

ATTACHMENT

Air Quality

- MM-AIR-1** Sunlight and SCE shall require all on-site construction equipment to meet EPA Tier 2 or higher emissions standards according to the following:
- April 1, 2010, to December 31, 2011: All off-road diesel-powered construction equipment greater than 50 horsepower (hp) shall meet Tier 2 off-road emissions standards. In addition, all construction equipment shall be outfitted with the BACT devices certified by the California Air Resources Board (CARB). Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 2 or Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.
 - January 1, 2012, to December 31, 2014: All off-road diesel-powered construction equipment greater than 50 hp shall meet Tier 3 off-road emissions standards. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.
 - Post-January 1, 2015: All off-road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.
 - A copy of each unit's certified tier specification, BACT documentation, and CARB or SCAQMD operating permit shall be provided when each applicable unit of equipment is mobilized.

Vegetation

- MM-BIO-1** Construction Monitoring. A BLM-approved biologist shall conduct construction monitoring during all construction activities to ensure that construction activities are contained within the staked and flagged construction areas at all times. The construction monitor shall also be present during all ground disturbing activities to either actively or passively relocate special status wildlife species, other than the desert tortoise, nesting bird species, and burrowing owl (e.g., rosy boa, chuckwalla, Palm Springs round-tailed squirrel, American badger, and Colorado Valley woodrat [and burro deer, Nelson's bighorn sheep, and mountain lion if need be]), found within the construction zones to a suitable location outside of the project footprint. The construction monitor shall also inspect fencing and netting at all construction ponds to ensure that the ponds are not accessible to potential avian or canid desert tortoise predators or to wildlife that could drown or become entrapped within the enclosures. Netting and fencing must prevent the ponds from becoming water source "subsides" to predators or from becoming hazards to native wildlife. The construction monitor shall have the authority to stop work and report directly to the Applicant's Environmental Manager to ensure compliance with the Project Description, applicant-proposed measures, and mitigation measures. The construction monitor shall provide the Applicant's Environmental Manager with weekly

updates and quarterly monitoring reports. After construction has been completed, the construction monitor shall provide the Applicant's Environmental Manager with a final monitoring report. The Applicant's Environmental Manager shall provide BLM with weekly status updates on the status of construction and monitoring efforts and shall provide BLM with copies of the quarterly monitoring reports and the final monitoring report. BLM shall be responsible for ensuring that construction monitoring is conducted during all construction activities.

MM-BIO-2 Off-site Compensation:

1. This Mitigation Measure provides further detail and specificity to the habitat compensation land requirements described in Applicant Measure AM-BIO-1. The draft Habitat Compensation Plan shall be revised to reflect acreages and habitat types as described herein. The revised habitat Compensation Plan shall be submitted for approval to BLM, USFWS, CDFG, and CPUC before its finalization and implementation. The Applicant (Sunlight or SCE) shall acquire and protect, in perpetuity, compensation habitat to mitigate impacts to biological resources listed below. The compensation lands shall be placed under conservation management to be funded through the terms described herein. The acreages and ratios shall be based upon final calculation of impacted acreage for each resource and on ratios set forth in Applicant Measure AM-BIO-1 and in the draft Habitat Compensation Plan dated 17 Dec 2010. Acreages of anticipated compensation requirements as summarized throughout this measure are based on impacts analysis of Alternative 1 in Sections 4.3 and 4.4 and ratios described in Applicant Measure AM-BIO-1. Acreages shall be adjusted as appropriate for other alternatives.
 - Desert dry wash woodland (101 acres at 3:1 ratio).
 - Occupied desert tortoise habitat (2,757 acres at 1:1 ratio; 1,214 acres at 2:1 ratio; 191 acres at 5:1 ratio).
 - occupied or suitable habitat for breeding or wintering burrowing owls (13 acres for each occupied burrow, estimated as two burrows),
 - state-jurisdictional streambeds (302 acres, including the desert dry wash woodland, above, at 3:1 ratio),
 - creosote bush scrub (4,072 acres at 1:1 ratio).
 - occupied foxtail cactus habitat (estimated as two acres, at 1:1 ratio),
 - undisturbed habitat for most wildlife species including desert kit fox and American badger (i.e., away from sources of noise or other disturbance such as highways, wind farms, etc.) (4,173 acres, at 1:1 ratio),
 - occupied chuckwalla and rosy boa habitat (Red Bluff Substation A site, 149 acres, at 1:1 ratio),
 - suitable/occupied upland shrubland nesting habitat for migratory birds (4,173 acres, at 1:1 ratio),
 - suitable foraging habitat for golden eagles, and within foraging range of a known nesting site (4,173 acres, at 1:1 ratio),

- suitable or occupied roosting habitat for special status bats (101 acres desert dry wash woodland at Solar Farm B and 149 acres rocky slopes at Red Bluff Substation A), and
- suitable or occupied habitat for Palm Springs round-tailed ground squirrel (estimated as 92 acres, based on Gen-Tie Line A-1 disturbance), Colorado Valley woodrat (estimated as 149 acres at Red Bluff Substation A location).

Of the resources listed above, BLM's focus is on desert dry wash woodland, occupied desert tortoise habitat, occupied or suitable habitat for breeding or wintering burrowing owls, and state-jurisdictional streambeds.

Under Alternative 1, a total of 4,176 acres would be disturbed. Total habitat compensation lands shall be no fewer than 6,707 acres, including, at minimum, 6,140 acres of occupied desert tortoise habitat and 819 acres of state-jurisdictional streambeds (including at least 288 acres of desert dry wash woodland). Further details are described in text and Table 4.3-10, below. Final compensation requirements shall be adjusted to account for any deviations in project disturbance, according to final design, as-built project footprint or, if a different Project alternative is approved, adjusted to reflect that alternative. Desert Sunlight shall be responsible for all compensation for habitat disturbance at the Solar Farm Layout and Gen-Tie Lines; SCE shall be responsible for all compensation for habitat disturbance at the Red Bluff Substation site.

