase and only if necessary. If feasible, all tortoises will be allowed to move into a safe area of their own accord. In order to prevent roadkills, any tortoise observed on the Project access road will be watched until it is safely off the road before the personnel can continue. If a desert tortoise is found inside the fenced solar plant site, an AB will be contacted immediately to translocate the desert tortoise from the solar plant site; in the interim, the tortoise will be captured, enclosed in a clean cardboard box with a lid, and held in a climate controlled situation until translocation by an AB, in accordance with details described in the McCoy Desert Tortoise Translocation Plan (BIO-1[d]). The ECM or AB will document the location (narrative and maps), date of observations, general condition and health (if known), including injuries and state of healing; diagnostic markings, including identification numbers or markers; and disposition, in the annual report.</p>	During operation	BLM	<ul style="list-style-type: none"> <li>Schedule maintenance during the season with the least active desert tortoise activity</li> <li>Report all tortoise activities to ECM</li> <li>Monitor all major maintenance activities</li> <li>Only an AB may move a tortoise if it's not able to move on its own accord</li> </ul>			
<p><b>APM BIO-4: Desert Tortoise Compensation.</b> To fully mitigate for habitat loss and potential take of desert tortoise, the Applicant will provide compensatory mitigation at a 1:1 ratio for impacts to all Category 3 desert tortoise habitat in accordance with the NECO Plan (BLM, 2002). Approximately 4,500 acres of Category 3 habitat would be disturbed. This excludes 38 acres of sand dunes, agricultural areas, and areas that are currently developed or disturbed along the access road. Acreage of disturbance was based on the best available Project plans and would be adjusted, based on pre- and post-construction aerial photography, to reflect the final Project disturbance footprint. Because the construction of Unit 1, Unit 2, and the linear facilities would be phased, compensation obligations (e.g., security deposits and the actual funding or acquisition of mitigation land) should be apportioned as follows:</p> <p>a. Unit 1: 2,259 acres at a 1:1 ratio;</p> <p>b. Unit 2: 2,178 acres at a 1:1 ratio; and</p> <p>c. Linear facilities: 106 acres at a 1:1 ratio.</p> <p>The following qualitative criteria would be used to select compensation lands to ensure that they provide mitigation for the incidental take of desert tortoises:</p>	Prior to construction	BLM, CDGF, USFWS				

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Wildlife (cont.)</b>						
<p>a. Compensation lands should be part of a larger block of lands that are either already protected or planned for protection, or feasibly could be protected by a public resource agency or a private biological reserve organization.</p> <p>b. Parcels should provide habitat that is as good as or better than the habitat being impacted by the Project. Preferably, the lands would comprise sufficiently good habitat that they are either currently occupied or could be occupied by the desert tortoise once they are protected from anthropogenic impacts and/or otherwise enhanced.</p> <p>c. Parcels should not be subject to such intensive recreational, grazing, or other uses that recovery is rendered unlikely or lengthy. Nor should those invasive species that are likely to jeopardize habitat recovery (e.g., Sahara mustard [<i>Brassica tournefortii</i>]) be present in uncontrollable numbers, either on or immediately adjacent to the parcels under consideration.</p> <p>d. The parcels should be connected to occupied desert tortoise habitat or in sufficiently close proximity to known occupied tortoise habitat such that an unencumbered genetic flow is possible. Preferably, the existing populations of desert tortoise on these lands would represent populations that are stable, recovering, or likely to recover.</p> <p>e. The parcels should be consistent with the goals, objectives, and recovery actions of an accepted recovery strategy (e.g., recovery plan) for the desert tortoise if possible.</p>						
<p><b>APM BIO-5: Protection Measures during Decommissioning/Closure:</b> Project Decommissioning: The planned operating life of the Project is 30 years. In the event the Project permanently shuts down, and no other project will occupy the same industrial space, the Applicant will prepare and implement a Decommissioning Plan to ensure that the environment is protected during the decommissioning phase. Prior to decommissioning, a plan will be finalized and approved by the BLM. The Applicant shall retain an AB for the decommissioning phase of the Project to ensure that all environmental protection measures are implemented. The Applicant will submit the names and qualifications of all proposed biologists to the USFWS and BLM for review and approval at least 30 days prior to decommissioning activities and prior to initiation of any tortoise handling. Decommissioning activities will not begin until the ABs are approved by the aforementioned agencies.</p>	At least 30 days prior to decommissioning.	BLM	Review and approve the decommissioning plan.			
<p><b>WIL-1: Measures to Avoid Take of Desert Tortoise.</b> The Applicant shall undertake appropriate measures to manage the construction site and related facilities in a manner to avoid or minimize impacts to desert tortoise. Methods for clearance surveys, fence specification and installation, tortoise handling, artificial burrow construction, egg handling, and other procedures shall be consistent with those described in the USFWS (2009) <i>Desert Tortoise Field Manual</i> or more current guidance provided by CDFG and USFWS. The Applicant shall also implement all terms and conditions described in the Biological Opinion prepared by USFWS. The Applicant shall implement the following measures:</p> <p>1. <b>Desert Tortoise Exclusion Fence Installation.</b> To avoid impacts to desert tortoises, permanent exclusion fencing shall be installed along the permanent perimeter security fence (boundaries) as phases are constructed. Temporary fencing shall be installed along linear features or any subset of the plant site phasing that does not correspond to permanent perimeter fencing. All fencing installation corridors shall be flagged to assist biologists in studying the fence route and surveyed within 24 hours prior to the initiation of fence construction. Clearance surveys of the desert tortoise exclusionary fence and utility rights-of-way alignments shall be conducted by the Designated Biologist(s) using techniques outlined in the USFWS' 2009 <i>Desert Tortoise Field Manual</i> and may be conducted in any season with USFWS and CDFG approval. Biological</p>	Prior to and during construction.	CDFG, USFWS				

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Wildlife (cont.)</b>						
<p>Monitors may assist the Designated Biologist under his or her supervision. These fence clearance surveys shall provide 100-percent coverage of all areas to be disturbed and an additional transect along both sides of the fence line. Disturbance associated with desert tortoise exclusionary fence construction shall not exceed 30 feet on either side of the proposed fence alignment. Prior to the surveys the Applicant shall provide to the BLM Authorized Officer (BLM AO), CDFG, and USFWS a figure clearly depicting the limits of construction disturbance for the proposed fence installation. The fence line survey area shall be 90 feet wide centered on the fence alignment. Where construction disturbance for fence line installation can be limited to 15 feet on either side of the fence line, this fence line survey area may be reduced to an area approximately 60 feet wide centered on the fence alignment. Transects shall be no greater than 15 feet apart. All desert tortoise burrows, and burrows constructed by other species that might be used by desert tortoises, shall be examined to assess occupancy of each burrow by desert tortoises and handled in accordance with the <i>Desert Tortoise Field Manual</i>. Any desert tortoise located during fence clearance surveys shall be handled by the Designated Biologist(s) in accordance with the <i>Desert Tortoise Field Manual</i>.</p> <p>a. <i>Timing, Supervision of Fence Installation.</i> The exclusion fencing shall be installed in any area subject to disturbance prior to the onset of site clearing and grubbing in that area. The fence installation shall be supervised by the Designated Biologist and monitored by the Biological Monitors to ensure the safety of any tortoise present.</p> <p>b. <i>Fence Material and Installation.</i> All desert tortoise exclusionary fencing shall be constructed in accordance with the USFWS' <i>Desert Tortoise Field Manual</i> (Chapter 8 – Desert Tortoise Exclusion Fence).</p> <p>c. <i>Security Gates.</i> Security gates shall be designed with minimal ground clearance to deter ingress by tortoises. The gates may be electronically activated to open and close immediately after the vehicle(s) have entered or exited to prevent the gates from being kept open for long periods of time.</p> <p>d. <i>Fence Inspections.</i> Following installation of the desert tortoise exclusion fencing for both the permanent site fencing and temporary fencing in the utility corridors, the fencing shall be regularly inspected. If tortoise were moved out of harm's way during fence construction, permanent and temporary fencing shall be inspected at least two times a day for the first 7 days to ensure a recently moved tortoise has not been trapped within the fence. Thereafter, permanent fencing shall be inspected monthly and during and within 24 hours following all major rainfall events. A major rainfall event is defined as one for which flow is detectable within the fenced drainage. Any damage to the fencing shall be temporarily repaired immediately to keep tortoises out of the site, and permanently repaired within 48 hours of observing damage. Inspections of permanent site fencing shall occur for the life of the Project. Temporary fencing shall be inspected weekly and, where drainages intersect the fencing, during and within 24 hours following major rainfall events. All temporary fencing shall be repaired immediately upon discovery and, if the fence may have permitted tortoise entry while damaged, the Designated Biologist shall inspect the area for tortoise.</p> <p>2. <b>Desert Tortoise Clearance Surveys within the Plant Site.</b> Clearance surveys shall be conducted in accordance with the final USFWS-approved <i>Desert Tortoise Translocation Plan, McCoy Solar Energy Project</i> (Appendix F in the Biological Assessment; TetraTech EC Inc., 2012) and shall consist of two surveys covering 100 percent the Project area by walking transects no more than 15 feet apart. If a desert tortoise is located on the second survey, a third survey shall be conducted. Each separate survey shall be walked in a different direction or parallel but offset to allow opposing angles of observation. Clearance surveys for non-linear areas of Phase 1A may be conducted outside the active season. Clearance surveys of the remaining portions of the</p>						

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Wildlife (cont.)</b>						
<p>power plant site may only be conducted when tortoises are most active in the Project vicinity (March through May or September through mid-November). Clearance surveys of linear features may be conducted during anytime of the year. Surveys outside of the active season in areas other than Phase 1A require approval by USFWS and CDFG. Any tortoise located during clearance surveys of the power plant site and linear features shall be relocated and monitored in accordance with the Desert Tortoise Relocation/Translocation Plan:</p> <p>a. <i>Burrow Searches.</i> During clearance surveys all desert tortoise burrows, and burrows constructed by other species that might be used by desert tortoises, shall be examined by the Designated Biologist, who may be assisted by the Biological Monitors, to assess occupancy of each burrow by desert tortoises and handled in accordance with the <i>Desert Tortoise Field Manual</i>. To prevent reentry by a tortoise or other wildlife, all burrows shall be collapsed once absence has been determined, but only on the last survey pass and if not occupied by other wildlife. Tortoises taken from burrows and from elsewhere on the power plant site shall be relocated or translocated as described in the Desert Tortoise Relocation/Translocation Plan.</p> <p>b. <i>Burrow Excavation/Handling.</i> All potential desert tortoise burrows located during clearance surveys would be excavated by hand, tortoises removed, and collapsed or blocked to prevent occupation by desert tortoises. All desert tortoise handling and removal, and burrow excavations, including nests, would be conducted by the Designated Biologist, who may be assisted by a Biological Monitor in accordance with the <i>Desert Tortoise Field Manual</i>.</p> <p>c. <i>Monitoring Following Clearing.</i> Following the desert tortoise clearance and removal from the power plant site and utility corridors, workers and heavy equipment shall be allowed to enter the Project site to perform clearing, grubbing, leveling, and trenching. A Designated Biologist shall directly monitor site clearing and shall be on-site during grading activities to find and move tortoises missed during the initial tortoise clearance survey. Should a tortoise be discovered, it shall be relocated or translocated as described in the Desert Tortoise Relocation/Translocation Plan.</p> <p>3. <b>Reporting.</b> The Designated Biologist shall record the following information for any desert tortoises handled: a) the locations (narrative and maps) and dates of observation; b) general condition and health, including injuries, state of healing and whether desert tortoise voided their bladders; c) location moved from and location moved to (using GPS technology); d) gender, carapace length, and diagnostic markings (i.e., identification numbers or marked lateral scutes); e) ambient temperature when handled and released; and f) digital photograph of each handled desert tortoise as described in the paragraph below. Desert tortoise moved from within Project areas shall be marked and monitored in accordance with the Desert Tortoise Relocation/Translocation Plan (Mitigation Measure WIL-2).</p>						
<p><b>WIL-2: Desert Tortoise Relocation/Translocation Plan.</b> The Applicant shall develop and implement a final Desert Tortoise Relocation/Translocation Plan (Plan) that is consistent with current USFWS approved guidelines, and meets the approval of the BLM AO. The Plan shall include guidance during different phases of Project construction and shall include measures to minimize the potential for repeated translocations of individual desert tortoises. The final Plan shall include all revisions deemed necessary by BLM, USFWS, and CDFG.</p>						
<p><b>WIL-3: Project Notifications and Reporting.</b> The Applicant shall provide BLM staff with reasonable access to the Project site and compensation lands under the control of the Applicant and shall otherwise fully cooperate with BLM's efforts to verify the Project owner's compliance with, or the effectiveness of, mitigation measures. The Designated Biologist shall do all of the following:</p>	Prior to, during, and after construction.	BLM, CDFG, USFWS				

