

# **Appendix E**

## **Mitigation Monitoring and Reporting Program**

**Table E-1. Mitigation Monitoring and Reporting Program**

**Aesthetics**

**MITIGATION MEASURE**

**MM AES-1: Night Lighting Management.** To the extent feasible, consistent with safety and security considerations, the project owner shall design and install all permanent exterior lighting and all temporary construction lighting such that: (a) lamps and reflectors are not visible from beyond the project site, including any off-site security buffer areas; (b) lighting does not cause excessive reflected glare; (c) direct lighting does not illuminate the nighttime sky, except for any required Federal Aviation Administration (FAA) aircraft safety lighting; and (d) illumination of the project and its immediate area is minimized.

The project owner shall consult with the NPS Night Sky Program Manager in the development of the night lighting and comply with stricter standards for light intensity. All permanent light sources shall be below 3,500 Kelvin color temperature (warm white) and shall have cutoff angles not to exceed 45 degrees of nadir. The use of light-emitting diode (LED) lighting with a Correlated Color Temperature (CCT) above 2,700 would introduce blue light into the environment that would have negative impacts on the night skies and wildlife of that area. If LED light bulbs are used, they will have a CCT of 2,700 or less. All lights, temporary and permanent, are to be fully shielded such that the emission of light above the horizontal will be prevented. Prior to construction, the Project owner shall submit to the Colorado River Basin RWQCB (or its designated representative), BLM, and NPS JTNP for review a Night Lighting Management Plan that specifies the following:

- A. Location and direction of light fixtures shall take into account the lighting mitigation requirements;
- B. Lighting shall incorporate fixture hoods/shielding, with light directed downward or toward the area to be illuminated;
- C. Light fixtures that are visible from beyond the project boundary shall have cutoff angles that are sufficient to prevent lamps and reflectors from being visible beyond the project boundary, except where necessary for security;
- D. All lighting shall be of minimum necessary brightness consistent with operational safety and security;
- E. Lights in high illumination areas not occupied on a continuous basis shall have (in addition to hoods) switches, timer switches, or motion detectors so that the lights operate only when the area is occupied;

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	<p>F. Low-pressure sodium (LPS) or amber LED lighting will be emphasized, and white lighting (metal halide) is: (a) only used when necessitated by specific work tasks; (b) not used for dusk-to-dawn lighting; and (c) not less than 3500 Kelvin color temperature;</p> <p>G. Provides specifications and a map of all lamp locations, orientations, and intensities, including security, roadway, and task lighting;</p> <p>H. A specification of each light fixture and each light shield;</p> <p>I. Total estimated outdoor lighting footprint expressed as lumens or lumens per acre;</p> <p>J. Specifications on the use of portable truck-mounted lighting;</p> <p>K. Specify use of motion sensors and other controls, especially for security lighting;</p> <p>L. Specification of the surface treatment that will be employed to minimize glare and skyglow;</p> <p>M. Documentation that the necessary coordination with the NPS Night Sky Program Manager has occurred; and</p> <p>N. A requirement that exterior lighting comply with current Title 24 regulations from the State of California and be coordinated with the California Department of Transportation (Caltrans) to comply with exterior lighting regulations along I-10 and SR-177.</p>
Responsible Party	Project Owner
Responsible Monitoring Party	RWQCB, BLM, and NPS JTNP
Monitoring Phase/Timing	Prior to Construction
Verification Approval Party	BLM
<b>MITIGATION MEASURE</b>	<p><b>MM AES-2: Surface Treatment of Project Structures and Buildings.</b> The project owner shall treat the surfaces of all non-temporary, large project structures and buildings (O&amp;M building, inverters, electrical enclosures, gen-tie poles and conductors) visible to the public such that: (a) their colors minimize visual intrusion and contrast by blending with (matching) the existing characteristic landscape colors; and (b) their colors and finishes do not create excessive glare from surface brightness. The transmission line conductors shall be non-specular and non-reflective, and the insulators shall be non-reflective and non-refractive.</p>

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	<p>Following consultation with the BLM Visual Resources specialist, and other representatives as deemed necessary, the project owner shall submit for RWQCB (or its designated representative) and BLM review, a specific Surface Treatment Plan that will satisfy these requirements. The consultation would be in-field at the agencies' election, or as a desktop review if preferred by the agencies. The treatment plan shall include:</p> <ul style="list-style-type: none"> <li>A. A description of the overall rationale for the proposed surface treatment, including the selection of the proposed color(s) and finishes based on the characteristic landscape. Colors will be fielded tested using the actual distances from the KOPs to the proposed structures, using the proposed colors painted on representative surfaces;</li> <li>B. A list of each major project structure and building, the transmission line towers and/or poles, and fencing, specifying the color(s) and finish proposed for each. Colors must be identified by vendor, name, and pantone number; or according to a universal designation system;</li> <li>C. One set of color brochures or color chips showing each proposed color and finish;</li> <li>D. A specific schedule for completion of the treatment; and</li> <li>E. A procedure to ensure proper treatment maintenance for the life of the project. The project owner shall not specify to the vendors the treatment of any buildings or structures treated during manufacture or perform the final treatment on any buildings or structures treated in the field, until the project owner receives notification of approval of the treatment plan by the BLM. Subsequent modifications to the treatment plan are prohibited without the BLM's approval for components under their respective authorities; however, the project owner may consider the agencies' failure to respond to a request for review within 60 days an acceptance of the proposal.</li> </ul>
Responsible Party	Project Owner
Responsible Monitoring Party	RWQCB and BLM
Monitoring Phase/Timing	Prior to Construction
Verification Approval Party	BLM
<b>MITIGATION MEASURE</b>	<b>MM AES-3: Project Design.</b> The project owner will use design fundamentals to reduce the visual contrast to the characteristic landscape. These include proper siting and

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	<p>location; reduction of visibility; repetition of form, line, color, and texture of the landscape; and reduction of unnecessary disturbance. To the extent feasible, design strategies to address these fundamentals will be based on the following factors:</p> <ul style="list-style-type: none"> <li>■ <i>Vegetation Manipulation:</i> Retain as much of the existing vegetation as possible. Use existing vegetation to screen the development from public viewing. Use scalloped, irregular cleared edges to reduce line contrast. Use irregular clearing shapes to reduce form contrast. Feather and thin the edges of cleared areas and retain a representative mix of plant species and sizes.</li> <li>■ <i>Structures:</i> Minimize the number of structures and combine different activities in one structure. Use natural, self-weathering materials and chemical treatments on surfaces to reduce color contrast. Bury all or part of structures to the extent practical. Use natural appearing forms to complement the characteristic landscape. Screen the structure from view by using natural landforms and vegetation. Reduce the line contrast created by straight edges.</li> <li>■ <i>Linear Alignments:</i> Use existing topography to hide induced changes associated with roads, lines, and other linear features. Select alignments that follow landscape contours. Avoid fall-line cuts. Hug vegetation lines.</li> <li>■ <i>Reclamation and Restoration:</i> Reduce the amount of disturbed area and blend the disturbed areas into the characteristic landscape. Where feasible, replace soil, brush, rocks, and natural debris over disturbed area. Newly introduced plant species should be of a form, color, and texture that blends with the landscape.</li> </ul>
Responsible Party	Project Owner
Responsible Monitoring Party	RWQCB and BLM
Monitoring Phase/Timing	Prior to and during construction
Verification Approval Party	BLM
<b>Air Quality</b>	
<b>MITIGATION MEASURE</b>	<b>MM AQ-1: Fugitive Dust Control Plan.</b> The Applicant shall prepare and implement a Fugitive Dust Control Plan to address fugitive dust emissions during project construction, operation, maintenance, and decommissioning. The plan shall include measures to minimize fugitive dust emissions from development of laydown and staging areas, site

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grading, vegetation management, and installing all project facilities through post-construction cleanup. The Applicant shall take every reasonable precaution to prevent all airborne fugitive dust plumes from leaving the project site and to prevent visible particulate matter from being deposited upon public roadways. The plan is subject to review and approval by the SCAQMD (Rule 403).

The following measures shall be included within the plan:

- During construction, all unpaved roads, disturbed areas (e.g., areas of scraping, excavation, backfilling, grading, and compacting), and loose materials generated during construction activities shall be stabilized with a non-toxic soil stabilizer or soil weighting agent or watered two times daily or as frequently as necessary to minimize fugitive dust generation. Non-water-based soil stabilizers shall be as efficient as or more efficient for fugitive dust control than Air Resources Board–approved soil stabilizers and shall not increase any other environmental impacts, including loss of vegetation, adverse odors, or emissions of ozone precursor reactive organic gas (ROG) or volatile organic compound (VOC).
  - For long-term site operations, maintenance, and decommissioning, the project owner shall establish a Site Operations Dust Control Plan, which includes all applicable fugitive dust control measures identified for operations activities. The Site Operations Dust Control Plan shall include the use of durable non-toxic soil stabilizers on all regularly used unpaved roads, shall restrict vehicular access to established unpaved travel paths within the project boundaries, and shall include the long-term inspection and maintenance procedures that will be undertaken to ensure that the unpaved roads remain stabilized.
  - The main access roads through the site shall be either paved or stabilized using soil binders, or equivalent methods, to provide a stabilized surface that is similar for the purposes of dust control to paving, that may or may not include a crushed rock (gravel or similar material with fines removed) top layer, prior to initiating construction. Delivery, laydown, and staging areas for construction or O&M supplies shall be paved or treated prior to taking initial deliveries.
  - Grading and earthwork activities, including vegetation removal, cut and fill movement, and soil compacting, shall be phased across the site to minimize the amount of exposed or disturbed area on any single day.
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	<ul style="list-style-type: none"> <li>■ No vehicle shall exceed 15 miles per hour on unpaved areas within the construction site, with the exception that vehicles may travel up to 25 miles per hour on stabilized unpaved roads as long as such speeds do not create visible dust emissions.</li> <li>■ Visible speed limit signs shall be posted at the construction site entrances.</li> <li>■ All construction equipment vehicle tires shall be inspected and washed as necessary to be cleaned free of dirt prior to entering paved roadways.</li> <li>■ All unpaved exits from the construction site shall be graveled or treated to prevent track-out onto public roadways.</li> <li>■ All paved roads within the construction site shall be swept daily or as needed (less during periods of precipitation) on days when construction activity occurs to prevent the accumulation of dirt and debris.</li> <li>■ At least the first 500 feet of any paved public roadway exiting the construction site or exiting other unpaved roads to access the construction site or staging areas shall be swept as needed when dirt or runoff resulting from the construction activities is visible on the paved public roadway.</li> </ul>
Responsible Party	Project Owner
Responsible Monitoring Party	SCAQMD
Monitoring Phase/Timing	Prior to and during construction
Verification Approval Party	SCAQMD
<b>MITIGATION MEASURE</b>	<p><b>MM AQ-2: Control On-Site Off-Road Equipment Emissions.</b> The Applicant, when entering into construction contracts or when procuring off-road equipment or vehicles for on-site construction or O&amp;M activities, shall ensure that only new model year equipment or vehicles are obtained. The following measures shall be included as part of any contract or procurement specifications:</p> <ul style="list-style-type: none"> <li>■ All construction diesel engines not registered under California Air Resources Board’s Statewide Portable Equipment Registration Program, with a rating of 50 hp or higher shall meet the Tier 4 California Emission Standards for Off-Road Compression-Ignition Engines, as specified in California Code of Regulations, title 13, section 2423(b)(1), unless a good faith effort demonstrates that such engine is not available for a</li> </ul>

