

APPENDIX G
MITIGATION MEASURES

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G.1 INTRODUCTION

The impact analyses are based on the Applicant's description of their proposed Project, and that description includes, for some resources, Applicant-Proposed Measures (APMs). The impact analyses assume that APMs are to be implemented, and these measures are therefore requirements for approval of the Project.

For impacts identified in the following resource sections, measures have been developed to avoid or reduce potential environmental effects that would be implemented during all appropriate phases of the Project from initial ground breaking and construction, to operation and maintenance, and through closure and decommissioning. The measures include a combination of the following:

1. APMs, as specified in the Applicant's POD, management plans, and technical reports;
2. Regulatory requirements of other Federal, state, and local agencies;
3. USFWS terms and conditions identified in the BO; and
4. Additional BLM-proposed mitigation measures, ROW grant terms and conditions, and best management practices (BMPs).

These requirements generically are referred to as "mitigation measures" throughout this Draft PA/EIS/EIR. Because these mitigation measures are derived from a variety of sources, they also are required, and their implementation regulated, by the various agencies. The Applicant would prepare an Environmental Inspection and Compliance Monitoring Program and Plan (EICMPP)/Mitigation Monitoring, Reporting, and Compliance Program (MMRCP) ensuring the effective implementation of the mitigation measures identified to address Project impacts. All management and control plans that are to be developed under any APM or mitigation measure must be developed and approved by the applicable agency(ies) prior to issuance of a County grading permit. The timing, responsible agency, and methods for verification of each measure are provided in Table G-22-1.

Many of the other mitigation measures are required by agencies other than the BLM and their implementation would be enforced by those other agencies against the Applicant. For instance, USFWS's FESA §7 Reasonable and Prudent Measures will be included in the ROD, and the NHPA §106 Memorandum of Agreement (MOA), will include a number of obligations enforceable by signatories, including SHPO and ACHP, that also will be included in the ROD. The Applicant would be required by the ROD and the ROW grant to comply with the requirements of those other agencies (see, e.g., 43 CFR §2805.12(a) [Federal and state laws and regulations]; §2805.12(i)(6) [more stringent state standards for public health and safety, environmental protection and siting, constructing, operating, and maintaining any facilities and improvements on the ROW]). Any non-compliance with implementation of these other Federal or state requirements may impact the approval status of the ROD and ROW grant. In addition, the CUP and PUP to be issued by the County will require compliance with mitigation measures required by state or local laws. Any non-compliance with these requirements could likewise impact the status of state and local approvals.

G.2 AIR RESOURCES

The following Project-specific mitigation measures were developed to reduce and/or avoid potential air quality impacts associated with the Project and alternatives.

AQ-1: Dust Control Plan. The Applicant shall develop and implement their Dust Control Plan that describes the fugitive dust control measures that would be implemented and monitored at all locations of proposed facility construction. The plan shall be submitted to MDAQMD no less than 60 days prior to the start of construction. The plan shall be developed in conjunction with soil scientists engaged by the BLM, shall be designated as a Dust Control and Soil Stabilization Plan, and shall incorporate methods for soil stabilization. This plan shall comply with the mitigation measures described in the Fugitive Dust Control Rules enforced by Mojave Desert Air Quality Management District (MDAQMD) (Rule 403.2), as well as the existing State Implementation Plan (SIP) available for PM₁₀ and PM_{2.5}, and the BLM Fugitive Dust/PM₁₀ Emissions Control Strategy for the Mojave Desert Planning Area. The plan shall be incorporated into all contracts and contract specifications for construction work. The plan shall outline the steps to be taken to minimize fugitive dust generated by construction activities by:

- Describing each active operation that may result in the generation of fugitive dust;
- Identifying all sources of fugitive dust, e.g., earth moving, storage piles, vehicular traffic;
- Describing the control measures to be applied to each of the sources identified. The descriptions shall be sufficiently detailed to demonstrate that the best available control measures required by the MDAQMD for linear projects are used; and
- Providing the following control measures, in addition to or as listed in the applicable rules but not limited to:
 - Frequent watering or stabilization of excavation, spoils, access roads, storage piles, and other sources of fugitive dust (parking areas, staging areas, other) if construction activity causes persistent visible emissions of fugitive dust beyond the work area;
 - Use of street sweeping and trackout devices at the construction site. Sweep streets daily (with water sweepers) if visible soil material is carried into adjacent public streets;
 - Apply BLM-approved soil stabilizers or apply water to form and maintain a crust on inactive construction areas (disturbed lands that are unused for four consecutive days);
 - Suspend ground disturbing activities when winds exceed 25 miles per hour and stabilize stockpiles (e.g., by watering or covering);
 - Pre-watering of soils prior to clearing and trenching;
 - Cover stockpiled soils with sturdy durable tarps when soils are not in immediate use;
 - Pre-moisten, as necessary to control dust or cover prior to transport, import and export dirt, sand, or loose materials;
 - Installing temporary coverings or applying soil stabilizers on storage piles when not in use. Cover loads in haul trucks or maintain at least six inches of free-board when traveling on public roads;

- Dedicating water truck or high/capacity hose to any soil screening operations;
- Minimizing drop height of material through screening equipment;
- Reducing the amount of disturbed area where possible;
- Planting vegetative ground cover as soon as possible following construction activities, in areas where such re-vegetation is planned, or stabilize as necessary until revegetation is initiated; and
- Stabilizing disturbed soil surfaces left undeveloped for solar energy capture (e.g., temporary disturbance sites and other exposed soils onsite prone to saltation and aerosolization after construction concludes).

The Applicant or its designated representative shall obtain prior approval from the MDAQMD prior to any deviations from fugitive dust control measures specified in the Dust Control Plan.

The provisions of the Dust Control Plan shall also apply to Project decommissioning activities.

The Dust Control Plan shall be prepared and submitted to the BLM and County for approval prior to the start of ground disturbance and issuance of a County grading permit.

AQ-2: Protect the Stability of Desert Pavement Areas. The Applicant shall in general avoid disturbing desert pavement surfaces during construction. Where the BLM agrees that disturbance of the pavement is unavoidable, the Applicant shall ensure that all areas where desert pavement has been temporarily disturbed during construction of the Project shall be applied with a BLM-approved soil stabilizer where appropriate for stabilization based on soil characteristics 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. The Plan shall be developed in coordination with scientists engaged by the BLM to find the most efficient methods for stabilizing soil surfaces using diverse methods in addition to chemical stabilizers: e.g., development of soil biotic crusts, revegetation, construction of small netted fences, and other methods. The Plan shall be submitted to the BLM and County for approval prior to the start of ground disturbance and issuance of a County grading permit.

AQ-3: Construction Emissions Reduction. The Applicant shall implement the following measures to reduce emissions during construction:

- Off-road diesel-powered construction equipment fleets used on the project shall be composed in compliance with California Air Resources Board (CARB) In-Use Off-Road Vehicle Regulation rules. In addition, all retrofitted construction equipment shall be outfitted with Best Available Control Technology devices certified by the CARB;
- As feasible, reduce emissions of particulate matter and other pollutants by using alternative clean fuel technology such as electric, hydrogen fuel cells, and propane-powered equipment or compressed natural gas-powered equipment with oxidation catalysts instead of gasoline- or diesel-powered engines;
- Ensure that all construction equipment is properly tuned and maintained and shut off when not in direct use, i.e., “idling” no more than five minutes;
- Prohibit engine tampering to increase horsepower;

- Minimize use, trips, and unnecessary idling of heavy equipment;
- Reduce construction-related trips of workers and equipment, including trucks; and
- Require in model year 2010 and following years that on-road vehicles should meet, or exceed, the US EPA exhaust emissions standards for heavy-duty on-highway compression-ignition engines.

The Applicant shall prepare and maintain documentation that demonstrates implementation of the proposed emission reduction measures and required mitigation measures. The following documents and/or files shall be submitted to the agencies involved in the environmental review and permitting process for the proposed facility:

- Inventory of all equipment used during each construction activity. At a minimum, this inventory shall include an equipment description, equipment identification, identification of type of engine(s), and engine emission data; and
- The CARB Diesel Off-Road On-line Reporting System (DOORS) for registration shall be used to certify conformance with CARB In-Use Off-Road Vehicle Regulation rules.

G.3 BIOLOGICAL RESOURCES – VEGETATION

The following measures shall be implemented to reduce or avoid impacts to vegetation alliances and special-status plant species from construction, operation and maintenance, and decommissioning of the Project. Of these measures, only measures VEG-9 and VEG-10 are specific to vegetation resources. The other measures (VEG-1 through VEG-8, VEG-11, and VEG-12) are general biological mitigation measures applicable to both vegetation and wildlife.

VEG-1: Qualifications of Designated Biologist(s). Prior to the start of ground disturbance and issuance of a County grading permit, the Applicant shall assign at least one Designated Biologist(s) 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 confirmation that applicant meets the minimum qualifications.

The Designated Biologist(s) must meet the following minimum qualifications:

1. Bachelor's degree in biological sciences, zoology, botany, ecology, or a closely related field;
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;
3. Have at least one year of field experience with biological resources found in or near the Project area;
4. Meet the current USFWS Authorized Biologist qualifications criteria (http://www.fws.gov/carlsbad/PalmSprings/DesertTortoise/DT_Auth_Bio_qualifications_statement_10-20-08.pdf), demonstrate familiarity with protocols and guidelines for the Mojave desert tortoise, and be approved by the USFWS;
5. Possess a CESA Memorandum of Understanding pursuant to §2081(a) for Mojave desert tortoise.

The resume shall demonstrate to the satisfaction of the BLM AO, in consultation with CDFW and USFWS, that the proposed Designated Biologist(s) and alternate has the appropriate training and background to effectively implement the mitigation measures.

VEG-2: Duties of the Designated Biologist(s). The Applicant shall ensure that the Designated Biologist(s) performs the activities described below during any site mobilization activities and construction-related ground disturbance such as grading, boring or trenching activities. The Designated Biologist(s) may be assisted by the approved Biological Monitor(s) but remains the contact for the Applicant and the BLM AO. The Designated Biologist(s) or approved Biological Monitor(s) Duties shall include the following:

1. Advise the Applicant's construction and operation managers on the implementation of the biological resources mitigation measures;
2. 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;
3. Clearly mark sensitive biological resource areas and inspect these areas at appropriate intervals for compliance with regulatory terms and conditions;
4. Periodically inspect active construction areas where animals may have become trapped. Monitor 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;
5. Notify the Applicant of any non-compliance with any biological resources mitigation measure;
6. Respond as established in the EICMPP to inquiries of the BLM AO regarding biological resource issues;
7. 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;
8. Train the Biological Monitors as appropriate, and ensure their familiarity with the BRMIMP, Worker Environmental Awareness Program (WEAP) training, and USFWS guidelines on Mojave desert tortoise surveys and handling procedures; and
9. Maintain the ability to be in regular communication with representatives of CDFW, 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 and BLM.

VEG-3: Identification of Biological Monitors. Prior to the start of ground disturbance and issuance of a County grading permit, the Designated Biologist(s) 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").

Biological Monitor(s) training by the Designated Biologist(s) shall include familiarity with the mitigation measures, BRMIMP, WEAP, and USFWS guidelines on Mojave desert tortoise surveys and handling procedures.

VEG-4: Duties of Biological Monitors. The Biological Monitors shall assist the Designated Biologist(s) in conducting surveys and in monitoring of site mobilization activities and construction-related ground disturbance grading, boring or trenching. The Monitors shall report issues of concern to the Designated Biologist(s), who shall remain the contact for the Applicant.

VEG-5: Authority of the Designated Biologist(s) and Biological Monitors. The Applicant's construction/operation manager shall act on the advice of the Designated Biologist(s) and Biological Monitor(s) to ensure conformance with the biological resources mitigation measures. The Designated Biologist(s) shall have the authority to immediately stop any activity and/or order any reasonable measure to avoid take of an individual of a listed species. The Designated Biologist(s) shall:

1. Require a halt to activities in any area when determined that there would be a potential take of an individual of a listed species if the activities continued; and
2. Inform the Applicant and the construction/operation manager when to resume activities.

If the Designated Biologist(s) is unavailable for direct consultation, the Biological Monitor shall act on behalf of the Designated Biologist(s).

VEG-6: Worker Environmental Awareness Program. Prior to the Notice to Proceed, 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, and subcontractors. The WEAP shall be implemented during site preconstruction, construction, operation, and decommissioning. The WEAP shall:

1. Be developed by or in consultation with the Designated Biologist(s) and consist of presentation in which supporting written material and electronic media, including photographs of protected species, is made available to all participants;
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 special-status plants or wildlife shall be harmed, disturbed, or harassed;
3. Place special emphasis on Mojave desert tortoise, including information on physical characteristics, distribution, behavior, ecology, sensitivity to human activities, legal protection, penalties for violations, reporting requirements, and protection measures;
4. Include a discussion of fire prevention measures to be implemented by workers during Project activities; require workers dispose of cigarettes and cigars appropriately and not leave them on the ground or buried;
5. Describe the temporary and permanent habitat protection measures to be implemented at the Project site;

6. Review project guidelines regarding non-compliance issues and the consequences for non-compliance, including legal protections for resources and penalties for violation of Federal and state laws;
7. Describe reporting requirements for protected resources, including requirements for notifying the designated biologist;
8. Identify whom to contact if there are further comments and questions about the material discussed in the program; and
9. Include a training acknowledgment form to be signed by each worker indicating that they received training and shall abide by the guidelines.

The training shall be bilingual, and must be completed by all personnel prior to starting work on the project. The specific program can be administered by a competent individual(s). The WEAP shall be submitted to the BLM and County for approval prior to the start of ground disturbance and issuance of a County grading permit.

VEG-7: Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP).

Prior to the start of ground disturbance and issuance of a County grading permit, the Applicant shall develop a BRMIMP, and shall submit copies of the proposed BRMIMP to the BLM AO and the County 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 Integrated Weed Management Plan (APM BIO-5), the Vegetation Resources Management Plan (APM BIO-4), the Desert Tortoise Translocation Plan (Mitigation Measure WIL-2), the Raven Monitoring and Control Plan (Mitigation Measure WIL-5), the Bird and Bat Conservation Strategy (Mitigation Measure WIL-6), the Burrowing Owl Protection and Mitigation Measures Plan (Mitigation Measure WIL-9), and all other biological mitigation and/or monitoring plans associated with the Project.

The BRMIMP shall include accurate and up-to-date maps depicting the location of sensitive biological resources that require temporary or permanent protection during construction, operation, and decommissioning. The BRMIMP shall include complete and detailed descriptions of the following:

1. Biological resources mitigation, including habitat restoration and soil stabilization, monitoring, and compliance measures proposed by the Applicant;
2. Biological resources mitigation measures identified by BLM and the County as necessary to avoid or mitigate impacts;
3. Biological resource mitigation, monitoring and compliance measures required in Federal agency terms and conditions, such as those provided in the USFWS Biological Opinion;
4. Sensitive biological resources to be impacted, avoided, or mitigated by Project construction, operation, and closure (see Tables 3.3-1, 3.3-3, and 3.4-1);
5. Required mitigation measures for each sensitive biological resource;
6. Measures that shall be taken to mitigate temporary disturbances from construction activities;
7. Duration for each type of monitoring and a description of monitoring methodologies and frequency;

8. Performance standards to be used to help decide if/when proposed mitigation is or is not successful;
9. Performance standards and remedial measures to be implemented if performance standards are not met;
10. Biological resources-related facility closure measures including a description of funding mechanism(s);
11. A process for proposing plan modifications to the BLM AO and appropriate agencies for review and approval; and
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 BLM and to the CNDDDB per CDFW requirements.

VEG-8: Avoidance of Biological Resources During Construction. 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:

1. **Limit Area of Disturbance.** The boundaries of all areas to be disturbed (including Project facilities, gen-tie structure locations, staging areas, access roads, sites for temporary placement of spoils) shall be delineated with stakes and flagging, and temporary construction fencing, prior to construction activities in consultation with the Designated Biologist(s).
2. **Stockpiles.** In areas where soil removal is required, soils removed up to 6” in depth, shall be removed and windrowed separately from spoils, to a depth not to exceed 24”. Spoils and topsoil shall be stockpiled separately in disturbed areas (or areas to be disturbed, either lacking or with minimal native vegetation). Windrowed topsoil shall be planted with container stock or seeded, with BLM approved genetically and ecologically appropriate native plant materials suitable for the site, within 30 days of initial disturbance in order to maintain biological soil viability. If stockpiles are to be maintained longer than 30 days, the Applicant shall establish native plants in the windrowed topsoil.
3. **Parking and Staging.** When possible, 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 and fenced areas.
4. **Minimize Road Impacts.** 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.
5. **Minimize Traffic Impacts.** 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.