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Wildlife (cont.)</b>						
<p>1. <b>Notification.</b> Notify the BLM AO at least 14 calendar days before initiating construction-related ground disturbance activities; immediately notify the BLM AO in writing if the Applicant is not in compliance with any required conditions of project approval, including but not limited to any actual or anticipated failure to implement mitigation measures within the specified time periods;</p> <p>2. <b>Monitoring During Grubbing and Grading.</b> Remain onsite daily while vegetation salvage, grubbing, grading and other ground-disturbance construction activities are taking place to avoid or minimize take of listed species, to check for compliance with all impact avoidance and minimization measures, and to check all exclusion zones to ensure that signs, stakes, and fencing are intact and that human activities are restricted in these protective zones.</p> <p>3. <b>Monthly Compliance Inspections.</b> Conduct compliance inspections at a minimum of once per month after clearing, grubbing, and grading are completed and submit a monthly compliance report to the BLM AO, USFWS, and CDFG during construction.</p> <p>4. <b>Notification of Injured, Dead, or Relocated Listed Species.</b> In the event of a sighting in an active construction area (e.g., with equipment, vehicles, or workers), injury, kill, or relocation of any listed species, the BLM AO, CDFG, and USFWS shall be notified immediately by phone. Notification shall occur no later than noon on the business day following the event if it occurs outside normal business hours so that the agencies can determine if further actions are required to protect listed species. Written follow-up notification via FAX or electronic communication shall be submitted to these agencies within two calendar days of the incident and include the following information as relevant:</p> <p>a. <i>Injured Desert Tortoise.</i> If a desert tortoise is injured as a result of Project-related activities during construction, the Designated Biologist shall immediately take it to a CDFG-approved wildlife rehabilitation and/or veterinarian clinic. Any veterinarian bills for such injured animals shall be paid by the Applicant. Following phone notification as required above, the BLM AO, CDFG, and USFWS shall determine the final disposition of the injured animal, if it recovers. Written notification shall include, at a minimum, the date, time, location, circumstances of the incident, and the name of the facility where the animal was taken.</p> <p>b. <i>Desert Tortoise Fatality.</i> If a desert tortoise is killed by Project-related activities during construction or operation, submit a written report with the same information as an injury report. These desert tortoises shall be salvaged according to guidelines described in the USGS publication <i>Salvaging Injured, Recently Dead, Ill, and Dying Wild, Free-Roaming Desert Tortoise</i>. The Applicant shall pay to have the desert tortoises transported and necropsied. The report shall include the date and time of the finding or incident.</p> <p>5. <b>Stop Work Order.</b> The BLM AO may issue the Applicant a written stop work order to suspend any activity related to the construction or operation of the Project to prevent or remedy a violation of one or more required conditions of project approval (including but not limited to failure to comply with reporting, monitoring, or habitat acquisition obligations) or to prevent the illegal take of an endangered, threatened, or candidate species. The Applicant shall comply with the stop work order immediately upon receipt thereof.</p>						
<p><b>WIL-4: Compensatory Mitigation for Desert Tortoise Habitat Losses.</b> To fully mitigate for habitat loss and potential take of desert tortoise, the Applicant shall provide compensatory mitigation at a 1:1 ratio for impacts to 4,900 acres, adjusted to reflect the final footprint of the selected Project alternative. For the purposes of this measure, the Project footprint means all lands directly disturbed in the construction and operation of the Project, including all linear features, as well as undeveloped areas inside the Project’s boundaries that will no longer provide</p>	Prior to construction	BLM, CDFG, USFWS	Review and approve the acquisition proposal.			

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Wildlife (cont.)</b>						
<p>viable long-term habitat for the desert tortoise. To satisfy this measure, the Applicant shall acquire, protect and transfer 1 acre of desert tortoise habitat for every acre of habitat within the final Project footprint, and provide associated funding for the acquired lands, as specified below. Mitigation Measure WIL-15 may provide the Applicant with another option for satisfying some or all of the requirements in this measure. In lieu of acquiring lands itself, the Applicant may satisfy the requirements of this measure by depositing funds into the REAT Account established with the NFWF, as provided below in section 3.h. of this measure.</p> <p>The timing of the mitigation shall correspond with the timing of the site disturbance activities. However, if security is posted in accordance with 3.g. below (Mitigation Security), the Applicant shall acquire, in fee or in easement, the land, no more than 18 months after the start of Project ground-disturbing activities. If compensation lands are acquired in fee title or in easement, the requirements for acquisition, initial improvement and long-term management of compensation lands include all of the following:</p> <ol style="list-style-type: none"> <li>1. <b>Selection Criteria for Compensation Lands.</b> The compensation lands selected for acquisition in fee title or in easement shall                         <ol style="list-style-type: none"> <li>a. be within the Colorado Desert Recovery Unit, with potential to contribute to desert tortoise habitat connectivity and build linkages between desert tortoise designated critical habitat, known populations of desert tortoise, and/or other preserve lands;</li> <li>b. provide habitat for desert tortoise with capacity to regenerate naturally when disturbances are removed;</li> <li>c. be prioritized near larger blocks of lands that are either already protected or planned for protection, or which could feasibly be protected long-term by a public resource agency or a non-governmental organization dedicated to habitat preservation;</li> <li>d. be connected to lands with desert tortoise habitat equal to or better quality than the Project site, ideally with populations that are stable, recovering, or likely to recover;</li> <li>e. not have a history of intensive recreational use or other disturbance that does not have the capacity to regenerate naturally when disturbances are removed or might make habitat recovery and restoration infeasible;</li> <li>f. not be characterized by high densities of invasive species, either on or immediately adjacent to the parcels under consideration, that might jeopardize habitat recovery and restoration;</li> <li>g. not contain hazardous wastes that cannot be removed to the extent that the site could not provide suitable habitat; and</li> <li>h. have water and mineral rights included as part of the acquisition, unless the BLM AO, in consultation with CDFG and USFWS, agrees in writing to the acceptability of land.</li> </ol> </li> <li>2. <b>Review and Approval of Compensation Lands Prior to Acquisition.</b> The Applicant shall submit a formal acquisition proposal to the BLM AO, CDFG, and USFWS describing the parcel(s) intended for purchase. This acquisition proposal shall discuss the suitability of the proposed parcel(s) as compensation lands for desert tortoise in relation to the criteria listed above. Approval from the BLM AO and CDFG, in consultation with BLM and the USFWS, shall be required for acquisition of all compensatory mitigation parcels.</li> <li>3. <b>Compensation Lands Acquisition Requirements.</b> The Applicant shall comply with the following requirements relating to acquisition of the compensation lands after the BLM AO and CDFG, in consultation with BLM and the USFWS, have approved the proposed compensation lands:</li> </ol>						

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Wildlife (cont.)</b>						
<p>a. <i>Preliminary Report.</i> The Applicant, or approved third party, shall provide a recent preliminary title report, initial hazardous materials survey report, biological analysis, and other necessary or requested documents for the proposed compensation land to the BLM AO and CDFG. All documents conveying or conserving compensation lands and all conditions of title are subject to review and approval by the BLM AO and CDFG, in consultation with the USFWS. For conveyances to the state, approval may also be required from the California Department of General Services, the Fish and Game Commission, and the Wildlife Conservation Board.</p> <p>b. <i>Title/Conveyance.</i> The Applicant shall transfer fee title to the compensation lands, a conservation easement over the lands, or both fee title and conservation easement as required by the BLM AO and CDFG. Transfer of either fee title or an approved conservation easement will usually be sufficient, but some situations, e.g., the donation of lands burdened by a conservation easement to BLM, will require that both types of transfers be completed. Any transfer of a conservation easement or fee title must be to CDFG, a non-profit organization qualified to hold title to and manage compensation lands (pursuant to California Government Code §65965), or to BLM under terms approved by the BLM AO and CDFG. If an approved non-profit organization holds title to the compensation lands, a conservation easement shall be recorded in favor of CDFG in a form approved by CDFG. If an approved non-profit holds a conservation easement, CDFG shall be named a third party beneficiary.</p> <p>c. <i>Initial Habitat Improvement Fund.</i> The Applicant shall fund the initial protection and habitat improvement of the compensation lands. Alternatively, a non-profit organization may hold the habitat improvement funds if it is qualified to manage the compensation lands (pursuant to California Government Code §65965) and if it meets the approval of CDFG and the BLM AO. If CDFG takes fee title to the compensation lands, the habitat improvement fund must be paid to CDFG or its designee.</p> <p>d. <i>Property Analysis Record.</i> Upon identification of the compensation lands, the Applicant shall conduct a PAR or PAR-like analysis to establish the appropriate long-term maintenance and management fee to fund the in-perpetuity management of the acquired mitigation lands.</p> <p>e. <i>Long-term Maintenance and Management Fund.</i> The Applicant shall deposit in NFWF's REAT Account a non-wasting capital long-term maintenance and management fee in the amount determined through the PAR analysis conducted for the compensation lands.</p> <p>The BLM AO, in consultation with CDFG, may designate another non-profit organization to hold the long-term maintenance and management fee if the organization is qualified to manage the compensation lands in perpetuity. If CDFG takes fee title to the compensation lands, CDFG shall determine whether it will hold the long-term management fee in the special deposit fund, leave the money in the REAT Account, or designate another entity to manage the long-term maintenance and management fee for CDFG and with CDFG supervision.</p> <p>f. <i>Interest, Principal, and Pooling of Funds.</i> The Applicant, the BLM AO and CDFG shall ensure that an agreement is in place with the long-term maintenance and management fee holder/manager to ensure the following conditions:</p> <p>i. Interest. Interest generated from the initial capital long-term maintenance and management fee shall be available for reinvestment into the principal and for the long-term operation, management, and protection of the approved compensation lands, including reasonable administrative overhead, biological monitoring, improvements to carrying capacity, law enforcement measures, and any other action approved by CDFG designed to protect or improve the habitat values of the compensation lands.</p>						

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Wildlife (cont.)</b>						
<p>ii. Withdrawal of Principal. The long-term maintenance and management fee principal shall not be drawn upon unless such withdrawal is deemed necessary by the CDFG or the approved third-party long-term maintenance and management fee manager to ensure the continued viability of the species on the compensation lands. If CDFG takes fee title to the compensation lands, monies received by CDFG pursuant to this provision shall be deposited in a special deposit fund established solely for the purpose to manage lands in perpetuity unless CDFG designates NFWF or another entity to manage the long-term maintenance and management fee for CDFG.</p> <p>iii. Pooling Long-Term Maintenance and Management Fee Funds. CDFG, or a BLM AO- and CDFG-approved non-profit organization qualified to hold long-term maintenance and management fees solely for the purpose to manage lands in perpetuity, may pool the endowment with other endowments for the operation, management, and protection of the compensation lands for local populations of desert tortoise. However, for reporting purposes, the long-term maintenance and management fee fund must be tracked and reported individually to the CDFG and BLM AO.</p> <p>iv. Other expenses. In addition to the costs listed above, the Applicant shall be responsible for all other costs related to acquisition of compensation lands and conservation easements, including but not limited to title and document review costs, expenses incurred from other state agency reviews, and overhead related to providing compensation lands to CDFG or an approved third party; escrow fees or costs; environmental contaminants clearance; and other site cleanup measures.</p> <p>g. <i>Mitigation Security.</i> The Applicant shall provide financial assurances to the BLM AO and CDFG with copies of the document(s) to the USFWS, to guarantee that an adequate level of funding is available to implement the mitigation measures described herein. These funds shall be used solely for implementation of the measures associated with the Project in the event the Applicant fails to comply with the requirements specified in this measure, or shall be returned to the Applicant upon successful compliance with the requirements in this measure. The BLM AO's or CDFG's use of the security to implement required measures may not fully satisfy the Applicant's obligations under this condition. Financial assurance can be provided to the BLM AO and CDFG in the form of an irrevocable letter of credit, a pledged savings account or another form of security ("Security"). Prior to submitting the Security to the BLM AO, the Applicant shall obtain the BLM AO's and CDFG's approval, in consultation with the USFWS, of the form of the Security. Security shall be provided in the amounts calculated as follows:</p> <p>i. land acquisition costs for compensation land, calculated at \$500/acre.</p> <p>ii. initial protection and improvement activities on the compensation land, calculated at \$330/acre.</p> <p>iii. Long term maintenance and management fee, calculated at \$1,450 an acre.</p> <p>The amount of security shall be adjusted for any change in the Project footprints for each phase as described above.</p> <p>h. The Applicant may elect to fund the acquisition and initial improvement of compensation lands through NFWF by depositing funds for that purpose into NFWF's REAT Account. Initial deposits for this purpose must be made in the same amounts as the security required in 3.g., above, and may be provided in lieu of security. If this option is used for the acquisition and initial improvement, the Applicant shall make an additional deposit into the REAT Account if necessary to cover the actual acquisition costs and administrative costs and fees of the compensation land purchase once land is identified and the actual costs are known. If the actual costs for acquisition and administrative costs and fees are less than \$500 an acre, the excess money deposited in the REAT Account shall be returned to the Applicant. Money</p>						