Table 4.3-10. Minimum Total Compensation Acreage

| Acres of Resource | Impact | Compensation Ratio | Compensation Acres |
|----------------------------------------------------------------------------------------------------------------------------------------------|--------|--------------------|----------------------------------------------|
| <i>Previously disturbed (no compensation)</i> | 3 | 0 | 0 |
| <i>Desert tortoise habitat (moderate density)¹</i> | 1,214 | 2:1 | 2,428 |
| <i>State-jurisdictional desert dry wash and desert dry wash woodland (302 ac.), less 24 acres desert dry wash woodland within DWMA/ CHU2</i> | 278 | 3:1 | 834 (to include 288 acres dry wash woodland) |
| <i>Wildlife Management Areas Chuckwalla DWMA, Chuckwalla CH3</i> | 191 | 5:1 | 955 |
| <i>Balance of total project disturbance 4,176 – (3 + 1,214 + 278 + 191) = 2,490</i> | 2,490 | 1:1 | 2,490 |
| Minimum Total Habitat Compensation Requirement | | | 6,707 |

¹ Draft Habitat Compensation Plan, Table 2 (Desert Sunlight Holdings, 17 Dec 2010)

² Table 4.3-5 Summary of Impacts on Jurisdictional Resources

³ Table 4.4-5

2. Of the total acreage to be disturbed under Alternative 1, three (3) acres have been previously disturbed and no compensation is required; 1,214 acres are moderate-density occupied desert tortoise habitat to be compensated at a ratio of 2:1; 302 acres (including 101 acres of desert dry wash woodland) are state-jurisdictional streambeds to be compensated at a ratio of 3:1; and 191 acres are within the Chuckwalla DWMA and/or Chuckwalla Critical Habitat Unit, to be compensated at a ratio of 5:1.

3. Compensation habitat for biological resources may be “nested.” For example, compensation for the roosting habitat of bats that roost in desert dry wash woodland (Appendix H) would be fulfilled by desert dry wash woodland compensation lands, and would be counted as providing compensation for both the roosting bats and desert dry wash woodland. Similarly, compensation for the roosting habitat of bats that roost in rock crevices (Appendix H) may be fulfilled by compensation lands that also provide habitat for rosy boa and chuckwalla. Thus, compensation for impacts to bat roosting habitat may be fully nested within other compensation requirements.
4. Where impacted habitats meet criteria as two or more compensation ratios, the highest ratio will apply. For example, the Red Bluff Substation A site would affect a total of 149 acres, all within the Chuckwalla DWMA and CHU (Table 4.4-5); impacts to the Chuckwalla DWMA and CHU would require mitigation at a 5:1 ratio. Although 29 of the 149 acres are desert dry wash woodland (Table 4.3-6) would require compensation at a lower, 3:1 ratio (if they were outside the DWMA and CHU), all 149 acres of impacts to the Chuckwalla DWMA and CHU shall be compensated at the 5:1 ratio. However, compensation lands for desert dry wash woodland at the 3:1 ratio (i.e., 87 acres) may be nested within the overall 5:1 compensation,
5. Compensation land selection criteria. Criteria for the acquisition, initial protection and habitat improvement, and long-term maintenance and management of compensation lands for impacts to biological resources shall include all of the following:
 - a. compensation lands selected for acquisition to meet BLM, USFWS, CDFG, and CPUC requirements shall be equal to or better than the quality and function of the habitat impacted;
 - b. provide habitat acreage with capacity to regenerate naturally when disturbances are removed;
 - c. 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;
 - d. be contiguous and biologically connected to lands currently occupied by desert tortoise, ideally with populations that are stable, recovering, or likely to recover;
 - e. not have a history of intensive recreational use or other disturbance that might cause future erosional damage or other habitat damage, and make habitat recovery and restoration infeasible;
 - 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;
 - g. not contain hazardous wastes that cannot be removed to the extent that the site could not provide suitable habitat;
 - h. must provide wildlife movement value equal to that on the Project site; and
 - i. have water and mineral rights included as part of the acquisition, unless the BLM and CPUC, in consultation with CDFG and USFWS, agree in writing to the acceptability of land without these rights.

- j. Additional selection criteria for desert tortoise compensation lands.
 - i. compensation lands for impacts to desert tortoise shall be within the Eastern Colorado Desert Tortoise Recovery Unit, and
 - ii. shall have 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;
 - k. Additional Selection Criteria for special-status plant compensation lands. The compensation lands selected for acquisition for impacts to special-status plants shall include at least one of the following categories:
 - i. 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).
 - ii. Unoccupied but Adjacent. The Project owner 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 Project owner 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.
 - l. If all or any portion of the acquired compensation lands meets the habitat occupancy or suitability requirement for more than one of the resources listed above, that portion of those compensation lands may also be used to fulfill that portion of the obligation to acquire compensation lands to mitigate impacts to those resources.
6. The total amount of compensation mitigation lands required under this measure may exceed the requirements of AM BIO-1, in order to provide mitigation for all of the resources identified in this measure.
 7. Review and Approval of Compensation Lands Prior to Acquisition. The Project owner (Sunlight or SCE) shall submit a formal acquisition proposal to the BLM, USFWS, CDFG, and CPUC describing the parcel(s) intended for purchase. This acquisition proposal shall discuss the suitability of the proposed parcel(s) as compensation lands in relation to the selection criteria listed above, and must be approved by the BLM and CPUC in coordination with CDFG and USFWS.
 8. Management Plan. The Project owner 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 biological resources. The Management Plan shall be submitted for review and approval to the BLM and CPUC, in consultation with CDFG and USFWS.

9. Compensation Lands Acquisition Requirements. The Project owner shall comply with the following requirements relating to acquisition of the compensation lands after the BLM, USFWS, CDFG, and CPUC have approved the proposed compensation lands:
- a. Preliminary Report. The Project owner, 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, USFWS, CDFG, and CPUC. All documents conveying or conserving compensation lands and all conditions of title are subject to review and approval by the BLM and CPUC. 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.
 - b. Title/Conveyance. The Project owner 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 USFWS, CDFG, and CPUC. Any transfer of a conservation easement or fee title must be to CDFG, to a non-profit organization qualified to hold title to and manage compensation lands (pursuant to California Government Code section 65965), or to BLM or other public agency approved by the BLM and CPUC. 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 and CPUC. If an entity other than CDFG holds a conservation easement over the compensation lands, the BLM and CPUC may require that CDFG or another entity approved by the BLM, USFWS, CDFG, and CPUC, in consultation with CDFG, be named a third party beneficiary of the conservation easement. The Project owner shall obtain approval of the BLM, USFWS, CDFG, and CPUC of the terms of any transfer of fee title or conservation easement to the compensation lands.
 - c. Initial Protection and Habitat Improvement. The Project owner shall fund activities that the BLM and CPUC require 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 of compensation land, 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 section 65965), if it meets the approval of the BLM and CPUC in consultation with USFWS and 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.
 - d. Property Analysis Record. Upon identification of the compensation lands, the Project owner shall conduct a Property Analysis Record (PAR) or PAR-like analysis to establish the appropriate amount of the long-term maintenance and man-

agement fund to pay the in-perpetuity management of the compensation lands. The PAR or PAR-like analysis must be approved by the BLM and CPUC before it can be used to establish funding levels or management activities for the compensation lands.