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	<p>particular item of equipment. In the event that a Tier 4 engine is not available for any off-road equipment larger than 50 hp, a Tier 3 engine shall be used or that equipment shall be equipped with retrofit controls to reduce exhaust emissions of nitrogen oxides (NOx) and diesel particulate matter (DPM) to no more than Tier 3 levels unless certified by the engine manufacturers that the use of such devices is not practical for specific engine types.</p> <ul style="list-style-type: none"> <li>■ All diesel-fueled engines used in the construction of the facility shall have clearly visible tags showing that the engine meets the standards of this measure.</li> <li>■ All equipment and trucks used in the construction or O&amp;M of the facility shall be properly maintained and the engines tuned to the engine manufacturer’s specifications.</li> <li>■ All diesel heavy construction equipment shall not idle for more than 5 minutes. Vehicles that need to idle as part of their normal operation (such as concrete trucks) are exempted from this requirement.</li> </ul>
Responsible Party	Project Owner
Responsible Monitoring Party	RWQCB
Monitoring Phase/Timing	Prior to and during construction; during operations
Verification Approval Party	RWQCB

**Biological Resources**

<b>MITIGATION MEASURE</b>	<p><b>MM BIO-1: Biological Monitoring.</b> Monitoring to ensure conformance with conditions of approval, including effective protection and avoidance of biological resources, shall be implemented by the Applicant as follows:</p> <p><b>Biological Monitoring Team.</b> During construction and decommissioning, the Applicant shall employ a biological monitoring team to oversee project activities. Any activity that may impact vegetation, wildlife, and sensitive resources would be monitored to ensure compliance with all mitigation measures for biological resources.</p> <p>The biological monitoring team would consist of:</p> <ul style="list-style-type: none"> <li>■ Lead Biologist: The Applicant shall assign a Lead Biologist, approved by BLM, CDFW, and USFWS as the primary point of contact for the BLM and resource agencies regarding biological resources mitigation and compliance.</li> <li>■ Biological Monitor: Biological monitors will be overseen by the Lead Biologist and will perform any required</li> </ul>
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surveys, ground disturbance and construction monitoring, wildlife monitoring, inspections, marking sensitive resource buffers, and revegetation monitoring during project activities. Biological monitors would include trained desert tortoise monitors (MM BIO-9) and nest monitors (MM BIO-10).

- Authorized Desert Tortoise Biologist: For desert tortoise protection measures (MM BIO-9), the Applicant will nominate a qualified individual to serve as Authorized Desert Tortoise Biologist, for approval by the USFWS.

The Applicant shall provide the resumes of the proposed Biological Monitoring Team to the BLM for approval prior to onset of ground-disturbing activities. The Biological Monitoring Team will have demonstrated expertise with the biological resources within the project region. The Biological Monitoring Team will have authority to halt any activities in any area if it is determined that the activity, if continued, would cause an unauthorized adverse impact to biological resources.

The duties of the Biological Monitoring Team will vary during the construction, O&M, and decommissioning phases, based on the biological monitoring tasks needed for compliance during each phase. During O&M, an Applicant staff member serving as a compliance manager may perform the duties of the Lead Biologist to ensure compliance with biological mitigation measures, such as performing inspections for entrapped wildlife and fence condition, reporting dead or injured wildlife, and avoiding nesting birds.

In general, the duties of the Lead Biologist will include, but will not be limited to:

- Regular, direct communication with representatives of the BLM, and other agencies, as appropriate. The Lead Biologist, or during O&M, the Applicant's compliance manager, shall immediately notify the BLM and applicable resource agencies in writing of dead or injured special-status species, or of any non-compliance with biological mitigation measures or permit conditions.
  - Train and supervise Biological Monitors, including desert tortoise monitors, nest monitors, and construction monitors.
  - Conduct or oversee Worker Environmental Awareness Program (WEAP) training (MM BIO-2).
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	<ul style="list-style-type: none"> <li>■ During construction and decommissioning, clearly mark and inspect sensitive biological resource areas in compliance with regulatory terms and conditions.</li> <li>■ Oversee wildlife clearance surveys, ground disturbance and grading, and biological monitoring. Ensure that all biological monitoring is completed properly and on schedule.</li> <li>■ Conduct or oversee bi-weekly compliance inspections during ground disturbing activities and communicate any remedial actions needed (i.e., trash, fence, weed maintenance; wildlife mortality) to maintain compliance with mitigation measures.</li> </ul> <p><b>Reporting.</b> The Lead Biologist, or during O&amp;M, the Applicant’s compliance manager, shall report regularly to the BLM to document the status of compliance with biological mitigation measures.</p> <p>During construction and decommissioning:</p> <ul style="list-style-type: none"> <li>■ Provide weekly verbal or written updates to the BLM with any information pertinent to the BLM, to resource agencies, or to state or federal permits for biological resources.</li> <li>■ Prepare and submit monthly and annual compliance reports to include a summary of project activities that occurred, biological resources surveys and monitoring that were performed, any sensitive or noteworthy species observed, weed infestations removed, and non-compliance issues and remedial actions that were implemented.</li> </ul> <p>During O&amp;M:</p> <ul style="list-style-type: none"> <li>■ Conduct quarterly compliance inspections and reporting, to be submitted to the BLM, to document the condition of exclusion fencing, wildlife mortality, and any biological resource issues of note.</li> </ul>
Responsible Party	Project Owner
Responsible Monitoring Party	RWQCB and BLM
Monitoring Phase/Timing	Prior to and during construction
Verification Approval Party	BLM and RWQCB
<b>MITIGATION MEASURE</b>	<b>MM BIO-2: Worker Environmental Awareness Training.</b> The Lead Biologist will prepare and implement a Worker Environmental Awareness Program (WEAP). The Applicant will be responsible for ensuring that all workers at the site receive WEAP training prior to beginning work on the project and throughout construction and operations. The

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WEAP will be available in English and Spanish. The Applicant will submit the WEAP to the lead agency and resource agencies for approval prior to implementation. The WEAP will:

- Be developed by or in consultation with the Lead Biologist and consist of an on-site or training center presentation with supporting written material and electronic media, including photographs of protected species, available to all participants.
  - Provide an explanation of the function of flagging that designates authorized work areas; specify the prohibition of soil disturbance or vehicle travel outside designated areas.
  - Discuss general safety protocols such as vehicle speed limits, hazardous substance spill prevention and containment measures, and fire prevention and protection measures.
  - Review mitigation and biological permit requirements.
  - Explain the sensitivity of the vegetation and habitat within and adjacent to work areas, and proper identification of these resources.
  - Discuss the federal and state Endangered Species Acts, Bald and Golden Eagle Protection Act, and the Migratory Bird Treaty Act and the consequences of non-compliance with these acts.
  - Discuss the locations and types of sensitive biological resources on the project site and adjacent areas and explain the reasons for protecting these resources.
  - Inform participants that no snakes, other reptiles, birds, bats, or any other wildlife will be harmed or harassed.
  - Place special emphasis on species that may occur on the project site and/or gen-tie lines, including special-status plants, desert tortoise, burrowing owl, golden eagle, nesting birds, desert kit fox, American badger, and burro deer.
  - Specify guidelines for avoiding rattlesnakes and reporting rattlesnake observations to ensure worker safety and avoid killing or injuring rattlesnakes. Rattlesnakes should be safely removed from the work area using appropriate snake handling equipment, including a secure storage container for transport, or by calling local animal control.
  - Describe workers' responsibilities for avoiding the introduction of invasive weeds onto the project site and
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	<p>surrounding areas, describe the Integrated Weed Management Plan.</p> <ul style="list-style-type: none"> <li>■ Provide contact information for the Lead Biologist and instructions for notification of any vehicle-wildlife collisions or dead or injured wildlife species encountered during project-related activities.</li> <li>■ Include a training acknowledgment form to be signed by each worker indicating that they received training and will abide by the guidelines.</li> <li>■ Desert Tortoise Education Requirements: Prior to the start of construction activities, a desert tortoise education program shall be presented by the Lead Biologist to all personnel who will be present on Project work areas. Following the start of construction, any new employee shall be required to complete the tortoise education program prior to working on site. At a minimum, the tortoise education program shall cover the following topics: <ul style="list-style-type: none"> <li>○ A detailed description of the desert tortoise, including color photographs</li> <li>○ The distribution and general behavior of the desert tortoise</li> <li>○ Sensitivity of the species to human activities</li> <li>○ The protection the desert tortoise receives under the state and federal Endangered Species Acts, including prohibitions and penalties incurred for violation</li> <li>○ The protective measures being implemented to conserve the desert tortoise during construction activities</li> <li>○ Procedures and a point of contact if a desert tortoise is observed on site.</li> </ul> </li> </ul>
Responsible Party	Project Owner
Responsible Monitoring Party	RWQCB
Monitoring Phase/Timing	Prior to beginning work on the project and throughout construction and operations
Verification Approval Party	RWQCB and BLM
<b>MITIGATION MEASURE</b>	<b>MM BIO-3: Minimization of Vegetation and Habitat Impacts.</b> Prior to ground-disturbing activities during construction, O&M, or decommissioning, authorized work areas shall be clearly delineated. These areas shall include, but not be limited to, staging areas, access roads, and sites for temporary placement of construction materials

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	<p>and spoils. Delineation may be implemented with common orange vinyl “fencing” or staking to clearly identify the limits of work and will be verified by the Lead Biologist. No paint or permanent discoloring agents shall be applied to rocks or vegetation (to indicate surveyor construction activity limits or for any other purpose). Fencing/staking will remain in place for the duration of construction. Spoils will be stockpiled in disturbed areas. All disturbances, vehicles, and equipment will be confined to the fenced/flagged areas. Construction activities will minimize soil and vegetation disturbance to minimize impacts to soil and root systems. Upon completion of construction activities in any given area, all unused materials, equipment, staking and flagging, and refuse shall be removed and properly disposed of, including wrapping material, cables, cords, wire, boxes, rope, broken equipment parts, twine, strapping, buckets, and metal or plastic containers. Any unused or leftover hazardous products shall be properly disposed of off site. Hazardous materials will be handled, and spills or leaks will be promptly corrected and cleaned up according to applicable requirements. Vehicles will be properly maintained to prevent spills or leaks. Hazardous materials, including motor oil, fuel, antifreeze, hydraulic fluid, grease, will not be allowed to enter drainage channels.</p> <p><b>Low-Impact Site Preparation.</b> Native vegetation will be allowed to recover from rootstocks and seed bank wherever facilities do not require permanent vegetation removal (e.g., access roads, foundations, paved areas, or fire clearance requirements) within the perimeter fence line of the solar facilities and under solar arrays. Vegetation height and density will be managed as needed for O&amp;M and fire safety, but vegetation management will otherwise focus on maintaining habitat and soil conditions.</p>
Responsible Party	Project Owner
Responsible Monitoring Party	RWQCB
Monitoring Phase/Timing	Prior to ground disturbance and during construction
Verification Approval Party	RWQCB
<b>MITIGATION MEASURE</b>	<p><b>MM BIO-4: Integrated Weed Management Plan.</b> The Applicant will prepare and implement an Integrated Weed Management Plan (IWMP) to minimize or prevent invasive weeds from infesting the site or spreading into surrounding habitat. The IWMP must comply with existing BLM plans and permits including the <i>Vegetation Treatments Using</i></p>