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Wildlife (cont.)</b>						
<p>deposited for the initial protection and improvement of the compensation lands shall not be returned to the Applicant.</p> <p>The responsibility for acquisition of compensation lands may be delegated to a third party other than NFWF, such as a non-governmental organization supportive of desert habitat conservation, by written agreement of the BLM AO and CDFG. Such delegation shall be subject to approval by the BLM AO and CDFG, in consultation with the USFWS, prior to land acquisition, initial protection or maintenance and management activities. Agreements to delegate land acquisition to an approved third party, or to manage compensation lands, shall be implemented with 18 months of the BLM's approval.</p>						
<p><b>WIL-5: Raven Monitoring and Control Plan.</b> The Applicant shall implement a Raven Monitoring and Control Plan that is consistent with the most current USFWS-approved raven management guidelines, and which meets the approval of the BLM AO in consultation with USFWS and CDFG. A raven management plan included in the Applicant's BA to BLM shall provide the basis for the final plan, subject to review, revisions and approval from the BLM AO, CDFG, and USFWS. The management plan shall include but not be limited to a program to monitor raven presence in the Project vicinity, determine if raven numbers are increasing, and to implement raven control measures as needed based on monitoring results. The purpose of the plan is to avoid any Project-related increases in raven numbers during construction, operation, and decommissioning. The Applicant shall also provide funding for implementation of the USFWS Regional Raven Management Program, as described below.</p> <ol style="list-style-type: none"> <li>1. The Raven Plan shall: <ol style="list-style-type: none"> <li>a. Identify conditions associated with the Project that might provide raven subsidies or attractants;</li> <li>b. Describe management practices to avoid or minimize conditions that might increase raven numbers and predatory activities;</li> <li>c. Describe control practices for ravens;</li> <li>d. Establish thresholds that would trigger implementation of control practices;</li> <li>e. Address monitoring and nest removal during construction and for the life of the Project, and;</li> <li>f. Discuss reporting requirements.</li> </ol> </li> <li>2. <b>USFWS Regional Raven Management Program:</b> The Applicant shall submit payment to the project sub-account of the REAT Account held by NFWF to support the USFWS Regional Raven Management Program. The one-time fee shall be as described in the cost allocation methodology or more current guidance as provided by USFWS or CDFG.</li> </ol>	Prior to construction.	BLM, CDFG, and USFWS	Review and approve the Raven Monitoring and Control Plan. Ensure the collection of fees for the USFWS Regional Raven Management Program.			
<p><b>WIL-6: Avian and Bat Protection Plan.</b> The Applicant shall prepare and implement an Avian and Bat Protection Plan (sometimes referred to as "Bird and Bat Conservation Strategies") to monitor the death and injury of birds and bats from collisions with facility features such as transmission lines and tower structures (e.g., meteorological towers). The monitoring data shall be used to inform an adaptive management program that would avoid and minimize Project-related avian and bat impacts. The study design shall be approved by the BLM AO in consultation with CDFG and USFWS, and shall be incorporated into the Project's Biological Resources Mitigation, Implementation, and Monitoring Plan (BRMIMP; see Mitigation Measure VEG-2) and implemented.</p> <p>The applicant shall follow APLIC guidelines for avian protection on powerlines and shall use current guidelines to reduce bird mortality from collision and electrocution with powerlines. The APLIC (2006) and USFWS recommend the following:</p>	Prior to operation.	BLM, CDFG, USFWS	Review and approve the Avian and Bat Protection Plan.			

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Wildlife (cont.)</b>						
<ol style="list-style-type: none"> <li>1. Provide 60-inch minimum horizontal separation between energized conductors or energized conductors and grounded hardware;</li> <li>2. Insulate hardware or conductors against simultaneous contact if adequate spacing is not possible;</li> <li>3. Use structure designs that minimize impacts to birds; and</li> <li>4. Shield wires to minimize the effects from bird collisions.</li> </ol>						
<p><b>WIL-7: Pre-construction Nest Surveys.</b> Pre-construction nest surveys shall be conducted if construction activities would begin from February 1 through July 31. The Designated Biologist or Biological Monitor conducting the surveys shall be experienced bird surveyors familiar with standard nest-locating techniques such as those described in Martin and Guepel (1993). The goal of the nesting surveys shall be to identify the general location of the nest sites, sufficient to establish a protective buffer zone around the potential nest site, and need not include identification of the precise nest locations. Surveyors performing nest surveys shall not concurrently be conducting desert tortoise surveys. The bird surveyors shall perform surveys in accordance with the following guidelines:</p> <ol style="list-style-type: none"> <li>1. Surveys shall cover all potential nesting habitat areas that could be disturbed by each phase of construction. Surveys shall also include areas within 500 feet of the boundaries of the active construction areas (including linear facilities);</li> <li>2. At least two pre-construction surveys shall be conducted, separated by a minimum 10-day interval. One of the surveys shall be conducted within a 14-day period preceding initiation of construction activity. Additional follow-up surveys may be required if periods of construction inactivity exceed 3 weeks, an interval during which birds may establish a nesting territory and initiate egg laying and incubation;</li> <li>3. If active nests or suspected active nests are detected during the survey, a buffer zone (protected area surrounding the nest, the size of which is to be determined by the Designated Biologist in consultation with CDFG) and monitoring plan shall be developed. Nest locations shall be mapped and submitted, along with a report stating the survey results, to the BLM AO; and</li> <li>4. The Designated Biologist shall monitor the nest until he or she determines that nestlings have fledged and dispersed; activities that might, in the opinion of the Designated Biologist, disturb nesting activities, shall be prohibited within the buffer zone until such a determination is made.</li> </ol>	Prior to construction.	BLM, CDFG	Ensure the completion of required surveys to CDFG protocol standards.			
<p><b>WIL-8: American Badger and Desert Kit Fox Protection.</b> To avoid direct impacts to American badgers and desert kit fox, the Applicant shall implement the following measures:</p> <ol style="list-style-type: none"> <li>1. <b>Baseline Kit Fox Census and Population Health Survey:</b> A qualified biologist with demonstrated mammal experience shall complete a baseline study of desert kit fox populations on the Project site and the anticipated dispersal areas from passive relocation at least 60 days prior to initiation of construction activities. The study shall characterize the demographics (e.g., size, structure, and distribution) of the kit fox population on the site and receiving areas. The Applicant shall coordinate with and fund studies by federal or State wildlife health officials [e.g., the CDFG Wildlife Investigations Lab (WIL)] to establish baseline health conditions.</li> <li>2. <b>Prepare Desert Kit Fox Management Plan:</b> At least 45 days prior to construction, the Applicant shall submit a Desert Kit Fox Management Plan that: 1) incorporates baseline desert kit fox census and health survey findings into a cohesive management strategy that minimizes disease risk to kit fox populations; 2) specifically identifies preconstruction survey methods for kit foxes and large carnivores (e.g., badgers) in the Project area; 3) describes preconstruction and construction-phase passive relocation methods from the site, and; 4)</li> </ol>	Prior to construction.	BLM, CDFG	Review and approve the Desert Kit Fox Management Plan.			

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Wildlife (cont.)</b>						
<p>coordinates survey findings prior to and during construction to meet the information needs of wildlife health officials in monitoring the health of kit fox populations. The Plan shall include contingency measures that would be performed if canine distemper were documented in the Project area possible dispersal areas adjacent to the Project site, and measures to address potential kit fox reoccupancy of the site (as documented at the Genesis site). The contents and requirements of the Plan shall be subject to review and approval by the BLM and CDFG.</p> <p>3. <b>Implement Desert Kit Fox Management Plan:</b> If canine distemper is not identified in the Project area or relocation areas during baseline surveys, the mitigation strategy may utilize passive means or active means with appropriate CDFG authorization to relocate kit foxes from the site. The approach below assumes that canine distemper is not detected during baseline surveys.</p> <p>a. <b>Pre-Construction Surveys:</b> Biological Monitors shall conduct pre-construction surveys for desert kit fox and American badger no more than 30 days prior to initiation of construction activities. Surveys shall also consider the potential presence of dens within 100 feet of the project boundary (including utility corridors and access roads) and shall be performed for each phase of construction. If dens are detected each den shall then be further classified as inactive, potentially active, or definitely active.</p> <p>b. Inactive dens that would be directly impacted by construction activities shall be excavated by hand and backfilled to prevent reuse by badgers or kit fox.</p> <p>c. Potentially and definitely active dens that would be directly impacted by construction activities shall be monitored by the Biological Monitor for three consecutive nights using a tracking medium (such as diatomaceous earth or fire clay) and/or infrared camera stations at the entrance.</p> <p>d. If no tracks are observed in the tracking medium or no photos of the target species are captured after three nights, the den shall be excavated and backfilled by hand.</p> <p>e. If tracks are observed, the den shall be progressively blocked with natural materials (rocks, dirt, sticks, and vegetation piled in front of the entrance) for the next three to five nights to discourage the badger or kit fox from continued use. After verification that the den is unoccupied it shall then be excavated and backfilled by hand to ensure that no badgers or kit fox are trapped in the den. BLM approval may be required prior to release of badgers on public lands.</p> <p>f. If an active natal den (a den with pups) is detected on the site, the BLM AO and CDFG shall be contacted within 24 hours to determine the appropriate course of action to minimize the potential for animal harm or mortality. The course of action would depend on the age of the pups, location of the den on the site (e.g., is the den in a central area or in a perimeter location), status of the perimeter site fence (completed or not), and the pending construction activities proposed near the den. A 500-foot no-disturbance buffer shall be maintained around all active dens.</p> <p>g. The following measures are required to reduce the likelihood of distemper transmission:</p> <p>i. No pets shall be allowed on the site prior to or during construction, with the possible exception of vaccinated kit fox scat detection dogs during preconstruction surveys, and then only with prior CDFG approval;</p> <p>ii. Any sick or diseased kit fox, or documented kit fox mortality shall be reported to CDFG and the BLM AO within 8 hours of identification. If a dead kit fox is observed, it shall be collected and stored according to established protocols distributed by CDFG WIL, and the WIL contacted to determine carcass suitability for necropsy.</p>						

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Wildlife (cont.)</b>						
<p><b>WIL-9: Burrowing Owl Protection and Mitigation.</b> The Applicant shall implement the following measures to avoid, minimize and offset impacts to burrowing owls:</p> <p>1. <b>Pre-Construction Surveys:</b> The Designated Biologist or Biological Monitor shall conduct pre-construction surveys for burrowing owls no more than 30 days prior to initiation of construction activities. Surveys shall be focused exclusively on detecting burrowing owls, and shall be conducted from two hours before sunset to one hour after or from one hour before to two hours after sunrise. The survey area shall include the Project Disturbance Area and surrounding 500-foot survey buffer for each phase of construction in accordance with VEG-13 (<i>Phasing</i>).</p> <p>2. <b>Implement Burrowing Owl Mitigation Plan:</b> The Applicant shall prepare and implement a final Burrowing Owl Mitigation Plan. The Plan shall be approved by the BLM AO in consultation with USFWS and CDFG, and shall:</p> <ol style="list-style-type: none"> <li>a. identify suitable sites as close as possible to the Project site, and within 1 mile of the Project Disturbance Areas for creation or enhancement of burrows prior to passive relocation efforts;</li> <li>b. provide guidelines for creation or enhancement of at least two natural or artificial burrows per relocated owl;</li> <li>c. provide detailed methods and guidance for passive relocation of burrowing owls occurring within the Project disturbance area; and</li> <li>d. describe monitoring and management of the passive relocation effort, including the created or enhanced burrow location and the project area where burrowing owls were relocated from and provide a reporting plan.</li> <li>e. include the following elements related to artificial burrow relocation:                             <ol style="list-style-type: none"> <li>i. A brief description of the project and project site pre-construction;</li> <li>ii. The mitigation measures that will be implemented;</li> <li>iii. Potential conflicting site uses or encumbrances;</li> <li>iv. A comparison of the occupied burrow site(s) and the artificial burrow site(s) (e.g., vegetation, habitat types, fossorial species use in the area, and other features);</li> <li>v. Artificial burrow(s) proximity to the project activities, roads and drainages;</li> <li>vi. Artificial burrow(s) proximity to other burrows and entrance exposure; Photographs of the site of the occupied burrow(s) and the artificial burrows;</li> <li>vii. Map of the project area that identifies the burrow(s) to be excluded as well as the proposed sites for the artificial burrows;</li> <li>viii. A brief description of the artificial burrow design;</li> <li>ix. Description of the monitoring that will take place during and after project implementation including information that will be provided in a monitoring report.</li> <li>x. A description of the frequency and type of burrow maintenance</li> </ol> </li> <li>f. address the following elements related to the exclusion plan:</li> </ol>	No more than 30 days prior to construction.	BLM, CDFG, USFWS	Ensure completion of preconstruction surveys and review and approve the Burrowing Owl Mitigation Plan. Ensure acquisition of mitigation for burrowing owl habitat.			