6. Monitor During Construction. In areas that have not been fenced with Mojave desert tortoise exclusion fencing and cleared, a Designated Biologist or Biological Monitor 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.
7. Minimize Impacts of Transmission/Pipeline Alignments, Roads, Staging Areas. Staging areas for construction on the plant site shall be within the area that has been fenced with Mojave 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 alliances 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.
8. Avoid Use of Toxic Substances. Soil bonding (dust suppression) and weighting agents used on unpaved surfaces shall be non-toxic to wildlife and plants.
9. Minimize Lighting Impacts. Facility lighting shall be designed, installed, and maintained to prevent side casting of light towards wildlife habitat.
10. Monitor Active Nests: The monitoring shall be conducted in accordance with Nesting Bird Monitoring and Management Plan approved by the BLM AO. The Plan shall include management measures to prevent disturbance to all nesting birds from construction related activities. Triggers for 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 management actions, which shall include, but not be limited to, limiting construction activities in an appropriate sized no-disturbance buffer that are deemed by the biologist to be the source of disturbance to the nesting bird.
11. Avoid Vehicle Impacts to Mojave desert tortoise. Parking and storage shall occur within the area enclosed by Mojave 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 Mojave desert tortoise. If a Mojave 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.
12. Avoid Wildlife Pitfalls:
 - a. Backfill Trenches. At the end of each work day, ensure that all potential wildlife pitfalls (trenches, bores, and other excavations) outside the area fenced with Mojave 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 Mojave desert tortoise -exclusion fencing. All trenches, bores, and other excavations outside the areas fenced with Mojave desert tortoise exclusion fencing shall be inspected periodically throughout the day, at the end of each workday and at the beginning of each workday 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 Translocation Plan. Any wildlife encountered during the course of construction shall be allowed to leave the construction area unharmed.
- b. Avoid Entrapment of Mojave desert tortoise. Any construction pipe, culvert, or similar structure with a diameter greater than 3 inches, stored less than 8 inches aboveground and within Mojave desert tortoise habitat (i.e., outside the 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 fenced area after the clearance surveys have been completed.
13. Minimize Standing Water. 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 and to prevent the formation of puddles, which could attract Mojave desert tortoises and common ravens to construction sites. The Biological Monitor shall patrol these areas to ensure that 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. The Biological Monitor shall take appropriate action (e.g., coordinating with the contractor to reduce watering frequency) to reduce water application where standing water occurs.
14. Dispose of Road-killed Animals. Road-killed animals or other carcasses detected on roads within the Project area or access road shall be immediately reported to the Designated Biologist and picked up immediately. The contractor and Designated Biologist shall be responsible for securing any appropriate 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 CDFW 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 protected species records as described in Mitigation Measure WIL-3 (Project Notification and Reporting).
15. Minimize Spills of Hazardous Materials. 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 site environmental compliance lead 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.

16. Worker Guidelines. During construction all trash and food-related waste shall be placed in wildlife-proof containers and removed weekly 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. 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 areas not cleared by protocol level surveys where Mojave desert tortoise may be impacted shall not exceed 15 miles per hour.
17. Implement Erosion Control Measures. 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.
18. Monitor Ground Disturbing Activities Prior to Pre-Construction Site Mobilization. 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.
19. Revegetation of Temporarily Disturbed Areas. Disturbed sites shall be restored using methods approved by BLM vegetation restoration ecologists. Restoration design shall incorporate a replicated experimental design to test methods for improved and accelerated restoration of native vegetation, desert habitat, and ecosystem processes disturbed in the course of Project construction. Only BLM approved genetically and ecologically appropriate native plant materials suitable for the site shall be used for restoration.

Desert soil and vegetation ecologists designated by the BLM shall collaborate with the Applicant to prepare and implement a Revegetation Plan that restores all areas subject to temporary disturbance to pre-Project grade and conditions. This plan shall be submitted to the BLM for approval, and must be approved by the BLM prior to initiation of disturbance. In review of the plan, BLM will consider the ability of the proposed activities to support BLM’s Long Term Monitoring Strategy for the Riverside East SEZ (BLM 2016), and BLM ecologists shall design experimental treatments that refine or introduce restoration treatments so that knowledge about the practice of accelerating soil stabilization and vegetation restoration increases and methods become more efficient. 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 Applicant shall be responsible for preparing an accurate map of temporarily disturbed areas so that the soil and restoration ecologists will be able to begin restoring temporary disturbance areas once the operational phase of the solar facility begins.

The Revegetation Plan shall include a description of any required topsoil salvage, plant salvage, seeding techniques, inoculation of microbial organisms for plant mycorrhizae and for biotic soil crust formation, methods to stabilize and shape soil surface to reduce soil erosivity, and techniques to increase soil fertility and water holding capacity.

Restoration, including seeding of temporarily disturbed areas shall be implemented within 30 days following completion of construction. If seeding is used for reclamation, the seed shall contain no prohibited or restricted noxious weed seeds and shall be certified weed free. Seed may contain no more than 2.0 percent of “other crop” seed by weight, unless inclusion of sterile cereal grain seeds are specifically approved by the BLM as decoy seeding. Seed tags shall be submitted to the BLM at least 14 days before the date of proposed seeding for acceptance. Seed that does not meet the above criteria shall not be applied to public lands. Only native plant species which would naturally occur within the disturbed habitats shall be used for revegetation. Seed/container stock sources for revegetation shall be from within appropriate provisional or empirical seed transfer zones.

A monitoring and reporting protocol shall be a requisite part of the Plan, and the following performance standards shall be met by the end of monitoring year 2:

- a. 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
- b. relative cover and density of plant species within the temporarily disturbed areas shall be equal to or greater than 60 percent of native background density.

If these standards are not met, remedial revegetation measures shall be prepared and submitted to the BLM for approval prior to implementation.

VEG-9: Special-Status Plant Species Impact Avoidance and Minimization, and Compensation. Prior to the start of ground disturbance and issuance of a County grading permit, the Applicant shall prepare and implement a VRMP that meets the approval of BLM AO and Riverside County. The Plan shall ensure adequate special-status plant surveys and reporting, avoidance of and mitigation for impacts to special-status plants, and funding or support of a compensatory mitigation program for state or Federally listed species through land acquisition, restoration/enhancement, or a combination of acquisition and restoration/ enhancement.

The Applicant shall implement measures VEG-1 through VEG-8 to avoid, minimize, and compensate for impacts to special status plant species, and shall implement APM BIO-4, including its requirements for salvage of plants meeting the criteria described in the VRMP prior to disturbance, using BLM-approved protocols. 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.

An experienced botanist knowledgeable in the complex biology of the local flora and consistent with CDFW (2009) and BLM guidelines for surveyor qualifications shall be identified as the Designated Botanist. The name(s) and qualifications of the Designated Botanist(s) shall be submitted to BLM for review and approval.

The Designated Botanist 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. All personnel conducting special status plant inventories must have strong backgrounds in plant taxonomy and plant ecology and field sampling design and methods, knowledge of the floras of the inventory area including the special status plant species, and familiarity with natural communities of the area. During operation of the Project, the Designated Botanist shall be responsible for protecting special status plant occurrences within 100 feet of the project boundaries.

A) Special-Status Plant Impact Avoidance and Minimization Measures

Here are 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. 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:

- a) **Site Design Modifications:** 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. These modifications shall be clearly depicted on the grading and construction plans, and on report-sized maps in the BRMIMP.
- b) **Delineate Environmentally Sensitive Areas (ESAs).** 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, but within 100 feet of, the Project Disturbance Areas. 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 occurrence. 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 upgradient 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.
- c) **Special-Status Plant Worker Environmental Awareness Program (WEAP).** The WEAP (Mitigation Measure VEG-6) shall include training components specific to protection of special-status plants that may occur in the Project Area.
- d) **Herbicide and Soil Stabilizer Drift Control Measures.** Special-status plant occurrences within 100 feet of the Project Disturbance Area shall be protected from herbicide and soil stabilizer drift. The IWMP (APM BIO-5) shall include measures to minimize potential

for chemical drift or residual toxicity to special-status plants consistent with guidelines outlined in a Pesticide Use Proposal (PUP), 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.

- e) Erosion and Sediment Control Measures. 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.
- f) Monitoring and Reporting Requirements. The Designated Botanist shall conduct weekly monitoring of the ESAs that protect special-status plant occurrences during construction and decommissioning activities.

B) Avoidance Requirements for Special-Status Plants

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

1. Mitigation for special-status plants as defined in Section 3.3.1.3 – Avoidance on Linear Corridors Required: If special-status species as defined in Section 3.3.1.3 are detected within the Project Disturbance Area, the Applicant shall prepare and implement a Vegetation Resources Management Plan (VRMP) 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-9.D for impacts to special-status plants that cannot be avoided. The content of the VRMP and definitions shall be as described as follows:
 - a. A description of the occurrences of the special-status species on the Project site, ecological characteristics such as micro-habitat requirements, ecosystem processes required for maintenance of the habitat, reproduction and dispersal mechanisms, pollinators, local distribution, and a description of the extent of the population off-site occurrences. 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 is infeasible.
 - c. A description of the measures that would be implemented to avoid or minimize impacts resulting from Project development. Avoidance is generally considered not feasible if the species is located within the Project Disturbance Area (bounded by the 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-9.C, below, and may include land acquisition or implementation of a restoration/enhancement program for the species. Compensatory offsite mitigation shall occur outside of a DFA.
- 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.
2. Preservation of the Germplasm of Affected Special-Status Plants. For all direct 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 VRMP, which would include components for habitat restoration and site revegetation, approved by the BLM AO.

C) Off-Site Compensatory Mitigation for Protected Plants

This section describes performance standards for mitigation for a range of options for compensatory mitigation.

Where compensatory mitigation is required under the terms of Mitigation Measure VEG-9.B, above, the Applicant shall mitigate Project impacts with compensatory mitigation. Compensatory mitigation shall consist of acquisition of habitat supporting the species, or restoration/enhancement of populations of the species, and shall meet the performance standards for mitigation described below. Compensation shall be initiated or completed within 12 months from the time the resource impact occurs, unless a 6-month extension is approved by the Authorizing Officer.

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.

The Applicant shall comply with other related requirements of this measure, as follows:

- I. Compensatory Mitigation by Acquisition: The requirements for the acquisition initial protection and habitat improvement, and long-term maintenance and management of

compensation lands for state and Federally protected plant species include all of the following:

1. Selection Criteria for Acquisition Lands. The compensation lands selected for acquisition may include any of the following three categories:
 - a. Occupied Habitat, No Habitat Threats: The compensation lands selected for acquisition shall be occupied by the species and shall be characterized by site integrity and habitat quality that are required to support the species, and shall be of equal or better habitat quality than that of the affected occurrence. The occurrence of the species on the proposed acquisition lands should be viable, stable or increasing (in size and reproduction).
 - 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-9.C.II, below.
 - c. Unoccupied but Adjacent. The Applicant may also acquire habitat for which occupancy by the 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 species.
2. Review and Approval of Compensation Lands Prior to Acquisition. 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.
3. Compensation Land Management Plan. 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 plant occurrences. The Management Plan shall be submitted for review and approval to the BLM AO.
4. Integrating Plant Mitigation with Other Mitigation lands. If all or any portion of the acquired Mojave 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 plant mitigation.
5. Compensation Lands Acquisition Requirements. 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:

- 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.
- 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 may be to CDFW or an organization qualified to hold title to and manage compensation lands (pursuant to California Government Code §65965), to BLM, or another 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 CDFW or another entity approved by the BLM AO. If an entity other than CDFW holds a conservation easement over the compensation lands, the BLM AO may require that CDFW or another entity approved by the BLM AO, in consultation with CDFW, 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.
- 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 Mojave desert tortoise mitigation as a best available proxy. A qualified organization, CDFW 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 CDFW, and if it is authorized to participate in implementing the required activities on the compensation lands. If CDFW takes fee title to the compensation lands, the habitat improvement fund must be paid to CDFW or its designee.
- 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.
- e. Long-term Maintenance and Management Funding. In accordance with Mitigation Measure VEG-11 (Phasing), 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.

- f. The BLM AO, in consultation with CDFW, 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 CDFW takes fee title to the compensation lands, CDFW 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 CDFW and with CDFW supervision.
- 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:
 - 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.
 - 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.
 - 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.
- 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 CDFW or an approved third party, escrow fees or costs, environmental contaminants clearance, and other site cleanup measures.
- i. Mitigation Security. The Applicant shall provide financial assurances in accordance with Mitigation Measure VEG-10.2 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 Mojave desert tortoise mitigation as a best available proxy. 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 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.

- 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.

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 CDFW, 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.

- II. Compensatory Mitigation by Habitat Enhancement/Restoration: As an alternative or adjunct to land acquisition for compensatory mitigation the Applicant may undertake habitat enhancement or restoration for the plant species. 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.

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 >30 percent; b) an immediate threat that affects >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”).

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 Mojave desert tortoise mitigation as a best available proxy for every acre of habitat supporting the 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:

1. **Goals and Objectives.** 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 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”).
2. **Historical Conditions.** 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.
3. **Site Characteristics.** 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).

4. Ecological Factors. Describe other important ecological factors of the species being protected, restored, or enhanced such as total population, reproduction, distribution, pollinators, etc.
5. Methods. 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.
6. Budget. Provide a detailed budget and time-line, and develop clear, measurable, objective-driven annual success criteria.
7. Monitoring. 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. In review of the plan, BLM will consider the ability of the proposed activities to support BLM's Long Term Monitoring Strategy for the Riverside East SEZ (BLM 2016).
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.
9. Contingency Plan. Describe the contingency plan for failure to meet annual goals.
10. 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 species.

VEG-10: Mitigation for Impacts to Sensitive Riparian Habitat and State Waters. 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.

1. Acquire Off-Site State Waters: If the Project results in direct impacts to state jurisdictional waters, the Applicant shall acquire, in fee or in easement, a parcel of land, the mitigation ratio of which is to be determined by CDFW based on review of the Streambed Alteration Agreement application. The terms and conditions of this acquisition or easement shall be as described in Mitigation Measure WIL-4, Part 3, Compensation Lands Acquisition Requirements. 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.

2. Security for Implementation of Mitigation: The Applicant shall provide financial assurances to the BLM AO and CDFW 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 CDFW 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 CDFW and the USFWS, to ensure funding. See Mitigation Measure WIL-4, Part 3, Compensation Lands Acquisition Requirements, for a discussion of the assumptions used in calculating the Security. The Security amounts may change based on land costs or the estimated costs of enhancement and endowment. The final amount due shall be determined by the PAR analysis conducted pursuant to Mitigation Measure Mitigation Measure WIL-4, Part 3, Compensation Lands Acquisition Requirements, and approved by the BLM AO and CDFW. The final mitigation acreage is also subject to CDFW concurrence with Project impacts to waters of the state that were developed by the Applicant.
3. Preparation of Compensation Land Management Plan: The Applicant shall submit to the BLM AO and CDFW 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.
4. Code of Regulations: The Applicant shall provide a copy of the BRMMP and CDFW 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 CDFW personnel upon demand. The BLM AO reserves the right to issue a stop work order or allow CDFW to issue a stop work order after giving notice to the Applicant. If the BLM AO in consultation with CDFW, determines that the Applicant has breached any of the terms or conditions or for other reasons, including but not limited to the following:
 - a. The information provided by the Applicant regarding streambed alteration is incomplete or inaccurate;
 - b. New information becomes available that was not known to it in preparing the terms and conditions; or
 - c. The Project or Project activities as described in the Staff Assessment have changed.
5. Best Management Practices: The Applicant shall also comply with the following conditions to protect drainages near the Project Disturbance Area:
 - a. The Applicant shall minimize road building, construction activities and vegetation clearing within ephemeral drainages to the extent feasible.
 - 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.

- 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.
- 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.
- 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.
- 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.
- 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.
- 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.

VEG-11: Project Phasing. The Applicant may provide mitigation as required in multiple phases for distinct construction elements. 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 shall occur within Mojave desert tortoise exclusionary fenced areas that have been cleared in accordance with USFWS protocols.

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 Mojave 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-10). Compensatory mitigation for each phase shall be implemented according to the timing required by each condition.

VEG-12: Monitoring and Research. The Applicant shall provide the BLM and/or its designees access to land within the fenced area of the Desert Quartzite solar energy facility at any time for the purposes of research and monitoring, which may also include the installation of compatible facilities within the project boundaries.

G.4 BIOLOGICAL RESOURCES – WILDLIFE

The following measures shall be implemented to reduce or avoid wildlife species impacts from construction, operation and maintenance, and decommissioning of the Project. Mitigation measures VEG-1 through VEG-8, and VEG-11 are general biological mitigation measures which are applicable to both vegetation and wildlife.