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	<p><i>Herbicides (2007) and Vegetation Treatment Using Aminopyralid, Fluroxypyr, and Rimsulfuron (2016b)</i> including requiring a Pesticide Use Permit approved by the BLM and adhere to the BLM design features included in the EIS. RWQCB (or its designated representative), CDFW, and the BLM must approve the plan. The IWMP will identify weed species occurring or potentially occurring in the project area, means to prevent their introduction or spread (e.g., vehicle cleaning and inspections), monitoring methods to identify infestations, and timely implementation of manual or chemical (as appropriate) suppression and containment measures to control or eradicate invasive weeds. The IWMP will identify herbicides that may be used for control or eradication, and avoid herbicide use in or around any environmentally sensitive areas. The IWMP will also include a reporting schedule, to be implemented by the Lead Biologist.</p>
Responsible Party	Project Owner
Responsible Monitoring Party	RWQCB and BLM
Monitoring Phase/Timing	Prior to ground disturbance and during construction, operation, maintenance, and decommissioning
Verification Approval Party	RWQCB, CDFW, and BLM
<b>MITIGATION MEASURE</b>	<p><b>MM BIO-5: Vegetation Resources Management Plan.</b> The Applicant will prepare and implement a Vegetation Resources Management Plan (VRMP), to be reviewed and approved by RWQCB (or its designated representative), CDFW, and BLM. The VRMP will address revegetation of temporarily disturbed areas and ongoing O&amp;M management of native vegetation within the solar fields.</p> <p>The Lead Biologist shall oversee implementation of the VRMP to meet success criteria and prevent further degradation of areas temporarily disturbed by project activities. Pre-disturbance habitat values would not be restored, but off-site compensation would offset the loss in habitat value.</p> <p>The Vegetation Resources Management Plan will detail the methods to revegetate temporarily impacted sites and salvage special-status plants from the project footprint; and outline long-term vegetation management within the solar facility during its operations.</p> <ul style="list-style-type: none"> <li>■ <i>Revegetation of temporarily impacted sites.</i> The Plan will specify methods to prevent or minimize further site degradation; stabilize soils; maximize the likelihood of</li> </ul>

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	<p>vegetation recovery over time (for areas supporting native vegetation); and minimize soil erosion, dust generation, and weed invasions. The nature of revegetation will differ according to each site, its pre-disturbance condition, and the nature of the construction disturbance (e.g., drive and crush, vs. blading). The Plan will include: (a) soil preparation measures, including locations of recontouring, decompacting, imprinting, or other treatments; (b) details for topsoil storage, as applicable; (c) plant material collection and acquisition guidelines, including guidelines for salvaging, storing, and handling plants from the project site, as well as obtaining replacement plants from outside the project area (plant materials will be limited to locally occurring native species from local sources); (d) a plan drawing or schematic depicting the temporary disturbance areas (drawing of “typical” gen-tie structure sites will be appropriate); (e) time of year that the planting or seeding will occur and the methodology of the planting; (f) a description of the irrigation, if used; (g) success criteria; and (h) a monitoring program to measure the success criteria, commensurate with the Plan’s goals, (i) contingency measures for failed revegetation efforts not meeting success criteria.</p> <ul style="list-style-type: none"> <li>■ <i>Cactus Salvage</i>. In conformance with CMA LUPA-BIO-VEG-5, LUPA-BIO-VEG-7, and BLM policy, the Applicant will include salvaged or nursery stock yuccas (all species), and cacti (excluding cholla species, genus <i>Cylindropuntia</i>), in revegetation plans and implementation affecting BLM lands. The Plan will include methods to salvage and replant cacti and yucca found on the site; season for salvaging the plants; methods for salvage, storage, and re-planting them; locations for re-planting; and appropriate monitoring and success criteria for the salvage work.</li> <li>■ <i>Operations Phase On-Site Vegetation Management</i>: The Plan will include methods and scheduling for on-site vegetation management throughout the operations phase, describing mowing or other vegetation treatments to be implemented, to minimize interference with the solar panels, fire hazard, soil disturbance, and disturbance of any bird nests. It also will address disposal of mown material, and incorporate all applicable components of the Integrated Weed Management Plan, including any proposed herbicide usage.</li> </ul>
Responsible Party	Project Owner
Responsible Monitoring Party	RWQCB and BLM

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Monitoring Phase/Timing	Prior to ground disturbance and during construction and operation
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Verification Approval Party	RWQCB, CDFW, and BLM
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**MITIGATION MEASURE**

**MM BIO-6a: Compensation for Desert Dry Wash**

**Woodland and Desert Pavement Impacts.** The Applicant will acquire and protect, in perpetuity, compensation habitat to offset loss of desert dry wash woodland and desert pavement. The acreages will be based upon final calculation of impacted acreage. Acreages will be adjusted as appropriate for other alternatives or future modifications during implementation. Consistent with CMA LUPA-BIO-COMP-1, compensation will be provided for impacts to the following resources, at the specified ratios (expressed as acres of compensation to acres impacted):

- Desert dry wash woodland: 5:1 (i.e., up to 445 acres of compensation for approximately 89 acres of impact)
- Desert pavement: 1:1 (i.e., up to 18 acres of compensation for 18 acres of impact outside desert tortoise critical habitat, see MM BIO-6b)

Criteria for the acquisition, initial protection and habitat improvement, and long-term maintenance and management of compensation lands will include all the following: Provide habitat value that is comparable to the habitat impacted, taking into consideration soils, vegetation, topography, human-related disturbance, invasive species, wildlife movement opportunity, proximity to other protected lands, management feasibility, and other habitat values. The primary focus area for acquiring parcels will be within the Colorado Desert Recovery Unit. Mitigation may be “nested” or “layered,” to the extent that it meets habitat requirements for multiple species that will or may be impacted by the Project.

Consistent with mitigation timing described in CMA LUPA-BIO-COMP-1, compensation activities must be initiated or completed within 12 months from the time the resource impact occurs. A 6-month extension may be authorized, subject to approval by the authorizing officer, dependent on the resources impacted and compensation due diligence of the project developer. Prior to initiation of construction activities, the Applicant or an approved third party will submit to the BLM, CDFW, and USFWS for review and approval a Compensation Plan identifying the proposed compensation option(s), including the proposed compensation lands, the land ownership, conservation easement terms, long-term management, and

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	responsibility for funding or endowment. The Plan shall include a schedule for initiating and completing compensation within the timeframe agreed upon with BLM. The Compensation Plan will be submitted for review and approval to the BLM, CDFW, and USFWS.
Responsible Party	Project Owner
Responsible Monitoring Party	RWQCB
Monitoring Phase/Timing	Prior to ground disturbance
Verification Approval Party	RWQCB and BLM

**MITIGATION MEASURE**

**MM BIO-6b: Compensation for Desert Tortoise Habitat Impacts.** The Applicant will provide compensation to offset loss of desert tortoise habitat. The acreages will be based upon final calculation of impacted acreage and will be adjusted as appropriate for other alternatives or future modifications during implementation. Consistent with CMA LUPA-BIO-COMP-1, compensation will be provided for impacts to the following resources, at the ratios specified in the table below (expressed as acres of compensation to acres impacted):

	<b>Oberon Project (acres)</b>
<b>Impact</b>	
Sonoran creosote bush scrub impact (outside DT CH)	1,798
Desert pavement impact (outside DT CH) (see MM BIO-6a)	18
Desert dry wash woodland (direct) (see MM BIO-6a)	89
Desert dry wash woodland (indirect) (buffer)	138
Desert tortoise critical habitat impact (not including dry desert wash woodland impacts) (see MM BIO-6b)	277
<b>COMPENSATION</b>	
Sonoran creosote bush scrub compensation (1:1)	1,798
Desert pavement compensation (1:1) (see MM BIO-6a)	18
Dry desert wash woodland (direct) (5:1) (see MM BIO-6a)	445

**Table E-1. Mitigation Monitoring and Reporting Program**

Desert dry wash woodland (indirect) (5:1) (buffer)	690
Desert tortoise critical habitat compensation (5:1) (not including dry desert wash woodland) (see MM BIO-6b)	1,385
<b>COMPENSATION TOTAL</b>	<b>4,336</b>

Consistent with CMA LUPA-BIO-COMP-1, compensation acreage requirements may be fulfilled through non-acquisition (i.e., restoration and enhancement), land acquisition (i.e., preservation), or a combination of these options, with BLM approval/authorization. The Applicant will compensate for impacts at the above-specified ratios using one of the options described below or a combination of these options, as agreed to in coordination with BLM, CDFW and USFWS.

Consistent with mitigation timing described in CMA LUPA-BIO-COMP-1, compensation activities must be initiated or completed within 12 months from the time the resource impact occurs. A 6-month extension may be authorized, subject to approval by the authorizing officer, dependent on the resources impacted and compensation due diligence of the project developer. Within 3 months of initiating construction, the Applicant or an approved third party will prepare a Compensation Plan identifying the proposed compensation option(s), including locations of fencing and habitat restoration and/or lands to be acquired, and specifying the land ownership, conservation easement terms, long-term management, and responsibility for funding or endowment for the option selected. The Plan shall include a schedule for initiating and completing compensation within the timeframe agreed upon with BLM. The Compensation Plan will be submitted for review and approval to the BLM, CDFW, and USFWS.

**Option I: Desert Tortoise Exclusion Fencing to Mitigate Road-Effect Zones.** The interagency Desert Tortoise Management Oversight Group (MOG), made up of agencies including the BLM, USFWS, and CDFW, have identified the implementation of desert tortoise exclusion fencing along roadways as a preferred compensation method near priority areas. USFWS has identified priority desert tortoise exclusion fencing areas along I-10 near the project to support the protection and recovery of desert tortoise populations. The project would directly impact desert dry wash woodland, Sonoran creosote bush scrub, desert pavement, and desert tortoise critical habitat (including

**Table E-1. Mitigation Monitoring and Reporting Program**

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these habitat types). The project would indirectly impact desert dry wash woodland by impacting the buffer area. Based on the acres and ratios listed above, the project would compensate at least 4,336 acres of preserved habitat. Approximately 6,200 acres of habitat compensation is proposed in the mitigation package.