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Wildlife (cont.)</b>						
<ul style="list-style-type: none"> <li>i. Confirm by site surveillance that the burrow(s) is empty of burrowing owls and other species by use of a fiber-optic endoscope or comparable device;</li> <li>ii. Describe the type of scope and appropriate timing of scoping to avoid impacts;</li> <li>iii. Describe occupancy factors to look for and what will guide determination of vacancy and excavation timing (e.g., one-way doors should be left in place 48 hours to ensure burrowing owls have left the burrow before excavation, visited twice daily and monitored for evidence that owls are inside and can't escape);</li> <li>iv. Identify how the burrow(s) will be excavated (excavation using hand tools with refilling to prevent reoccupation is preferable whenever possible (may include using piping to stabilize the burrow to prevent collapsing until the entire burrow has been excavated and it can be determined that no owls reside inside the burrow));</li> <li>v. Describe removal of other potential owl burrow surrogates or refugia on site; Photographing the excavation and closure of the burrow to demonstrate success and sufficiency;</li> <li>vi. Describe required monitoring of the exclusion site to evaluate success and, if needed, to implement remedial measures to prevent subsequent owl use to avoid take;</li> <li>vii. Identify how the impacted site will continually be made inhospitable to burrowing owls and fossorial mammals (e.g., by allowing vegetation to grow tall, heavy disking, or immediate and continuous grading) until development is complete.</li> </ul> <p>3. <b>Implement Avoidance Measures:</b> If an active burrowing owl burrow is detected within 500 feet from the Project disturbance area the following avoidance and minimization measures shall be implemented:</p> <ul style="list-style-type: none"> <li>a. <i>Establish Non-Disturbance Buffer.</i> Fencing shall be installed at a 250-foot radius from the occupied burrow to create a non-disturbance buffer around the burrow. The non-disturbance buffer and fence line may be reduced to 160 feet if all Project-related activities that might disturb burrowing owls would be conducted during the non-breeding season (September 1st through January 31st). Signs shall be posted in English and Spanish at the fence line indicating no entry or disturbance is permitted within the fenced buffer.</li> <li>b. <i>Monitoring:</i> If construction activities would occur within 500 feet of the occupied burrow during the nesting season (February 1 to August 31st) the Designated Biologist or Biological Monitor shall monitor to determine if these activities have potential to adversely affect nesting efforts, and shall make recommendations to minimize or avoid such disturbance.</li> </ul> <p>4. <b>Acquire Compensatory Burrowing Owl Habitat:</b> Consistent with CDFG mitigation guidance (CBOC, 1993), the Applicant shall acquire, in fee or in easement, at least 45 acres of land suitable to support a resident population of burrowing owls and shall provide funding for the enhancement and long-term management of these compensation lands (based on three owl pairs and four unpaired owls observed during focused surveys and 6.5 acres per pair or individual bird; <u>to be</u> adjusted based on final survey findings). The responsibilities for acquisition and management of the compensation lands may be delegated by written agreement to CDFG or to a third party, such as a non-governmental organization dedicated to habitat conservation, subject to approval by the BLM AO, in consultation with CDFG prior to land acquisition or management activities. Additional funds shall be based on the adjusted market value of compensation lands at the time of construction to acquire and manage habitat.</p>						

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Wildlife (cont.)</b>						
<p>a. <i>Criteria for Burrowing Owl Mitigation Lands:</i> The terms and conditions of this acquisition or easement shall be as described in Mitigation Measure WIL-4 [Desert Tortoise Compensatory Mitigation], with the additional criteria to include: 1) the 45 acres of mitigation land must provide suitable habitat for burrowing owls, and 2) the acquisition lands must either currently support burrowing owls or be no farther than 5 miles from an active burrowing owl nesting territory. The 45 acres of burrowing owl mitigation lands may be included with the desert tortoise mitigation lands ONLY if these two burrowing owl criteria are met. If the 45 acres of burrowing owl mitigation land is separate from the acreage required for desert tortoise compensation lands, the Applicant shall fulfill the requirements described below in this measure.</p> <p>b. <i>Security:</i> If the 19.5 acres of burrowing owl mitigation land is separate from the acreage required for desert tortoise compensation lands, the Applicant or an approved third party shall complete acquisition of the proposed compensation lands within the time period specified for this acquisition (see the verification section at the end of this measure). Alternatively, financial assurance can be provided by the Applicant to the BLM AO and CDFG, according to the measures outlined in Mitigation Measure WIL-4. These funds shall be used solely for implementation of the measures associated with the Project. Financial assurance can be provided to the BLM AO in the form of an irrevocable letter of credit, a pledged savings account, or another form of security (“Security”) prior to initiating ground-disturbing Project activities. Prior to submittal, the Security shall be approved by the BLM AO in consultation with CDFG and the USFWS to ensure funding. The final amount due will be determined by an updated appraisal and PAR analysis conducted as described in Mitigation Measure WIL-4.</p>						
<p><b>WIL-10: Compensatory Mitigation for Mojave Fringe-toed Lizard Habitat Losses.</b> To mitigate for permanent habitat loss and direct impacts to Mojave fringe-toed lizards the Applicant shall provide compensatory mitigation at a 3:1 ratio, which may include compensation lands purchased in fee or in easement in whole or in part, for impacts to stabilized or partially stabilized desert dune habitat (19 acres x 3 = 57.0 acres); or the three times (3X) the acreage of sand dune/partially stabilized sand dune habitat permanently impacted by the final Project footprint, whichever is greater). If compensation lands are acquired, the Applicant shall provide funding for the acquisition in fee title or in easement, initial habitat improvements and long-term maintenance and management of the compensation lands.</p> <p>1. <b>Criteria for Compensation Lands:</b> The compensation lands selected for acquisition shall:</p> <p>a. Be sand dune or partially stabilized sand dune habitat within the McCoy Valley or Chuckwalla Valley with potential to contribute to Mojave fringe-toed lizard habitat connectivity and build linkages between known populations of Mojave fringe-toed lizards and preserve lands with suitable habitat;</p> <p>b. To the extent feasible, be connected to lands currently occupied by Mojave fringe-toed lizard;</p> <p>c. To the extent feasible, be near larger blocks of lands that are either already protected or planned for protection, or which could feasibly be protected long-term by a public resource agency or a non-governmental organization dedicated to habitat preservation;</p> <p>d. Provide quality habitat for Mojave fringe-toed lizard, that has the capacity to regenerate naturally when disturbances are removed;</p> <p>e. Not have a history of intensive recreational use or other disturbance that might make habitat recovery and restoration infeasible;</p> <p>f. Not be characterized by high densities of invasive species, either on or immediately adjacent to the parcels under consideration, that might jeopardize habitat recovery and restoration;</p>	Prior to operation.	BLM, CDFG, USFWS	Ensure compensatory mitigation is acquired.			

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Wildlife (cont.)</b>						
<p>g. Not contain hazardous wastes that cannot be removed to the extent the site is suitable for habitat;</p> <p>h. Not be subject to property constraints (i.e. mineral leases, cultural resources); and</p> <p>i. Be on land for which long-term management is feasible.</p> <p>2. <b>Security for Implementation of Mitigation:</b> The Applicant shall provide financial assurances to the BLM AO to guarantee that an adequate level of funding is available to implement the acquisitions and enhancement of Mojave fringe-toed lizard habitat as described in this measure. These funds shall be used solely for implementation of the measures associated with the Project. Financial assurance can be provided to the BLM AO according to the measures outlined in Mitigation Measure WIL-4. The final amount due will be determined by an updated appraisal and a PAR analysis conducted as described in Mitigation Measure WIL-4.</p> <p>3. <b>Preparation of Management Plan:</b> The Applicant shall submit to the BLM AO, CDFG and USFWS a draft Management Plan that reflects site-specific enhancement measures for the Mojave fringe-toed lizard habitat on the acquired compensation lands. The objective of the Management Plan shall be to enhance the value of the compensation lands for Mojave fringe-toed lizards, and may include enhancement actions such as weed control, fencing to exclude livestock, erosion control, or protection of sand sources or sand transport corridors.</p>						
<b>WIL-11: [Removed from FEIS]</b>						
<p><b>WIL-12. Measures to Minimize Impacts to Golden Eagles.</b> The Applicant shall implement the following measures to avoid or minimize Project-related construction impacts to golden eagles during initial Project construction and again prior to Project decommissioning.</p> <p>1. <b>Annual Inventory During Construction:</b> For each calendar year during which construction will occur an inventory shall be conducted to determine if golden eagle territories occur within one mile of the Project boundaries. Survey methods for the inventory shall be as described in the <i>Interim Golden Eagle Inventory and Monitoring Protocols; and Other Recommendations</i> (Pagel et al., 2010) or more current guidance from the USFWS.</p> <p>2. <b>Inventory Data:</b> Data collected during the inventory shall include at least the following: territory status (unknown, vacant, occupied, breeding successful, breeding unsuccessful); nest location, nest elevation; age class of golden eagles observed; nesting chronology; number of young at each visit; digital photographs; and substrate upon which nest is placed.</p> <p>3. <b>Determination of Unoccupied Territory Status:</b> A nesting territory or inventoried habitat shall be considered unoccupied by golden eagles ONLY after completing at least 2 full surveys in a single breeding season. In circumstances where ground observation occurs rather than aerial surveys, at least 2 ground observation periods lasting at least 4 hours or more are necessary to designate an inventoried habitat or territory as unoccupied as long as all potential nest sites and alternate nests are visible and monitored. These observation periods shall be at least 30 days apart for an inventory, and at least 30 days apart for monitoring of known territories.</p> <p>4. <b>Monitoring and Adaptive Management Plan:</b> If an occupied nest<sup>4</sup> is detected within 1 mile of the Project boundaries, the Applicant shall prepare and implement a Golden Eagle Monitoring and Management Plan for</p>	Prior to construction and decommissioning.	USFWS	Ensure completion of surveys for Golden Eagles pursuant to USFWS survey methods. Ensure collection of data and review and approve a Golden Eagle Monitoring and Management Plan			

<sup>4</sup> An occupied nest is one used for breeding by a pair of golden eagles in the current year. Presence of an adult, eggs, or young, freshly molted feathers or plucked down, or current years' mutes (whitewash) also indicate site occupancy. Additionally, all breeding sites within a breeding territory are deemed occupied while raptors are demonstrating pair bonding activities and developing an affinity to a given area. If this culminates in an individual nest being selected for use by a breeding pair, then the other nests in the nesting territory will no longer be considered occupied for the current breeding season. A nest site is considered occupied throughout the periods of initial courtship and pair-bonding, egg laying, incubation, brooding, fledging, and post-fledging dependency of the young.

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Wildlife (cont.)</b>						
<p>the duration of construction to ensure that Project construction activities do not result in injury or disturbance to golden eagles. The monitoring methods shall be consistent with those described in the <i>Interim Golden Eagle Inventory and Monitoring Protocols; and Other Recommendations</i> (Pagel et al., 2010) or more current guidance from the USFWS. The Monitoring and Management Plan shall be prepared in consultation with the USFWS. Triggers for adaptive management shall include any evidence of Project-related disturbance to nesting golden eagles, including but not limited to: agitation behavior (displacement, avoidance, and defense), increased vigilance behavior at nest sites, changes in foraging and feeding behavior, or nest site abandonment. The Monitoring and Management Plan shall include a description of adaptive management actions, which shall include, but not be limited to, cessation of construction activities that are deemed by the Designated Biologist to be the source of golden eagle disturbance.</p>						
<p><b>WIL-13: Measures to Minimize Wildlife Impacts from Evaporation Ponds.</b> The Applicant shall cover the evaporation ponds prior to any discharge with 1.5-inch mesh netting designed to exclude birds and other wildlife from drinking or landing on the water of the ponds. Netting with mesh sizes other than 1.5 inches may be installed if approved by the BLM AO in consultation with CDFG and USFWS. The netted ponds shall be monitored regularly to verify that the netting remains intact, is fulfilling its function in excluding birds and other wildlife from the ponds, and does not pose an entanglement threat to birds and other wildlife. The ponds shall include a visual deterrent in addition to the netting, and the pond shall be designed such that the netting shall never contact the water. Monitoring of the evaporation ponds shall include the following:</p> <ol style="list-style-type: none"> <li><b>Monthly Monitoring:</b> The Designated Biologist or Biological Monitor shall regularly survey the ponds at least once per month starting with the first month of operation of the evaporation ponds. The purpose of the surveys shall be to determine if the netted ponds are effective in excluding birds, if the nets pose an entrapment hazard to birds and wildlife, and to assess the structural integrity of the nets. The monthly surveys shall be conducted in 1 day for a minimum of 2 hours following sunrise (i.e., dawn), a minimum of 1 hour mid-day (i.e., 11:00 to 13:00), and a minimum of 2 hours preceding sunset (i.e., dusk) in order to provide an accurate assessment of bird and wildlife use of the ponds during all seasons. Surveyors shall be experienced with bird identification and survey techniques. Operations staff at the Project site shall also report finding any dead birds or other wildlife at the evaporation ponds to the Designated Biologist within one day of the detection of the carcass. The Designated Biologists shall report any bird or other wildlife deaths or entanglements within two days of the discovery to the BLM AO, CDFG, and USFWS.</li> <li><b>Dead or Entangled Birds:</b> If dead or entangled birds are detected, the Designated Biologist shall take immediate action to correct the source of mortality or entanglement. The Designated Biologist shall make immediate efforts to contact and consult the CPM, CDFG, and USFWS by phone and electronic communications prior to taking remedial action upon detection of the problem, but the inability to reach these parties shall not delay taking action that would, in the judgment of the Designated Biologist, prevent further mortality of birds or other wildlife at the evaporation ponds.</li> <li><b>Quarterly Monitoring:</b> If after 12 consecutive monthly site visits no bird or wildlife deaths or entanglements are detected at the evaporation ponds by or reported to the Designated Biologist, monitoring can be reduced to quarterly visits.</li> <li><b>Biannual Monitoring:</b> If after 12 consecutive quarterly site visits no bird or wildlife deaths or entanglements are detected by or reported to the Designated Biologist and with approval from the BLM AO, USFWS and CDFG, future surveys may be reduced to two surveys per year, during the spring nesting season and during fall migration. If approved by the BLM AO, USFWS and CDFG, monitoring outside the nesting season may be conducted by the Environmental Compliance Manager.</li> </ol>	Throughout pond operation	BLM, CDFG, USFWS	Retain and schedule Designated Biologist and Biological Monitor  Cover the evaporation ponds prior to any discharge			