Prior to construction, the following plans required by this section and those required in Section 4.3, *Biological Resources - Vegetation*, shall be prepared and submitted to the appropriate agencies for review and approval:

1. Desert Tortoise Translocation Plan
2. Raven Monitoring and Control Plan
3. Bird and Bat Conservation Strategy
4. Burrowing Owl Mitigation Plan
5. Biological Resources Mitigation, Implementation, and Monitoring Plan
6. PAR for Mojave Fringe-toed Lizard compensation

These plans or programs are explained below in more detail.

WIL-1: Measures to Avoid Take of Mojave Desert Tortoise. The Applicant shall undertake appropriate measures to manage the construction site and related facilities in a manner to avoid or minimize impacts to Mojave 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) *Desert Tortoise Field Manual* or more current guidance provided by CDFW 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, unless superseded by requirements of the BO.

Preconstruction Survey. Prior to the initiation of construction activities, the Applicant shall conduct a pre-construction survey to determine the number of tortoises that would be affected by Project implementation, in accordance with USFWS (2011b) protocol, and consult with USFWS to confirm the survey results.

Exclusionary Fencing. The Applicant shall erect temporary and/or permanent tortoise exclusionary fencing around active portions of the Project site following the pre-construction tortoise survey. The exclusionary fencing, whether temporary or permanent in nature, shall be installed according to USFWS (2009) protocol, which requires fencing to be buried 12 inches below the ground surface and extending to 22-24 inches above the ground surface. If a phased approach is implemented during the construction phase, the exclusionary fencing may be installed in phases, with pre-construction surveys conducted prior to and clearance surveys conducted immediately after installation of the exclusionary fence. The Applicant shall also ensure that tortoise exclusionary fencing is maintained during the decommissioning phase to keep tortoises from accessing active work areas. Throughout the construction and decommissioning phases, the tortoise exclusionary fence shall be checked regularly per item 4

below, and repaired (if necessary) to ensure its integrity. If a tortoise is encountered along the inside or outside of the fence, an Authorized Biologist shall capture it in accordance with USFWS (2009: Chapter 7) and DTC (1999) protocols, perform a health assessment in accordance with USFWS (2013) guidelines, attach a radio transmitter to the tortoise in accordance with USFWS (2009) and Boarman et al. (1998) protocols, and release the tortoise in a previously identified Project-adjacent relocation areas supporting tortoise habitat in accordance with USFWS (2011b) protocol. Temporary exclusionary fencing shall be removed following completion of the construction and decommissioning phases.

The Applicant shall ensure that the Project's perimeter security fence includes exclusionary fencing that prevents Mojave desert tortoises and other burrowing animals from accessing the Project site. The exclusionary fencing shall be installed at the base of the security fence according to USFWS (2009) specifications, and cattle guards shall be installed at entrances to the Project, also according to USFWS (2009) protocol.

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 Mojave desert tortoise exclusionary fence and utility rights-of-way alignments shall be conducted using techniques outlined in the USFWS' 2009 *Desert Tortoise Field Manual*. Prior to the surveys the Applicant shall provide to the BLM Authorized Officer (BLM AO), CDFW, USFWS, and the County a figure clearly depicting the limits of construction disturbance for the proposed fence installation.

1. *Timing, Supervision of Fence Installation.* The exclusion fencing shall be installed prior to the onset of site clearing and grubbing. The fence installation shall be supervised by the Designated Biologist and monitored by the Biological Monitors to ensure the safety of any tortoise present.
2. *Fence Material and Installation.* All Mojave desert tortoise exclusionary fencing shall be constructed in accordance with the USFWS' Desert Tortoise Field Manual (2009, Chapter 8 – Desert Tortoise Exclusion Fence).
3. *Security Gates.* Security gates shall be designed with minimal ground clearance to deter ingress by tortoises. Tortoise guards shall be installed at gate locations.
4. *Fence Inspections.* Following installation of the Mojave desert tortoise exclusion fencing, the fencing shall be regularly inspected during construction, operations, and decommissioning. If tortoise were moved out of harm's way during fence construction, fencing shall be inspected daily for the first 7 days to ensure a recently moved tortoise has not been trapped within the fence. Thereafter, fencing shall be inspected quarterly and during and within 24 hours following 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 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.

Mojave Desert Tortoise Clearance Surveys within the Plant Site. Clearance surveys shall be conducted in accordance with the USFWS (2011b) protocol and USFWS-approved Desert Tortoise Translocation Plan. Clearance surveys of the 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 within the solar plant site require approval by USFWS and CDFW. 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 Translocation Plan.

Burrow Searches. During clearance surveys all Mojave desert tortoise burrows, and burrows constructed by other species that might be used by Mojave desert tortoises, shall be examined by the Designated Biologist, who may be assisted by the Biological Monitors, to assess occupancy of each burrow by Mojave 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 Translocation Plan.

Burrow Excavation/Handling. All potential Mojave desert tortoise burrows located during clearance surveys would be excavated by hand, tortoises removed, and collapsed or blocked to prevent occupation by Mojave desert tortoises. All Mojave 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*.

Monitoring Following Clearing. Following the Mojave 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 onsite 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 Translocation Plan.

Reporting. The Designated Biologist shall record the following information for any Mojave 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 Mojave 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 Mojave desert tortoise as described in the paragraph below. Mojave desert tortoise moved from within Project areas shall be marked and monitored in accordance with the Desert Tortoise Translocation Plan (Mitigation Measure WIL-2).

Avoidance – Construction. During the construction of linear features (fencing, transmission lines, and access roads), all live tortoises and active burrows shall be avoided to the extent possible. The Applicant shall ensure that an Authorized Biologist or Biological Monitor under their supervision monitors any Project activities in unfenced areas for presence of tortoises. If an active burrow cannot be avoided by construction activities, the burrow shall be excavated using protocols in USFWS Desert Tortoise Field Manual (USFWS 2009). If a tortoise wanders into an unfenced, active work area, does not leave the area on its own accord, and cannot be avoided by

Project activities, the Applicant shall ensure that an Authorized Biologist captures the tortoise, implements a health assessment of the tortoise, relocates it to previously identified appropriate Project-adjacent habitat away from any active, unfenced work areas, and monitor the individual via telemetry, in accordance with USFWS (2011) protocol. The Authorized Biologist or Biological Monitor shall have a copy of all measures, including the BO, when monitoring Project activities. The Authorized Biologist or Biological Monitor shall have the authority to halt all non-emergency activities that are in violation of the measures. Work shall proceed only after hazards to Mojave desert tortoise are removed, the species is no longer at risk, or the individual has been moved from harm's way by an Authorized Biologist. A compliance report shall be submitted to the BLM and USFWS annually.

Avoidance – Operations and Maintenance. The Applicant shall ensure that an Authorized Biologist or Biological Monitor under their supervision monitors any Project activities in unfenced areas for presence of tortoises during the O&M phase. If a tortoise wanders into an unfenced, active work area, does not leave the area on its own accord, and cannot be avoided by Project activities, the Applicant shall ensure that an Authorized Biologist captures the tortoise, implements a health assessment of the tortoise, relocates it to previously identified appropriate Project-adjacent habitat away from any active, unfenced work areas, and monitor the individual via telemetry, in accordance with USFWS (2011) protocol. The Authorized Biologist or Biological Monitor shall have a copy of all measures, including the BO, when monitoring Project activities. The Authorized Biologist or Biological Monitor shall have the authority to halt all non-emergency activities that are in violation of the measures. Work shall proceed only after hazards to Mojave desert tortoise are removed, the species is no longer at risk, or the individual has been moved from harm's way by an Authorized Biologist. A compliance report shall be submitted to the BLM and USFWS annually.

WIL-2: Mojave Desert Tortoise Translocation Plan. If the pre-construction survey determines that more than 5 tortoises are located on the Project site, the Applicant shall identify an off-site translocation site that is depleted of tortoises, where tortoises may be translocated in accordance with USFWS (2011b) protocol. The Applicant shall ensure that each proposed translocation site is surrounded by appropriate habitat with a 6.5 km radius in accordance with USFWS (2011b) protocol. The Applicant shall also identify areas of appropriate tortoise habitat directly adjacent to the Project site where tortoises may be relocated in accordance with USFWS (2011b) protocol.

Prior to ground disturbance, a Desert Tortoise Translocation Plan shall be prepared for the Project that provides details for conducting translocation of tortoises to off-site translocation areas or relocation of tortoises to near-site relocation areas. The purpose of the plan is to describe the process of translocation, minimize mortality of Mojave desert tortoises, and assess the effectiveness of the translocation effort through a long-term monitoring program. If more than 5 tortoises are discovered in the Project site during the clearance survey, the Applicant shall implement health assessments of the tortoises, translocate them to previously identified off-site translocation sites, and monitor them via telemetry, in accordance with USFWS (2011b) protocol. If one to five tortoises are discovered in the Project site during the clearance survey, the Project proponent shall implement health assessments of the tortoises, relocate them to previously identified Project-adjacent areas, and monitor them via telemetry, in accordance with USFWS (2011b) protocol.

WIL-3: Project Notifications and Reporting. 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 Project's Designated Representative, in consultation with the Project's Designated Biologist shall 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. The Project's Designated Biologist shall:

- a. **Monitoring During Grubbing and Grading.** 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.
 - b. **Monthly Inspections.** Conduct inspections at a minimum of once per month after clearing, grubbing, and grading are completed and submit a monthly report to the Project's Designated Representative for their submittal to the BLM AO, USFWS, County, and/or CDFW during construction.
- 1) **Notification of Injured, Dead, or Relocated Listed Species.** In the event of an unauthorized take of a listed species in an active construction area (e.g., with equipment, vehicles, or workers), the BLM AO, CDFW, 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:
- **Injured Desert Tortoise.** If a Mojave desert tortoise is injured as a result of Project-related activities during construction, the Designated Biologist shall immediately take it to a CDFW-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, CDFW, 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.
 - **Desert Tortoise Fatality.** If a Mojave 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 Mojave desert tortoises shall be salvaged according to guidelines described in the USGS publication *Salvaging Injured, Recently Dead, Ill, and Dying Wild, Free-Roaming Desert Tortoise*. The Applicant shall pay to have the Mojave desert tortoises transported and necropsied. The report shall include the date and time of the finding or incident.

- c. **Stop Work Order.** 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 or monitoring) 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.

WIL-4: Compensatory Mitigation for Desert Tortoise Habitat Losses. To fully mitigate for habitat loss and potential take of Mojave desert tortoise, the Applicant shall provide compensatory mitigation at a 1:1 ratio for impacts to 3,760 acres (consisting of all vegetation alliances, but not including disturbed/developed) within the Alternative 1 footprint, 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 viable long-term habitat for the Mojave desert tortoise. To satisfy this measure, the Applicant shall acquire, protect and transfer 1 acre of Mojave desert tortoise habitat for every acre of habitat within the final Project footprint, and provide associated funding for the acquired lands, as specified below. The Applicant has 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. The legal authority of the in lieu fee option is outlined in WIL-11.

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 the land, in fee or in easement, within 12 months from the time the resource impact occurs, unless a 6-month extension is approved by the Authorizing Officer.

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:

1. **Selection Criteria for Compensation Lands.** The compensation lands selected for acquisition in fee title or in easement shall:
 - a. be within the Chuckwalla Critical Habitat Unit or, if sufficient land is unavailable, in other locations within the Colorado Desert Recovery Unit;
 - b. be located outside of a DFA;
 - c. provide habitat for Mojave desert tortoise with capacity to regenerate naturally when disturbances are removed;
 - d. 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;
 - e. be connected to lands with Mojave desert tortoise habitat equal to or better quality than the Project site, ideally with populations that are stable, recovering, or likely to recover;

- f. 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;
 - g. 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;
 - h. not contain hazardous wastes that cannot be removed to the extent that the site could not provide suitable habitat; and
 - i. have water and mineral rights included as part of the acquisition, unless the BLM AO, in consultation with CDFW and USFWS, agrees in writing to the acceptability of land.
2. ***Review and Approval of Compensation Lands Prior to Acquisition.*** The Applicant shall submit a formal acquisition proposal to the BLM AO, CDFW, 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 Mojave desert tortoise in relation to the criteria listed above. Approval from the BLM AO and CDFW, in consultation with BLM and the USFWS, shall be required for acquisition of all compensatory mitigation parcels.
3. ***Compensation Lands Acquisition Requirements.*** The Applicant shall comply with the following requirements relating to acquisition of the compensation lands after the BLM AO and CDFW, in consultation with BLM and the USFWS, have approved the proposed compensation lands:
- a. ***Preliminary Report.*** 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 CDFW. All documents conveying or conserving compensation lands and all conditions of title are subject to review and approval by the BLM AO and CDFW, 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.
 - b. ***Title/Conveyance.*** The Applicant shall transfer fee title to the compensation lands, a conservation easement over the lands, or both fee title and conservation easement. 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, shall require that both types of transfers be completed. Any transfer of a conservation easement or title must be to CDFW, 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 CDFW. If an approved non-profit organization holds title to the compensation lands, a conservation easement shall be recorded in favor of CDFW in a form approved by CDFW. If an approved non-profit holds a conservation easement, CDFW shall be named a third party beneficiary.

- c. *Initial Habitat Improvement Fund.* 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 CDFW and the BLM AO. If CDFW takes fee title to the compensation lands, the habitat improvement fund must be paid to CDFW or its designee.
- d. *Property Analysis Record.* 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.
- e. *Long-term Maintenance and Management Fund.* 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.

The BLM AO, in consultation with CDFW, 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 CDFW takes fee title to the compensation lands, CDFW 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 CDFW and with CDFW supervision.

- f. *Interest, Principal, and Pooling of Funds.* The Applicant, the BLM AO and CDFW shall ensure that an agreement is in place with the long-term maintenance and management fee holder/manager to ensure the following conditions:
 - 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 CDFW designed to protect or improve the habitat values of the compensation lands.
 - 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 CDFW 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 CDFW takes fee title to the compensation lands, monies received by CDFW pursuant to this provision shall be deposited in a special deposit fund established solely for the purpose to manage lands in perpetuity unless CDFW designates NFWF or another entity to manage the long-term maintenance and management fee for CDFW.
 - iii. *Pooling Long-Term Maintenance and Management Fee Funds.* CDFW, or a BLM AO- and CDFW-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 Mojave desert tortoise. However, for reporting purposes, the long-term maintenance and management fee fund must be tracked and reported individually to the CDFW and BLM AO.

- 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 CDFW or an approved third party; escrow fees or costs; environmental contaminants clearance; and other site cleanup measures.
- g. *Mitigation Security*. The Applicant shall provide financial assurances to the BLM AO and CDFW 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 CDFW'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 CDFW 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 CDFW's approval, in consultation with the USFWS, of the form of the Security. Security shall be provided in the amounts calculated as follows:
 - i. land acquisition costs for compensation land, calculated at \$500/acre.
 - ii. initial protection and improvement activities on the compensation land, calculated at \$330/acre.
 - iii. Long term maintenance and management fee, calculated at \$1,450 an acre.

The amount of security shall be adjusted for any change in the Project footprints for each phase as described above.

- 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 deposited for the initial protection and improvement of the compensation lands shall not be returned to the Applicant.

The responsibility for acquisition of compensation lands may be delegated to a third party other than NFWF, such as a private or non-governmental organization, by written agreement of the BLM AO and CDFW. Such delegation shall be subject to approval by the BLM AO and CDFW, 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 within 18 months of the BLM's approval.

WIL-5: Raven Management Plan. A Raven Management Plan shall be submitted to the BLM and County for approval prior to the start of ground disturbance and issuance of a County grading permit. The Raven Management Plan shall address Project characteristics and activities that may attract or subsidize common ravens. The Raven Management Plan shall include measures designed to: 1) minimize attracting and subsidizing ravens, 2) provide education to Project personnel, 3) remove raven nests and offending ravens, and 4) implement adaptive management. The Applicant shall also provide funding for implementation of the USFWS Regional Raven Management Program, as described below.

1. The Raven Plan shall:
 - a. Identify conditions associated with the Project that might provide raven subsidies or attractants;
 - b. Describe management practices to avoid or minimize conditions that might increase raven numbers and predatory activities;
 - c. Describe control practices for ravens;
 - d. Establish thresholds that would trigger implementation of control practices;
 - e. Address monitoring and nest removal during construction and for the life of the Project, and;
 - f. Discuss reporting requirements.
2. USFWS Regional Raven Management Program: 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 CDFW. The contribution to the regional raven management plan will be \$105 per acre impacted.

WIL-6: Bird and Bat Conservation Strategy. Prior to the Notice to Proceed, the Applicant shall finalize and implement their draft BBCS to include the following:

- Describe baseline conditions for bird and bat species present within the Project site, including results of site-specific surveys.
- Assess potential risk to bird and bats based on the proposed activities.
- Specify conservation measures that will be employed to avoid, minimize, and/or mitigate any potential adverse effects to these species.