Several studies have demonstrated that roads are a “form of habitat loss for many wildlife populations because their effects often extend far beyond the roads themselves, giving rise to reduced wildlife abundance in road-effect zones.”<sup>1</sup> Estimates of the sizes of these “road-effect zones” for desert tortoises range from 500 meters from an interstate highway,<sup>2</sup> to 400 to 800 meters from the edge of the highway,<sup>3</sup> to 1.6 kilometers (approximately 1 mile) from the edge of the highway.<sup>4</sup>

Based on these studies, the BLM has determined that in order to provide compensation equivalent to the habitat acreage required per the above ratios, the Applicant would need to construct up to 6 miles of exclusion fencing on both sides of the I-10 corridor, (for a total of up to 12 miles of fencing) (total to be adjusted for final design). Habitat restoration within the “road-effect zone” for this length of fencing also would be required.

Option I would consist of the following specific requirements:

1. Construct up to 6 miles of desert tortoise exclusion fencing on both sides of the I-10 corridor (for a total of up to 12 miles of fencing) in the priority locations and distances agreed upon by BLM, USFWS, and CDFW.
2. Conduct initial habitat restoration within the “road-effect zone” of the fenced portion of I-10, to consist of projects identified on the Desert Tortoise Recovery Implementation Team (RIT) Project List or other projects designed to improve habitat for desert tortoises that are identified by the BLM and CDFW. This may include, but is not limited to, restoration of habitat (removal of invasive plants and increasing native plant cover) throughout the Colorado Desert Recovery Unit and/or reduction of

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<sup>1</sup> Peaden et al., 2015. Delimiting road-effect zones for threatened species: implications for mitigation fencing. *Wildlife Research*, 42(8): 650-659, <https://doi.org/10.1071/WR15082>.

<sup>2</sup> Ibid.

<sup>3</sup> Boarman and Sazaki, 2006. A highway’s road-effect zone for desert tortoise (*Gopherus agassizii*). *Journal of Arid Environments* 65 (2006) 94-101, [www.elsevier.com/locate/jnlabr/yjare](http://www.elsevier.com/locate/jnlabr/yjare).

<sup>4</sup> Boarman, 2009. Effects of Fencing Along Highways on Desert Tortoise Mortality. Prepared for U.S. Department of the Interior Bureau of Land Management, California State Office. October 28.

**Table E-1. Mitigation Monitoring and Reporting Program**

raven subsidies within the Chuckwalla Critical Habitat Unit.

3. To ensure ongoing maintenance and periodic replacement of exclusion fencing, the Applicant shall establish an endowment, such as with the NFWF, to fund this work in perpetuity.

**Option II: Acquisition and Protection of Compensation Lands.** Option II would consist of the following specific requirements:

1. Provide at least 4,336 acres of habitat value that is comparable to the habitat impacted, taking into consideration soils, vegetation, topography, human-related disturbance, invasive species, wildlife movement opportunity, proximity to other protected lands, management feasibility, and other habitat values.
2. The primary focus area for acquiring parcels will be within the Colorado Desert Recovery Unit.
3. Compensation for the impacts on designated desert tortoise critical habitat will be within the Chuckwalla Critical Habitat Unit.
4. Mitigation may be “nested” or “layered,” to the extent that it meets habitat requirements for multiple species that will or may be impacted by the project.
5. The Applicant shall provide funding or bonding for the acquisition in fee title or in easement, initial habitat improvements and long-term maintenance and management of the compensation lands prior to commencement of construction activities on native habitat.

**Option III: Combination of Fencing and Acquisition Options.** Under Option III, the Applicant may coordinate with BLM, USFWS, and CDFW to identify a combination of fencing (with restoration and maintenance) and land acquisition and protection to meet the total compensation acreage requirement. An example of this would be if the agencies determined that 45 percent of the mitigation requirement could be met with fencing, and the remaining 55 percent with land acquisition. In such a scenario, the Applicant would commit to constructing 2.7 miles of fencing along both sides of 1-10 (a total of 5.4 miles, or 45 percent of the total from Option I), and acquiring and protecting 2,385 acres of compensation lands (55 percent of the total from Option II). Total miles and acres would be adjusted for final design.

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Responsible Party

Project Owner

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**Table E-1. Mitigation Monitoring and Reporting Program**

Responsible Monitoring Party	RWQCB
Monitoring Phase/Timing	Prior to ground disturbance and during construction and operation
Verification Approval Party	BLM, CDFW, and USFWS

<b>MITIGATION MEASURE</b>	<p><b>MM BIO-7: Emory’s Crucifixion Thorn Mitigation.</b> The Applicant will mitigate impacts to Emory’s crucifixion thorn (CRPR 2) through one or a combination of the following strategies.</p> <ul style="list-style-type: none"> <li>■ <i>Off-site compensation.</i> The Applicant will provide compensation lands consisting of occupied Emory’s crucifixion thorn habitat at a 1:1 ratio for any occupied habitat affected by the project, according to the terms described in MM BIO-6a (Compensation for Desert Dry Wash Woodland and Desert Pavement Impacts). Occupied habitat will be calculated on the project site and on the compensation lands as including each special status plant occurrence and a surrounding 100-foot buffer area. Off-site compensation will be incorporated into the project’s compensation package for review and approval by CDFW and BLM. Mitigation may be “nested” or “layered,” to the extent that it meets habitat requirements for multiple species that will or may be impacted by the project.</li> <li>■ <i>Salvage, Propagation, and Planting.</i> The Applicant will consult with California Botanic Garden (CBG) regarding potential salvage of Emory’s crucifixion thorn plants and cuttings from the project site prior to site preparation. The Applicant will contract with CBG or another entity with comparable experience and qualifications to salvage at minimum 75 percent of Emory’s crucifixion thorn individuals from the project site, and/or cuttings from those individuals, to be propagated in a nursery and planted off-site. The Applicant will prepare a Salvage Plan, to be reviewed and approved by RWQCB (or its designated representative), CDFW, and BLM prior to disturbance of any occupied Emory’s crucifixion thorn habitat. The plan will describe methods for salvage of cuttings and plants, transport and propagation in the nursery, planting locations and methods, monitoring of plantings, success criteria, reporting, and adaptive management.</li> <li>■ <i>Relocation.</i> Depending on the size and health of the plant, relocation of an individual may be proposed, in coordination with CBG.</li> </ul>
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**Table E-1. Mitigation Monitoring and Reporting Program**

Responsible Party	Project Owner
Responsible Monitoring Party	RWQCB or 3rd party
Monitoring Phase/Timing	Prior to ground disturbance
Verification Approval Party	RWQCB (or representative), CDFW, and BLM
<b>MITIGATION MEASURE</b>	<p><b>MM BIO-8: Wildlife Protection.</b> The Applicant shall undertake the following measures during construction and O&amp;M to avoid or minimize impacts to wildlife. Implementation of all measures shall be subject to review and approval by RWQCB (or its designated representative), CDFW, and BLM.</p> <ul style="list-style-type: none"> <li>■ <i>Wildlife avoidance.</i> Project activities shall minimize interference with wildlife (including ground-dwelling species, birds, bats) by allowing animals to escape from a work site prior to disturbance; conducting pre-construction surveys and exclusion measures for certain species as specified in other measures; checking existing structures (homes, trailers, etc.) for animals such as bats, barn owls, skunks, or snakes that may be present, and safely excluding them prior to removing the structures.</li> <li>■ <i>Minimize traffic impacts.</i> The Applicant will specify and enforce maximum vehicle speed limits as specified in the Traffic Control Plan, to minimize risk of wildlife collisions and fugitive dust.</li> <li>■ <i>Minimize lighting impacts.</i> Night lighting, when in use, shall be designed, installed, and maintained to prevent side casting of light towards surrounding fish or wildlife habitat.</li> <li>■ <i>Avoid use of toxic substances.</i> Soil bonding and weighting agents used for dust suppression on unpaved surfaces shall be non-toxic to wildlife and plants.</li> <li>■ <i>Minimize noise and vibration impacts.</i> The Applicant will conform to noise requirements specified in the noise analysis of this EIR to minimize noise to off-site habitat.</li> <li>■ <i>Water.</i> Potable and non-potable water sources such as tanks, ponds, and pipes shall be covered or otherwise secured to prevent animals (including birds) from entering. Prevention methods may include storing water within closed tanks or covering open tanks with 2-centimeter netting. Dust abatement will use the minimum amount of water on dirt roads and construction areas to meet safety and air quality standards. Water sources (e.g., hydrants, tanks, etc.) shall be checked</li> </ul>

**Table E-1. Mitigation Monitoring and Reporting Program**

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- periodically by biological monitors to ensure they do not create puddles.
- *Trash*. All trash and food-related waste shall be contained in vehicles or covered trash containers inaccessible to ravens, coyotes, or other wildlife and removed from the site regularly.
  - *Workers*. 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.
  - *Wildlife netting or exclusion fencing*. The Applicant may install temporary or permanent netting or fencing around equipment, work areas, or project facilities to prevent wildlife exposure to hazards such as toxic materials or vehicle strikes, or prevent birds from nesting on equipment or facilities. Bird deterrent netting will be maintained free of holes and will be deployed and secured on the equipment in a manner that, insofar as possible, prevents wildlife from becoming trapped inside the netted area or within the excess netting. The biological monitor will inspect netting (if installed) twice daily, at the beginning and close of each workday. The biological monitor will inspect exclusion fence (if installed) weekly.
  - *Wildlife entrapment*. Project-related excavations shall be secured to prevent wildlife entry and entrapment. Holes and trenches shall be backfilled, securely covered, or fenced. Excavations that cannot be fully secured shall incorporate wildlife ramp or other means to allow trapped animals to escape. At the end of each workday, a biological monitor shall ensure that excavations have been secured or provided with appropriate means for wildlife escape.
  - *All pipes or other construction materials or supplies* will be covered or capped in storage or laydown areas. No pipes or tubing will be left open either temporarily or permanently, except during use or installation. Any construction pipe, culvert, or other hollow materials will be inspected for wildlife before it is moved, buried, or capped.
  - *Dead or injured wildlife* shall be reported to USFWS (for federally listed species and migratory birds) and CDFW (for all wildlife) and/or the local animal control agency, as appropriate, by the Lead Biologist (or the Applicant's compliance manager during O&M). A biological monitor shall safely move the carcass out of the road or work area if needed and dispose of the animal as directed by
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**Table E-1. Mitigation Monitoring and Reporting Program**

	<p>the agency. If an animal is entrapped, a biological monitor shall free the animal if feasible, work with construction crews to free it in compliance with safety requirements, or work with animal control or CDFW to resolve the situation.</p> <ul style="list-style-type: none"> <li>■ <i>Pest control.</i> No anticoagulant rodenticides, such as Warfarin and related compounds (indandiones and hydroxycoumarins), may be used within the project site, on off-site project facilities and activities, or in support of any other project activities.</li> </ul>
Responsible Party	Project Owner
Responsible Monitoring Party	RWQCB (or representative), USFWS, CDFW, and BLM
Monitoring Phase/Timing	During construction, operation, and maintenance
Verification Approval Party	RWQCB (or representative), CDFW, and BLM
<b>MITIGATION MEASURE</b>	<p><b>MM BIO-9: Desert Tortoise Protection.</b> No desert tortoise may be handled or relocated without authorization from USFWS and CDFW. The Applicant will obtain incidental take authorization from both agencies to address any potential take of desert tortoise, including authorization to handle or translocate desert tortoise. Desert tortoises shall be handled or translocated according to a Desert Tortoise Relocation Plan, pending approval by both agencies.</p> <p><b>Authorized Personnel Roles and Titles.</b> The Applicant shall designate a USFWS Authorized Biologist to implement the desert tortoise protection measures. The Authorized Biologist may (or may not) also serve as the project’s Lead Biologist.</p> <p>The Applicant shall employ one or more desert tortoise monitors who are qualified to conduct desert tortoise clearance surveys and who will be on site during all construction. The desert tortoise monitors’ qualifications will be subject to review and approval by the BLM. Qualifications may include work as a compliance monitor on a project in desert tortoise habitat, work on desert tortoise trend plot or transect surveys, conducting surveys for desert tortoise, or other research or field work on desert tortoise. Attendance at a training course endorsed by the agencies (e.g., Desert Tortoise Council tortoise training workshop) is a supporting qualification.</p> <p>The Authorized Biologist shall direct one or more desert tortoise monitors to conduct pre-construction clearance surveys for each work area, watch for tortoises wandering into the construction areas, check under vehicles, and</p>

**Table E-1. Mitigation Monitoring and Reporting Program**

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examine excavations and other potential pitfalls for entrapped animals.