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Biological Resources – Wildlife (cont.)</b>						
5. <b>Modification of Monitoring Program:</b> Without respect to the above requirements the Applicant, CDFG or USFWS may submit to the BLM AO a request for modifications to the evaporation pond monitoring program based on information acquired during monitoring, and may also suggest adaptive management measures to remedy any problems that are detected during monitoring or modifications if bird impacts are not observed. Modifications to the evaporation pond monitoring described above and implementation of adaptive management measures shall be made only after approval from the BLM AO, in consultation with USFWS and CDFG.						
<b>WIL-14: [Removed from FEIS]</b>						
<b>WIL-15: In-Lieu Fees to Satisfy Compensation Requirements.</b> The Applicant may choose to satisfy its mitigation obligations by paying an in-lieu fee instead of acquiring compensation lands, pursuant to California Fish and Game Code §§2069 and 2099 or any other applicable in-lieu fee provision, to the extent the in-lieu fee provision is found by the Fish and Game Commission to mitigate the impacts identified herein.	Prior to operation.	CDFG	Ensure payment of in-lieu fees, if required.			
<b>Cultural Resources</b>						
<p><b>CUL-1:</b> The BLM's execution of an MOA for the proposed undertaking in accordance with the requirements of §106 of the NHPA will lead to avoidance, minimization, or mitigation of potential adverse effects to historic properties. The BLM shall prepare the MOA in consultation with the ACHP, SHPO, the Applicant, Riverside County, Indian tribes, and other identified consulting parties. The MOA will be binding on the Applicant and the proposed undertaking. An executed MOA represents the BLM's completion of the NHPA §106 process. The MOA must be executed prior to the ROD.</p> <p>The MOA will contain measures to avoid, minimize, and mitigate adverse effects to historic properties and detail the process for activities to proceed in areas where historic properties are not now known to exist; procedures for treatment of unanticipated effects and post-review discoveries; recognition that BLM will comply with NAGPRA; compliance monitoring; dispute resolution; and tribal participation. Resolution of adverse effects to historic properties will be developed in consultation and may include research and documentation, data recovery excavations, curation, public interpretation, or use or creation of historic contexts.</p> <p>In addition, a HPTP shall be prepared, appended to the MOA, and implemented and shall contain procedures to avoid, minimize, and mitigate effects to historic properties, and could include measures similar to the following:</p> <ol style="list-style-type: none"> <li>On the basis of preliminary CRHR eligibility assessments, NRHP eligibility assessments, or existing NRHP eligibility determinations, the BLM may require the relocation of project components to avoid or reduce damage to cultural resource values. Where operationally feasible, potentially NRHP- or CRHR-eligible resources shall be protected from direct project impacts by project redesign within previously surveyed and analyzed areas.</li> <li>Where CRHR- or NRHP-eligible or -listed historic properties cannot be protected from direct effects by project redesign, the Applicant shall comply with appropriate mitigative treatment(s) that will be detailed in the HPTP.</li> <li>All CRHR-listed or eligible cultural resources and all NRHP-listed, eligible, and unevaluated cultural resources being treated as eligible (as determined by the BLM) that will not be affected by direct impacts, but are within 50 feet of project construction activities, shall be monitored by a qualified archaeologist. Protective fencing or other markers, at the BLM's discretion, shall be erected and maintained to protect these resources from inadvertent trespass for the duration of construction in the vicinity.</li> </ol>	MOA executed prior to ROD.	BLM	<p>Adhere to MOA during all phases of construction</p> <p>Comply with project component relocation requirements</p> <p>Comply with mitigative treatment(s)</p> <p>Retain and schedule archaeological monitor(s) during construction</p> <p>Retain and schedule all required tribal cultural consultants</p> <p>Develop and implement a Long Term Management Plan</p>			

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Cultural Resources</b>						
<p>d. The HPTP shall contain a research design and a scope of work for evaluation of cultural resources and for data recovery or additional treatment of NRHP-listed or -eligible sites that cannot be avoided. Additional treatment for resources could include sample excavation and/or surface artifact collection, site documentation, curation, public interpretation, or use or creation of historic contexts. Additional content of the treatment plan will be dictated by the consultations associated with the development of the MOA.</p> <p>e. Construction work within 100 feet of historic properties that require data-recovery fieldwork shall not begin until authorized by the BLM.</p> <p>f. Archaeological monitoring shall be conducted by qualified archaeologists familiar with the types of historical and prehistoric resources that could be encountered within the project area, and under direct supervision of a principal archaeologist. All supervisory cultural resources personnel will be approved by the BLM through the agency's Cultural Resource Use Permitting process. A tribal cultural consultant may be required at culturally sensitive locations specified by the BLM following government-to-government consultation with Indian tribes. The HPTP shall indicate the locations where tribal cultural consultants may be required. The Applicant shall retain and schedule any required tribal cultural consultants.</p> <p>g. In the event of unanticipated effects or post-review discoveries during construction, operation and maintenance, or decommissioning, procedures outlined in the MOA shall be adhered to. At a minimum, this shall include stop work orders in the vicinity of the find, recordation and evaluation of the find by a qualified archaeologist, notification of the find to BLM, and appropriate treatment measures, possibly including data recovery or avoidance.</p> <p>h. The Applicant shall develop and implement a Long Term Management Plan for post-construction monitoring and condition assessment of sites in the APE which could be subject to impacts from project operation and maintenance activities.</p>						
<b>Geology and Soils Resources</b>						
<p><b>MM GEO-1: Conduct geotechnical studies to assess soil characteristics and aid in appropriate foundation design.</b> The Applicant and/or its contractor shall perform a design-level geotechnical study that includes subsurface exploration and material testing necessary to determine the CBC seismic design category and site soil class for which each of the Project components must be designed. The geotechnical study shall identify the presence, if any, of potentially adverse soil conditions such as liquefiable soils, expansive soils, corrosive soils, and soils that may settle or experience hydrocompaction. Based on the nature, location and severity of adverse soil conditions, the geotechnical study shall recommend appropriate and feasible design features necessary to reduce the potential for liquefiable, expansive, corrosive or collapsible soils to adversely affect MSEF facilities. Such measures might include use of corrosion-resistant materials and coatings; use of non-corrosive, non-expansive backfills; use of cathodic protection systems; soil-treatment processes; redirection of surface water and drainage away from expansive foundation soils; and/or any other combination of soil preparation methods or foundation designs necessary to avoid or reduce the adverse affects of soils on Project structures.</p> <p>Studies shall be carried out by a registered geologist or certified geotechnical engineer, and shall conform to industry standards of care and ASTM standards for field and laboratory testing. For completeness and direct correlation to the Proposed Action, the Applicant shall provide the geotechnical consultant with the most recent copy of the project case exhibit (tract map, parcel map, plot plan, etc.) for incorporation into the report. Furthermore, the consultant shall plot all appropriate geologic and geotechnical data on this case exhibit and include it as an appendix/figure/plate in their report. Study results and proposed solutions shall be provided for review and approval to the BLM at least 60 days before final Project design.</p>	Study results and proposed solutions shall be provided for review and approval to the BLM at least 60 days before final Project design	BLM	Conduct geotechnical studies to assess soil characteristics and aid in appropriate foundation design			

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Greenhouse Gas Emissions and Global Climate Change</b>						
<b>MM GHG-1:</b> All SF <sub>6</sub> -containing circuit breakers that will be installed for each power unit shall be hermetically sealed.	During construction	BLM	Hermetically seal all of the SF <sub>6</sub> -containing circuit breakers that will be installed for each power unit			
<b>MM CLIMATE-1:</b> In order to ensure that on site facilities are protected from increased intensity stormwater flows and flood flows that could occur as a result of climate change, the application of Mitigation Measures WATER-2, WATER-3, and WATER-4 shall account for potential increases in flows associated with the indirect effects of climate change. Specifically, the proposed mitigation measures shall require implemented design features and management practices that account for a climate-related increase in potential maximum flow volumes of at least 20 percent. All flood control and stormwater management facilities shall be designed accordingly.	During construction	BLM	Implement design features and management practices that account for a climate-related increase in potential maximum flow volumes of at least 20 percent			
<b>Hazards and Hazardous Materials</b>						
<b>MM HAZ-1:</b> The Applicant shall prepare and implement a site-specific Hazardous Materials Safety Plan. The plan shall identify the chemicals potentially present in on-site soils, health and safety hazards associated with those chemicals, monitoring to be performed during site activities, soil handling methods required to minimize the potential for harmful exposures, appropriate personal protective equipment, and emergency response procedures. The Plan shall be included in and implemented as part of the Project's larger Safety and Health Program. The plan shall be submitted to the BLM for approval prior to commencement of construction activities and shall be distributed to all construction crew members prior to construction and operation of the Project.	Prior to construction	BLM	Develop and implement a site-specific Hazardous Materials Safety Plan			
<b>MM HAZ-2:</b> Broken PV Module Detection and Handling Plan. If photovoltaic (PV) panels containing cadmium telluride (CdTe) are used on the Project site, the Applicant shall prepare and implement a Broken PV Module Detection and Handling Plan. The plan shall describe the Applicant's plan for identifying and handling photovoltaic (PV) modules that may break, chip, or crack at some point during the Project's life cycle. The plan shall describe and define methods for detecting and handling broken PV modules to ensure the safe handling, storage, transport, and recycling and/or disposal of the modules and related electrical components in a manner that is compliant with applicable law and protective of human health and the environment. The plan shall be submitted to the BLM for approval prior to commencement of construction activities and shall be distributed to all construction crew members and temporary and permanent employees prior to construction and operation of the Project.	Prior to construction	BLM	Develop and implement a Broken PV Module Detection and Handling Plan			
<b>Paleontological Resources</b>						
<b>APM Paleo-1.</b> To address potential paleontological impacts during the pre-construction phase: a. Prior to the start of any Project-related construction (defined as construction-related vegetation clearing, ground disturbance and preparation, and site excavation activities), the project owner shall ensure that a qualified paleontologist is available for field activities and is prepared to implement the conditions of approval. The qualified paleontologist shall be responsible for implementing all the paleontological conditions of approval and for using qualified personnel to assist in this work.	Prior to construction	BLM	Prior to construction a qualified paleontologist shall: <ul style="list-style-type: none"><li>Be responsible for implementing all of the paleontological conditions of approval</li></ul>			

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Paleontological Resources (cont.)</b>						
b. Prior to the start of construction, the qualified paleontologist shall prepare a worker's environmental awareness training program. The paleontological training program shall address the potential to encounter paleontological resources in the field, the sensitivity and importance of these resources, and the legal obligations to preserve and protect such resources. The training program shall also include the set of reporting procedures that workers are to follow if paleontological resources are encountered during Project activities. The training program shall be presented by a qualified paleontologist and may be combined with other training programs prepared for cultural and biological resources, hazardous materials, or any other areas of interest or concern.			<ul style="list-style-type: none"> <li>prepare a worker's environmental awareness training program</li> </ul>			
<p><b>APM Paleo-2.</b> To address potential paleontological impacts during the construction phase:</p> <p>a. The qualified paleontologist or paleontological monitor shall be present at all times he or she deems appropriate to monitor construction-related grading, excavation, trenching, and/or augering in areas with a significant potential for fossil-bearing sediments to occur. All ground-disturbing activities in areas determined to have a high sensitivity shall be monitored on a full-time basis at the start of the Project. All ground disturbances in areas determined to have low to high sensitivity at depths of 1.5 m (5 feet) or greater shall also require monitoring on a full-time basis, initially. If no significant fossils are found, then the frequency of monitoring shall be adjusted at the discretion of the qualified paleontologist after an adequate amount of time is spent observing the geologic deposits in the project area. No monitoring is required in areas determined to have a low sensitivity.</p> <p>b. Paleontological monitoring will include inspection of exposed rock units and collection of matrix to be tested for the presence of microscopic fossils. Paleontological monitors will have authority to temporarily divert excavations or drilling away from exposed fossils in order to efficiently and professionally recover the fossil specimens and collect associated data. Any paleontological fieldwork occurring on lands administered by the BLM would require a Paleontological Resources Use Permit issued by the BLM state office.</p>	During construction	BLM	During construction a qualified paleontologist shall: <ul style="list-style-type: none"> <li>Monitor construction related grading, trenching, and/or augering</li> <li>Inspect exposed rock and collection of a matrix to be tested for the presence of microscopic fossils</li> </ul>			
<p><b>APM Paleo-3.</b> To address potential paleontological impacts during the post- construction phase:</p> <p>The Project owner shall ensure preparation of a paleontological resources monitoring report by the qualified paleontologist. The report shall be completed following the analysis of any recovered fossil materials and related information. The report shall include, but not be limited to, a description and inventory list of recovered fossil materials (if any); a map showing the location of paleontological resources found in the field; determinations of scientific significance; and a statement by the qualified paleontologist that project impacts to paleontological resources have been mitigated.</p>	During post-construction	BLM	During the post-construction phase a qualified paleontologist shall prepare a paleontological resources report.			
<b>Recreation and Public Access</b>						
<b>MM REC-1:</b> The Applicant shall prepare and distribute interpretive materials, including a construction schedule and safety information regarding trucks and other heavy equipment on local roads, to users of the Midland, Mule Mountains, and La Posa LTVAs, Wiley's Well and Coon Hollow Campgrounds, and BLM kiosks announcing the development of the solar facilities at the Project site and the permanent closure of approximately 4,300 acres of public land to recreational use. The Applicant shall prepare a one-page fact sheet about the Project and submit it to the PSSCFO for review. The BLM AO shall approve the draft materials prior to distribution.	Prior to construction	BLM	Prepare and distribute interpretive materials, including a construction schedule and safety information			