- Describe the incidental monitoring and reporting that will take place during construction.
- Provide details for avian and bat post-construction monitoring and reporting.
- Specify the adaptive management process that will be used to address potential adverse effects on these species.
- Monitor the death and injury of birds and bats from collisions with facility features such as, but not limited to, transmission lines, tower structures (e.g., meteorological towers), and the solar field.
- The monitoring data shall be used to inform a 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 USFWS, and shall be incorporated into the Project's Biological Resources Mitigation, Implementation, and Monitoring Plan (BRMIMP; see Mitigation Measure VEG-7) and implemented.
- Post-construction mortality monitoring will be required for a minimum of two years, including the following project components: PV solar panel arrays (40% survey coverage per year), perimeter fencing (100% survey coverage per year), and the gen-tie line (50% survey coverage per year).

The Applicant shall provide analysis to BLM evaluating the feasibility of using tanks instead of ponds for water storage. Ponds shall not be used unless specifically approved by the Authorized Officer.

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:

1. Provide 60-inch minimum horizontal separation between energized conductors or energized conductors and grounded hardware;
2. Insulate hardware or conductors against simultaneous contact if adequate spacing is not possible;
3. Use structure designs that minimize impacts to birds; and
4. Shield wires to minimize the effects from bird collisions.

WIL-7: Pre-Construction Nest Surveys. Prior to ground disturbance activities (such as initial grading or mowing activity), pre-construction nest surveys for all migratory birds shall be conducted if construction activities would begin from February 1 through August 31. For construction work within 500 feet of Bendire's thrasher suitable habitat, pre-construction surveys shall be conducted prior to work from March 1 to September 30.

The qualified biologists 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. The bird surveyors shall perform surveys in accordance with the following guidelines:

1. Surveys shall cover all potential nesting habitat areas, including the Blue paloverde-Desert Ironwood vegetation that could be disturbed by each phase of grading. Surveys shall also include areas within 200 feet of the boundaries of the active construction areas (including linear facilities);
2. Pre-construction surveys for nesting birds shall be conducted within a 14-day period preceding initiation of grading or mowing activity. Workers shall be trained in the WEAP training to identify and report nests in active construction areas, 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;
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 qualified biologist) 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
4. The qualified biologist shall monitor the nest until he or she determines that nestlings have fledged; activities that might, in the opinion of the monitors, disturb nesting activities, shall be prohibited within the buffer zone until such a determination is made.

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

1. ***Prepare Desert Kit Fox Management Plan:*** At least 45 days prior to construction, the Applicant shall prepare a Desert Kit Fox Management Plan that: 1) incorporates baseline desert kit fox census 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 relocation methods from the site, including the possibility for passive relocation from the site (and outlines identified CDFW permit and MOU requirements for active relocation), 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 or in potential relocation areas, 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 AO in consultation with USFWS and CDFW.
2. ***Implement Desert Kit Fox Management Plan:***
 - 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 active 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 be 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 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, as demonstrated by the procedures specified in paragraph c above, the BLM AO and CDFW 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 natal 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 kit fox scat detection dogs during preconstruction surveys, and then only with prior CDFW approval;
 - ii. Any kit fox hazing activities that include the use of animal repellents such as coyote urine must be cleared through CDFW prior to use, and;
 - iii. Any sick or diseased kit fox, or documented kit fox mortality shall be reported to CDFW and the BLM AO within 24 hours of identification. If a dead kit fox is observed, it shall be retained and protected from scavengers until CDFW determines if the collection of necropsy samples is justified.

WIL-9: Burrowing Owl Protection and Mitigation. The Applicant shall implement the following measures to avoid, minimize and offset impacts to burrowing owls:

1. ***Pre-Construction Surveys:*** The Qualified Biologist or Biological Monitor shall conduct pre-construction surveys for burrowing owls no more than 30 days and no less than 14 days prior to start of construction. Surveys shall be focused exclusively on detecting burrowing owls, and shall be conducted from two hours before sunset to one hour after sunrise.
2. ***Implement Burrowing Owl Mitigation Plan:*** If burrowing owls are documented during the preconstruction surveys, the Applicant shall prepare and implement a final Burrowing

Owl Mitigation Plan that is consistent with guidance provided in the CDFW (2012) *Staff Report on Burrowing Owl Mitigation*. The Plan shall be approved by the BLM AO in consultation with USFWS and CDFW, and shall identify appropriate off-site areas for creation or enhancement of burrows to support passive relocation of burrowing owls, provide details for implementing the passive burrow exclusion and relocation of burrowing owls from the Project site, and specify reporting protocol for any implemented burrowing owl mitigation measures. Active translocation may be considered, in consultation with CDFW.

3. ***Implement Avoidance Measures:*** If an active burrowing owl burrow is detected within 656 feet from the Project disturbance area the following avoidance and minimization measures shall be implemented:
 - a. **Establish Non-Disturbance Buffer:** Caution tape 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 caution tape 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. The appropriateness of buffer distances shall be carefully reassessed and relaxed or modified, on a case-by-case based on a review by the Qualified Biologist, and shall depend on existing conditions (e.g., vegetation/topographic screening and current disturbance regimes) and/or future development plans (e.g., increased or intensified construction activities).
 - b. **Monitoring:** If construction activities would occur within 656 feet of the occupied burrow during the nesting season (February 1 to August 31st) the Qualified 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.
4. ***Acquire Compensatory Burrowing Owl Habitat:*** If preconstruction surveys determine the presence of burrowing owls that would be impacted by the Project, consistent with CDFW mitigation guidance (CBOC 1993) the Applicant shall acquire, in fee or in easement, 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 6.5 acres per pair or individual bird documented during the preconstruction survey as anticipated to be impacted by the Project. Compensation shall be initiated or completed within 12 months from the time the resource impact occurs, unless a 6-month extension is approved by the Authorizing Officer. The responsibilities for acquisition and management of the compensation lands may be delegated by written agreement to CDFW 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 CDFW 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 Mitigation

Measure WIL-4, Part 3, Compensation Lands Acquisition Requirements, with the additional criteria to include: 1) the 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 burrowing owl mitigation lands may be included with the Mojave desert tortoise mitigation lands ONLY if these two burrowing owl criteria are met. If the burrowing owl mitigation land is separate from the acreage required for Mojave desert tortoise compensation lands, the Applicant shall fulfill the requirements described below in this measure.

- b. *Security*: If the burrowing owl mitigation land is separate from the acreage required for Mojave 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 CDFW, according to the measures outlined in Mitigation Measure Mitigation Measure WIL-4, Part 3, Compensation Lands Acquisition Requirements. 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 CDFW and the USFWS to ensure funding. The final amount due shall be determined by an updated appraisal and PAR analysis conducted as described in Mitigation Measure Mitigation Measure WIL-4, Part 3, Compensation Lands Acquisition Requirements.

WIL-10: Compensatory Mitigation for Mojave Fringe-toed Lizard Habitat Losses. 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 Mojave fringe-toed lizard habitat, as required by the NECO Plan Amendment to the CDCA Plan (BLM 2002). Without this mitigation, the project would not be consistent with the land use plan, with which BLM is required to comply. 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. Compensation shall be initiated or completed within 12 months from the time the resource impact occurs, unless a 6-month extension is approved by the Authorizing Officer.

1. ***Criteria for Compensation Lands***: The compensation lands selected for acquisition shall:
 - a. Be deposits of eolian or fine windblown sands typically associated with dunes, washes, hillsides, margins of dry lakes, and sandy hummocks within the McCoy Valley or Chuckwalla Valley, outside of DFAs, 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;
 - b. To the extent feasible, be connected to lands currently occupied by Mojave fringe-toed lizard;

- 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;
 - d. Provide quality habitat for Mojave fringe-toed lizard, that has the capacity to regenerate naturally when disturbances are removed;
 - 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 that cannot be removed to the extent the site is suitable for habitat;
 - 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 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 Mitigation Measure WIL-4, Part 3, Compensation Lands Acquisition Requirements. The final amount due shall be determined by an updated appraisal and a PAR analysis conducted as described in Mitigation Measure Mitigation Measure WIL-4, Part 3, Compensation Lands Acquisition Requirements.
 3. ***Preparation of Compensation Land Management Plan:*** The Applicant shall submit to the BLM AO, CDFW 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.

WIL-11: In-Lieu Fees to Satisfy Compensation Requirements. 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 California Department of Fish and Wildlife to mitigate the impacts identified herein.

WIL-12: Couch's Spadefoot Toad Protection and Mitigation. Prior to ground disturbance, the Applicant shall prepare and implement a Couch's Spadefoot Toad Protection and Mitigation Plan (Protection and Mitigation Plan) to avoid, minimize or mitigate impacts to Couch's spadefoot toads and their breeding habitat during construction, operation, and decommissioning of the Project. The Protection and Mitigation Plan shall be approved by BLM's Authorized Officer in

consultation with CDFW, and shall be incorporated into the Project's BRMIMP and implemented. The Protection and Mitigation Plan shall include avoidance, minimization, and mitigation measures that would be required if occupied habitat is found during habitat surveys. The Protection and Mitigation Plan shall include, at a minimum:

1. Habitat Survey Results: a. Survey methodology; b. Survey results, including a detailed discussion of potential breeding sites, and a description of areas determined not to include breeding habitat; and c. Figures showing the areas surveyed and the location of potential breeding habitat in relation to proposed Project features.
2. Impacts Assessment from: a. Habitat disturbance from construction; b. Noise from construction, operations, and potential ORV traffic; c. Increased access for vehicles from road construction or improvements; d. Changes in breeding habitat due to changes in flow levels and flow patterns to breeding ponds; e. Increased traffic from construction and operations; f. Increased risk of predation.
3. Avoidance and Minimization Measures: a. Description of measures that would be implemented to avoid impacts to potential breeding ponds, such as design strategies; protective fencing or other barriers, worker's education, minimizing construction traffic within the vicinity of breeding ponds, and biological monitoring; b. Designation of a Management Area around breeding ponds that includes an appropriate upland buffer, and a description of measures used to minimize impacts to within this buffer.
4. Mitigation: If complete avoidance of breeding sites identified during surveys is not possible, the plan shall include plans to create additional breeding habitats (ephemeral pond) at least equal in area to the acreage of ponds being impacted.

WIL-13: Development of Ponding Area. The Applicant would use temporary water tanks. Should the applicant find developing water tanks infeasible, the applicant would provide the BLM Authorized Officer with written request with justification why water tanks are infeasible prior to implementing onsite ponds. The written request would also include relevant measures to avoid attracting wildlife.

G.5 CULTURAL RESOURCES

The following Project-specific mitigation measures were developed to reduce and/or avoid potential impacts associated with cultural resources.

CULTURAL-1: NHPA §106 Memorandum of Agreement. 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, Native American 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.

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.

In addition, a Plan for Archaeological Monitoring, Post-Review Discoveries, and Unanticipated Effects (also referred to a Monitoring and Discovery Plan or MDP) 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:

1. Avoidance of cultural resources is the preferred mitigation measure. On the basis of preliminary NRHP eligibility assessments, existing NRHP eligibility determinations, or CRHR eligibility assessments, 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.
2. Where NRHP- or CRHR-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. An example of treatment is data recovery at affected sites.
3. All NRHP-listed or eligible cultural resources and all CRHR-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 during ground disturbing activities 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.

CULTURAL-2: Historic Properties Treatment Plan (HPTP). Where NRHP- or CRHR-eligible or -listed historic properties cannot be protected from indirect effects by Project redesign, the Applicant shall comply with appropriate mitigative treatment(s) that will be detailed in a HPTP to be prepared for the Project prior to issuance of the NTP or a County Grading Permit. Indirect impacts include, but are not limited to visual effects, auditory effects, increased awareness of the sites, and increased traffic within the area. Treatment of the sites for indirect impacts may include complete recordation or updates of sites, field checks or long term monitoring, and rerouting of access roads near sites.

CULTURAL-3: Identification of Human Remains. For human remains discovered on BLM land, the process for securing the site, notification of responsible parties, and subsequent actions shall be identified in the MDP required by Mitigation Measure CULTURAL-5. The actions to be identified include consultation with Native Americans if appropriate and actions to comply with NAGPRA (25 U.S.C. § 3001) relative to handling of Native American cultural items such as human remains, funerary objects, sacred objects, or objects of cultural patrimony.

For human remains encountered on private lands, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin. Further, pursuant to PRC Section 5097.98(b), remains shall be left in place

and free from disturbance until a final decision as to treatment and disposition has been made. If the Riverside County Coroner determines the remains to be Native American, the NAHC shall be contacted within the period specified by law. The NAHC shall identify the “Most Likely Descendant,” who shall then make recommendations to and engage in consultation with the County and property owner concerning the treatment of the remains as provided in PRC Section 5097.98. The landowner may reach an agreement with the Most Likely Descendant for treating and disposing of human remains pursuant to state CEQA Guidelines Section 15064.5(d). Human remains from other ethnic/cultural groups with recognized historical associations to the Project area shall also be subject to consultation between appropriate representatives from that group and the County Archaeologist.

CULTURAL-4: Unanticipated Discoveries. If, during ground disturbance activities associated with construction, operation and maintenance, or decommissioning, archaeological sites are discovered that were not identified and evaluated in the archaeological survey reports or the Draft PA/EIS/EIR conducted prior to Project approval, and the following procedures shall be followed.

1. All ground disturbance activities within 100 feet of the discovered cultural resource shall be halted and the applicant shall notify the Project archaeologist, the Native American Tribal Observer, the BLM, and (on non-Federal land) the County archaeologist to discuss the significance of the find.
2. At the meeting, the significance of the discoveries shall be discussed in consultation with the Native American Tribal Observer and the Project archaeologist. The BLM alone shall determine the appropriate treatment for cultural resources on BLM- managed lands. The County Archaeologist and the BLM AO together shall determine the appropriate mitigation (documentation, evaluation, recovery, avoidance, etc.) for cultural resources on private lands. In determining the appropriate treatment on private land, the BLM shall follow requirements of 36 CFR Part 800.13 for post- review discoveries and the County Archaeologist shall implement CEQA Guidelines Section 15126.4(b) regarding mitigation related to impacts on historical resources and state CEQA Guidelines Section 15064.5(c) and 21083.2(g) regarding archaeological resources.
3. Further ground disturbance shall not resume within the area of the discovery until a meeting is convened with the aforementioned parties and a decision is made with the concurrence of the BLM and (on private land) the County Archaeologist as to the appropriate preservation or mitigation measures. The Applicant shall comply with the determinations of the County Archaeologist and BLM.

CULTURAL-5: Monitoring and Discovery Plan. Prior to issuance of the NTP or a County Grading Permit, the Applicant shall have the Secretary of the Interior Qualified/County-approved Project Archaeologist prepare and submit for approval to the BLM and the County of Riverside a MDP. The MDP shall map all cultural resources within the APE, as described in this Draft PA/EIS/EIR. The MDP shall also detail how resources, if any, are determined eligible or resources that are unevaluated but avoided by Project design, would be marked and protected as Environmentally Sensitive Areas during construction. The MDP shall also map additional areas that are considered to be of high sensitivity for discovery of buried significant cultural resources, including burials, cremations, or sacred features. The MDP shall detail provisions for monitoring construction in these high-sensitivity areas. It shall also detail procedures for halting

construction, making appropriate notifications to agencies, officials, and Native American tribes, and assessing NRHP and CRHR eligibility in the event that unknown archaeological resources are discovered during construction. For all post-review discoveries, the MDP shall detail the methods, consultation procedures, and timelines for implementing Mitigation Measures CULTURAL-1 and CULTURAL-2.

CULTURAL-6: Tribal Observer. Prior to any ground disturbances within the Project area, the Applicant shall, for a period of at least 60 days, make a good faith effort to enter into a contract with and retain monitors designated by Tribal representatives. These monitors shall be known as the Tribal Observer for this Project. Documentation of efforts shall be submitted to the BLM and County Archaeologists.

CULTURAL-7: Cultural Resources Monitoring Report. Prior to the final inspection of the first building permit, the Applicant shall prompt the Project Archaeologist to submit one (1) wet-signed hard copy and one (1) CD of a Cultural Resources Monitoring Report that meets BLM Manual requirements and also complies with the current Riverside County Planning Department's requirements for Phase IV Cultural Resource Monitoring Reports. The report shall include documentation of the required cultural/historical sensitivity training for the construction staff held during the pre-grade meeting, which shall include the BLM and County Archaeologist, unless no County representative is available. BLM and County Archaeologists shall review the report to determine adequate mitigation compliance. The accepted report shall be submitted to the BLM, County, Eastern Information Center, the Patton Memorial Museum, and interested tribes.

G.6 ENVIRONMENTAL JUSTICE

No mitigation measures are specifically recommended for environmental justice impacts. Mitigation measures are proposed to reduce impacts for several of the specific resource areas which could result in disproportionately high or adverse impacts on minority and/or low-income populations, including air quality, recreation, transportation and traffic, visual resources, and water resources. These were considered as part of the environmental justice analysis.