The Authorized Biologist will be responsible for overseeing compliance with desert tortoise protective measures and for coordination with resource agencies. The Authorized Biologist will have the authority to halt any Project activities that may risk take of a desert tortoise or that may be inconsistent with adopted mitigation measures or permit conditions. Neither the Authorized Biologist nor any other project employee or contractor may bar or limit any communications between BLM, CDFW, or USFWS staff and any project biologist, biological monitor, or contracted biologist. Upon notification by the desert tortoise monitor or another biological monitor of any noncompliance the Authorized Biologist shall ensure that appropriate corrective action is taken.

The following incidents will require immediate cessation of any project activities that could harm a desert tortoise: (1) location of a desert tortoise within a work area; (2) imminent threat of injury or death to a desert tortoise; (3) unauthorized handling of a desert tortoise, regardless of intent; (4) operation of construction equipment or vehicles outside a project area cleared of desert tortoise, except on designated roads; and (5) conducting any construction activity without a biological monitor where one is required.

**Actions to Protect Desert Tortoise.** The Applicant shall be responsible for implementing the following requirements, under direction of the Lead Biologist.

- *Preconstruction Clearance Survey.* Transects will be spaced 15 feet (5 meters) apart. Clearance will be considered complete after two successive 100-percent coverage surveys have been conducted without finding any desert tortoises. Clearance surveys must be conducted during the active season for desert tortoises (April through May or September through October), unless authorized by CDFW and USFWS. If a tortoise or an occupied tortoise burrow is located during clearance surveys, work activities will proceed only at the site and within a suitable buffer area after the tortoise has either moved away of its own accord, or if it has been translocated off the site under authorization by the USFWS and CDFW.
  - *Worker Training:* The following specifications will be incorporated into the WEAP training, identified in Mitigation Measure BIO-2. Prior to the onset of construction activities, a desert tortoise education
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**Table E-1. Mitigation Monitoring and Reporting Program**

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program will be presented by the Authorized Biologist to all personnel who will be present on project work areas. Following the onset of construction, any new employee will be required to formally complete the tortoise education program prior to working on site. At a minimum, the tortoise education program will cover the following topics:

- A detailed description of the desert tortoise, including color photographs;
  - The distribution and general behavior of the desert tortoise;
  - Sensitivity of the species to human activities;
  - The protection the desert tortoise receives under the state and federal Endangered Species Acts, including prohibitions and penalties incurred for violation;
  - The protective measures being implemented to conserve the desert tortoise during construction activities; and
  - Procedures and a point of contact if a desert tortoise is observed on site.
- *Construction phase tortoise exclusion fencing.* Prior to construction of solar facilities, temporary or permanent desert tortoise exclusion fencing will be installed around the work areas. The fence will adhere to USFWS design guidelines, where applicable. The Authorized Biologist will direct a clearance survey before the tortoise fence is enclosed to ensure no tortoises are in the work area. Any potentially occupied burrows will be avoided until monitoring or field observations (e.g., with a motion-activated camera or fiber-optic mounted video camera) determines absence. If live tortoises or an occupied tortoise burrow are identified in the work area, tortoises shall be relocated under authorization by USFWS and CDFW or allowed to leave on their own accord before enclosing the fence. The fence shall be either continuously monitored prior to closure, or clearance surveys shall be repeated prior to closure after tortoises are removed. Once installed, exclusion fencing will be inspected at least monthly and following all rain events, and corrective action taken if needed to maintain it. Tortoise exclusion fencing will include a “cattle guard” or desert tortoise exclusion gate at each entry point. This gate will remain closed at all times, except when vehicles are entering or leaving. If it is deemed necessary to leave the gate open for extended periods of time (e.g., during high traffic periods), the gate may be left open as long as
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**Table E-1. Mitigation Monitoring and Reporting Program**

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- a biological monitor is present to monitor for tortoise activity in the vicinity.
- *Unfenced work areas.* As an alternative to exclusion fencing, any work conducted in an area that is not fenced to exclude desert tortoises (e.g., gen-tie tower sites) must be monitored by a biological monitor who will stop work if a tortoise enters the work area. Work activities will proceed only at the site and within a suitable buffer area after the tortoise has either moved away of its own accord, or if it has been translocated off the site under authorization by the USFWS and CDFW. Work sites with potential hazards to desert tortoise (e.g., auger holes, steep-sided depressions) that are outside of the desert tortoise exclusion fencing will be fenced by installing exclusionary fencing, covered, or will not be left unfilled overnight.
  - *Operation phase tortoise monitoring or exclusion.* At the Applicant's discretion, and in consultation with resource agencies, permanent desert tortoise exclusion fencing may be installed around each solar facility site, or the Applicant may prepare and implement a monitoring and avoidance program to ensure no take of desert tortoise during O&M, while allowing wildlife (possibly including desert tortoise) to move through the facilities uninjured.
  - *Tortoises under vehicles.* The ground beneath vehicles parked outside of desert tortoise exclusion fencing will be inspected immediately prior to the vehicle being moved. If a tortoise is found beneath a vehicle, the vehicle will not be moved until the desert tortoise leaves of its own accord.
  - *Tortoises on roads.* If a tortoise is observed on or near the road accessing a work area, vehicles will stop to allow the tortoise to move off the road on its own.
  - *Tortoise Observations.* Any time a tortoise is observed within or near a work site, project work activities will proceed only at the site and within a suitable buffer area after the tortoise has either moved away of its own accord, or if it has been translocated off the site under authorization by the USFWS and CDFW. If a tortoise is observed outside of exclusion fencing, construction will stop and the tortoise shall be allowed to move out of the area on its own. If a tortoise or tortoise burrow is observed within the exclusion fencing, construction in the vicinity will stop, pending translocation of the tortoise or other action as authorized by USFWS and CDFW.
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**Table E-1. Mitigation Monitoring and Reporting Program**

	<ul style="list-style-type: none"> <li>■ <i>Dead or Injured Specimens.</i> Upon locating a dead or injured tortoise, the Applicant or its agent will immediately notify the Palm Springs Fish and Wildlife Office by email or telephone. Written notification must be made within five days of the finding, both to the appropriate USFWS field office and to the USFWS’s Division of Law Enforcement. The information provided must include the date and time of the finding or incident (if known), location of the carcass or injured animal, a photograph, cause of death, if known, and other pertinent information.</li> <li>■ <i>Raven Management Plan.</i> The Applicant will develop and implement a Raven Management Plan to address activities that may occur during the pre-construction, construction, decommissioning, and O&amp;M phases of the project that may attract common ravens (<i>Corvus corax</i>), a nuisance species that is a subsidized predator of desert tortoises and other sensitive species in the project vicinity. The measures contained in the Raven Management Plan will be designed to: <ul style="list-style-type: none"> <li>○ Identify conditions associated with the project that might provide raven subsidies or attractants.</li> <li>○ Describe management practices to avoid or minimize conditions that might increase raven numbers and predatory activities.</li> <li>○ Describe monitoring during construction and operations, including methods to identify individual ravens that prey on desert tortoises.</li> <li>○ The Applicant will submit payment to the project sub-account of the Renewable Energy Action Team (REAT) Account held by the National Fish and Wildlife Foundation (NFWF) to support the Service’s Regional Raven Management Program. The one-time fee will be as described in the cost allocation methodology or more current guidance as provided by the Service or CDFW. The contribution to the regional raven management plan will be \$105 per acre impacted.</li> </ul> </li> </ul>
Responsible Party	Project Owner
Responsible Monitoring Party	RWQCB (or representative), USFWS, CDFW, and BLM
Monitoring Phase/Timing	Prior to construction and during construction, operation, and maintenance
Verification Approval Party	RWQCB, USFWS, CDFW, and BLM
<b>MITIGATION MEASURE</b>	<b>MM BIO-10: Bird and Bat Conservation Strategy (BBCS).</b> The Applicant will implement the final BBCS, developed in

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**Table E-1. Mitigation Monitoring and Reporting Program**

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accordance with guidelines recommended by the USFWS, to avoid or minimize take of migratory birds that may nest on the site or may be vulnerable to collision with project components (See Plan of Development Appendix K [IP Oberon, 2021]). It describes the proposed Oberon Project components, summarizes baseline data regarding birds and bats in the Project vicinity; assesses potential risks to those species that could result from Project construction, operation, and decommissioning; and describes conservation measures to be implemented in order to minimize those risks.

Over the course of construction and O&M, fatality thresholds and future conservation measures may be subject to revision in coordination with USFWS and CDFW as new information is obtained. The BBCS outlines an adaptive management process to address such revisions to monitoring.

**Construction.** The Applicant will prepare and implement a Nesting Bird Management Plan (NBMP), to include nest surveys, avoidance, and protection. The project will either avoid vegetation clearing during the nesting season, or conduct pre-construction nest surveys of potential habitat and implement no-disturbance buffer areas around active nests. Pre-construction surveys for active nests will be conducted by one or more biological monitors at the direction of the Lead Biologist. The biologists' qualifications will be subject to review and approval by RWQCB (or its designated representative), CDFW, and BLM. Nest surveys will be conducted for all project activities throughout the nesting season, identified here as beginning January 1 for raptors and hummingbirds and February 1 for other species, and continuing through August 15. Nest surveys will be completed at each work site no more than 7 days prior to initiation of site preparation or construction activities. Nest surveys will cover all work sites, including the solar facility and gen-tie, and surrounding buffer areas of 1,200 feet for raptors and 250 feet for other species. If adjacent properties are not accessible to the biological monitors, the off-site nest surveys may be conducted with binoculars.