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Recreation and Public Access (cont.)</b>						
<b>MM REC-2:</b> No less than 15 days prior to construction, the Applicant shall coordinate construction activities and the Project construction schedule with the AO for the recreation areas impacted. The Applicant shall schedule construction activities to avoid heavy recreational use periods in coordination with and at the discretion of the AO. The Applicant shall locate construction equipment to avoid temporary preclusion of recreation areas in accordance with the recommendation of the AO. The Applicant shall document its coordination efforts with the AO and provide this documentation to the Lead Agencies and affected jurisdictions at least 30 days prior to construction.	Begin coordination no less than 60 days prior to construction and provide documentation of the coordination effort to the Lead Agencies and affected jurisdictions at least 30 days prior to construction.	BLM	Coordinate construction activities and the Project construction schedule with the AO for the recreation areas impacted			
<b>MM REC-3:</b> No less than 60 days prior to construction, the Applicant shall coordinate with the AO administering any NECO Plan-designated open routes to establish temporary closure of the routes to avoid construction area hazards, if the route is deemed unsafe to use during construction. The Applicant shall post a public notice of the temporary route closure and penalties for any off-route OHV activities. The Applicant shall document its coordination efforts with the AO and submit this documentation to the BLM and other agencies affected at least 30 days prior to construction.	Begin coordination no less than 60 days prior to construction and provide documentation of the coordination effort to the Lead Agencies and affected jurisdictions at least 30 days prior to construction.	BLM	Coordinate with the AO administering any NECO Plan-designated open routes to establish temporary closure of the routes to avoid construction area hazards			
<b>MM REC-4:</b> The Applicant shall encourage Project workers to utilize local housing or private RV parks in Blythe and/or nearby communities.	Prior to and during construction	BLM	Encourage Project workers to utilize local housing or private RV parks			
<b>MM REC-5:</b> The BLM may require the Applicant to reestablish north/south OHV connectivity to the west side of the Big Maria Wilderness Area and to the northeast side of the Palen-McCoy Wilderness Area. The Applicant may choose to allow continuous public access along the previously designed open route (Black Rock Road) while providing for separate site security to the solar facilities.		BLM	Reestablish north/south OHV connectivity to the west side of the Big Maria Wilderness Area and to the northeast side of the Palen-McCoy Wilderness Area			

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Special Designations and Lands with Wilderness Characteristics</b>						
<p><b>MM LWC-1: Wilderness Characteristics Mitigation Plan.</b> Prior to issuance of a Notice to Proceed in those areas of in Unit 2 of the MSEP having wilderness characteristics, the Applicant shall prepare a proposal to mitigate for the loss of approximately 1,089 acres of lands with wilderness characteristics that would result from the construction of Unit 2. On-site mitigation is infeasible. Therefore, the mitigation plan shall be focused in the Big Maria Mountains and Palen-McCoy Wilderness Areas, which are the closest designated wilderness areas to the project. Mitigation may be implemented in either of these areas or a combination of them and may include:</p> <ol style="list-style-type: none"> <li>1. Removal and restoration of approximately 15 miles of unauthorized vehicle routes;</li> <li>2. Conversion of approximately 3 miles of vehicle route into a hiking trail;</li> <li>3. Installation of vehicle barriers and signing along publicly accessible portions of the wilderness boundaries; and/or</li> <li>4. Development of a visitor education and information program aimed at reducing illegal vehicle access into the areas.</li> </ol>	Prior to issuance of a Notice to Proceed for Unit 2	BLM	Prepare and implement a proposal to mitigate impacts to LWCs.			
<b>Transportation and Traffic</b>						
<p><b>APM TRANS-1:</b> To minimize the potential for any peak a.m. or p.m. work day delays associated with the Mesa Drive, Black Rock Road, and Hobson Way intersections: The Applicant would reduce the number of vehicles on these approaches by splitting construction crews with staggered start times to reduce peak arrivals by about half; encouraging carpooling by workers; and scheduling Project deliveries and truck trips for off-peak hours in order to avoid interference with the peak on-site worker a.m. and p.m. commute</p>	During construction	BLM	<p>The applicant shall reduce traffic by:</p> <ul style="list-style-type: none"> <li>• Staggering worker start times</li> <li>• Encouraging carpooling</li> <li>• Scheduling deliveries during off peak hours</li> </ul>			
<p><b>MM TRN-1:</b> The Applicant and/or its contractor shall prepare and implement a traffic control plan to reduce construction- and decommissioning-related traffic impacts on the roadways at, and near the work site, as well as to reduce potential traffic safety hazards and ensure adequate access for emergency responders. The Applicant and/or its contractor shall coordinate development and implementation of this plan with the BLM and other jurisdictional agencies (e.g., Riverside County, City of Blythe, and Caltrans), as appropriate. To the extent applicable, the traffic control plan shall conform to Part 6 (Temporary Traffic Control) of the <i>California Manual on Uniform Traffic Control Devices</i> (Caltrans, 2010), and shall include, but not be limited to, the following elements:</p> <ol style="list-style-type: none"> <li>1. Implementing circulation and detour plans to minimize impacts on local road circulation during temporary lane closures. Flaggers and/or signage shall be used to guide vehicles through and/or around the work zone.</li> <li>2. Identifying truck routes designated by Riverside County and local jurisdictions. Haul routes that minimize truck traffic on local roadways shall be utilized to the extent possible.</li> <li>3. Providing sufficient-sized staging areas for trucks accessing work zones to minimize disruption of access to adjacent public right-of-ways.</li> <li>4. Controlling and monitoring worker vehicle movement through the enforcement of standard construction specifications by on-site inspectors.</li> </ol>	Prior to construction	BLM and other jurisdictional agencies	Develop and implement a Traffic Control Plan			

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Transportation and Traffic (cont.)</b>						
<p>5. Scheduling truck trips outside the peak morning and evening commute hours to the extent possible.</p> <p>6. Limiting the duration of lane closures to the extent possible.</p> <p>7. Storing all equipment and materials in designated contractor staging areas on or adjacent to the worksite, such that traffic obstruction is minimized.</p> <p>8. Implementing roadside safety protocols. Advance "Road Work Ahead" warning and speed control signs (including those informing drivers of state-legislated double fines for speed infractions in a work zone) shall be posted to reduce speeds and provide safe traffic flow through the work zone.</p> <p>9. Providing advance notification to administrators of police and fire stations (including fire protection agencies), ambulance service providers, and recreational facility managers of the timing, location, and duration of construction and decommissioning activities and the locations of detours and lane closures, where applicable. Maintain access for emergency vehicles within, and/or adjacent to, roadways affected by construction and decommissioning activities at all times.</p> <p>10. Repairing and restoring adversely affected roadway pavements to their pre-construction condition.</p>						
<p><b>MM TRN-2:</b> Prior to construction, the Applicant shall develop a Coordinated Transportation Management Plan and work with the BLM and Riverside County to prepare and implement a transportation management plan for roadways adjacent to and directly affected by the planned Project facilities, and to address the transportation impact of the multiple overlapping construction projects within the vicinity of the Project in the region. The transportation management plan shall include, but not be limited to, the following requirements:</p> <p>1. Coordination of individual traffic control plans for Project and nearby projects.</p> <p>2. Coordination between the contractor and Riverside County in developing circulation and detour plans that include safety features (e.g., signage and flaggers). The circulation and detour plans shall address:</p> <ul style="list-style-type: none"> <li>a. Full and partial roadways closures;</li> <li>b. Circulation and detour plans to include the use of signage and flagging to guide vehicles through and/or around the construction zone, as well as any temporary traffic control devices;</li> <li>c. Bicycle detour plans, where applicable;</li> <li>d. Parking along arterial and local roadways; and</li> <li>e. Haul routes for construction trucks and staging areas for instances when multiple trucks arrive at the work sites.</li> </ul> <p>3. Protocols for updating the transportation management plan to account for delays or changes in the schedules of individual projects.</p>	Prior to construction	BLM and Riverside County	Develop and implement a Coordinated Transportation Management Plan			
<b>Utilities</b>						
<p><b>MM UTILITIES-1:</b> In order to ensure that the selected reverse osmosis brine disposal method would not conflict with Colorado River RWQCB requirements or policies, the Applicant shall not use brine as a land-applied dust suppressant or apply brine to the ground for any other purpose.</p>	During construction	BLM	Refrain from using brine as a land-applied dust suppressant or apply brine to the ground for any other purpose.			

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Visual Resources</b>						
<p><b>MM VIS-1: Project Design, Building and Structural Materials.</b> Visual design elements shall be integrated into the construction plans, details, shop drawings and specifications; these shall include, but not be limited to, grubbing and clearing, vegetation thinning and clearing, grading, revegetation, drainage, and structural plans. Visual design elements within the plans shall be measureable and monitored while under construction, while operational, and when decommissioned. The plans shall include a monitoring and compliance plan that establishes the monitoring requirements and thresholds for acceptable performance. A careful study of the site shall be performed to identify appropriate colors and textures for materials; both summer and winter appearance shall be considered as well as seasons of peak visitor use (September 15 to April 15). Visual design elements to be integrated into construction plans, details, shop drawings and specifications must at a minimum include:</p> <ol style="list-style-type: none"> <li>1. Vegetation and ground disturbance associated with access road construction, gen-tie and distribution line installations, and the perimeter access road shall be minimized and take advantage of existing clearings wherever feasible.</li> <li>2. Along all off-site access roads, all off-site gen-tie and distribution line corridors, and all internal access roads 16 feet or wider, graveled surfaces, areas to be permanently cleared of vegetation, and (if applicable) cut slopes shall be treated with rock stains or other color treatment appropriate with the surrounding landscape.</li> <li>3. Openings in vegetation for facilities, structures, roads, and gen-tie line monopoles (and/or H-frames), shall be feathered and shaped to repeat the size, shape, and characteristics of naturally occurring openings.</li> <li>4. The backs or non-energy gathering side of the solar panels shall be color-treated to reduce visual contrast with the landscape setting. Since not all of the panels are visible outside the project footprint, the exact number and location of panels that will require color treatment shall be determined prior to installation.</li> <li>5. Security fencing shall be coated with black poly-vinyl or other visual contrast reducing color.</li> <li>6. Materials, coatings, or paints having little or no reflectivity shall be used whenever possible.</li> <li>7. Grouped structures, including the water tanks and prefabricated buildings, shall be painted the same color to reduce visual complexity and color contrast.</li> <li>8. The gen-tie line and the distribution line shall utilize nonspecular conductors and nonreflective coatings on insulators.</li> <li>9. The choice of color treatments shall be based on the appearance at typical viewing distances and consider the entire landscape around the proposed development as it would be viewed from publically accessible locations. Appropriate colors for smooth surfaces often need to be two to three shades darker than the background color to compensate for shadows that darken most textured natural surfaces. Choice of colors shall be made from the BLM Standard Environmental Color Chart CC-001 in consultation with a BLM landscape architect or other designated visual resource specialist.</li> <li>10. A lighting plan shall be prepared that documents how lighting will be designed and installed to minimize night-sky impacts during facility construction and operations. Lighting for facilities should not exceed the minimum number of lights and brightness required for safety and security, and should not cause excessive reflected glare. Low-pressure sodium light sources should be used to reduce light pollution. Full cut-off luminaires should be used to minimize uplighting. Lights should be directed downward or toward the area to be illuminated. Light fixtures should not spill light beyond the project boundary. Lights in highly illuminated areas that are not occupied on a continuous basis should have switches, timer switches, or motion detectors so that the lights operate only when the area is occupied. Where feasible, vehicle mounted lights should be used for night maintenance activities. Wherever feasible, consistent with safety and security, lighting should be kept off when not in use. The lighting plan should include a process for promptly addressing and mitigating complaints about potential lighting impacts.</li> </ol>	Prior to construction	BLM	<ul style="list-style-type: none"> <li>• Integrate visual design elements into the construction plans, details, shop drawings and specifications</li> <li>• Develop and implement a monitoring and compliance plan for integrating the visual design elements</li> </ul>			

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Visual Resources (cont.)</b>						
<p><b>MM VIS-2: Construction Phase Visual Mitigation.</b> A pre-construction meeting with BLM landscape architects or other designated visual/scenic resource specialists shall be held before construction begins to coordinate on the VRM mitigation strategy and confirm the compliance-checking schedule and procedures. Final design and construction documents will be reviewed for completeness with regard to the visual mitigation elements, assuring that requirements and commitments are adequately addressed. The construction documents shall include, but not be limited to grading, drainage, revegetation, vegetation clearing, and feathering plans, and must demonstrate how VRM objectives will be met, monitored, and measured for conformance. Specific measures shall include the following:</p> <ol style="list-style-type: none"> <li>1. The Applicant shall reduce visual impacts during construction by clearly delineating construction boundaries and minimizing areas of surface disturbance; preserving existing, native vegetation to the extent feasible; utilizing undulating surface-disturbance edges; stripping, salvaging, and replacing topsoil; using contoured grading; controlling erosion; using dust suppression techniques; and restoring exposed soils to their original contour and vegetation.</li> <li>2. Visual impact mitigation objectives and activities shall be discussed with equipment operators before construction activities begin.</li> <li>3. Existing rocks, vegetation, and drainage patterns shall be preserved to the extent feasible.</li> <li>4. Brush-beating or mowing or using protective surface matting rather than removing vegetation shall be employed where feasible.</li> <li>5. Slash from vegetation removal shall be mulched and spread to cover fresh soil disturbances as part of the revegetation plan. Slash piles shall not be left in sensitive viewing areas.</li> <li>6. The visual color contrast of graveled surfaces shall be reduced with approved color treatment practices.</li> <li>7. No paint or permanent discoloring agents shall be applied to rocks or vegetation to indicate surveyor construction activity limits.</li> <li>8. All stakes and flagging shall be removed from the construction area and disposed of in an approved facility.</li> </ol>	Prior to construction	BLM	<ul style="list-style-type: none"> <li>• Develop a VRM mitigation strategy</li> <li>• Include grading, drainage, revegetation, vegetation clearing, and feathering plans in the construction documents</li> <li>• demonstrate how VRM objectives will be met, monitored, and measured for conformance in the construction documents</li> </ul>			
<p><b>MM VIS-3: Operation and Maintenance Phase Visual Mitigation.</b> Terms and conditions for VRM mitigation compliance should be maintained and monitored for compliance with visual objectives, adaptive management adjustments, and modifications as necessary and approved by the BLM landscape architect or other designated visual/scenic resource specialist. Minimum measures are as follows:</p> <ol style="list-style-type: none"> <li>1. The Applicant shall maintain revegetated surfaces until a self sustaining stand of vegetation is re-established and visually adapted to the undisturbed surrounding vegetation. No new disturbance shall be created during operations without completion of a VRM analysis and approval by the AO.</li> <li>2. Interim restoration shall be undertaken during the operating life of the Project as soon as possible after disturbances.</li> <li>3. Painted facilities shall be kept in good repair and repainted when color fades or flakes.</li> <li>4. Color-treated solar panel backs/supports shall be kept in good repair, and retreated when color fades and/or flakes.</li> </ol>	During operation	BLM	Maintain and monitor compliance with the visual objectives, adaptive management adjustments, and modifications approved by the BLM landscape architect or other designated visual/scenic resource specialist			