G.7 GEOLOGY AND SOILS

The following Project-specific mitigation measures were developed to reduce and/or avoid potential impacts associated with geologic hazards, and potential impacts to soil resources associated with the Project and alternatives.

GEO-1: Conduct geotechnical studies to assess soil characteristics and aid in appropriate foundation design. The Applicant and/or its contractor shall perform a design-level geotechnical study that includes subsurface exploration and material testing necessary to determine the 2013 CBC seismic design category and site soil class for which each of the Project components must be designed. The geotechnical study shall address geologic hazards including, but not necessarily limited to, slope stability, rock fall hazards, landslide hazards, surface fault rupture, fissures, liquefaction potential, collapsible and/or expansive soils, hydroconsolidation, subsidence, wind and water erosion, debris flows, seiche, and groundshaking potential. 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 DQSP 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 effects of soils on Project structures.

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, and to the County Engineering Geologist prior to scheduling the case for a public hearing.

G.8 PROJECT DESIGN

The following Project-specific mitigation measures were developed to reduce and/or avoid potential impacts associated with the Project and alternatives design.

GHG-1: Seal Circuit Breakers. All SF₆-containing circuit breakers that will be installed for each power unit shall be hermetically sealed.

G.9 HAZARDS AND HAZARDOUS MATERIALS

The following Project-specific mitigation measures were developed to reduce and/or avoid potential hazard and hazardous materials impacts associated with the Proposed Action and alternatives.

HAZ-1: Site-Specific Hazardous Materials Management and Emergency Response Plan. Prior to the Notice to Proceed, the Applicant shall prepare and implement a site-specific Hazardous Materials Management and Emergency Response Plan. The plan shall identify the chemicals potentially present in onsite 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 and County for approval prior to commencement of construction activities and shall be distributed to all construction crew members prior to construction, operation, and decommissioning of the Project.

The Phase I Environmental Site Assessment (ESA) conducted for the Project site in 2015 identified two suspected groundwater supply wells, which were observed to be open and unsecured. In addition, hazardous substances, in the form of partially-filled oil and lubricant

containers and other trash and debris, were observed on the private land parcel. There have been no subsequent response actions, including securing of the groundwater wells or sampling of environmental media, to verify whether site contamination currently exists. Prior to a notice to proceed for construction, the Applicant shall conduct additional hazardous substances investigations to establish a baseline hazardous contamination condition of groundwater and soils at the site. Hazardous materials containers currently onsite shall be removed and disposed properly. Soils in the area of these containers shall be sampled to determine whether contaminated soils are present. If present, contaminated soils shall be removed and disposed properly prior to construction in those areas. The Applicant shall sample groundwater in the vicinity of the two wells to document pre-Project groundwater quality, and then cap and secure any existing wells not used for construction or operations. Water quality and hazardous release testing of all wells and leach field would be conducted on a monthly basis and reported to the BLM Authorized Officer.

HAZ-2: Broken PV Module Detection and Handling. Damaged or broken modules shall be recycled or disposed of in an appropriately licensed landfill.

HAZ-3: Aircraft Safety Consultation. The Applicant shall consult with FAA to determine the requirements for filing FAA Forms 7460-1, Notice of Proposed Construction or Alteration, and 7460-2, Notice of Actual Construction or Alteration at least 45 days prior to the start date of construction. If such filing is required, the Applicant shall receive a “Determination of No Hazard to Air Navigation” in order to proceed.

UXO-1: UXO Identification, Training, and Reporting Plan. 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:

1. A description of the training program outline and materials, and the qualifications of the trainers;
2. Identification of available trained experts that will respond to notification of discovery of any suspected ordnance (unexploded or not);
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;
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.
5. Documentation of all surveys and investigations performed to evaluate and remove discovered ordnance.

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.

TLSN-1: Radio Frequency Interference. The Applicant shall limit the conductor surface electric gradient in accordance with the IEEE Radio Noise Design Guide for High-Voltage

Transmission Lines. After energizing the gen-tie line, the Applicant shall respond to and document all radio frequency interference complaints received and the responsive action taken. These records shall be made available to the BLM for review upon request.

G.10 LANDS, REALTY, AND AGRICULTURAL AND FORESTRY RESOURCES

No mitigation measures are required to reduce impacts related to lands and realty and land use planning. The Project would conform to power industry standards and best practices for the co-location of utility lines. Where the IOPs associated with use of the Section 368 corridor require mitigation, that mitigation is considered under the applicable resource sections, as shown in Appendix F, Table F-1.

G.11 MINERAL RESOURCES

No mitigation measures are recommended.

G.12 NOISE

The following mitigation measures would be imposed by the BLM to avoid or reduce noise impacts on residents:

NOISE-1: Noise Level Monitoring. The Applicant shall monitor noise levels at the NNSR location daily for one week before and for one week at the beginning of Month 6, when overlap of construction activity #3 and activity #5 (as defined in the Applicant's Noise Technical Report, URS 2015) begins, to verify that energy equivalent noise levels (Leq) measured over a 20-minute period do not increase between the two measurement periods by more than 10 dBA. If this limit is not exceeded, the Applicant may present results to BLM and the County to request that the requirement for further monitoring be eliminated. If the limit is exceeded, the Applicant shall work with BLM, the County, and affected residents to achieve the necessary reduction or otherwise mitigate the effect.

G.13 PALEONTOLOGICAL RESOURCES

The following mitigation measures would be imposed by the BLM to avoid and, if necessary, mitigate any impacts to paleontological resources:

PAL-1: Project Paleontologist. Prior to the issuance of a Notice to Proceed by BLM, a qualified paleontologist approved by the BLM to serve as Project Paleontologist shall be retained by the project owner. This individual shall retain a BLM paleontological resource use permit for the project and a paleontological permit from the County of Riverside. To do so, this individual shall have the following qualifications as stipulated in BLM Manual 8270-1 Chapter IV:

1. Professional instruction in a field of paleontology relevant to the work proposed (vertebrate, invertebrate, trace, paleobotany, etc.), obtained through:

- a. Formal education resulting in a graduate degree from an accredited institution in paleontology, or in geology, biology, botany, zoology or anthropology if the major emphasis is in paleontology; or
 - b. Equivalent paleontological training and experience including at least 24 months under the guidance of a professional paleontologist who meets qualification above that provided increased responsibility leading to professional duties similar to those in qualification above; and
2. Demonstrated experience in collecting, analyzing, and reporting paleontological data, similar to the type and scope of work proposed in the application;
 3. Demonstrated experience in planning, equipping, staffing, organizing, and supervising crews performing the work proposed in the application;
 4. Demonstrated experience in carrying paleontological projects to completion as evidenced by timely completion and/or publication of theses, research reports, scientific papers and similar documents.

The project owner shall provide the BLM Authorized Officer with the resume and qualifications of its Project Paleontologist for review and approval. The Project Paleontologist resume shall include the names and phone numbers of references. The resume shall also demonstrate to the satisfaction of the BLM Authorized Officer the appropriate education and experience to accomplish the required paleontological resource tasks. If the approved Project Paleontologist is replaced prior to completion of project mitigation and submittal of the Paleontological Resources Report, the project owner shall obtain BLM Authorized Officer approval of the replacement Project Paleontologist.

As described in BLM IM 2009-011, the Project Paleontologist will serve as the Principal Investigator (PI) under the BLM permit and is responsible for all actions under the permit, for meeting all permit terms and conditions, and for the performance of all other personnel. This person is also the contact person for the project proponent and the BLM.

Additional Paleontological Staff – The Project Paleontologist may obtain the services of Paleontological Field Agents, Field Monitors, and Field Assistants, if needed, to assist in mitigation, monitoring, and curation activities. These individuals must meet the qualifications as stipulated in BLM Manual 8270 1 Chapter IV and BLM IM 2009-011, and their resumes must be reviewed and approved by BLM as part of the BLM paleontological resource use permit process.

PAL-2: Materials for Project Paleontologist and BLM Authorized Officer. The project owner shall provide to the Project Paleontologist and the BLM Authorized Officer, for approval, maps and drawings showing the footprint of the power plant, construction lay-down areas, and all related facilities. Maps shall identify all areas of the Project where ground disturbance is anticipated. If the Project Paleontologist requests enlargements or strip maps for linear facility routes, the project owner shall provide copies to the Project Paleontologist and BLM Authorized Officer. The site grading plan, and plan and profile drawings for the utility lines would be acceptable for this purpose. The plan drawings should show the location, depth, and extent of all ground disturbances and be at a scale between 1 inch = 40 feet and 1 inch = 100 feet. If the footprint of the Project or its linear facilities changes, the project owner shall provide maps and drawings reflecting those changes to the Project Paleontologist and BLM Authorized Officer.

If construction of the Project proceeds in phases, maps and drawings may be submitted prior to the start of each phase. A letter identifying the proposed schedule of each project phase shall be provided to the Project Paleontologist and BLM Authorized Officer. Before work commences on affected phases, the project owner shall notify the Project Paleontologist and BLM Authorized Officer of any construction phase scheduling changes.

At a minimum, the project owner shall ensure that the Project Paleontologist or Paleontological Resources Monitor (PRM) consults weekly with the project superintendent or construction field manager to confirm area(s) to be worked the following week and until ground disturbance is completed.

PAL-3: Paleontological Resources Monitoring and Mitigation Plan (PRMMP). Prior to the issuance of a Notice to Proceed by BLM, the Project Paleontologist shall submit a Paleontological Resources Mitigation and Monitoring Plan (PRMMP) for the Project to the BLM for review and approval. The appropriate Paleontology Lead or Regional Paleontologist shall review the plan for sufficiency prior to acceptance. Approval of the PRMMP by the BLM Authorized Officer shall occur prior to any ground disturbance.

The PRMMP shall be prepared and implemented under the direction of the Project Paleontologist and shall address and incorporate MM PAL-1 through MM PAL-8. The PRMMP shall be prepared at the sole expense of the project proponent, and meet all current BLM and Riverside County regulatory requirements, including BLM 8270 manual and handbook, BLM IM No. 2009-011 Assessment and Mitigation of Potential Impacts to Paleontological Resources, and BLM IM No. 2016-124 Potential Fossil Yield Classification (PFYC) System for Paleontological Resources on Public Lands. The PRMMP shall also comply with the Paleontological Resources Protection Act and final DOI PRPA rules.

The PRMMP shall function as the formal guide for survey, monitoring, collecting, and sampling activities and may be modified with BLM Authorized Officer approval. This document shall be used as the basis of discussion when on-site decisions or changes are proposed. Copies of the PRMMP shall reside with the Project Paleontologist, each monitor, the project owner's on-site manager, and the BLM Authorized Officer.

A monitoring plan indicates the avoidance or treatments recommended for the area of the proposed disturbance and must minimally address the following:

1. The design of a PFYC assessment and pedestrian paleontological survey (MM PAL-5) for any as-of-yet unsurveyed Project areas with PFYC 3, 4, 5, or unknown classification, the results of which will be used to map impact areas affecting geologic units with moderate to high sensitivity that will require monitoring or spot-checking during construction;
2. A coordination strategy to ensure that a qualified paleontologist (MM PAL-1) will conduct paleontological survey and monitoring at the appropriate locations at the appropriate intensity;
3. The significance criteria to be used to determine which resources will be avoided or recovered for their data potential;
4. Procedures for the discovery, recovery, preparation, and analysis of paleontological resources encountered during construction, in accordance with standards for recovery established by the SVP and the BLM;

5. Provisions for verification that the project proponent has an agreement with a recognized museum repository, for the disposition of recovered fossils and that the fossils shall be prepared prior to submittal to the repository as required by the repository (e.g., prepared, analyzed at a laboratory, curated, or cataloged);
6. Specifications that all paleontological work undertaken by the project proponent on public land shall be carried out by qualified paleontologists with appropriate current permits (MM PAL-1), including but not limited to a Paleontological Resources Use Permit (for work on public lands administered by BLM) and a Riverside County permit (for work on lands administered by the County of Riverside);
7. Description of monitoring reports that will be prepared which shall include daily logs, monthly reports, and a final monitoring report with an itemized list of specimens found to be submitted to the BLM, the Riverside County Planning Department, the project proponent and the designated repository within 90 days of the completion of monitoring;
8. The implementation sequence and the estimated time frames needed to accomplish all project-related tasks during the ground-disturbance and post-ground-disturbance analysis phases of the project shall be specified; and
9. Person(s) expected to perform each of the tasks, their responsibilities, and the reporting relationships between project construction management and the mitigation and monitoring team shall be identified.
10. All impact-avoidance measures (such as flagging or fencing) to prohibit or otherwise restrict access to sensitive resource areas that are to be avoided during ground disturbance, construction, and/or operation shall be described. Any areas where these measures are to be implemented shall be identified. The description shall address how these measures would be implemented prior to the start of ground disturbance and how long they would be needed to protect the resources from project-related impacts.

PAL-4: Approved Training Pertaining to Ground Disturbance. Prior to ground disturbance and for the duration of construction activities involving ground disturbance, the project owner and the Project Paleontologist shall prepare and conduct BLM Authorized Officer -approved training for the following workers: project managers, construction supervisors, foremen, and general workers involved with or who operate ground-disturbing equipment or tools. Workers shall not excavate in sensitive units prior to receiving BLM Authorized Officer-approved worker training. Worker training shall consist of an initial in-person Project Paleontologist training or may utilize a BLM Authorized Officer-approved video or other presentation format during the project kickoff for those mentioned above. Following initial training, a BLM Authorized Officer-approved video or other approved training presentation/materials, or in-person training may be used for new employees. The training program may be combined with other training programs prepared for cultural and biological resources, hazardous materials, or other areas of interest or concern. No ground disturbance shall occur prior to BLM Authorized Officer-approval of the Worker Environmental Awareness Program (WEAP), unless specifically approved by the BLM Authorized Officer.

The WEAP shall address the possibility of encountering paleontological resources in the field, the sensitivity and importance of these resources, and legal obligations to preserve and protect those resources.

The training shall include:

1. A discussion of applicable laws and penalties under the law;
2. Good quality photographs or physical examples of vertebrate fossils for project sites containing units of high paleontologic sensitivity;
3. Information that the Project Paleontologist or PRM has the authority to halt or redirect construction in the event of a discovery or unanticipated impact to a paleontological resource;
4. Instruction that employees are to halt or redirect work in the vicinity of a find and to contact their supervisor and the Project Paleontologist or PRM;
5. An informational brochure that identifies reporting procedures in the event of a discovery;
6. A WEAP certification of completion form signed by each worker indicating that he/she has received the training; and
7. A sticker that shall be placed on hard hats indicating that environmental training has been completed.

PAL-5: Pedestrian Paleontological Survey. Prior to the Final EIS, the project owner shall ensure completion of a pedestrian paleontological survey (PPS), as described in the PRMMP prepared by the Project Paleontologist and approved by the BLM Authorized Officer (MM PAL-3). The PPS shall be completed at the sole expense of the project proponent, and meet all current BLM and Riverside County regulatory requirements, including BLM 8270 manual and handbook, BLM IM No. 2009-011 Assessment and Mitigation of Potential Impacts to Paleontological Resources, and BLM IM No. 2016-124 Potential Fossil Yield Classification (PFYC) System for Paleontological Resources on Public Lands. The PPS shall also comply with the Paleontological Resources Protection Act and final DOI PRPA rules. The Project Paleontologist shall oversee and implement the BLM-approved PPS, which shall include a PFYC assessment and survey for any as-of-yet unsurveyed Project areas with PFYC 3, 4, 5, or unknown classifications. The results of the PPS shall be used to map impact areas affecting geologic units with moderate to high sensitivity that will require monitoring or spot-checking during construction. Final results of the PPS shall be included in the PRR (MM PAL-8).

PAL-6: Paleontological Monitoring Activities. The project owner shall ensure that the Project Paleontologist and PRM(s) monitor consistent with the PRMMP in all construction-related grading, excavation, trenching, and augering in areas where potential fossil-bearing materials have been identified, both at the site and along any constructed linear facilities associated with the Project. In the event that the Project Paleontologist determines full-time monitoring is not necessary in locations that were identified as potentially fossil bearing in the PRMMP, the project owner shall notify and seek the concurrence of the BLM Authorized Officer. The project owner shall ensure that the Project Paleontologist and PRM(s) have the authority to halt or redirect construction if paleontological resources are encountered. The project owner shall ensure that there is no interference with monitoring activities unless directed by the Project Paleontologist. Monitoring activities shall be conducted as follows:

1. Any change of monitoring from the accepted schedule in the PRMMP shall be proposed in a letter or email from the Project Paleontologist and the project owner to the BLM Authorized Officer prior to the change in monitoring and will be included in the monthly compliance

report. The letter or email shall include the justification for the change in monitoring and be submitted to the BLM Authorized Officer for review and approval.