- e. Long-term Maintenance and Management Funding. The Project owner shall provide money to establish an account with non-wasting capital that will be used to fund the long-term maintenance and management of the compensation lands. The amount of money to be paid will be determined through an approved PAR or PAR-like analysis conducted for the compensation lands. Until an approved PAR or PAR-like analysis is conducted for the compensation lands, the amount of required funding is initially estimated to be \$1,450 for every acre of compensation lands. If compensation lands will not be identified and a PAR or PAR-like analysis completed within the time period specified for this payment, the Project owner shall either: (i) provide initial payment equal to the amount of \$1,450 multiplied by the number of acres the Project owner proposes to acquire for compensatory mitigation; or (ii) provide security to the BLM and CPUC under subsection (g), "Mitigation Security," below, in an amount equal to \$1,450 multiplied by the number of acres the Project owner proposes to acquire for compensatory mitigation. The amount of the required initial payment or security for this item shall be adjusted for any change in the Project Disturbance Area. If an initial payment is made based on the estimated per-acre costs, the Project owner shall deposit additional money as may be needed to provide the full amount of long-term maintenance and management funding indicated by a PAR or PAR-like analysis, once the analysis is completed and approved. If the approved analysis indicates less than \$1,450 per acquired acre will be required for long-term maintenance and management, the excess paid will be returned to the Project owner. The Project owner must obtain the BLM and CPUC's approval of the entity that will receive and hold the long-term maintenance and management fund for the compensation lands. The BLM and CPUC will consult with USFWS and CDFG before deciding whether to approve an entity to hold the Project's long-term maintenance and management funds.

The Project owner shall ensure that an agreement is in place with the long-term maintenance and management fund holder/manager to ensure the following requirements are met:

- 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 and CPUC and is designed to protect or improve the habitat values of the compensation lands.
- 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, USFWS, CDFG, and CPUC 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.

- 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. However, for reporting purposes, the long-term maintenance and management funds for this Project must be tracked and reported individually to the BLM, USFWS, CDFG, and CPUC.
- f. Other Expenses. In addition to the costs listed above, the Project owner 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.
- g. Mitigation Security. No fewer than 30 days prior to ground disturbance, the Project owner shall provide financial assurances to the BLM and CPUC 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, USFWS, CDFG, and CPUC in the form of an irrevocable letter of credit, a pledged savings account or another form of security ("Security") approved by the BLM, USFWS, CDFG, and CPUC. The actual costs to comply with this condition will vary depending on 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, USFWS, CDFG, and CPUC, the Project owner shall obtain the BLM, USFWS, CDFG, and CPUC's approval of the form of the Security. The BLM, USFWS, CDFG, and CPUC may draw on the Security if the BLM, USFWS, CDFG, and CPUC determine the Project owner has failed to comply with the requirements specified in this condition. The BLM, USFWS, CDFG, and CPUC may use money from the Security solely for implementation of the requirements of this condition. The BLM, USFWS, CDFG, and CPUC's use of the Security to implement measures in this condition may not fully satisfy the Project owner's obligations under this condition, and the Project owner remains responsible for satisfying the obligations under this condition if the Security is insufficient. The unused Security shall be returned to the Project owner in whole or in part upon successful completion of the associated requirements in this condition.

Security for the requirements of this condition shall be calculated as shown in Table 4.3-11. However, regardless of the amount of the security or actual cost of implementation, the project owner shall be responsible for implementing all aspects of this condition, including acquisition and protection of additional habitat acreage if necessary to compensate for all impacts listed in Section 1 of this Mitigation Measure.

**Table 4.3-11. Biological Resource Compensation/Mitigation Cost Estimate¹/
Table of Estimated Costs²**

| Task | Cost |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| 1. Land Acquisition (6,707 acres) | \$1000 per acre ³ |
| 2. Level 1 Environmental Site Assessment (42 parcels at estimated 160-acre average parcel size) | \$3000 per parcel ⁴ |
| 3. Appraisal | \$5000 per parcel |
| 4. Initial site work - clean-up, enhancement, restoration | \$330 per acre ⁵ |
| 5. Closing and Escrow Costs – 1 transaction includes landowner to 3 rd party and 3 rd party to agency | \$5000 per transaction |
| 6. Biological survey for determining mitigation value of land (habitat based with species specific augmentation) | \$5000 per parcel |
| 7. 3 rd party administrative costs - includes staff time to work with agencies and landowners; develop management plan; oversee land transaction; organizational reporting and due diligence; review of acquisition documents; assembling acres to acquire.... | 10% of land acquisition cost (#1) |
| 8. Agency costs to review and determine accepting land donation - includes 2 physical inspections; review and approval of the Level 1 ESA assessment; review of all title documents; drafting deed and deed restrictions; issue escrow instructions; mapping the parcels. | 15% of land acquisition costs (#1) × 1.17 (17% of the 15% for overhead) |
| SUBTOTAL - Acquisition & Initial Site Work | \$11,524,000 |
| 9. Long-term Management and Maintenance (LTMM) Fund - includes land management; enforcement and defense of easement or title [short and long term]; monitoring.... | \$1450 per acre ⁶ |
| TOTAL (if compensation not implemented through NFWF account) | \$21,249,000 |
| NFWF Fees | |
| 10. Establish the project specific account | \$12,000 |
| 11. NFWF management fee for acquisition & initial site work | 3% of SUBTOTAL |
| 12. NFWF Management fee for LTMM Fund | 1% of LTMM Fund |
| TOTAL for deposit in REAT-NFWF Project Specific Account | \$21,704,000 |

¹ All costs are best estimates as of spring 2011. Actual costs will be determined at the time of the transactions and may change the funding needed to implement the required mitigation obligation. Note: regardless of the estimates, the developer is responsible for providing adequate funding to implement the required mitigation.

² Companion table to the excel spreadsheet with formulas.

³ Generalized estimate taking into consideration a likely jump in land costs due to demand, and an 18-24 month window to acquire the land after agency decisions are made. If the agencies, developer, or 3rd party has better, credible information on land costs in the specific area where project-specific mitigation lands are likely to be purchased, that data overrides this general estimate. Note: regardless of the estimates, the developer is responsible for providing adequate funding to implement the required mitigation.