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Visual Resources (cont.)</b>						
<p><b>MM VIS-4: Decommissioning and Site Reclamation Plan.</b> A Decommissioning and Site Reclamation Plan, covering visual impact mitigation measures, shall be in place prior to construction, and reclamation activities should be undertaken as soon as possible after disturbances occur and be maintained throughout the life of the Project. The following decommissioning/reclamation activities/practices shall be implemented to partially mitigate visual impacts associated with solar energy development, where feasible:</p> <ol style="list-style-type: none"> <li>1. Pre-development visual conditions, and the B-Quality scenery (north of I-10), and the C-Quality scenery (south of I-10), and integrity shall be reviewed, and the visual elements of form, line, color, and texture shall be restored to pre-development visual compatibility or to that of the surrounding landscape setting conditions, whichever achieves the better visual quality and most ecologically sound outcome.</li> <li>2. A Decommissioning and Site Reclamation Plan shall be developed, approved by the BLM, and implemented. The plan shall require that all aboveground and near-ground structures be removed. Some structures shall be removed only to a level below the ground surface that will allow reclamation/restoration. Topsoil from all decommissioning activities shall be salvaged and reapplied during final reclamation. The plan shall include provisions for monitoring and determining compliance with the Project's visual mitigation and reclamation objectives.</li> <li>3. Soil borrow areas, cut-and-fill slopes, berms, water bars, and other disturbed areas shall be contoured to approximate naturally occurring slopes, thereby avoiding form and line contrasts with the existing landscapes. The Applicant shall contour to a rough texture (i.e., use large rocks/boulders, grade uneven surfaces, and/or vegetation mulches/debris) in order to trap seed and to discourage off-road travel, thereby reducing associated visual impacts.</li> <li>4. A combination of seeding, planting of nursery stock, transplanting of local vegetation within the proposed disturbance areas, and staging of decommissioning activities enabling direct transplanting shall be considered. Where feasible, native vegetation shall be used for revegetating to establish a composition consistent with the form, line, color, and texture of the surrounding undisturbed landscape.</li> <li>5. Stockpiled topsoil shall be reapplied to disturbed areas, and the areas shall be revegetated by using a mix of native species selected for visual compatibility with existing vegetation, where applicable, or by using a mix of native and non-native species if necessary to ensure successful revegetation. Gravel and other surface treatments shall be removed or buried.</li> <li>6. Rocks, brush, and vegetal debris shall be restored whenever possible to approximate pre-existing visual conditions.</li> <li>7. Edges of revegetated areas shall be feathered to reduce form and line contrasts with the existing landscapes.</li> <li>8. A decommissioning VRM Monitoring and Compliance Plan shall be prepared by the Applicant and approved by the BLM that establishes the schedule and terms for monitoring and the conditions and methods of measurement for determining compliance.</li> </ol>	Prior to construction	BLM	Implement Decommissioning and Site Reclamation Plan			
<b>Water Resources</b>						
<p><b>APM HYDRO-1: To address impacts to state jurisdictional washes:</b></p> <ol style="list-style-type: none"> <li>a. The Project will be designed to ensure that post-development downstream hydrology will remain essentially the current downstream hydrology.</li> <li>b. The final locations of poles and spur roads associated with the linear facilities will be designed to be flexible so that drainages that cross the linear corridor will be avoided to the extent feasible.</li> </ol>	Prior to construction	BLM	Address impacts to jurisdictional washes			

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Water Resources (cont.)</b>						
c. The Applicant proposes the following mitigation ratios to be used for the state jurisdictional waters that will be impacted by the Project:						
<b>SOLAR PLANT SITE</b>						
Vegetation Community/Land Cover	Permanent Impacts (acres)		Proposed Mitigation Ratio	Mitigation Acres		
	Unit 1	Unit 2		Unit 1	Unit 2	Total
<b>Ephemeral "Riparian" Drainages</b>						
Desert Dry Wash Woodland	0	1.5	3:1	0	4.5	4.5
(Blue Palo Verde-Ironwood Woodland Alliance)						
Mesquite Bosque	0	0	3:1	0	0	0
Vegetated Ephemeral Channels	2.8	38.1	1.5:1	4.2	57.2	61.4
(Wash-dependent Vegetation with Sparsely Scattered Trees)						
Vegetated Ephemeral Channels (Vegetated with No Trees)	47.3	50.4	1:1	47.3	50.4	97.7
Unvegetated (approximately less than or equal to 5% cover)	10.2	15.1	1:1	10.2	15.1	25.3
<i>Subtotal Ephemeral "Riparian" Drainages</i>	<b>60.3</b>	<b>105.1</b>	-	<b>61.7</b>	<b>127.2</b>	<b>188.9</b>
<b>Upland Vegetation</b>						
Sonoran Creosote Bush Scrub	2198.7	2072.9	1:1	2198.7	2072.9	4271.6
Stabilized and Partially Stabilized Desert Dunes (Sand Sheets and Dunes: Creosote Bush-White Burr Sage-Galleta Grass)	0	0	3:1	0	0	0
<i>Subtotal Upland Vegetation</i>	<b>2198.7</b>	<b>2072.9</b>		<b>2198.7</b>	<b>2072.9</b>	<b>4271.6</b>
<b>Other Cover Types</b>						
Agricultural Land (Crops, Ruderal Vegetation, or Bare Ground)	0	0	0	0	0	0
Developed (No Vegetation)	0	0	0	0	0	0
<i>Subtotal Other Cover Types</i>	<b>0</b>	<b>0</b>	-	<b>0</b>	<b>0</b>	<b>0</b>
<b>Subtotals for Solar Plant Site</b>	<b>2,259</b>	<b>2,178</b>	-	<b>2260.4</b>	<b>2200.1</b>	<b>4460.5</b>
	<b>4,437</b>					

Mitigation Measure							Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
										Initials	Date	Remarks
<b>Water Resources (cont.)</b>												
<b>LINEAR FACILITIES</b>												
Vegetation Community/Land Cover	Gen-tie and Access Rd Impacts <sup>1</sup> (acres)		Distribution Line Impacts (acres)		Proposed Mitigation Ratio	Mitigation Acres						
	Temporary	Permanent	Temporary	Permanent								
<b>Ephemeral "Riparian" Drainages</b>												
Desert Dry Wash Woodland (Blue Palo Verde-Ironwood Woodland Alliance)	0.5	0.7	0.1	0.8	3:1	6.3						
Mesquite Bosque	0.2	0.2	0	0	3:1	1.2						
Vegetated Ephemeral Channels (Wash-dependent Vegetation with Sparsely Scattered Trees)	0.0	0.0	0	0	1.5:1	0						
Vegetated Ephemeral Channels (Vegetated with No Trees)	0.1	0.1	0	0	1:1	0.2						
Unvegetated (approximately less than or equal to 5% cover)	0.2	0.1	0	0	1:1	0.3						
<b>Upland Vegetation</b>												
Sonoran Creosote Bush Scrub	9.8	15.0	1.5	2.6	1:1	28.9						
Stabilized and Partially Stabilized Desert Dunes (Sand Sheets and Dunes: Creosote Bush-White Burr Sage-Galleta Grass)	19.0	19.0	0	0	3:1	114						
<b>Other Cover Types</b>												
Agricultural Land (Crops, Ruderal Vegetation, or Bare Ground)	0	0	0.3	2	0	0						
Developed (No Vegetation)	14.5	21.8	0	0	0	0						
<b>Subtotal for Linear Facilities</b>	<b>44.3</b>	<b>56.9</b>	<b>1.9</b>	<b>5.4</b>	<b>-</b>	<b>150.9</b>						
<b>Grand Total (Solar Plant Site and Linear Facilities)</b>	<b>4545.5</b>				<b>-</b>	<b>4611.4</b>						
<b>Grand Total without Developed Area<sup>2</sup></b>	<b>4509.2</b>				<b>-</b>	<b>4575.1</b>						
<sup>1</sup> Includes impacts associated with poles, spur roads, gen-tie maintenance road, pull sites, laydown yard, and the main access road. <sup>2</sup> The developed area refers to a portion of the main access road.												

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Water Resources (cont.)</b>						
<p><b>MM WATER-1: Implementation of a SWPPP.</b> To ensure that stormwater quality is protected during the construction and decommissioning period for the MSEP, as well as any maintenance done during the operational period, the Applicant shall comply with the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance (Order No. 2009-0009-DWQ) (Construction General Permit). Compliance with the Construction General Permit will ensure that the proposed construction activities would include BMPs to manage stormwater and control sediment and other pollutants from leaving the Project construction site. Compliance with the Construction General Permit will require completion and implementation of a Stormwater Pollution Prevention Plan (SWPPP) for the MSEP site that shall be in effect during all construction, maintenance, and decommissioning activities for the solar field, the gen-tie line, and all associated facilities. The SWPPP shall identify pollutant sources that may affect the quality of stormwater discharge and shall require the implementation of BMPs to reduce pollutants in storm water discharges.</p> <p>BMPs may include, but would not be limited to:</p> <ol style="list-style-type: none"> <li>1. If grading occurs during the rainy season (Oct. 15 to Apr. 15), storm runoff from the construction area shall be regulated through a storm water management/erosion control plan that shall include temporary on-site silt traps and/or basins with multiple discharge points to natural drainages and energy dissipaters. Stockpiles of loose material shall be covered and runoff diverted away from exposed soil material. If work stops due to rain, a positive grading away from slopes shall be provided to carry the surface runoff to areas where flow would be controlled, such as the temporary silt basins. Sediment basins/traps shall be located and operated to minimize the amount of off-site sediment transport. Any trapped sediment shall be removed from the basin or trap and placed at a suitable location on-site, away from concentrated flows, or removed to an approved disposal site.</li> <li>2. To minimize discharge of sediment during storm events, temporary erosion control measures (such as fiber rolls, staked straw bales, detention basins, check dams, geofabric, sandbag dikes, check dams, erosion control blankets, matting, and other fabrics or other ground cover as available) shall be implemented and remain in place until surface sediments can be stabilized.</li> <li>3. Sediment shall be retained on-site by a system of sediment basins, traps, or other appropriate measures.</li> <li>4. No disturbed surfaces may be left without erosion control measures in place during the rainy season.</li> <li>5. Erosion protection shall be provided on all cut-and-fill slopes, as relevant to the MSEP, and shall be initiated as soon as possible after completion of grading and prior to the onset of the rainy season.</li> <li>6. BMPs selected and implemented for the Project shall be in place and operational prior to the onset of construction on the site. The construction and decommissioning phase facilities shall be maintained regularly and cleared of accumulated sediment as necessary. Effective mechanical and structural BMPs that could be implemented at the Project site include the following:               <ol style="list-style-type: none"> <li>a. Mechanical storm water filtration measures, including oil and sediment separators or absorbent filter systems such as the Stormceptor® system, shall be installed within the storm drainage system to provide filtration of storm water prior to discharge.</li> <li>b. Roof drains shall discharge to natural surfaces or swales where possible to avoid excessive concentration and channelizing storm water.</li> <li>c. Permanent energy dissipaters shall be included for drainage outlets.</li> <li>d. The water quality detention basins shall be designed to provide effective water quality control measures including the following:</li> </ol> </li> </ol>	During Construction	BLM	Implement a SWPPP			