At each active nest, the biological monitor will establish and mark a buffer area surrounding the nest where construction activities that could disrupt nesting behavior will be excluded. The BBCS may identify species-specific buffer distances or variable distances, depending on activity levels (e.g., driving past the nest to access work sites may be less disruptive than foundation construction).

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**Table E-1. Mitigation Monitoring and Reporting Program**

	<p>Alternately, buffer distances will be 1,200 feet for raptor nests and 250 feet for other species. The extent of nest protection will be based on proposed construction activities, species, human activities already underway when the nest is initiated (e.g., a house finch nest built in the eaves of an occupied structure would warrant less avoidance or protection than a loggerhead shrike nest build in native shrubland), topography, vegetation cover, and other factors. The avoidance and protection measures will remain in effect until the nest is no longer active.</p> <p>If for any reason a bird nest must be removed during the nesting season, the Applicant or its agent will notify the CDFW and USFWS and retain written documentation of the correspondence. Nests will be removed only if they are inactive, or if an active nest presents a hazard.</p> <p><b>Operation and Maintenance.</b> The BBCS (See POD Appendix K (IP Oberon, 2021)) specifies monitoring and conservation measures to be implemented by the Applicant to document bird mortality or injury that may result from the operation of the project, such as downed exhausted birds on the site that are unable to take flight or collision with project components including gen-tie line collisions. The BBCS includes conservation measures to be implemented through design and operations to minimize bird and bat fatalities at the solar facilities and gen-tie line, a 2-year O&amp;M monitoring and reporting program for potential bird and bat fatalities, and an adaptive management framework.</p>
Responsible Party	Project Owner
Responsible Monitoring Party	RWQCB (or representative), CDFW, BLM, and USFWS
Monitoring Phase/Timing	Prior to construction and during construction, operation, and maintenance
Verification Approval Party	RWQCB, CDFW, and BLM
<b>MITIGATION MEASURE</b>	<p><b>MM BIO-11: Gen-tie lines.</b> Gen-tie line support structures and other facility structures shall be designed in compliance with current standards and practices to discourage their use by raptors for perching or nesting (e.g., by use of anti-perching devices). This design would also reduce the potential for increased predation of special-status species, such as the desert tortoise. Mechanisms to visually warn birds (permanent markers or bird flight diverters) shall be placed on gen-tie lines at regular intervals to prevent birds from colliding with the lines (APLIC, 2006). To the extent practicable, the use of guy wires shall be avoided because</p>

**Table E-1. Mitigation Monitoring and Reporting Program**

	they pose a collision hazard for birds and bats. Necessary guy wires shall be clearly marked with bird flight diverters to reduce the probability of collision. Shield wires shall be marked with devices that have been scientifically tested and found to significantly reduce the potential for bird collisions. Gen-tie lines shall maintain sufficient distance between all conductors and grounded components to prevent potential for electrocution of the largest birds that may occur in the area (e.g., golden eagle and turkey vulture). They shall utilize non-specular conductors and non-reflective coatings on insulators.
Responsible Party	Project Owner
Responsible Monitoring Party	RWQCB (or representative), and BLM
Monitoring Phase/Timing	Prior to and during construction
Verification Approval Party	RWQCB and BLM
<b>MITIGATION MEASURE</b>	<p><b>MM BIO-12: Burrowing Owl Avoidance and Relocation:</b>          The Applicant will prepare and implement a Plan for wildlife relocation, including burrowing owl and other species (i.e., desert kit fox, American badger), as needed. The Plan must be reviewed and approved by the lead agencies prior to the start of ground-disturbing activities. Burrowing owl protection and relocation will incorporate the following requirements:</p> <ul style="list-style-type: none"> <li>■ Pre-construction surveys for burrowing owls, possible burrows, and sign of owls (e.g., pellets, feathers, white wash) will be conducted throughout each work area. Survey schedules will be coordinated with constructing the desert tortoise exclusion fence and the pre-construction desert tortoise clearance surveys. As needed, follow-up surveys will be conducted no more than 14 days prior to construction.</li> <li>■ Should any of the pre-construction surveys identify burrowing owl or active burrows within the solar facility, the Lead Biologist will coordinate with the Construction Contractor to implement avoidance and set-back distances. Disturbance of owls or occupied burrows during the breeding season (February 1 through August 31) will not be permitted.</li> <li>■ Any unoccupied suitable burrows within the solar facility footprint will be excavated and filled in under the supervision of the Lead Biologist prior to site preparation.</li> <li>■ The Plan will specify detailed methods for passive relocation of burrowing owls if needed and monitoring</li> </ul>

**Table E-1. Mitigation Monitoring and Reporting Program**

	and management of the passive relocation including a three-year monitoring program.
Responsible Party	Project Owner
Responsible Monitoring Party	RWQCB and BLM
Monitoring Phase/Timing	Prior to construction
Verification Approval Party	RWQCB and BLM

<b>MITIGATION MEASURE</b>	<p><b>MM BIO-13: Desert Kit Fox and American Badger Relocation.</b> The Applicant will prepare and implement a Plan for wildlife relocation, including desert kit fox, American badger, and other species (i.e., burrowing owl), as needed. The Plan must be reviewed and approved by the lead agencies prior to the start of ground-disturbing activities. Under direction of the Lead Biologist, biological monitors shall conduct pre-construction surveys for desert kit fox and American badger. Surveys schedules will be coordinated with constructing the desert tortoise exclusion fence and the pre-construction desert tortoise clearance surveys. Surveys shall also consider the potential presence of dens within 100 feet of the project boundary (including utility corridors and access roads). If dens are detected each den shall then be further classified as inactive, potentially active, or definitely active. Inactive dens directly impacted by construction activities shall be excavated by hand and backfilled to prevent reuse. Potentially active dens within the construction footprint shall be monitored by a Biological Monitor for three consecutive nights using a tracking medium such as diatomaceous medium or fire clay and/or infrared camera stations at the entrance. If no tracks are observed in the tracking medium or no photos of the target species are captured after three nights, the den shall be excavated and backfilled by hand. If tracks are observed, dens shall be fitted with one-way trap doors to encourage animals to move off site. After 48 hours post installation, the den shall be excavated by hand and collapsed. Dens shall be collapsed prior to construction of the perimeter fence, to allow animals the opportunity to move off site without impediment. If an active natal den is detected on the site, the CDFW shall be contacted within 24 hours. The course of action will depend on the age of the pups, location of the den site, status of the perimeter fence, and the pending construction activities proposed near the den. A 500-foot no disturbance buffer shall be maintained around all active dens. Alternatively, a designated biologist authorized by CDFW shall trap and</p>
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**Table E-1. Mitigation Monitoring and Reporting Program**

	<p>remove animals from occupied dens and move them off site into appropriate habitat. Additionally, the following measures are required to minimize the likelihood of distemper transmission:</p> <ul style="list-style-type: none"> <li>■ Any kit fox hazing activities that include the use of animal repellents such as coyote urine must be cleared through the CDFW prior to use.</li> <li>■ Any documented kit fox mortality shall be reported to the CDFW within 24 hours of identification. If a dead kit fox is observed, it shall be retained and protected from scavengers until the CDFW determines if the collection of necropsy samples is justified.</li> </ul>
Responsible Party	Project Owner
Responsible Monitoring Party	RWQCB, BLM, and CDFW
Monitoring Phase/Timing	Prior to and during construction
Verification Approval Party	RWQCB, BLM, and CDFW
<b>MITIGATION MEASURE</b>	<p><b>MM BIO-14: Streambed and Watershed Protection.</b>  Prior to ground-disturbing activities in jurisdictional waters of the State, the Applicant will obtain a Streambed Alteration Agreement from the CDFW and Waste Discharge Requirements from the RWQCB. The Applicant will implement Best Management Practices (BMPs) identified below to minimize adverse impacts to streambeds and watersheds.</p> <ul style="list-style-type: none"> <li>■ Vehicles and equipment will not be operated in ponded or flowing water except as specified by resource agencies.</li> <li>■ The Applicant will minimize road building, construction activities, and vegetation clearing within ephemeral drainages.</li> <li>■ The Applicant will prevent water containing mud, silt, or other pollutants from grading or other activities from entering ephemeral drainages or being placed in locations that may be subjected to high storm flows.</li> <li>■ Spoil sites will not be located within 30 feet from the boundaries of drainages or in locations that may be subjected to high storm flows, where spoils might be washed back into drainages.</li> <li>■ 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-</li> </ul>

**Table E-1. Mitigation Monitoring and Reporting Program**

related activities, will be prevented from contaminating the soil and/or entering ephemeral drainages. The Applicant shall ensure that safety precautions specified by this measure, as well as all other safety requirements of other measures and permit conditions are followed during all phases of the project.

- When operations are completed, any excess materials or debris will be removed from the work area. No rubbish will be deposited within 150 feet of the high-water mark of any drainage during construction, operation, and decommissioning the project.
- No equipment maintenance will occur within 150 feet of any Category 3, 4, or 5 streambed or any streambed greater than 10 feet wide and no petroleum products or other pollutants from the equipment will be allowed to enter these areas or enter any off-site state jurisdictional waters under any flow.
- With the exception of the drainage control system installed for the project, the installation of bridges, culverts, or other structures will be such that water flow (velocity and low flow channel width) is not impaired. Bottoms of temporary culverts will be placed at or below stream channel grade.
- No broken concrete, debris, soil, silt, sand, bark, slash, sawdust, rubbish, or other organic or earthen material from any construction or associated activity of whatever nature will be allowed to enter into, or be placed where it may be washed by rainfall or runoff into, off-site state jurisdictional waters.
- Stationary equipment such as motors, pumps, generators, and welders located within or adjacent to a drainage will be positioned over drip pans. Stationary heavy equipment will have suitable containment to handle a catastrophic spill/leak. Clean up equipment such as brooms, absorbent pads, and skimmers will be on site prior to the start of construction.
- The cleanup of all spills will begin immediately. RWQCB, CDFW, and BLM will be notified immediately by the Applicant of any spills and will be consulted regarding clean-up procedures.

Responsible Party	Project Owner
Responsible Monitoring Party	CDFW and RWQCB

**Table E-1. Mitigation Monitoring and Reporting Program**

Monitoring Phase/Timing	Prior to ground disturbance in jurisdictional waters of the state
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Verification Approval Party	CDFW and RWQCB
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**Cultural Resources and Tribal Cultural**

<b>MITIGATION MEASURE</b>	<p><b>MM CUL-1: Retain a Cultural Resources Specialist.</b> Prior to the start of construction, the project proponent shall retain a project Cultural Resources Specialist (CRS) and one or more alternates, if alternates are needed, whose training and background conforms to the U.S. Secretary of Interior’s Professional Qualifications Standards, as published in Title 36, Code of Federal Regulations, part 61 (36 C.F.R., part 61). The CRS’s qualifications shall be appropriate to the needs of the project, specifically an archaeologist with demonstrated prior experience in the southern California desert and previous experience working with Southern California Tribal Nations. A copy of the CRS’s qualifications shall be provided to the BLM and California Regional Water Quality Control Board–Colorado River Basin Region 7 for review and approval.</p>
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The CRS shall manage all monitoring, mitigation, curation, and reporting activities for the Project. The CRS shall have a primarily administrative and coordination role for the Project. The CRS may obtain the services of additional cultural resources specialists, if needed, to assist in monitoring, mitigation, and curation activities. The CRS shall have a BLM California cultural resource use permit (CRUP) and all supervisory cultural resource field staff (Principal Investigators and Field Directors or Crew Chiefs) shall be listed on that permit and otherwise meet the requirements outlined in BLM Manual 8150.