⁴ For the purposes of determining costs, a parcel is 160 acres.

⁵ Based on information from CDFG.

⁶ Estimate for purposes of calculating general costs. The actual long term management and maintenance costs will be determined using a Property Assessment Report (PAR) tailored to the specific acquisition.

- h. The Project owner 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 Renewable Energy Action Team (REAT) Account established with the National Fish and

Wildlife Foundation (NFWF). To use this option, the Project owner 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 and additional fees, management funds, and other costs associated with the NFWF account. 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 Project owner, the Project owner 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 Project owner.

- i. 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, USFWS, CDFG, and CPUC. Such delegation shall be subject to approval by the BLM and CPUC, in consultation with CDFG 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 and CPUC's certification of the Project.
- j. The Applicant may choose to compensate and mitigate for impacts to state-listed endangered species pursuant to §2081 of the California Endangered Species Act using one or both of the "in-lieu fee" or "advance mitigation" mechanisms set forth in SB 34. Compensation lands acquired through SB 34 may in whole or in part satisfy the compensation habitat requirements set forth in this mitigation measure, only to the extent that they do in fact provide habitat values and mitigation for significant impacts to the species and biological resources identified above, and are consistent with the selection criteria described above.

MM-BIO-4 Salvage and Restoration Plan Performance Standards. Salvage will occur prior to construction in any area of the proposed Project as described in the approved Vegetation Salvage Plan (described in AM-BIO-5). Post-Project seeding and planting (revegetation) will occur at the decommissioning phase of the Project as described under an approved Restoration Plan (AM-BIO-5). Both salvage and revegetation efforts shall be monitored yearly and shall continue for a period of no less than 10 years or until the defined performance standards are achieved (whichever is sooner).

The following performance standards must be met by the end of the monitoring period: (a) at least 80% of the species and vegetative cover observed within the temporarily disturbed areas shall be native species that naturally occur in desert scrub habitats; (b) absolute cover and density of native plant species within the revegetated areas shall equal at least 60% of the pre-disturbance or reference vegetation cover; and (c) the site shall have gone without irrigation or remedial planting for a minimum of three years prior to completion of monitoring.

Remediation activities (e.g., whether additional planting, removal of non-native invasive species, or erosion control) shall be taken during the 10-year period if necessary to ensure the success of the revegetation effort. If the mitigation fails to meet the established performance standards after the 10-year maintenance and monitoring period, monitoring and remedial activities shall extend beyond the 10-year period until the performance standards are met, unless otherwise specified by the BLM and CPUC.

As needed to achieve performance standards, the Project owner shall be responsible for replacement planting or other remedial action as agreed to by BLM and CPUC. Replacement plants shall be monitored with the same survival and growth requirements as required for original revegetation plantings.

If a fire or flood damages a revegetation area within the 10-year monitoring period, the owner shall be responsible for a one-time replacement. If a second fire or flood occurs, no replanting is required, unless the event is caused by the owner's activity (as determined by BLM or other firefighting agency investigation).

MM-BIO-5

Desert Dry Wash Woodland Monitoring and Reporting Plan. In addition to complying with MMWAT-3 (Groundwater Level Monitoring, Mitigation, and Reporting), the Project owner shall prepare and submit a Desert Dry Wash Woodland Monitoring and Reporting Plan to BLM and CPUC for review and approval prior to commencing project-related pumping activities. Upon approval, the Project owner shall finalize and implement the Plan. The Desert Dry Wash Woodland Monitoring and Reporting Plan shall outline the following information and actions:

1. Prior to Project operations, the baseline health and vigor of four (4) groundwater dependent plant species (desert ironwood, blue palo verde, desert willow, and smoke tree) shall be recorded within four zones: immediately off-site at the project boundary, and at ¼-mile, ½-mile and 1-mile distances from proposed Project groundwater supply well locations. At minimum, the baseline conditions for 10 individuals for each of the target species within each sampling zone shall be recorded. At least one "control" site, at least 2 miles from the project site, shall also be sampled.
2. A qualified botanist or plant physiologist shall develop a sampling protocol to be carried out in desert dry wash woodland at each sampling zone (above) and control site to monitor stress and mortality of target plants once operations begin. The protocol shall include a measure of pre-dawn water potential, as measured by standard plant physiology techniques. Through corresponding this data to climate factors and groundwater monitoring data collected under MM-WAT-3 as well as the control site, the survey shall, where possible, identify under what circumstances each factor may have the greatest effect on plants. This protocol shall be developed in coordination with BLM, CDFG, and CPUC and shall be approved by BLM, CDFG, and CPUC.
3. If a significant difference in plant stress or mortality are shown in one or more sample locations in comparison to the control site, the Project owner shall coordinate with BLM, CPUC, and CDFG to determine if the plant stress is due to climate factors (e.g., drought), pathogens (disease, insect infestation, etc.), or project activities. The Desert Dry Wash Woodland Monitoring and Reporting Plan shall identify what constitutes a significant difference in plant stress or mortality under this miti-

gation measure. If it is related to project activities, then the Project owner shall either refrain from pumping, reduce groundwater pumping to allow for recovery of the groundwater table, or provide additional habitat compensation as described below.

Monthly Desert Dry Wash Woodland Monitoring summary memos shall be submitted to BLM, CDFG, and CPUC during the construction period of the Project. In addition, annual Desert Dry Wash Woodland Monitoring reports shall be submitted for at least the first three years following completion of construction of the Project, if found necessary. The summary memos shall contain the monitoring data required as part of the monitoring program requirements under MM-WAT-3. In addition, each Desert Dry Wash Woodland Monitoring Report shall provide maps and text discussion of each study site, changes in plant health and vigor, changes in groundwater levels in the production wells, and the year's monitoring data.

If results of the groundwater monitoring program under MM-WAT-3 indicate that the project pumping has resulted in water level decline of one foot or more below the baseline trend, and vegetation monitoring for plant stress, mortality, and water potential have documented one or more of the sampling sites for the four groundwater dependent plant species as reaching the threshold (above), the Project owner shall reduce groundwater pumping until water levels stabilize or recover, provide for temporary supplemental watering, or compensate for additional impacts to desert dry wash woodland at the ratio of 3:1, consistent with Mitigation Measure MM-BIO-2. Estimated acreage of additional dry wash woodland impacts shall be submitted to BLM and CPUC for approval. Upon approval, the Project owner shall initiate compensation according to the requirements and conditions for habitat compensation as described in Mitigation Measure MM-BIO-2.