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Water Resources (cont.)</b>						
<ul style="list-style-type: none"> <li>i. Maximize detention time for settling of fine particles;</li> <li>ii. Establish maintenance schedules for periodic removal of sedimentation, excessive vegetation, and debris that may clog basin inlets and outlets;</li> <li>iii. Maximize the detention basin elevation to allow the highest amount of infiltration and settling prior to discharge.</li> </ul> <p>7. Hazardous materials such as fuels and solvents used on the construction sites shall be stored in covered containers and protected from rainfall, runoff, vandalism, and accidental release to the environment. All stored fuels and solvents shall be contained in an area of impervious surface with containment capacity equal to or greater than the volume of materials stored. A stockpile of spill cleanup materials shall be readily available at all construction sites. Employees shall be trained in spill prevention and cleanup, and individuals shall be designated as responsible for prevention and cleanup activities.</p> <p>8. Equipment shall be properly maintained in designated areas with runoff and erosion control measures to minimize accidental release of pollutants.</p> <p>9. Impervious surface areas shall be graded or constructed to drain to a filtration BMP or equally effective alternative.</p>						
<p><b>MM WATER-2:</b> The proposed evaporation ponds shall be sized to accommodate operational discharges plus a 25-year storm event, with no less than 1 foot of freeboard.</p>	During construction	BLM	Evaporation ponds must be able to accommodate operational discharge plus a 25-year storm event			
<p><b>MM WATER-3: Comprehensive Drainage, Stormwater, and Sedimentation Control Plan (Plan).</b> The Applicant shall ensure that the Plan is completed prior to the initiation of construction (or decommissioning as relevant), and ensure that recommendations of that plan are implemented.</p> <p>The Applicant shall ensure that additional stormwater retention measures and facilities, including but not limited to retention basins and other facilities or features designed to retain stormwater on site, shall be implemented within the MSEP site. Stormwater retention facilities shall be designed to accommodate increases in flows that would be generated as a result of MSEP implementation, in comparison to existing conditions, as identified in Table 4.20-2 and 4.20-3, such that MSEP implementation would not result in a net increase in discharge from the site under either a 10-year or 100-year storm event.</p> <p>At the installation sites for new buildings, roads, the switchyard, transformers, solar panels, the gen-tie line, transmission towers, and other facilities that would be installed in association with the MSEP, designs for these facilities shall be reviewed and approved by the BLM with respect to potential generation of altered stormwater flows, erosion, and sedimentation. The use of flow-obstructing fencing shall be avoided; instead, fencing that allows for the passage of water while minimizing buildup of debris shall be utilized on site. To ensure implementation of Applicant Proposed Measure BIO-1b and Mitigation Measure WIL-1, the Applicant shall coordinate with the BLM, CDFG, and USFWS to determine appropriate fencing design. All proposed grading and impervious surfaces on site shall be reviewed and approved by the BLM, with respect to its potential to cause or result in additional erosion and sedimentation, increased stormwater flows, or altered drainage patterns that could lead to unintentional ponding or flooding on site or downstream, and/or additional erosion and sedimentation. Stormwater flows emanating from</p>	Prior to construction	BLM, CDFG, and USFWS	Develop and implement a Comprehensive Drainage, Stormwater, and Sedimentation Control Plan			

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Water Resources (cont.)</b>						
proposed impervious surfaces shall be retained on site and/or directed into channels and other stormwater infrastructure, and shall be sized such that unintentional ponding, flooding, erosion, or sedimentation would not occur on site or downstream.						
<b>MM WATER-4:</b> In order to ensure that proposed on site buildings, and staff therein are protected from flooding, all on site buildings and fill areas shall be placed outside of frequent flood flow areas. Additionally, proposed on-site buildings, maintenance areas, designated parking lots, and associated facilities shall be constructed at a finished floor elevation of at least 2 feet above the highest anticipated flood flows during a 100-year event. The proposed evaporation pond shall include berms of levees that reach at least 2 feet above the highest anticipated flood flows during a 100-year storm event, or at least 2 feet above the highest adjacent ground, whichever is greater, in order to protect the evaporation pond from incident flooding events and ensure that the ponds are not inundated by flood flows. Slope protection shall be provided for all fill areas exposed to erosive flows. In specific areas where frequent flows are anticipated, posts for solar panels shall be constructed on a deepened footing, as recommended by the geotechnical engineer, in order to withstand anticipated scouring.	Prior to construction	BLM	<ul style="list-style-type: none"> <li>Plan construction of all buildings and fill areas outside of frequent flood flow areas</li> <li>Plan development of all other staff-use areas at a finished floor elevation of at least 2 feet above the highest anticipated flood flows during a 100-year event</li> </ul>			
<b>MM WATER-5: Flood Safety Plan.</b> Prior to initiation of MSEP operation, the Applicant shall complete a Flood Safety Plan for the site. The Flood Safety Plan shall delineate specific actions to be completed during a flood event, in order to protect workers and facilities as relevant. The Plan shall identify refuge areas that would not be susceptible to 100-year flooding, and provide requirements and guidance with respect to avoiding injury, death, or equipment damage during a flood event. The Plan shall be adhered to and updated, as needed, during the entire operation period of the MSEP.	Prior to operation	BLM	Complete a Flood Safety Plan for the site			
<b>MM WATER -6: Construction period flood protection.</b> The Applicant shall ensure that during construction, temporary construction related structures such as bridges, roads, berms, and other facilities, would be constructed so as to avoid interference with 100-year flood flows. Temporary installation of the following types of facilities shall be avoided: temporary elevated earthen structures such as roads and berms; earthen bridges or other structures within a waterway or flood conveyance that could interfere with flood flows; dams; unnecessary ditches; other major structures that could concentrate flood flows. Additionally, to the extent practicable, the Applicant shall ensure that the construction process proceeds in a manner so as to minimize exposure of facilities to construction period flooding. Temporary ditches and trenches (such as for pipes, wires, or other infrastructure) should be completed and backfilled as quickly as possible, and should not be left open for extended periods. Drainage infrastructure should be installed prior to installation of the solar arrays and other facilities on site. Other facilities that may be susceptible to flood damage during construction should be managed so as to minimize construction time of those facilities.	Prior to construction	BLM	Ensure that temporary construction structures such as bridges, roads, berms, and other facilities, would be constructed so as to avoid interference with 100-year flood flows.			
<b>MM WATER-7: Groundwater Monitoring and Mitigation Plan.</b> A Groundwater Monitoring and Mitigation Plan shall be prepared prior to construction. The Groundwater Monitoring and Mitigation Plan shall be prepared by a qualified hydrogeologist registered in the State of California and submitted by the Applicant to the BLM for approval, and to the RWQCB for review and comment. This Plan shall provide detailed methodology for monitoring background and site groundwater levels, water quality, and flow. Monitoring shall be performed during pre-construction, construction, and operation of the Project, with the intent to establish pre-construction and Project-	Prior to construction	BLM	Prepare and implement a Groundwater Monitoring and Mitigation Plan; submit quarterly and annual data reports to BLM.			

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Water Resources (cont.)</b>						
<p>related groundwater level and water quality trends that can be quantitatively compared against observed and simulated trends near the Project pumping wells and near potentially affected existing private wells, if any. Water quality monitoring shall include annual sampling and testing for constituents as required by the California Department of Health for the proposed on-site potable use.</p> <p>The Groundwater Monitoring and Mitigation Plan shall include a schedule for submittal of quarterly data reports by the Applicant to the BLM, for the duration of the monitoring period. These quarterly data reports shall be prepared and submitted to the BLM for review and approval, and shall include water level monitoring data (trend analyses) from all pumping and monitoring wells. Based on the results of the quarterly reports, the Applicant and the BLM shall determine if the Project's pumping activities have resulted in water level decline in the baseline at any of the monitoring wells, including nearby private wells, if any. If significant drawdown occurs at off-site wells, the Applicant shall immediately reduce groundwater pumping until water levels stabilize or recover, to a reasonable level.</p> <p>The Groundwater Monitoring and Mitigation Plan shall also include a schedule for submittal of annual data reports by the Applicant to the BLM, for the first 5 years of the project (including the construction period). These annual data reports shall be prepared and submitted to the BLM for review and approval, and shall include at a minimum the following information:</p> <ul style="list-style-type: none"> <li>• Daily usage, monthly range, and monthly average of daily water usage in gallons per day;</li> <li>• Total water used on a monthly and annual basis in acre-feet; summary of all water level data and water quality data;</li> <li>• Identification of trends that indicate potential for off-site wells to experience decline of water level; and</li> <li>• Identification of all sources of water by type (i.e., groundwater, surface water, municipal water) and well/location used on BLM Land.</li> </ul> <p>The BLM shall determine whether groundwater wells surrounding the Project site and Project supply well(s) are influenced by Project activities in a way that requires additional mitigation and, if so, shall determine what measures are needed. After the first 5 years of the Project, the Applicant and the BLM shall jointly evaluate the effectiveness of the Groundwater Monitoring and Mitigation Plan and determine if monitoring frequencies or procedures should be revised or eliminated.</p>						
<b>Wildland Fire Ecology</b>						
<p><b>MM FIRE-1:</b> The Applicant shall prepare and implement a Fire Safety Plan to ensure the safety of workers and the public during Project construction, operation and maintenance, and decommissioning activities. This plan shall complement or supplement provisions of the Applicant's proposed Emergency Action Plan. The Fire Safety Plan shall be provided to the BLM and RCFD for approval before the Applicant receives a Notice to Proceed (NTP). The Fire Safety Plan shall include, but not be limited to, the following elements:</p> <ol style="list-style-type: none"> <li>1. All internal combustion engines used at the Project site shall be equipped with spark arrestors. Spark arrestors shall be in good working order.</li> <li>2. Once initial two-track roads have been cut and initial fencing completed, light trucks and cars shall be used only on roads where the roadway is cleared of vegetation. Mufflers on all cars and light trucks shall be maintained in good working order.</li> <li>3. Fire rules shall be posted on the project bulletin board at the contractor's field office and areas visible to employees.</li> </ol>	Prior to Construction	BLM and RCFD	Develop and implement fire safety plan			

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Wildland Fire Ecology (cont.)</b>						
4. Equipment parking areas and small stationary engine sites shall be cleared of all extraneous flammable materials.						
5. The Applicant shall make an effort to restrict use of chainsaws, chippers, vegetation masticators, grinders, drill rigs, tractors, torches, and explosives to outside of the official fire season. When the above tools are used, water tanks equipped with hoses, fire rakes, and axes shall easily accessible to personnel.						
6. Smoking shall be prohibited in wildland areas and within 50 feet of combustible materials storage, and shall be limited to paved areas or areas cleared of all vegetation.						
7. Each Project construction site (if construction occurs simultaneously at various locations) and the proposed solar plant site shall be equipped with fire extinguishers and fire-fighting equipment sufficient to extinguish small fires.						
8. The Applicant shall coordinate with the RCFD to create a training component for emergency first responders to prepare for specialized emergency incidents that may occur at the Project site.						
9. All construction workers, plant personnel, and maintenance workers visiting the plant and/or transmission lines to perform maintenance activities shall receive training on the proper use of fire-fighting equipment and procedures to be followed in the event of a fire. Training records shall be maintained and be available for review by the RCFD.						
10. Vegetation near all solar panel arrays, ancillary equipment, and access roads shall be controlled through periodic cutting and spraying of weeds, in accordance with the Vegetation Management Plan.						
11. The BLM and RCFD shall be consulted during plan preparation and fire safety measures recommended by the agencies included.						
12. The plan shall list fire prevention procedures and specific emergency response and evacuation measures that would be required to be followed during emergency situations.						
13. All on-site employees shall participate in annual fire prevention and response training exercises with the RCFD						
14. The Applicant shall designate an emergency services coordinator from among the full-time on-site employees who shall perform routine patrols of the site during the fire season equipped with a portable fire extinguisher and communications equipment. The Applicant shall notify the BLM and County of the name and contact information of the current emergency services coordinator in the event of any change.						
15. Remote monitoring of all major electrical equipment (transformers and inverters) will screen for unusual operating conditions. Higher than nominal temperatures, for example, can be compared with other operational factors to indicate the potential for overheating which under certain conditions could precipitate a fire. Units could then be shut down or generation curtailed remotely until corrective actions are taken.						
16. Fires ignited onsite shall be immediately reported to BLM FIRE and the RCFD.						
17. The engineering, procurement, and construction contract(s) for the proposed project shall clearly state the requirements of this mitigation measure.						

Mitigation Measure	Timing for Implementation	Monitoring Agency(s)	Compliance Action	Verification of Compliance		
				Initials	Date	Remarks
<b>Unexploded Ordnance</b>						
<p><b>MM UXO-1:</b> The Applicant shall prepare and implement a UXO Identification, Training, and Reporting Plan to properly train all site workers in the recognition, avoidance, and reporting of military waste debris and ordnance. The Applicant shall submit the plan to the BLM for review and approval prior to the start of construction. The plan shall contain, at a minimum, the following:</p> <ol style="list-style-type: none"> <li>1. A description of the training program outline and materials, and the qualifications of the trainers;</li> <li>2. Identification of available trained experts that will respond to notification of discovery of any suspected ordnance (unexploded or not);</li> <li>3. Procedures to stop work immediately in the vicinity of suspected UXO and to notify the local CUPA and the U.S. Army Corps of Engineers;</li> <li>4. A work plan to recover and remove discovered ordnance, and complete additional field screening, possibly including geophysical surveys to investigate adjacent areas for surface, near-surface or buried ordnance in all proposed land disturbance areas.</li> <li>5. Documentation of all surveys and investigations performed to evaluate and remove discovered ordnance.</li> </ol> <p>The Applicant shall submit the UXO Identification, Training, and Reporting Plan to the BLM for approval no less than 30 days prior to the initiation of construction activities at the site or within the linear corridors, as appropriate. The results of geophysical surveys shall be submitted to the BLM within 30 days of completion of the surveys.</p>	<p>Submit plan at least 30 days prior to the initiation of construction</p> <p>If required, submit survey results within 30 days of completion of the surveys</p>	BLM	Develop and implement UXO Identification, Training, and Reporting Plan			