2. The project owner shall ensure that the PRM(s) keep a daily monitoring log of paleontological resource activities. The Project Paleontologist may informally discuss paleontological resource monitoring and mitigation activities with the BLM Authorized Officer at any time.

3. The project owner shall ensure that the Project Paleontologist notifies the BLM Authorized Officer within 24 hours of the occurrence of any incidents of non-compliance. The Project Paleontologist shall recommend corrective action to resolve the issues.

4. For any significant paleontological resources encountered, either the project owner or the Project Paleontologist shall notify the BLM Authorized Officer within 24 hours, or Monday morning in the case of a weekend event, where construction has been halted because of a paleontological find. The project owner shall ensure that the Project Paleontologist prepares a summary of monitoring and other paleontological activities placed in the monthly compliance reports. The summary will include the name(s) of Project Paleontologist or PRM(s) active during the month; general descriptions of training and monitored construction activities; and general locations of excavations, grading, and other activities. A section of the report shall include the geologic units or subunits encountered, descriptions of samplings within each unit, and a list of identified fossils. A final section of the report will address any issues or concerns about the Project relating to paleontologic monitoring, including any incidents of non-compliance or any changes to the monitoring plan that have been approved by the BLM Authorized Officer. If no monitoring took place during the month, the report shall include an explanation in the summary as to why monitoring was not conducted.

PAL-7: Implementation of PRMMP. The project owner, through the designated Project Paleontologist, shall ensure that all components of the PRMMP are adequately performed including completion of the PPS, collection of fossil materials, preparation of fossil materials for analysis, analysis of fossils, identification and inventory of fossils, the preparation of fossils for curation, and the delivery for curation of all significant paleontological resource materials encountered and collected during PPS and project construction.

PAL-8: Paleontological Resources Report (PRR). The project owner shall ensure preparation of a Paleontological Resources Report (PRR) by the designated Project Paleontologist. The PRR shall be prepared within 30 days following completion of ground-disturbing activities. The PRR shall include an analysis of the collected fossil materials and related information and submit it to the BLM Authorized Officer for review and approval. The report shall include, but is not limited to determinations of sensitivity and significance; a description and inventory of recovered fossil materials; a map showing the location of paleontological resources encountered; and a statement by the Project Paleontologist that project impacts to paleontological resources have been mitigated below the level of significance. At a minimum the final report must include the following details as specified by BLM IM 2009-011:

1. Name, affiliation, address, date of report, and permit number (if consultant) of the paleontologist doing the survey.
2. Project name and number (if used), name of proponent, and general location of project.
3. Date(s) of the survey and names of any personnel assisting with the survey.

4. Brief description of project and expected impacts to paleontological resources.
5. A summary of mitigation performed.
6. A summary of findings, including important discoveries.
7. A description of potentially fossiliferous areas to allow for future assessment of sites, even if no fossils were located during the project monitoring.
8. A completed BLM locality form 8270-3 or equivalent for each new locality using Universal Transverse Mercator (UTM) NAD 83 coordinates, and 1:24000 scale maps with new localities plotted using points or polygons as appropriate. Locality forms, maps, and any other information containing specific fossil locations should be bound separately or assembled as a separate section to allow for preservation of confidential locality data.
9. List of specimen field numbers and field identifications of collected material, cross-referenced to the locality field number.

G.14 RECREATION AND PUBLIC ACCESS

The following mitigation measures would be imposed by the BLM to avoid or reduce impacts on recreation and public access:

REC-1: Access to Mule Mountains ACEC. The Applicant shall ensure that the alternative access route to the Mule Mountains ACEC (identified in Figure 3.14-3) is accessible by performing light clearing and grading prior to Project construction, and then periodically throughout the duration of the Project. The alternative access route shall be marked by signage provided by the Applicant, and supported by the installation of a kiosk at a location to be determined by BLM. The Applicant shall conduct recording of historic/prehistoric trails prior to ground disturbance. Biological monitoring shall be performed during active ground disturbance.

The Applicant shall prepare and distribute interpretive materials, approved by the AO, including a construction schedule, safety information regarding trucks and other heavy equipment on local roads, and available open OHV routes to users of the Midland, Mule Mountains, and La Posa Long-Term Visitor Areas (LTVAs), Wiley's Well and Coon Hollow Campgrounds, and BLM kiosks announcing the development of the solar facilities at the Project site and the closure of the affected public land and six open routes to recreational use. The Applicant shall prepare a one-page fact sheet about the Project and submit it to the Palm Springs-South Coast Field Office for review. The BLM AO shall approve the draft materials prior to distribution.

REC-2: Temporary Route Closure. No less than 60 days prior to construction and maintenance of the gen-tie line, the Applicant shall coordinate with the AO administering the NECO Plan-designated route 660703 to establish temporary closure of the route to avoid construction/maintenance area hazards, if the route is deemed unsafe to use during construction or maintenance of the gen-tie line. The Applicant shall post a public notice of the temporary route closure and penalties for any off-route OHV activities, and shall coordinate the closure with applicable emergency response agencies. 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.

REC-3: Use of LTVAs. The Applicant shall encourage Project workers to utilize local housing or private RV parks in Blythe and/or nearby communities. The Applicant shall encourage Project workers to utilize local housing or private RV parks in Blythe and/or nearby communities. If the Applicant sees a need to use the LTVAs, the Applicant shall seek additional authorization from the BLM prior to their use. If the BLM authorizes use of the LTVA, the BLM shall monitor the impact of workers using the LTVAs, including space and experience for recreational users, and condition of access roads to the LTVAs. Workers would only use the campgrounds during the LTVA season, and must supply their own water from offsite. The Applicant shall coordinate with the County to provide either hardening of the access roads, or monthly blading during the LTVA season.

G.15 SOCIAL AND ECONOMIC EFFECTS

No mitigation measures are recommended.

G.16 SPECIAL DESIGNATIONS AND LANDS WITH WILDERNESS CHARACTERISTICS

No mitigation measures would be imposed by the BLM related to special designations or lands with wilderness characteristics.

G.17 TRANSPORTATION AND TRAFFIC

The following Project-specific mitigation measures were developed to reduce and/or avoid potential transportation and traffic impacts associated with the Proposed Action and alternatives.

TRN-1: Traffic Monitoring and Control Plan. Prior to the start of ground disturbance and issuance of a County grading permit, the Applicant's Traffic Monitoring and Control Plan shall be submitted to the BLM and County for approval. The Traffic Monitoring and Control Plan, described in APM TRA-2, shall be developed and implemented to include the following features:

1. 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 and Caltrans), as appropriate.
2. To the extent applicable, the traffic control plan shall conform to Part 6 (Temporary Traffic Control) of the California Manual on Uniform Traffic Control Devices (Caltrans 2010), and shall include, but not be limited to, the following elements:
3. 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.
4. 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.
5. Providing sufficient-sized staging areas for trucks accessing work zones to minimize disruption of access to adjacent public right-of-ways.

6. Scheduling truck trips outside the peak morning and evening commute hours to the extent possible.
7. Limiting the duration of lane closures to the extent possible.
8. Storing all equipment and materials in designated contractor staging areas on or adjacent to the worksite, such that traffic obstruction is minimized.
9. 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.
10. 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.
11. Repairing and restoring adversely affected roadway pavements to their pre-construction condition.

TRN-2: Coordinated Transportation Management Plan. 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 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 Coordinated Transportation Management Plan shall include, but not be limited to, the following requirements:

1. Coordination of individual traffic control plans for the Project and nearby projects.
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:
 - Full and partial roadways closures;
 - 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;
 - Bicycle detour plans, where applicable;
 - Parking along arterial and local roadways; and
 - Haul routes for construction trucks and staging areas for instances when multiple trucks arrive at the work sites.
3. Protocols for updating the Coordinated Transportation Management Plan to account for delays or changes in the schedules of individual projects.

The Coordinated Transportation Management Plan shall incorporate an access road siting and management plan, and transportation plan for the transport of transmission tower components and equipment, in accordance with the requirements of the IOPs for the Section 368 corridor.

The Coordinated Transportation Management Plan shall be submitted to the BLM and County for approval prior to the start of ground disturbance and issuance of a County grading permit.

TRN-3: Reduce Construction Worker Vehicles. Prior to the Notice to Proceed, APM TRA-1 shall be modified to further reduce the number of construction worker vehicles leaving the Project site during the PM peak hour, such that the intersection of SR-78/16th Avenue operates at LOS C or better. The Applicant used an iterative analysis to determine that a maximum of 650 vehicles during the PM peak hour was necessary to achieve operation of the intersection at LOS D. The Applicant shall re-perform the iterative analysis to determine the maximum number of vehicles necessary to achieve operation of the intersection at LOS C, and then implement the measure to limit the vehicles to this number. The revised analysis shall be submitted to BLM and the County for review and approval.

TRN-4: Improve Access Road. Prior to construction of the Project fence, solar facility, gen-tie, temporary construction areas, and other facilities, the Applicant shall complete improvements to 16th Avenue/Seeley Avenue between Neighbours Boulevard (State Route 78) and the site entrance. The current unpaved road shall be paved with 32-foot wide asphalt concrete pavement designed for truck traffic, and 8-foot graded shoulders per County Standard No. 106. The paving shall include improvement of the intersection of 16th Avenue/Seeley Avenue and State Route 78 to allow for a turning lane off of 16th Avenue/Seeley Avenue onto State Route 78.

Prior to road construction, survey monuments shall be located and tied out, and corner records filed with the County Surveyor. A grading plan shall be submitted to the County transportation department for review and approval prior to issuance of a grading permit. Completion of road improvements shall not imply acceptance for maintenance by the County. Traffic signing and striping shall be performed by the County, with all costs borne by the Applicant, unless otherwise approved by the County Traffic Engineer.

Table G-17-1. Impacts and Mitigation Associated with Mitigation Measure TRN-4

Resource	Affected Environment	Impacts	Applicable Mitigation
Air Resources	Regional description of the Project area in Section 3.2 applies to the entire access road. Access road may pass closer to locations of residents than the Project itself.	<p>Additional criteria pollutant and greenhouse gas emissions would occur from vehicle worker travel and equipment used to construct this project. Since the activities associated with TRN-4 would occur before construction of the project, and since the numbers of workers, equipment, and acreage of dust disturbance would be less than that of the Project, (for example, 20 acres of disturbance vs. 3,770 for the Proposed Action), emissions would not likely exceed the Construction Daily Emission Estimations reported for the Proposed Action in Table 4.2-2, or increase the Construction Annual Emission Estimations reported in Table 4.2-3. Even with several sets of pavers, rollers, and other equipment operating simultaneously, their emissions would not exceed maximum daily emissions thresholds for criteria pollutants, based on modeling of a recent smaller but similar roadway repaving project in Riverside County (Urban Crossroads 2018).</p> <p>Emissions and odors may occur in close proximity to residences and businesses along the roadway. These would be temporary, occurring only for less than a day or two as construction moved past each specific receptor.</p> <p>Once constructed, the paved road would reduce the fugitive dust emissions reported in Tables 2.4-2 and 4.2-3, a beneficial effect of this measure.</p>	Dust Control Plan (AQ-1), and Construction Emissions Reduction (AQ-3)

Table G-17-1. Impacts and Mitigation Associated with Mitigation Measure TRN-4

Resource	Affected Environment	Impacts	Applicable Mitigation
Biological Resources - Vegetation	Regional description of the Project area in Section 3.3 applies to the entire access road. Resources expected to be limited/non-existent within the existing ROW. Specific presence of resources to be determined in pre-construction surveys (see mitigation measures)	Since all paving activities would occur within the previously existing easement, and pre-construction surveys would be required to identify any potentially impacted special-status plants or state jurisdictional waters adjacent to the roadway, no impacts would occur.	Designated Biologist (VEG-1 through 5), Worker Environmental Awareness Program (VEG-6), Biological Resources Mitigation, Implementation, and Monitoring Plan (APM-BIO-1 and VEG-7), General Construction Measures and Plans (APM-BIO-2, APM-BIO-3, and VEG-8), Special Status Plant Avoidance and Vegetation Resources Management Plan (APM-BIO-4 and VEG-9), Mitigation for Impacts to State Jurisdictional Waters (VEG-10), and Integrated Weed Management Plan (APM-BIO-5)
Biological Resources - Wildlife	Regional description of the Project area in Section 3.4 applies to the entire access road. Resources expected to be limited/non-existent within the existing ROW. Specific presence of resources to be determined in pre-construction surveys (see mitigation measures)	Since all paving activities would occur within the previously existing easement, pre-construction surveys would be required to identify any potentially impacted special-status wildlife or birds adjacent to the roadway, and Biological Monitoring of construction activities would be required, no impacts would occur.	Pre-construction tortoise survey and avoidance (WIL-1), tortoise translocation (WIL-2), notifications and reporting (WIL-3), Raven Management Plan (WIL-5), Bird and Bat Conservation Strategy (WIL-6), pre-construction nest surveys (WIL-7), badger and kit fox protection (WIL-9), Burrowing Owl protection (WIL-10), and Couch's spadefoot toad protection (WIL-12)

Table G-17-1. Impacts and Mitigation Associated with Mitigation Measure TRN-4

Resource	Affected Environment	Impacts	Applicable Mitigation
Cultural Resources	Regional description of the Project area in Section 3.5 applies to the entire access road. Resources expected to be limited/non-existent within the existing ROW. Specific presence of resources to be determined in pre-construction surveys (see mitigation measures)	Since all paving activities would occur within the previously existing easement, pre-construction surveys would be required to identify any potentially impacted cultural resources within or adjacent to the roadway, and monitoring of construction activities would be required, no impacts would occur.	Unanticipated human remains (private land section of CULTURAL-3), unanticipated cultural resources (non-Federal land requirements of CULTURAL-4), Tribal Observer (CULTURAL-6), and Cultural Resources Monitoring Report (CULTURAL-7)
Environmental Justice	Regional description of the Project area in Section 3.6 applies to the entire access road. No other site-specific resources expected.	The paved roadway would not affect environmental justice populations. No impacts are expected.	None.

Table G-17-1. Impacts and Mitigation Associated with Mitigation Measure TRN-4

Resource	Affected Environment	Impacts	Applicable Mitigation
Geology and Soils	Regional description of geologic hazards in the Project area in Section 3.7 applies to the entire access road. No other site-specific geologic resources or hazards expected within existing roadway. Soils within the roadway have already been disturbed.	The paved roadway would not be affected by geologic or soil hazards. No impacts are expected.	None.
Global Climate Change	Regional description of the Project area in Section 3.8 applies to the entire access road.	Additional greenhouse gas emissions would occur from vehicle worker travel and equipment used to construct this project. These emissions are expected to be nominal compared to those of the Proposed Action.	None.
Hazards and Hazardous Materials	Regional description of the Project area in Section 3.9 applies to the entire access road. No other site-specific hazards expected within existing roadway.	As with the Proposed Action, releases of hazardous materials could occur if any unknown materials are encountered during ground disturbance, or if releases occur from vehicles or equipment. In general, the potential for releases is expected to be minimal compared to that of the Project, due to a much shorter duration of construction, and much reduced amount of equipment and vehicles. With compliance with the Hazardous Materials Management and Emergency Response Plan, impacts are expected to be less than significant.	Hazardous Materials Management and Emergency Response Plan (HAZ-1), and UXO Identification, Training, and Reporting (UXO-1)

Table G-17-1. Impacts and Mitigation Associated with Mitigation Measure TRN-4

Resource	Affected Environment	Impacts	Applicable Mitigation
Lands, Realty, and Agricultural and Forestry Resources	Road paving would occur on current County easements, and not on BLM land.	Paving would be limited to the existing easements, and would be in conformance with the conditions and limitations of those easements. The activity would not have any impacts on adjacent lands outside of the easements.	None.
Mineral Resources	Regional description of the Project area in Section 3.11 applies to the entire access road. No other site-specific resources expected within existing roadway.	The paved roadway would not affect mineral resources. No impacts are expected.	None.
Noise	Regional description of the Project area in Section 3.12 applies to the entire access road. Access road may pass closer to locations of residents than the Project itself.	Maximum noise levels from a roller, the noisiest equipment that would be used, would be about 80 dBA at 50 feet (FHWA 2008). The nearest structure to the road is about 800 feet from the road near Woodspur Farms. Based on a typical 6 dB attenuation per doubling of distance, the maximum level would be about 56 dBA at this distance. Riverside County Ordinance 847.1 (Riverside County 2007) sets day and night maximum sound levels at 45 dB for Rural Residential and Agricultural areas; however, it exempts the maintenance or repair of public properties from its restrictions. Since no County standards would be violated and noise from this measure would temporarily affect only one structure during a few days of construction, impacts would be less than significant.	None.