At the conclusion of the three-year monitoring period for Desert Dry Wash Woodland following completion of Project construction, the Project owner, CPUC, and BLM shall jointly evaluate the effectiveness of the Desert Dry Wash Woodland Monitoring and Reporting Plan and determine if monitoring frequencies or procedures should be revised, extended to the operation and decommissioning periods, or eliminated. Should additional data be forthcoming to demonstrate that this potential impact is not verifiable or attributable to this specific project or found inconsistent with state or federal statute, it may be modified or eliminated.

Wildlife

MM-WIL-1

American Badger and Desert Kit Fox Protection Plan. To avoid direct impacts to American badgers or desert kit foxes, pre-construction surveys shall be conducted for these species concurrent with the desert tortoise surveys. Surveys shall be conducted as described below:

Biological Monitors shall perform pre-construction surveys for badger and kit fox dens in the Project area, including areas within 90 feet of all Project facilities, utility corridors, and access roads. Surveys may be concurrent with desert tortoise surveys. If dens are detected, each den shall be classified as inactive, potentially active, or definitely active.

Inactive dens that would be directly impacted by construction activities shall be excavated by hand and backfilled to prevent reuse by badgers or kit foxes. 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. 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. If tracks are observed, and especially if high or low ambient temperatures could potentially result in harm to badger or kit fox from burrow exclusion, various passive hazing methods may be used to discourage occupants 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 foxes are trapped in the den. In the event that passive relocation techniques fail, the Applicant will contact the California Department of Fish and Game to explore other relocation options, which may include trapping.

MM-WIL-2

Nelson's Bighorn Sheep Protection Plan. If effects to Nelson's Bighorn Sheep cannot be avoided, the Applicant shall consult with the California Department of Fish and Game (CDFG) to determine the appropriate level of restoration and mitigation for effects to essential habitat and/or travel corridors for Nelson's bighorn sheep by implementing the following measures:

- (a) The project owner shall compensate or replace the permanent loss of Nelson's bighorn sheep habitat at a 1:1 ratio as approved by the CDFG. This may include monetary contributions or donations as mitigation which are tied to programs or activities designed to offset potential resource losses or for mitigation banking for habitat restoration, enhancement, and/or acquisition projects provided that an appropriate and cooperatively developed mitigation agreement has been finalized between the Applicant and CDFG.
- (b) Compensation or replacement mitigation should be oriented within or adjacent to the project area and designed to rectify the same functions, habitat types and species being impacted wherever possible. Off-site compensation should be considered when mitigation measures cannot be applied to adjacent areas or to benefit the same species that are impacted.
- (c) All final actions associated with compensation mitigation will be approved by CDFG to insure that agreements are consistent with the CDFG's Sonoran Desert Mountain Sheep Meta-Population Plan.
- (d) Any roads or permanent structures built in Nelson's bighorn sheep habitat or movement corridors must be constructed in such a way as to allow continued bighorn movement, except in the case of the Solar Farm and Substation facilities which will be fenced. Some strategies could include under or over passes, ramps cut into steep side slopes, alternatives to continuous guard rails and/or fence specifications along roads that allow sheep movement. Plans for these structures will be developed in coordination with CDFG.

MM-WIL-3

Palm Springs Round Tailed Ground Squirrel Protection Plan. If effects to Palm Springs round tailed ground squirrel cannot be avoided, the Applicant shall consult with the California Department of Fish and Game (CDFG) to determine the appropriate level of restoration and/or mitigation for effects to essential habitat for Palm Springs round tailed ground squirrel by implementing the following measures:

- (a) For Palm Springs ground squirrel habitat that is temporarily disturbed, the Applicant shall develop a project-specific habitat restoration for submittal to CDFG for review and approval. The plan shall consider and include as appropriate the following methods: replacement of topsoil, seedbed preparation, fertilization, seeding of species native to the project area, noxious weed control, and additional erosion control. Generally, the restoration objective shall be to return the disturbed area to a condition that will benefit Palm Springs ground squirrels. The project proponent shall conduct periodic inspection of the restored area. Restoration shall include eliminating any hazards to Palm Springs ground squirrels created by construction, such as holes and trenches in which animals might become entrapped.
- (b) If adverse effects remain after the project proponent has taken all reasonable on-site mitigation measures, the Applicant must compensate for on-site effects to Palm Springs ground squirrel habitat. The goal of compensation is to prevent the net loss of Palm Springs ground squirrel habitat and make the net effect of a project neutral or positive to Palm Springs ground squirrels by maintaining a habitat base for the species. Compensation ratios can range from 1:1 to 5:1 depending upon:
 - A. Species known to be present on site
 - B. Habitat condition
 - C. Proximity of known disturbances
 - D. Vegetation type

The Applicant shall provide habitat compensation lands as mitigation for the Project's impacts to Palm Springs round-tailed ground squirrel. A minimum of three months before the habitat compensation lands are acquired, the Applicant shall submit a proposal identifying the land to be purchased to CDFG for approval. As part of this process, the Applicant shall do the following (as detailed in MM-BIO-2):

- a. Transfer fee title to CDFG for the habitat compensation lands.
- b. Provide a preliminary title report, initial hazardous material assessment report and other documents as requested by CDFG.
- c. Provide CDFG with fees, as determined by CDFG, to provide for the initial protection and enhancement of the habitat compensation lands.
- d. Conduct a Property Analysis Record (PAR) or PAR-like analysis once the habitat compensation lands have been identified to determine the appropriate endowment amount to fund the in-perpetuity management of the habitat compensation lands.

MM-WIL-4

Mojave Fringed-toed Lizard Protection Plan. If effects to Mojave Fringed-toed Lizard cannot be avoided, the Applicant shall mitigate for direct and indirect impacts to stabilized and partially stabilized sand dunes and other Mojave fringe-toed lizard habitat by compensating for lost habitat at ratios ranging from 1:1 to 5:1 depending upon (as detailed in MM-BIO-2):

- A. Species known to be present on site
- B. Habitat condition
- C. Proximity of known disturbances

D. Vegetation type

The Applicant shall provide funding for the acquisition, initial habitat improvements and long-term management of the compensation lands. The habitat compensation requirement, and associated funding requirements based on that acreage will be adjusted if there are changes in the final footprint of the Project. In lieu of acquiring lands itself, the Applicant may ensure funding to complete the land acquisition by providing CDFG and/or USFWS, as appropriate, prior to commencing ground- or vegetation- disturbing activities an irrevocable letter of credit or another form of security as approved by CDFG's Office of General Counsel before ground- or revegetation-disturbing activities begin.