Responsible Party	Project Owner
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Responsible Monitoring Party	RWQCB and BLM
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Monitoring Phase/Timing	Prior to issuing grading permits and during construction
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Verification Approval Party	RWQCB and BLM
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<b>MITIGATION MEASURE</b>	<p><b>MM CUL-2: Prepare and Implement a Plan for Archaeological Monitoring, Tribal Participation, Post-Review Discovery, and Unanticipated Effects.</b> Prior to start of construction, the CRS shall develop a Plan for Archaeological Monitoring, Tribal Participation, Post-Review Discovery, and Unanticipated Effects (Monitoring Plan) that addresses the details of all activities and provides procedures that must be followed to reduce the potential</p>
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**Table E-1. Mitigation Monitoring and Reporting Program**

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impacts to known resources and previously unidentified resources within the project area.

The Monitoring Plan shall describe a program for avoiding and monitoring undiscovered NRHP- and CRHR-eligible cultural resources during Project construction. The Plan may require that protective fencing or other markers be erected and maintained to protect these resources from inadvertent adverse effects during construction. The Plan shall also include maps and narrative discussion of areas considered to be of high sensitivity for discovery of buried archaeological resources, if any. The Plan shall detail provisions for monitoring construction activities in these high-sensitivity areas. It shall also detail the methods, consultation procedures, and timelines for addressing all post-review discoveries.

The Plan shall identify person(s) expected to perform any monitoring tasks, their responsibilities, and the reporting relationships between project construction management and the mitigation and monitoring team. It shall also specify monitoring reporting and what forms/documentation needs to be completed daily during monitoring.

The Plan shall also discuss the role of tribal participants in any monitoring tasks, their responsibilities, and which tribes have requested to monitor.

The CRS shall manage all monitoring, mitigation, curation, and reporting activities under the Plan. The Project Owner shall ensure that the CRS makes recommendations regarding the eligibility for listing in the NRHP and CRHR of any cultural resources that are newly discovered or that may be affected in an unanticipated manner.

The Plan shall address the authority to halt ground disturbance during construction. If a cultural resource over 50 years of age is found (or if younger, determined exceptionally significant by the RWQCB), or impacts to such a resource can be anticipated, ground disturbance shall be halted or redirected in the immediate vicinity of the discovery sufficient to ensure that the resource is protected from further impacts. Monitoring and daily reporting shall continue during the Project's ground-disturbing activities elsewhere. Additional procedures regarding halting ground disturbance to address a post-review discovery or unanticipated effects shall be described in the Plan.

In addition, the Plan shall include the following elements, with specific details to be determined based on input from consulting parties:

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**Table E-1. Mitigation Monitoring and Reporting Program**

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1. A general research design;
  2. Protocols for the National Register and California Register evaluation (for all criteria) and treatment of known and newly discovered prehistoric and historic-period archaeological resource types. Treatment may involve data recovery as mitigation. Protocols shall be specified for addressing unanticipated effects to known CRHR-eligible resources. Protocols for addressing new discoveries and unanticipated effects to known CRHR-eligible resources will involve notification procedures for contacting the RWQCB, RWQCB review, and how the RWQCB will involve AB 52 consulting tribes.
  3. Artifact collection and curation policies, as related to the research questions formulated in the research design, that apply to cultural resources materials and documentation resulting from evaluation and data recovery at both known prehistoric and historic-period archaeological sites and any California Register-eligible (as determined by the RWQCB in consultation with AB 52 consulting tribes) prehistoric and historic-period archaeological sites discovered during construction;
  4. 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;
  5. The 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;
  6. The role of tribal participants in any monitoring tasks, their responsibilities, and which tribes have requested to monitor;
  7. Description of 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 and identification of any areas where these measures are to be implemented shall be identified;
  8. The commitment to record on Department of Parks and Recreation (DPR) 523 forms, to map, and to photograph all encountered cultural resources over 50 years of age and to curate all archaeological materials excavated and/or recovered as a result of fieldwork under the Monitoring Plan (i.e., data recovery), in accordance with 36 CFR Part 79 (or if applicable, the California State
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**Table E-1. Mitigation Monitoring and Reporting Program**

	<p>Historical Resources Commission’s Guidelines for the Curation of Archaeological Collections);</p> <p>9. The commitment of the Project Owner to pay all curation fees for artifacts recovered and for related documentation produced during cultural resources investigations conducted for the Project and, through the Project CRS, to identify a curation facility that will accept cultural resources materials resulting from the project cultural resources investigations;</p> <p>10. The Project CRS shall attest to having access to equipment and supplies necessary for site mapping, photography, and recovery of all cultural resource materials (that cannot be treated prescriptively) from previously identified National Register– and California Register–eligible archaeological resources and from National Register– and California Register–eligible resources that are encountered during ground disturbance;</p> <p>11. The contents, format, and review and approval process of the final Cultural Resource Report (CRR; see CUL-6);</p> <p>12. Monitoring recommendations for different areas of the CEQA Area of Direct Impacts including the level of monitoring intensity based on subsurface sensitivity; and</p> <p>13. Procedures to follow for any discoveries of human remains.</p>
Responsible Party	Project Owner
Responsible Monitoring Party	RWQCB
Monitoring Phase/Timing	Prior to and during construction
Verification Approval Party	RWQCB
<b>MITIGATION MEASURE</b>	<p><b>MM CUL-3: Develop and Implement Cultural Resources Environmental Awareness Training.</b> Prior to beginning construction and for the duration of ground disturbance Project Owner shall provide WEAP training to all workers within their first week of employment at the project site, along the linear facilities routes, and at laydown areas, roads, and other ancillary areas. Ground disturbance is defined as any of the following activities: mowing, grading, disk and roll, pile or stake driving, mechanical excavation, drilling, digging, trenching, blasting, and using high pressure water to cut into the ground. The training shall be prepared by the CRS, may be conducted by any member of the archaeological team, and may be presented in a video</p>

**Table E-1. Mitigation Monitoring and Reporting Program**

format. The training shall be prepared in consultation with culturally affiliated Native Americans and shall incorporate the traditions and beliefs of these Native American groups into the presentation. The CRS shall be available (by telephone or in person) to answer questions posed by employees. The training may be discontinued when ground disturbance is completed or suspended but must be resumed if ground disturbance resumes. Training shall include:

- a discussion of applicable laws and penalties under the law;
- samples or visuals of artifacts that might be found in the project vicinity;
- a brief review of the cultural sensitivity of the project and the surrounding area;
- a discussion of what such artifacts may look like when partially buried, or wholly buried and then freshly exposed;
- a discussion of what prehistoric and historical archaeological deposits look like at the surface and when exposed during construction, and the range of variation in the appearance of such deposits;
- instruction that only the CRS, alternate CRS, and supervisory cultural resource field staff have the authority to halt ground disturbance in the area of a discovery to an extent sufficient to ensure that the resource is protected from further impacts, as determined by the CRS;
- instruction that employees are to halt work on their own in the vicinity of a potential cultural resources discovery and shall contact their supervisor and the CRS or supervisory cultural resource field staff, and that redirection of work would be determined by the construction supervisor and the CRS;
- an informational brochure that identifies reporting procedures in the event of a discovery;
- an acknowledgement form signed by each worker indicating that they have received the training; and
- a sticker that shall be placed on hard hats indicating that environmental training has been completed.

This is a mandatory training, and all construction personnel must attend prior to beginning work on the project. A copy of the sign in sheet shall be kept ensuring compliance with this mitigation measure. A record of attendance shall be available to the consulting tribes upon request.

Responsible Party

Project Owner

**Table E-1. Mitigation Monitoring and Reporting Program**

Responsible Monitoring Party	RWQCB (or representative) and Consulting Tribe Representative
Monitoring Phase/Timing	Prior to construction and during any ground disturbing activities
Verification Approval Party	RWQCB
<b>MITIGATION MEASURE</b>	<b>MM CUL-4: Archaeological Monitoring.</b> A qualified archaeological monitor that meets the Secretary of the Interior’s Professional Qualifications Standards (as defined in 36 Code of Federal Regulations Part 61), shall be present for all ground disturbing activities. Ground disturbance is defined as any of the following activities: mowing, grading, disk and roll, mechanical excavation, drilling, digging, trenching, blasting, and using high pressure water to cut into the ground. The archaeological monitor shall complete daily monitoring forms. The CRS, in consultation with the BLM Authorized Officer and RWQCB, will have the authority to increase or decrease the monitoring effort should the monitoring results indicate that a change is warranted.
Responsible Party	Project Owner
Responsible Monitoring Party	RWQCB and BLM
Monitoring Phase/Timing	During any ground disturbing activities
Verification Approval Party	RWQCB and BLM
<b>MITIGATION MEASURE</b>	<b>MM CUL-5: Native American Monitoring.</b> Prior to conducting any grading or ground disturbance, the developer/grading permit applicant shall enter into an agreement with the consulting tribe(s) for at least one Native American Monitor. A Native American Monitor is defined as an individual who is presented as a representative of a tribal government for one of the AB 52 consulting tribes for the Oberon Project and who has received specialized training approved by that tribal government to serve as a monitor. The Native American Monitor(s) shall be on site during all initial ground disturbing activities and excavation of each portion of the project site including clearing, grubbing, tree removals, grading and trenching. In conjunction with the Archaeological Monitor(s), the Native American Monitor(s) shall have the authority to temporarily divert, redirect or halt the ground disturbance activities to allow identification, evaluation, and potential recovery of cultural resources. The developer/permit applicant shall submit a fully executed copy of the agreement to the RWQCB (or its