Table G-17-1. Impacts and Mitigation Associated with Mitigation Measure TRN-4

Resource	Affected Environment	Impacts	Applicable Mitigation
Paleontological Resources	Regional description of the Project area in Section 3.13 applies to the entire access road. No other site-specific resources expected within existing roadway.	Since all paving activities would occur within the previously existing easement, pre-construction surveys would be required to identify any potentially impacted resources within or adjacent to the roadway, and monitoring of construction activities would be required, no impacts would occur.	Project Paleontologist (PAL-1, PAL-2), Paleontological Resources Monitoring and Mitigation Plan (APM-Paleo-2, PAL-3, PAL-6, PAL-7, and PAL-8), training prior to ground disturbance (PAL-4), and pedestrian survey (APM-Paleo-1 and PAL-5).
Recreation and Public Access	Regional description of the Project area, including 16 th Avenue/Seeley Avenue, in Section 3.14 applies to the entire access road. No other site-specific recreational resources expected along existing roadway.	Travel along this route would be temporarily delayed during construction. Since these impacts would be temporary, impacts would be less than significant. After construction is completed, access to public lands would improve as a result of roadway improvements.	Coordinate temporary closure of 16 th Avenue/Seeley Avenue with County, local residents, and emergency services (REC-2).
Social and Economic Effects	Regional description of the Project area in Section 3.15 applies to the entire access road.	The paved roadway would not require a substantial number of workers, or works with skills that are not readily available. No impacts are expected.	None.

Table G-17-1. Impacts and Mitigation Associated with Mitigation Measure TRN-4

Resource	Affected Environment	Impacts	Applicable Mitigation
Special Designations	Regional description of the Project area in Section 3.16 applies to the entire access road. No other site-specific special designation areas expected along existing roadway.	The paved roadway would not affect any special designation areas. No impacts are expected.	
Transportation and Traffic	Regional description of the Project area, including 16 th Avenue/Seeley Avenue, in Section 3.17 applies to the entire access road.	Traffic on 16 th Avenue/Seeley Avenue would be disrupted during construction, possibly to include temporary closure and/or detours. The Traffic Monitoring and Control Plan and Coordinated Transportation Management Plan would require coordination with the County, local users, and emergency services to minimize impacts. Any impacts are expected to be temporary and localized. This measure would reduce the traffic impacts to the intersection of State Route 78 with 16 th Avenue/Seeley Avenue during Project construction, a beneficial effect of this measure.	Traffic Monitoring and Control Plan (APM-TRA-2 and TRN-1), and Coordinated Transportation Management Plan (TRN-2).
Utilities and Public Services	Regional description of the Project area in Section 3.18 applies to the entire access road. No other site-specific utilities or services expected within existing roadway.	The paving activity would disrupt traffic on 16 th Avenue/Seeley Avenue during construction, possibly to include temporary closure and/or detours. The only potential impacts to utilities or public services may be to the use of the roadway by emergency services during construction. The Traffic Monitoring and Control Plan and Coordinated Transportation Management Plan would require coordination with the County, local users, and emergency services to minimize impacts. Any impacts are expected to be temporary and localized.	No mitigation specifically for utilities. However, the Traffic Monitoring and Control Plan (APM-TRA-2 and TRN-1) and Coordinated Transportation Management Plan (TRN-2) required for transportation and traffic impacts would also address potential impacts to emergency services.

Table G-17-1. Impacts and Mitigation Associated with Mitigation Measure TRN-4

Resource	Affected Environment	Impacts	Applicable Mitigation
Visual Resources	Regional description of the Project area in Section 3.19 applies to the entire access road.	The paved roadway would not affect visual resources. No impacts are expected.	Lighting Plan (VIS-1), and Site Restoration (VIS-4).
Water Resources	Regional description of the Project area in Section 3.20 applies to the entire access road. Resources expected to be limited/non-existent within the existing ROW. Specific presence of resources to be determined in pre-construction surveys (see mitigation measures)	The paved roadway would not affect groundwater resources or surface water drainage. No impacts are expected.	SWPPP (WATER-1).
Wildland Fire Ecology	Regional description of the Project area in Section 3.21 applies to the entire access road.	Since all paving activities would occur within the previously existing easement, there is not expected to be any increase in the potential for fire ignitions. No impacts are expected.	Fire Safety Plan (FIRE-1).

References:

FWHA, 2008. Federal Highway Administration's Roadway Construction Noise Model (RCNM) Software Version 1.1, 12/08/2008.

Riverside County 2007. Ordinance No. 847 (As Amended Through 847.1) - An Ordinance of the County of Riverside Amending Ordinance No. 847 Regulating Noise. Amended June 19.

Urban Crossroads, 2018. Limited Decker Road Repairs and Repaving Focused Air Quality and Greenhouse Gas Memorandum. May 16.

G.18 UTILITIES AND PUBLIC SERVICES

No mitigation measures are recommended for impacts to utilities and public services.

G.19 VISUAL RESOURCES

VIS-1: Project Design, Building and Structural Materials. Visual design elements shall be integrated into the construction plans, details, shop drawings and specifications to be submitted to BLM prior to the Notice to Proceed; 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 measurable and monitored while under construction, while operational, and when decommissioned. 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 shall be based on BLM's *Best Management Practices for Reducing Visual Impacts of Renewable Energy Facilities on BLM-Administered Lands*, and must at a minimum include:

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.
2. Materials, coatings, or paints having little or no reflectivity shall be used whenever feasible.
3. Grouped structures, including the water tanks and prefabricated buildings, shall be painted the same color to reduce visual complexity and color contrast.
4. The gen-tie line shall utilize to the extent available and feasible nonspecular conductors and nonreflective coatings on insulators.
5. 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 approved by BLM District Office.
6. A lighting plan shall be prepared that documents how lighting will be designed and installed to minimize night-sky impacts during facility construction, operations, and decommissioning. Lighting for facilities shall not exceed the minimum number of lights and brightness required for safety and security, and shall not cause excessive reflected glare. Low- pressure sodium light sources shall be used to reduce light pollution. Full cut-off luminaires shall be used to minimize uplighting. Lights should be directed downward or toward the area to be illuminated. Light fixtures shall not spill light beyond the Project boundary. Lights in highly illuminated areas that are not occupied on a continuous basis shall have switches, timer switches, or motion detectors so that the lights operate only

when the area is occupied. Where feasible, vehicle mounted lights shall be used for night maintenance activities. Wherever feasible, consistent with safety and security, lighting shall be kept off when not in use. The lighting plan shall include a process for promptly addressing and mitigating complaints about potential lighting impacts.

VIS-2: Construction Phase Visual Mitigation. 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 visual resources mitigation strategy and confirm the compliance- checking schedule and procedures. Final design and construction documents shall 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 plans, and must demonstrate how VRM objectives will be met, monitored, and measured for conformance.

Specific measures shall include the following:

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; stripping, salvaging, and replacing topsoil as described in the Revegetation Plan.
2. Visual impact mitigation objectives and activities shall be discussed with equipment operators before construction activities begin.
3. Existing rocks, vegetation, and drainage patterns shall be preserved to the extent feasible.
4. Brush-beating or mowing or using protective surface matting rather than removing vegetation shall be employed where feasible.
5. Slash from vegetation removal shall be mulched and spread to cover fresh soil disturbances as part of the revegetation plan.
6. No paint or permanent discoloring agents shall be applied to rocks or vegetation to indicate surveyor construction activity limits.
7. All stakes and flagging shall be removed from the construction area and disposed of in an approved facility.

VIS-3: Operation and Maintenance Phase Visual Mitigation. Terms and conditions for VRM mitigation compliance shall be maintained and monitored for compliance with visual objectives, adaptive management adjustments, and modifications as necessary and approved by the BLM AO. Minimum measures are as follows:

1. The Applicant shall maintain vegetated 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.
2. Interim restoration shall be undertaken during the operating life of the Project as soon as possible after disturbances.
3. Painted facilities shall be kept in good repair and repainted when color fades or flakes.

VIS-4: Decommissioning and Site Restoration Plan. A Decommissioning and Site Restoration Plan, covering visual impact mitigation measures, shall be in place prior to construction, and reclamation activities shall 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 and other resource impacts associated with solar energy development, where feasible:

1. Pre-development visual conditions 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.
2. A Decommissioning and Site Restoration 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.
3. Components of the gen-tie line shall be removed to a depth of three feet, and shall be removed promptly. Following decommissioning, the Applicant shall provide BLM survey data showing the locations of all below-grade components of the gen-tie line left in place. Access roads use for decommissioning of the gen-tie line shall follow the paths of the original access roads, to the extent possible.
4. 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.
5. 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.
6. 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 utilized. 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.
7. Stockpiled topsoil shall be reapplied to disturbed areas. Gravel and other surface treatments shall be removed or buried.
8. Rocks, brush, and vegetal debris shall be restored whenever possible to approximate pre-existing visual conditions.
9. A decommissioning VRM Monitoring and Compliance Plan shall be prepared by the Applicant and approved by the BLM prior to decommissioning activities, which establishes the schedule and terms for monitoring and the conditions and methods of measurement for determining compliance. In review of the plan, BLM will consider the ability of the proposed activities to support BLM's Long Term Monitoring Strategy for the Riverside East SEZ (BLM 2016).

10. Monitoring for appearance, function, wildlife usage, and general compliance with the restoration provisions of this plan shall be conducted twice annually for 5 years and may be extended for an additional 5 years if the performance standards have not been achieved.
11. A survey of the revegetation areas shall be conducted in the spring of each year. Qualitative data will be collected on vegetation cover, species composition, appearance, and function of the plant community. In addition to qualitative data, quantitative data on vegetation cover and species composition will be collected by using ocular estimates or transects within the revegetation areas. The data collected will be compared against similar data collected within the reference site (i.e., associated undisturbed areas immediately adjacent to the Project site) or pre-disturbance conditions within the Project site.

G.20 WATER RESOURCES

WATER-1: Implementation of a SWPPP. To ensure that stormwater quality is protected during the construction and decommissioning period for the DQSP, as well as any ground disturbance (greater than one acre) 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), as applicable. 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, if applicable will require completion and implementation of a SWPPP for the DQSP 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.

BMPs may include, but would not be limited to:

1. Stockpiles of loose material shall be covered or otherwise stabilized and runoff diverted away from exposed soil material.
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.
3. Sediment shall be retained on-site by a system of sediment basins, traps, or other appropriate measures.
4. No disturbed surfaces may be left without erosion control measures in place during the rainy season.
5. Erosion protection shall be provided on all cut-and-fill slopes, and shall be initiated as soon as possible after completion of grading and prior to the onset of the rainy season.

6. 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. 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.
7. Equipment shall be properly maintained in designated areas with runoff and erosion control measures to minimize accidental release of pollutants.
8. Impervious surface areas shall be graded or constructed to drain to a filtration BMP or equally effective alternative.

Storage of gasoline and diesel fuel tanks, and all refueling and maintenance of vehicles and equipment, shall occur within a designated area with proper secondary containment. The area shall not be within 100 feet of a wetland, water body, or water supply well. The applicant would report any hazardous materials release to the BLM authorized officer within 24 hours of release.

WATER-2 Comprehensive Drainage, Stormwater, and Sedimentation Control Plan. Prior to the start of ground disturbance and issuance of a County grading permit, the Applicant shall develop and implement a Comprehensive Drainage, Stormwater, and Sedimentation Control Plan prior to the initiation of construction (or decommissioning as relevant). The objective of the Plan shall be to avoid changes in onsite stormwater flow that could damage Project components, and to minimize changes in stormwater flow downstream of the facility that could impact offsite structures, biological resources, or cultural resources.

If required by the Comprehensive Drainage, Stormwater, and Sedimentation Control Plan, 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 DQSP site. Stormwater retention facilities shall be designed to accommodate increases in flows that would be generated as a result of DQSP implementation, in comparison to existing conditions, such that DQSP implementation would not result in a net increase in discharge from the site under either a 10-year or 100-year storm event.

The use of flow-obstructing fencing shall be avoided in active drainages; instead, fencing that allows for the passage of water while minimizing buildup of debris shall be utilized on site. Stormwater flows emanating from proposed impervious surfaces shall be retained onsite and/or directed into channels and other stormwater infrastructure, and shall be sized such that unintentional ponding, flooding, erosion, or sedimentation would not occur onsite or downstream. 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.

WATER-3: Flood Protection. In order to ensure that proposed onsite buildings and staff therein are protected from flooding, all onsite 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 in accordance with local flood control standards or as recommended by the geotechnical engineer. 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.

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; and 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) shall be completed and backfilled as quickly as possible, and shall not be left open for extended periods. Drainage infrastructure shall 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 shall be managed so as to minimize construction time of those facilities. Prior to initiation of DQSP operation, the Applicant shall develop and implement 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 DQSP.

WATER-4: Groundwater Monitoring and Mitigation Plan. If the Applicant chooses to install groundwater production wells, a Groundwater Monitoring and Mitigation Plan shall be developed and implemented 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 and County for approval.

The Groundwater Monitoring and Mitigation Plan shall be based on a numerical groundwater model acceptable to the BLM and shall provide detailed methodology for monitoring background and onsite groundwater levels, water quality, and flow rates, including installation of flow meters. The Plan shall include installation of one or more monitoring wells in which the effect of groundwater withdrawal on groundwater levels can be monitored through periodic water level measurements. Monitoring shall be performed prior to construction to establish pre-construction groundwater level and water quality that can be used as a baseline against which later measurements can be compared, and to establish trigger points that would be used to determine the need for additional monitoring, investigation, and/or mitigation.

All production wells shall be metered, and the meters shall be tamper-proof and certified. Monitoring will be monthly. If a trigger point is reached, the Applicant shall notify BLM within 7 days, and shall increase the frequency of monitoring to weekly. If trigger point exceedances continue for 3 successive readings, Applicant shall meet with the BLM to re-evaluate operating conditions, which could include additional monitoring, investigation, or mitigation, and/or cessation of pumping.

The Groundwater Monitoring and Mitigation Plan shall include a schedule for submittal of monthly data reports by the Applicant to the BLM and County, for the duration of the monitoring period. These data reports shall be prepared and submitted to the BLM and County for review and approval, and shall include water level monitoring data (trend analyses) from all production and monitoring wells. Based on the results of the reports, the Applicant, the BLM, and the County 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 drawdown exceeds the established trigger levels, the Applicant shall immediately reduce groundwater pumping until water levels stabilize or recover to a reasonable level.

The Groundwater Monitoring and Mitigation Plan shall also include a schedule for submittal of annual data reports by the Applicant to the BLM and County for the first 5 years of the Project (including the construction period). These annual data reports shall be prepared and submitted to the BLM and County for review and approval, and shall include at a minimum the following information:

1. Daily usage, monthly range, and monthly average of daily water usage in gallons per day;
2. Total water used on a monthly and annual basis in acre-feet; summary of all water level data and water quality data;
3. Identification of trends that indicate potential for offsite wells to experience decline of water level; and
4. Identification of all sources of water by type (i.e., groundwater, surface water, municipal water) and well/location used on BLM land.

Upon receipt of each annual data report, the BLM and County 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, the BLM, and the County shall jointly evaluate the effectiveness of the Groundwater Monitoring and Mitigation Plan and determine if monitoring frequencies or procedures should be revised or eliminated.

G.21 WILDLAND FIRE ECOLOGY

The following Project-specific mitigation measures were developed to reduce and/or avoid potential impacts associated with wildland fire associated with the Project and alternatives.

FIRE-1: Fire Safety Plan. Prior to the start of ground disturbance and issuance of a County grading permit, 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 Hazardous Materials Management and Emergency Response 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:

1. All internal combustion engines used at the Project site shall be equipped with spark arrestors. Spark arrestors shall be in good working order.

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.
3. Fire rules shall be posted on the Project bulletin board at the contractor's field office and areas visible to employees.
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 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. Construction workers, plant personnel, and maintenance workers at 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 VRMP.
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. Operations 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.

The engineering, procurement, and construction contract(s) for the proposed Project shall clearly state the requirements of this mitigation measure.

G.22 SUMMARY

Table G-22-1 describes the timing, responsible agency, and methods for verification of each mitigation measure.