The requirements for acquisition, initial improvement and long-term management of compensation lands include all of the following:

1. Criteria for Compensation Lands: The compensation lands selected for acquisition shall:
 - a. Provide suitable habitat for Mojave fringe-toed lizards that is equal to or better than that found in the Project disturbance area, and may include stabilized and partially stabilized desert dunes or sand drifts over playas or Sonoran creosote bush scrub;
 - b. Be within the 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;
 - c. Be connected to lands that are either currently occupied or have high potential to be occupied by Mojave fringe-toed lizard based on patch size and habitat quality;
 - d. 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;
 - e. Not have a history of intensive recreational use or other disturbance that might make habitat recovery and restoration infeasible;
 - 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;
 - g. Not contain hazardous wastes;
 - h. Not be subject to property constraints (i.e. mineral leases, cultural resources); and
 - i. Be on land for which long-term management is feasible.
2. Security for Implementation of Mitigation: The Applicant shall provide financial assurances to CDFG and/or USFWS that 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 condition. These funds shall be used solely for implementation of the measures associated with the Project. Financial assurance can be provided to DFG and/or USFWS in the form of an irrevocable letter of credit,

a pledged savings account or Security prior to initiating ground-disturbing project activities. The Security shall be approved by the CDFG and USFWS, to ensure sufficient funding.

3. Preparation of Management Plan: The Applicant shall submit to the 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.

MM-WIL-5 Prepare and Implement a Bird Monitoring and Avoidance Plan. Prior to the issuance of a ROW grant, the Applicant shall retain a BLM-approved, qualified biologist to prepare a Bird Monitoring and Avoidance Plan in consultation with CDFG and USFWS. This plan shall follow the Avian Protection Plan guidelines outlined by USFWS and Avian Power Line Interaction Committee (APLIC).

The plan will require monitoring of (1) the death and injury of birds from collisions with facility features such feeder/distribution lines and solar panels, and (2) impacts to aquatic insects from polarized light from solar panels that may affect insectivorous (insect-eating) birds. The study design shall be approved by BLM in consultation with the CDFG and USFWS.

Bird mortality study. The bird mortality component of the Bird Monitoring Study shall include at a minimum: detailed specifications on data, a carcass collection protocol, and a rationale justifying the proposed schedule of carcass searches. The study shall also include seasonal trials to assess bias from carcass removal by scavengers as well as searcher bias.

Polarized light and insectivorous birds study. The study of polarized light impacts on insectivorous birds shall include at a minimum: detailed specifications regarding data requirements, including protocols for collection and identification of insect eggs found on solar panels, and a rationale for a data collection schedule.

During construction and for one year following the beginning of the solar farm operation the biologist shall submit annual reports to BLM, CDFG, and USFWS describing the dates, durations, and results of monitoring and data collection. The annual reports shall provide a detailed description of any project-related bird or wildlife deaths or injuries detected during the monitoring study or at any other time and data collected for the study of polarized light impacts on insectivorous birds. The report shall analyze any project-related bird fatalities or injuries detected, and provides recommendations (in consultation with the County) for future monitoring and any adaptive management actions needed.

Thresholds. Thresholds will be determined by BLM in consultation with CDFG and USFWS. If BLM determines that either (1) bird mortality caused by solar facilities is substantial and is having potentially adverse impacts on special-status bird populations, or that (2) the attraction of polarized light from solar panels is causing reproductive failure of aquatic insect populations at high enough levels to adversely affect insectivorous special-

status birds, the Applicant shall be required to implement some or all of the mitigation measures below.

Implementation Measures. To minimize bird mortality caused by solar facilities, the Applicant may be required to install additional bird flight diverters alterations to project components that have been identified as key mortality features, or implement other appropriate actions approved by BLM and regulatory agencies based on the findings of the Bird Monitoring and Avoidance Plan. To minimize indirect impacts of polarized light on insectivorous birds, the Applicant may be required to install non-polarizing white borders and grids on or around solar panels, which Horvath et al. (2010) found to dramatically reduce the attractiveness of solar panels to aquatic insects, or other measures that are shown to be effective.

If mitigation actions are required, the annual reporting shall continue until BLM, in consultation with CDFG and USFWS, determines whether more years of monitoring are needed, and whether additional mitigation and adaptive management measures are necessary. After the Bird Monitoring Study is determined by BLM to be complete, the Applicant shall prepare papers that describe the design and monitoring results of the two studies to be submitted to peer-reviewed scientific journals. Proof of submittal shall be provided to BLM, CDFG, and USFWS within one year after the monitoring studies are complete.

MM-WIL-6 Prepare and Implement Golden Eagle Nesting Surveys, Nest Site Monitoring, and Adaptive Management, as described below. Where details of this Mitigation Measure may conflict with Applicant Measure AM-WIL-3, this measure (MM-WIL-6) shall take precedence.

1. For each year during which construction will occur, an inventory of all golden eagle territories within ten miles of project facilities shall be conducted to determine if whether any territory is active. Survey methods for the inventory shall be as described in the Interim Golden Eagle Inventory and Monitoring Protocols; and Other Recommendations (Pagel et al. 2010) or more current guidance from the USFWS. A nesting territory or shall be considered occupied or unoccupied based on criteria in Pagel (2010) or more current guidance from the USFWS.
2. Inventory Data: 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.
3. Monitoring and Adaptive Management Plan: If an occupied nest (as defined by Pagel et al. 2010) is detected within 10 miles of any project component, the Project owner or SCE shall prepare and implement a Golden Eagle Monitoring and Management Plan for 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 Interim Golden Eagle Inventory and Monitoring Protocols; and Other Recommendations (Pagel et al. 2010) or more current guidance from the USFWS. The Monitoring and Management Plan shall be prepared in consultation with BLM, USFWS, CDFG, and CPUC. It shall be implemented by Desert Sunlight or SCE, according to project component; each applicant shall designate a biologist, to be approved by BLM, USFWS, CDFG, and CPUC. 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.

- MM-WIL-7** **Alternate to long-distance (greater than 500 meters) desert tortoise translocation.** The draft Desert Tortoise Translocation Plan defined under Applicant Measure AM-WIL-1 shall be updated to identify and describe, as an alternative to translocation, a strategy to remove desert tortoises on the project site from the wild and place them permanently in facilities approved by USFWS and CDFG, to be fully funded by the applicants. All suitable care or holding facilities for desert tortoises shall be listed and described in the draft plan, and capacity of each facility to accommodate desert tortoises from the project site shall be provided. The updated draft plan shall be submitted to BLM, CPUC, USFWS and CDFG for review and approval. Upon approval of a final Desert Tortoise Translocation Plan and issuance of state and federal approvals, the applicant (Sunlight and/or SCE), shall either translocate tortoises into the wild or shall permanently place them in approved facilities, consistent with the Final Desert Tortoise Translocation Plan.
- MM-WIL-8** Plans required under Applicant Measures AM WIL-1, AM WIL-2, and AM WIL-3 shall be submitted for review and approval by USFWS, CDFG, BLM and CPUC.

Climate Change

[None]

Cultural Resources

- MM-CUL-1** The Memorandum of Agreement shall detail the process for activities to proceed in areas where historic properties are now known not to exist; the process for phased completion of field investigations for the evaluation of cultural resources and assessment of effects; a historic property treatment plan (HPTP); procedures to resolve adverse effects under Section 106; coordination between the CEQA process and Section 106 compliance; procedures for treatment of inadvertent discoveries; procedures for determining treatment and disposition of human remains; compliance monitoring; dispute resolution; and tribal participation. Resolution of effects to cultural resources eligible for or listed on the NRHP may include research and documentation, data recovery excavations, curation, public interpretation, use or creation of historic contexts (especially for historic landscapes and the potential DTC-C-AMA historic district), and/or report distribution.
- MM-CUL-2** On the basis of preliminary CRHR eligibility assessments, NRHP eligibility assessments made under the Memorandum of Agreement, or existing NRHP eligibility determinations, the BLM and CPUC may require the relocation of Project components to avoid or reduce damage to cultural resource values. Where operationally feasible, potentially

- NRHP-eligible resources shall be protected from direct Project impacts by Project redesign within previously surveyed and analyzed areas.
- MM-CUL-3** Where the BLM and CPUC decide that CRHR or NRHP-eligible or –listed cultural resources cannot be protected from direct impacts by Project redesign, the Applicant shall comply with appropriate mitigative treatment(s) that will be detailed in the Memorandum of Agreement and cultural resources mitigation and monitoring plan.
- MM-CUL-4** All CRHR-listed or eligible cultural resources (as determined by the CPUC) and all NRHP-listed or eligible cultural resources (as determined by the BLM) that will not be affected by direct impacts, but are within 50 feet of Project locations, will 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.
- MM-CUL-5** The historic property treatment plan that will be included in the Memorandum of Agreement will, at a minimum, employ avoidance, mitigation, and data recovery as mitigation alternatives. As part of the historic property treatment plan, the Applicant shall prepare 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. Data recovery of most resources would consist of sample excavation and/or surface artifact collection, and site documentation. A possible exception would be a site where burials, cremations, or sacred features are discovered that cannot be avoided. Additional content of the treatment plan will be dictated by the consultations associated with the Memorandum of Agreement.
- MM-CUL-6** Construction work within 100 feet of cultural resources that require data-recovery fieldwork shall not begin until authorized by the BLM.
- MM-CUL-7** Archaeological monitoring shall be conducted by a qualified archaeologist 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 cultural resources personnel will be approved by the BLM through the agency’s Cultural Resource Use Permitting process. A Native American monitor may be required at culturally sensitive locations specified by the BLM following government-to-government consultation with Indian tribes. The monitoring plan shall indicate the locations where Native American monitors will be required and shall specify the tribal affiliation of the required Native American monitor for each location. The Applicant shall retain and schedule any required Native American monitors.
- MM-CUL-8** In the event of inadvertent discoveries during construction, operation and maintenance, or decommissioning, procedures outlined in the Memorandum of Agreement and the monitoring and mitigation plan will be adhered to. At a minimum, this will 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.

Paleontological Resources

[None]

Geology and Soil Resources

[None]

Lands and Realty

[None]

Noise and Vibration

- MM-NOI-1** Sunlight and SCE shall limit construction activity within a quarter mile of an inhabited dwelling to 6:00 AM to 6:00 PM during June through September and 7:00 AM to 6:00 PM during October through May. Certain electrical connection activities at the solar farm site would occur at night for safety reasons, but would not require any heavy equipment operations.

Public Health

[none]

Recreation

[None]

Socioeconomics

[None]

Special Designations

[None]

Transportation

[None]

Visual Resources

- MM-VR-1** *Revegetation.* The Applicant and SCE shall minimize the amount of ground surface to be disturbed and revegetate disturbed soil areas, as described below:
- **Limit Disturbance Areas.** 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 before construction, in consultation with the Designated Biologist and VRM specialist. Spoils and topsoil shall be stockpiled in disturbed areas approved by the Designated Biologist. Parking areas, staging and disposal site locations similarly shall be located in areas approved by the Designated Biologist and VRM specialists. All disturbances, Project vehicles and equipment shall be confined to the flagged areas. Vegetation along roadways and boundaries of other disturbed areas

shall be scalloped and feathered to reduce the hard line visual impact, especially as seen from Kaiser Road and SR-177.

- **Minimize Road Impacts.** New and existing roads that are planned for construction, widening, or other improvements shall not extend beyond the minimum necessary and flagged as described above. All vehicles passing or turning around shall 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 or staked) before the onset of construction.
- **Revegetation of Temporarily Disturbed Areas.** The Applicant and SCE 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 all proposed locations for linear facilities, temporary access roads, construction work temporary lay-down areas, and construction equipment staging areas.

No less than 30 days following the publication of the BLM's Record of Decision/ROW Issuance, whichever comes first, the Applicant and SCE shall submit to the BLM a final agency-approved revegetation plan that has been reviewed and approved by the BLM.

Within 30 days after completion of Project construction, the Applicant and SCE each shall provide to the BLM for review and approval a written report identifying which items of the revegetation plan have been completed, a summary of all modifications to mitigation measures made during the Project's construction phase, and which items are still outstanding. It shall also include a plan for revegetation monitoring.

MM-VR-3 *Fugitive Dust Control.* To minimize fugitive dust on the Project site, a dust control plan shall be developed that will impose limits on the speed of travel for construction vehicles, and will require that dust palliatives be applied to the site, as described in AM-AIR-1 and AM-AIR6, and in compliance with SCAQMD Rule 403.