Table G-22-1. Summary of Mitigation Measures

Measure Number	Measure Title	Method of Verification	Timing of Measure	Responsible Agency
AQ-1	Dust Control Plan	Plan to be reviewed and approved by BLM, the County, and MDAQMD.	Plan to be submitted no less than 60 days prior to start of construction. Plan implementation to be ongoing throughout construction activities.	BLM, Riverside County, and MDAQMD
AQ-2	Protect the Stability of Desert Pavement Areas	Plan to be reviewed and approved by BLM and the County.	Plan to be submitted prior to start of ground disturbance and issuance of County grading permit. Plan implementation to be ongoing throughout construction, operations, and decommissioning.	BLM and Riverside County
AQ-3	Construction Emissions Reduction	Inventory of equipment and DOORS registration.	Ongoing throughout construction activities	BLM, Riverside County, and CARB
VEG-1	Qualifications of Designated Biologist(s)	Proposed staff to be reviewed and approved by BLM and the County.	Prior to the start of ground disturbance and issuance of a County grading permit.	BLM and Riverside County
VEG-2	Duties of the Designated Biologist(s)	Ongoing communication with BLM, CDFW, and USFWS.	Ongoing throughout construction activities	BLM, Riverside County, USFWS, and CDFW
VEG-3	Identification of Biological Monitors	Proposed staff to be reviewed and approved by BLM and the County.	Prior to the start of ground disturbance and issuance of a County grading permit.	BLM and Riverside County

Table G-22-1. Summary of Mitigation Measures

Measure Number	Measure Title	Method of Verification	Timing of Measure	Responsible Agency
VEG-4	Duties of Biological Monitors	Ongoing communication with the Designated Biologist, who shall report to BLM, CDFW, and USFWS.	Ongoing throughout construction activities	BLM and Riverside County
VEG-5	Authority of the Designated Biologist(s) and Biological Monitors	Ongoing communication with the Designated Biologist, who shall report to BLM, CDFW, and USFWS.	Ongoing throughout construction activities	BLM and Riverside County
VEG-6	Worker Environmental Awareness Program	Program to be reviewed and approved by BLM and the County.	Ongoing throughout construction, operations, and decommissioning	BLM and Riverside County
VEG-7	Biological Resources Mitigation Implementation and Monitoring Plan	Plan to be reviewed and approved by BLM and the County.	Plan to be submitted prior to start of ground disturbance and issuance of County grading permit. Plan implementation to be ongoing throughout construction, operations, and decommissioning.	BLM and Riverside County
VEG-8	Avoidance of Biological Resources During Construction	Specific plans (Nesting Bird Monitoring and Management, Revegetation) to be reviewed and approved by BLM. Other activities to be verified through various reporting mechanisms to BLM.	Disturbance limits to be established prior to start of construction. Plan implementation to be ongoing throughout construction, operations, and decommissioning. Restoration to occur within 30 days following completion of construction.	BLM and Riverside County

Table G-22-1. Summary of Mitigation Measures

Measure Number	Measure Title	Method of Verification	Timing of Measure	Responsible Agency
VEG-9	Special-Status Plant Species Impact Avoidance and Minimization, and Compensation	Plan to be reviewed and approved by BLM and the County. Compensation to be verified through BLM approval of compensation type and amount.	Plan to be submitted prior to start of ground disturbance and issuance of County grading permit. Plan implementation to be ongoing throughout construction, operations, and decommissioning. Compensation to be initiated or completed within 12 months from the time the resource impact occurs, unless a 6-month extension is approved by the Authorizing Officer.	Plan agencies are BLM and Riverside County. Agency responsible for compensation is BLM.
VEG-10	Mitigation for Impacts to Sensitive Riparian Habitat and State Waters	Compensation to be verified through CDFW approval of compensation type and amount.	Compensation to be completed within 18 months after the start of ground disturbance.	CDFW
VEG-11	Project Phasing	Mitigation activities for each phase to be verified by the agency responsible for that activity.	Construction schedule and plans to be submitted prior to initiating each phase of construction.	BLM
VEG-12	Monitoring and Research	BLM to verify they are granted access, as required.	Ongoing throughout construction, operations, and decommissioning	BLM
WIL-1	Measures to Avoid Take of Mojave Desert Tortoise	Plans and specifications to be reviewed and approved by BLM and USFWS. Implementation of plans and specifications to be verified through compliance reports submitted to BLM and USFWS.	Surveys and fencing to be completed prior to start of construction. Plan implementation to be ongoing throughout construction, operations, and decommissioning.	BLM and USFWS

Table G-22-1. Summary of Mitigation Measures

Measure Number	Measure Title	Method of Verification	Timing of Measure	Responsible Agency
WIL-2	Mojave Desert Tortoise Translocation Plan	Plan to be reviewed and approved by BLM and USFWS.	Plan to be submitted and tortoises translocated prior to start of ground disturbance.	BLM and USFWS
WIL-3	Project Notifications and Reporting	BLM to have access to verify compliance. Applicant to perform required inspections and submit to BLM, CDFW, and/or USFWS as specified.	Ongoing throughout construction, operations, and decommissioning	BLM, USFWS, and CDFW
WIL-4	Compensatory Mitigation for Desert Tortoise Habitat Losses	Compensation to be verified through BLM approval of compensation type and amount.	Compensation to be initiated or completed within 12 months from the time the resource impact occurs, unless a 6-month extension is approved by the Authorizing Officer.	BLM
WIL-5	Raven Management Plan	Plan to be reviewed and approved by BLM and the County.	Plan to be submitted prior to start of ground disturbance and issuance of County grading permit. Plan implementation to be ongoing throughout construction, operations, and decommissioning.	BLM and Riverside County
WIL-6	Bird and Bat Conservation Strategy	BBCS to be reviewed and approved by BLM, the County, USFWS, and CDFW.	BBCS to be submitted prior to the Notice to Proceed. Plan implementation to be ongoing throughout construction, operations, and decommissioning.	BLM, Riverside County, USFWS, and CDFW

Table G-22-1. Summary of Mitigation Measures

Measure Number	Measure Title	Method of Verification	Timing of Measure	Responsible Agency
WIL-7	Pre-Construction Nest Surveys	Survey results to be submitted to BLM.	Surveys to be completed prior to start of ground disturbance, including grading or mowing.	BLM
WIL-8	American Badger and Desert Kit Fox Protection	Plan to be reviewed and approved by BLM, USFWS, and CDFW.	Plan to be submitted at least 45 days prior to start of construction. Surveys to be completed no more than 30 days prior to start of construction.	BLM, USFWS, and CDFW
WIL-9	Burrowing Owl Protection and Mitigation	Plan to be reviewed and approved by BLM, USFWS, and CDFW.	Surveys to be completed no more than 30 days and no less than 14 days prior to start of construction. Compensation shall be initiated or completed within 12 months from the time the resource impact occurs, unless a 6-month extension is approved by the Authorizing Officer.	BLM, USFWS, and CDFW. Agency responsible for compensation is BLM.
WIL-10	Compensatory Mitigation for Mojave Fringe-toed Lizard Habitat Losses	Compensation to be verified through BLM approval of compensation type and amount.	Compensation shall be initiated or completed within 12 months from the time the resource impact occurs, unless a 6-month extension is approved by the Authorizing Officer.	BLM

Table G-22-1. Summary of Mitigation Measures

Measure Number	Measure Title	Method of Verification	Timing of Measure	Responsible Agency
WIL-11	In-Lieu Fees to Satisfy Compensation Requirements	Compensation to be verified through BLM approval of compensation type and amount.	Compensation shall be initiated or completed within 12 months from the time the resource impact occurs, unless a 6-month extension is approved by the Authorizing Officer.	BLM
WIL-12	Couch's Spadefoot Toad Protection and Mitigation	Plan to be reviewed and approved by BLM and CDFW.	Plan to be submitted prior to start of ground disturbance. Plan implementation to be ongoing throughout construction, operations, and decommissioning.	BLM and CDFW
WIL-13	Development of Ponding Area	BLM to approve any proposed ponds.	Approvals to be received before any ponds are developed.	BLM
CULTURAL-1	NHPA §106 Memorandum of Agreement	MOA to be developed by BLM in consultation with the ACHP, SHPO, the Applicant, Riverside County, and Native American Tribes.	MOA to be developed prior to the ROD. Implementation to be ongoing throughout construction, operations, and decommissioning.	BLM, ACHP, SHPO, Riverside County, and Native American Tribes
CULTURAL-2	Historic Properties Treatment Plan (HPTP)	Plan to be reviewed and approved by BLM and the County.	Plan to be submitted prior to start of ground disturbance and issuance of County grading permit. Plan implementation to be ongoing throughout construction, operations, and decommissioning.	BLM and Riverside County

Table G-22-1. Summary of Mitigation Measures

Measure Number	Measure Title	Method of Verification	Timing of Measure	Responsible Agency
CULTURAL-3	Identification of Human Remains	Incidents to be reported to County Coroner.	Reporting to be ongoing throughout construction, operations, and decommissioning.	Riverside County
CULTURAL-4	Unanticipated Discoveries	Incidents to be reported to Native American Tribal Observer, BLM, and County Archaeologist.	Implementation to be ongoing throughout construction, operations, and decommissioning.	Native American Tribal Observer, BLM, and County Archaeologist
CULTURAL-5	Monitoring and Discovery Plan	Plan to be reviewed and approved by BLM and the County.	Plan to be submitted prior to start of ground disturbance and issuance of County grading permit. Plan implementation to be ongoing throughout construction.	BLM and Riverside County
CULTURAL-6	Tribal Observer	Documentation of efforts to contract Tribal Observers to be submitted to BLM and County Archaeologists.	Within 60 days prior to ground disturbance.	Native American Tribal Observer, BLM, and County Archaeologist
CULTURAL-7	Cultural Resources Monitoring Report	Report to be submitted to BLM and County Archaeologists.	Prior to the final inspection of the first building permit.	BLM and Riverside County
GEO-1	Conduct geotechnical studies to assess soil characteristics and aid in appropriate foundation design	Study results and proposed solutions to be submitted to BLM and the County Engineering Geologist.	60 days before final Project design.	BLM and Riverside County
GHG-1	Seal Circuit Breakers	Owners of gas-insulated switchgear required to report emissions annually to CARB.	Annually.	CARB

Table G-22-1. Summary of Mitigation Measures

Measure Number	Measure Title	Method of Verification	Timing of Measure	Responsible Agency
HAZ-1	Site-Specific Hazardous Materials Management and Emergency Response Plan	Plan to be reviewed and approved by BLM and the County.	Plan to be submitted prior to Notice to Proceed. Plan implementation to be ongoing throughout construction, operations, and decommissioning.	BLM and Riverside County
HAZ-2	Broken PV Module Detection and Handling	Disposal of California-state hazardous waste, if any, is regulated by DTSC.	Ongoing throughout construction, operations, and decommissioning.	DTSC
HAZ-3	Aircraft Safety Consultation	Verified by filing of FAA Forms 7460-1.	At least 45 days prior to the start of construction.	FAA
UXO-1	UXO Identification, Training, and Reporting Plan	Plan to be reviewed and approved by BLM.	Plan to be submitted at least 30 days prior to the start of construction, and within 30 days of the completion of surveys. Plan implementation to be ongoing throughout construction.	BLM
TLSN-1	Radio Frequency Interference	Records of complaints to be submitted to BLM upon request.	Ongoing throughout operations.	BLM
NOISE-1	Noise Level Monitoring	Results of noise level monitoring to be submitted to BLM and the County.	Ongoing throughout construction activities	BLM and Riverside County
PAL-1	Project Paleontologist	Proposed staff to be reviewed and approved by BLM and the County.	Prior to the issuance of a Notice to Proceed.	BLM and Riverside County
PAL-2	Materials for Project Paleontologist and BLM Authorized Officer	Materials to be provided to BLM.	Prior to the start of each phase of construction.	BLM

Table G-22-1. Summary of Mitigation Measures

Measure Number	Measure Title	Method of Verification	Timing of Measure	Responsible Agency
PAL-3	Paleontological Resources Monitoring and Mitigation Plan (PRMMP)	Plan to be reviewed and approved by BLM.	Plan to be submitted prior to Notice to Proceed. Plan implementation to be ongoing throughout construction and any other ground disturbance.	BLM
PAL-4	Approved Training Pertaining to Ground Disturbance	Training materials to be provided to BLM for approval.	Materials to be submitted prior to start of ground disturbance. Training to be implemented throughout construction and any other ground disturbance.	BLM
PAL-5	Pedestrian Paleontological Survey	Survey results to be submitted to BLM and the County.	Prior to Final EIS.	BLM and Riverside County
PAL-6	Paleontological Monitoring Activities	Activities to be verified through daily log and monthly compliance report.	Throughout construction and any other ground disturbance. Activities to be verified through daily log and monthly compliance report.	BLM and Riverside County
PAL-7	Implementation of PRMMP	Activities to be verified through daily log and monthly compliance report.	Throughout construction and any other ground disturbance. Activities to be verified through daily log and monthly compliance report.	BLM and Riverside County
PAL-8	Paleontological Resources Report (PRR)	Report to be submitted to BLM and the County.	Within 30 days following completion of ground-disturbing activities	BLM and Riverside County

Table G-22-1. Summary of Mitigation Measures

Measure Number	Measure Title	Method of Verification	Timing of Measure	Responsible Agency
REC-1	Access to Mule Mountains ACEC	Draft interpretive materials to be submitted to BLM for review and approval.	Prior to Project construction, and then periodically throughout the duration of the Project.	BLM
REC-2	Temporary Route Closure	Documentation of coordination efforts to be submitted to BLM and other affected agencies.	No less than 60 days prior to construction and maintenance of the gen-tie line. Documentation to be provided at least 30 days prior to construction.	BLM and Riverside County
REC-3	Use of Long-Term Visitor Areas (LTVAs)	Specific authorization from BLM to be sought for use of the LTVAs.	Prior to use of LTVAs.	BLM
TRN-1	Traffic Monitoring and Control Plan	Plan to be reviewed and approved by BLM and the County.	Plan to be submitted prior to start of ground disturbance and issuance of County grading permit. Plan implementation to be ongoing throughout construction.	BLM and Riverside County
TRN-2	Coordinated Transportation Management Plan	Plan to be reviewed and approved by BLM and the County.	Plan to be submitted prior to start of construction. Plan implementation to be ongoing throughout construction.	BLM and Riverside County
TRN-3	Reduce Construction Worker Vehicles	Revised traffic analysis to be submitted to BLM and the County for review and approval.	Analysis to be submitted prior to the Notice to Proceed. Results of analysis to be implemented throughout construction.	BLM and Riverside County

Table G-22-1. Summary of Mitigation Measures

Measure Number	Measure Title	Method of Verification	Timing of Measure	Responsible Agency
TRN-4	Improve Access Road	Grading Plan to be reviewed and approved by County transportation department.	Prior to construction of the Project fence, solar facility, gen-tie, temporary construction areas, and other facilities.	Riverside County
VIS-1	Project Design, Building and Structural Materials	Project designs, specifications, and Lighting Plan to be submitted to BLM District Office for review and approval.	Construction plans, details, shop drawings and specifications to be submitted to BLM prior to the Notice to Proceed.	BLM
VIS-2	Construction Phase Visual Mitigation	Measures to be established in pre-construction meeting with BLM landscape architects or other designated visual/scenic resource specialists.	Ongoing throughout construction activities	BLM
VIS-3	Operation and Maintenance Phase Visual Mitigation	Objectives, adaptive management adjustments, and modifications to be reviewed and approved by BLM.	Ongoing throughout operations	BLM
VIS-4	Decommissioning and Site Restoration Plan	Plan to be reviewed and approved by BLM.	Plan to be submitted prior to start of construction. Plan implementation to be undertaken as soon as possible after disturbances occur. Monitoring to be conducted twice annually for 5 years and may be extended for an additional 5 years if the performance standards have not been achieved	BLM

Table G-22-1. Summary of Mitigation Measures

Measure Number	Measure Title	Method of Verification	Timing of Measure	Responsible Agency
WATER-1	Implementation of a SWPPP	Plan to be reviewed and approved by BLM.	Ongoing throughout construction, decommissioning, and any other ground disturbance greater than one acre.	BLM
WATER-2	Comprehensive Drainage, Stormwater, and Sedimentation Control Plan	Plan to be reviewed and approved by BLM and the County.	Plan to be submitted prior to start of ground disturbance and issuance of County grading permit. Plan implementation to be ongoing throughout construction and decommissioning.	BLM and Riverside County
WATER-3	Flood Protection	Grading Plan and Flood Safety Plan to be submitted to BLM and County for review and approval.	Plans to be submitted prior to start of ground disturbance and issuance of County grading permit. Plan implementation to be ongoing throughout construction, operations, and decommissioning.	BLM and Riverside County
WATER-4	Groundwater Monitoring and Mitigation Plan	Plan to be reviewed and approved by BLM and the County.	Plan to be submitted prior to start of construction. Plan implementation to be ongoing throughout construction, operations, and decommissioning.	BLM and Riverside County

Table G-22-1. Summary of Mitigation Measures

Measure Number	Measure Title	Method of Verification	Timing of Measure	Responsible Agency
FIRE-1	Fire Safety Plan	Plan to be reviewed and approved by BLM and the RCFD.	Plans to be submitted prior to start of ground disturbance and issuance of County grading permit. Plan implementation to be ongoing throughout construction, operations, and decommissioning.	BLM and RCFD