MM-VR-4 *Lighting Control.* Consistent with safety and security considerations, the Applicant and SCE shall design and install all permanent exterior lighting and all temporary construction lighting such that (a) lamps and reflectors are not visible from beyond the Solar Farm site, including any off-site security buffer areas; (b) lighting shall not cause excessive reflected glare; (c) direct lighting shall not illuminate the nighttime sky, except for required FAA aircraft safety lighting; (d) illumination of the Project and its immediate vicinity shall be minimized; (e) skyglow caused by Project lighting will be avoided, and (f) the plan shall comply with local policies and ordinances. All permanent light sources shall be below 2,500 Kelvin color temperature (warm white) and shall have cutoff angles not to exceed 45 degrees of nadir. The Applicant and SCE shall submit to the BLM and CPUC for review and approval a Lighting Mitigation Plan that includes the following:

- Specification that LPS or amber LED lighting will be emphasized, and that white lighting (metal halide) would (a) only be used when necessitated by specific work tasks, (b) not be used for dusk-to-dawn lighting, and (c) would be less than 2500 Kelvin color temperature;
- Specification and map of all lamp locations, orientations, and intensities, including security, roadway, and task lighting;

- Specification of each light fixture and each light shield;
- Total estimated outdoor lighting footprint, expressed as lumens or lumens per acre;
- Definition of the threshold for substantial contribution to light pollution in Joshua Tree National Park, in coordination with the Night Sky Program Manager (see below);
- Specifications on the use of portable truck-mounted lighting;
- Lighting design shall consider setbacks of Project features from the site boundary to help satisfy the lighting mitigation requirements;
- Light fixtures that are visible from beyond the Project boundary shall have cutoff angles sufficient to prevent lamps and reflectors from being visible beyond the Project boundary;
- Specification of motion sensors and other controls to be used, especially for security lighting;
- Surface treatment specification that will be employed to minimize glare and skyglow;
- Results of a Lumen Analysis (based on final lighting plans), in consultation with the National Park Service (NPS) Night Sky Program Manager (Chad Moore – (970) 491-3700), in order to determine the extent of night lighting exposures in the surrounding NPS lands. If the lighting exposure on NPS lands exceeds the allowable threshold (which is to be determined in consultation with the NPS Night Sky Program Manager and BLM), additional control measures will be instituted to reduce the lighting exposures to levels below the threshold; and
- Documentation that coordination with the NPS Night Sky Program Manager and the BLM has occurred.

MM-VR-5

Surface Treatment of Project Structures/Buildings. The Applicant and SCE shall treat the surfaces of all Project structures and buildings visible to the public such that (a) their colors minimize visual contrast by blending with the characteristic landscape colors; (b) their colors and finishes do not create excessive glare; and (c) their colors and finishes are consistent with local policies and ordinances. The transmission line conductors shall be non-specular and nonreflective, and the insulators shall be nonreflective and nonrefractive. The Applicant and SCE shall comply with BLM requirements regarding appropriate surface treatments for Project elements.

MM-VR-6

Project Design. The Applicant and SCE shall use proper design fundamentals to reduce the visual contrast to the characteristic landscape. These include proper siting and location; reduction of visibility; repetition of form, line, color (see Mitigation MM-VR-5) and texture of the landscape; and reduction of unnecessary disturbance. Design strategies to address these fundamentals shall be based on the following factors:

- **Earthwork:** Select locations and alignments that fit into the landforms to minimize the size of cuts and fills.
- **Vegetation Manipulation:** Retain as much of the existing vegetation as possible. Use existing vegetation to screen the development from public viewing. Use scalloped, irregular cleared edges to reduce line contrast. Use irregular clearing shapes to reduce form contrast. Feather and thin the edges of cleared areas and retain a representative mix of plant species and sizes.

- Structures: Minimize the number of structures and combine different activities in one structure. Use natural, self-weathering materials and chemical treatments on surfaces to reduce color contrast. Bury all or part of the structure. Use natural appearing forms to complement the characteristic landscape. Screen the structure from view by using natural land forms and vegetation. Reduce the line contrast created by straight edges. Use road aggregate and concrete colors that match the color of the characteristic landscape surface. Co-locate facilities within the same disturbed corridor.
- Reclamation and Restoration: Reduce the amount of disturbed area and blend the disturbed areas into the characteristic landscape. Replace soil, brush, rocks, and natural debris over disturbed area. Newly introduced plant species shall be of a form, color, and texture that blends with the landscape.

The Applicant and SCE and BLM shall develop a set of visual resources BMPs to serve as a running list of proven practices to reduce the overall visual contrast of the proposed Project.

Water Resources

MM-WAT-5 Construction Period Storm Water Quality. As discussed previously, the waterways that would be affected as a result of Project implementation would not be considered jurisdictional waters under the federal Clean Water Act. As a result, no NPDES permits would be required within the Project area during construction or operation. Therefore, a comprehensive construction-period water quality control plan shall be generated, and recommendations of the plan shall be adhered to. The plan shall be completed by the Applicant before Project construction begins and shall include an evaluation of potential for construction-related storm water pollutant loading that could result from Project construction. The plan shall address and implement all of the issues and recommendations of the Storm Water Pollution Prevention Plan (SWPPP). This mitigation measure requires that a SWPPP for Project construction and decommissioning is prepared prior to commencing with either action.

The plan shall evaluate potential for erosion and sedimentation to occur on site and downstream as a result of construction, as well as potential for construction-related releases of fuels, oils, solvents, concrete wash-out, greases, paints, and other potential water quality pollutants to become entrained in storm water, or otherwise result in the degradation of surface water or groundwater quality. The evaluation shall implement specific measures to minimize potential effects on water quality. These measures may include, but would not be limited to, installation of temporary settling basins, stabilization of disturbed soils, replanting vegetation after disturbance, limitations on construction during wet periods, installation of temporary erosion control devices (fiber rolls, staked straw bales, detention basins, check dams, geofabric, dikes, and temporary revegetation), covering stockpiled loose material during rain events, equipment maintenance to prevent leaks, application of erosion protection to cut and fill slopes, and other BMPs. Sediment shall be retained on site by sediment basins, traps, or other measures. No disturbed surfaces shall be left without erosion control measures in place during the rainy season. Recommendations from the plan shall be applied during construction of all Project-related components.