**Table E-1. Mitigation Monitoring and Reporting Program**

	designated representative) to ensure compliance with this measure.
Responsible Party	Project Owner
Responsible Monitoring Party	Native American Monitor(s)
Monitoring Phase/Timing	Prior to conducting any grading or ground disturbance
Verification Approval Party	RWQCB
<b>MITIGATION MEASURE</b>	<b>MM CUL-6: Post-Review Discovery and Unanticipated Effects.</b> In the event that previously unknown cultural resources (sites, features, or artifacts) are exposed during grading or other construction, operation, or decommissioning activities, all construction work within 50 feet of the find shall immediately stop until a qualified cultural resources specialist can evaluate the significance of the find and determine (in consultation with the BLM and RWQCB and AB 52 consulting tribes) whether additional study is warranted. Depending upon the significance of the find, the cultural resources specialist may record the find and allow work to continue. If the discovery proves eligible under the CRHR and/or NRHP and cannot be protected through avoidance, specific resource documentation or recovery shall be implemented, including preparation of a treatment plan with data recovery as a treatment option. General methods for determining NRHP Criterion D eligibility as well as data recovery as a treatment option for Criterion D eligible resource types will be provided in the Monitoring Plan (MM CUL-2). During the assessment and recovery time, construction work may proceed in other areas. The Monitoring Plan (MM CUL-2) will also provide procedures for addressing unanticipated effects to known CRHR-eligible resources during project construction.
Responsible Party	Project Owner
Responsible Monitoring Party	RWQCB and BLM
Monitoring Phase/Timing	During grading or other construction, operation, or decommissioning activities
Verification Approval Party	RWQCB and BLM
<b>MITIGATION MEASURE</b>	<b>MM CUL-7: Cultural Resources Monitoring Report and Cultural Resources Report (CRR).</b> Within 6 months of finishing construction of the Project, a Cultural Resources Monitoring Report shall be prepared and provided to BLM and the RWQCB for review and approval. These reports

**Table E-1. Mitigation Monitoring and Reporting Program**

	will meet all BLM requirements. The report shall include documentation of the required cultural/historical sensitivity Worker Environmental Awareness Program training for the construction staff (see CUL-3). The details of the report's structure and contents will be described in the Monitoring Plan (see CUL-2). A CRR, if required as the result of a discovery during construction, shall conform to BLM Cultural Resource Use Permit stipulations regarding reporting which include, but are not limited to, those listed in the California Office of Historic Preservation's Preservation Planning Bulletin Number 4(a) December 1989, Archaeological Resource Management Reports (ARMR): Recommended Contents and Format (ARMR Guidelines) for the Preparation and Review of Archaeological Reports.
Responsible Party	Project Owner
Responsible Monitoring Party	RWQCB and BLM
Monitoring Phase/Timing	Within 6 months of finishing construction
Verification Approval Party	RWQCB and BLM
<b>MITIGATION MEASURE</b>	<b>MM CUL-8: Long-Term Management Plan.</b> The Applicant shall prepare a Long-Term Management Plan (LTMP) for protection and management of National Register– and California Register–eligible cultural resources in the CEQA Area of Direct Impacts during Project operations and decommissioning. The LTMP shall be developed in consultation with AB 52 consulting tribes and include requirements for conducting the post-construction monitoring/condition assessments and regular reporting to the BLM and RWQCB, as well as procedures for addressing unanticipated effects to cultural resources covered under the LTMP. The draft plan shall be provided to BLM and the RWQCB for review and approval. RWQCB will provide the draft plan to AB 52 consulting tribes for review and comment.
Responsible Party	Project Owner
Responsible Monitoring Party	RWQCB and BLM
Monitoring Phase/Timing	Prior to operation
Verification Approval Party	RWQCB and BLM
<b>MITIGATION MEASURE</b>	<b>MM CUL-9: Inadvertent Discovery of Human Remains.</b> For inadvertent discovery of human remains, the plan for securing the discovery site and subsequent actions shall

**Table E-1. Mitigation Monitoring and Reporting Program**

	be included in the Monitoring Plan required under Mitigation Measure CUL-2. In the event of a discovery, the BLM, the RWQCB and AB 52 consulting tribes must be contacted immediately and no further disturbance shall occur until the County Coroner has made the necessary findings as to origin.
Responsible Party	Project Owner
Responsible Monitoring Party	RWQCB and BLM
Monitoring Phase/Timing	During grading or other construction, operation, or decommissioning activities
Verification Approval Party	RWQCB and BLM
<b>MITIGATION MEASURE</b>	<p><b>MM CUL-10: Flag and Avoid.</b> To address direct impacts to prehistoric-era CRHR-eligible resources, the following resources in the transmission line corridor or near or adjacent to the solar field fenceline shall be avoided: 19-387-EM-025, 19-387-KH-016, 19-387-WH-064, 33-015093, 33-018270, 33-018292, 33-018293, 33-018302, 33-021070, 33-021071, 33-021072, 33-021073, 33-021074, 33-021075, 33-021076, 33-021078, 33-021079, 33-021080, 33-021083, and 33-021077.</p> <p>The project owner shall:</p> <ol style="list-style-type: none"> <li>1. Ensure that a CRS, alternate CRS, or field staff re-establish the boundary of each site, add a 10-meter-wide buffer around the periphery of each site boundary, and flag the resulting space in a conspicuous manner;</li> <li>2. Ensure that an archaeological monitor enforces avoidance of the flagged areas during construction; and</li> <li>3. Ensure, after completion of construction, boundary markings around each site and buffer are removed so as not to attract vandals.</li> <li>4. After completion of construction, an archaeologist that meets the requirements outlined in BLM Manual 8150, shall visit each of these resources once a year to document their condition for the life of the project. A letter report with the results of each yearly visit shall be prepared and submitted to RWQCB and BLM for review and approval.</li> <li>5. If project construction, operation, maintenance or decommissioning directly impacts these resources the RWQCB, BLM, and AB 52 consulting tribes must be contacted within 24 hours. Appropriate mitigation for those impacts must be developed in consultation with</li> </ol>

**Table E-1. Mitigation Monitoring and Reporting Program**

	the consulting tribes and relevant agencies and implementation must begin within 1 month of the original impact.
Responsible Party	Project Owner
Responsible Monitoring Party	RWQCB and BLM
Monitoring Phase/Timing	Prior to, during, and after construction, and during operation, maintenance, and decommissioning
Verification Approval Party	RWQCB and BLM
<b>MITIGATION MEASURE</b>	<b>MM CUL-11: Reburial of Artifacts.</b> To address direct and cumulative impacts to prehistoric-era CRHR-eligible resources that cannot be avoided, if BLM allows, all prehistoric isolated artifacts and all artifacts associated with prehistoric resources that are not considered eligible for the NRHP that will be directly impacted by construction will be collected by archaeological and Native American monitors, and reburied. Ideally, the reburial location should be as near as possible to their original location and be protected from future impacts. Reburial should be conducted by representatives of consulting tribes.
Responsible Party	Project Owner
Responsible Monitoring Party	RWQCB (or representative), BLM, and Consulting Tribe Representative
Monitoring Phase/Timing	Prior to and after construction
Verification Approval Party	BLM
<b>MITIGATION MEASURE</b>	<b>MM CUL-12: Historic District for Prehistoric Rock Rings.</b> To address direct, indirect, and cumulative impacts to prehistoric-era CRHR-eligible resources the following rock rings/cleared circles shall be considered contributors to a CRHR-eligible district, and a district form shall be prepared and submitted to the CHRIS: 33-018292, 33-018293, 33-021070, 33-021071, 33-021072, 33-021073, 33-021074, 33-021075, 33-021076, 33-021078, 33-021079, 33-021080, 33-021083, and 33-021077.
Responsible Party	Project Owner
Responsible Monitoring Party	RWQCB (or representative) and BLM
Monitoring Phase/Timing	Prior to construction
Verification Approval Party	RWQCB and BLM

**Table E-1. Mitigation Monitoring and Reporting Program**

<b>MITIGATION MEASURE</b>	<p><b>MM CUL-13: DTC/C-AMA Supplemental Resource Documentation.</b> To address direct and cumulative impacts to the Desert Training Center California Arizona Maneuvers Area (DTC/C-AMA), the project owner shall retain cultural resources specialists, including a historian (preferably a military historian), who are qualified to receive a California BLM Cultural Resources Use Permit and associated Fieldwork Authorization to prepare a desktop inventory, map, ArcGIS file geodatabase using existing aerial photography, digital surface models, and orthoimagery of WWII-era features near Desert Center. The specific features will be identified by BLM. The maps will be displayed on DPR 523K forms and include overview maps, facility boundaries, and all major cultural features (i.e., roads, trails, tent camps, etc.). A digital copy of all maps and the geodatabase will be submitted to the BLM. The geodatabase will comply with all GIS data standards established by BLM and will include historical maps, metadata and digitized features, and requirements of the National Register of Historic Places nomination process. The project owner must ensure that the details of this effort are provided to RWQCB and the BLM Authorized Officer or Authorized Officer (AO) for BLM review and approval prior to the implementation of Mitigation Measure CUL-13.</p>
Responsible Party	Project Owner
Responsible Monitoring Party	RWQCB and BLM
Monitoring Phase/Timing	Prior to operations
Verification Approval Party	BLM
<b>MITIGATION MEASURE</b>	<p><b>MM TCR-1: Traditional Knowledge Workshops.</b> In order to address direct, indirect and cumulative impacts to Tribal Cultural Resources identified by AB 52 consulting tribes the project owner shall fund and facilitate 3 multi-day (1-2 days) workshops focusing on sharing traditional tribal knowledge. These workshops may be attended by members of multiple tribes if all participants agree. The topic of the workshops will be determined by AB 52 consulting tribes , but may include but is not limited to topics such as ethnobotany, oral history, cooking traditional foods, harvesting plants, archaeological site visits etc. Each class shall include both lecture and field activities if appropriate. Workshop instructors will have previously developed the course content. Participants of each workshop shall be no more than 15 enrolled tribal members of AB 52 consulting</p>

**Table E-1. Mitigation Monitoring and Reporting Program**

	tribes. It is assumed that AB 52 consulting tribal governments hosting these workshops will provide appropriate classroom space. Travel costs associated with the field activities (such as van rental) will be provided. Lodging and travel expenses will be provided for students or instructors that live more than 50 miles away from the classroom location.
Responsible Party	Project Owner
Responsible Monitoring Party	RWQCB and Consulting Tribe Representative
Monitoring Phase/Timing	Prior to construction
Verification Approval Party	RWQCB and Consulting Tribe Representative

**Hazards and Hazardous Materials**

<b>MITIGATION MEASURE</b>	<p><b>MM HAZ-1: UXO Identification, Training, and Reporting Plan.</b> Where ground disturbance work is involved, contractor(s) should be OSHA HAZWOPER-trained in accordance with standard 29CFR1910.120 and hold a current certification. The Applicant shall prepare a UXO Identification, Training, and Reporting Plan to properly train all site workers in the recognition, avoidance and reporting of military waste debris and ordnance. The Applicant shall submit the plan to the BLM for review and approval prior to the start of construction. The plan shall contain, at a minimum, the following:</p> <ul style="list-style-type: none"> <li>■ A description of the training program outline and materials, and the qualifications of the trainers; and</li> <li>■ Identification of available trained experts that will respond to notification of discovery of any ordnance (unexploded or not); and</li> <li>■ Work plan to recover and remove discovered ordnance, and complete additional field screening, possibly including geophysical surveys to investigate adjacent areas for surface, near surface or buried ordnance in all proposed land disturbance areas.</li> </ul>
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Responsible Party	Project Owner
Responsible Monitoring Party	BLM
Monitoring Phase/Timing	Prior to construction
Verification Approval Party	BLM

<b>MITIGATION MEASURE</b>	<b>MM HAZ-2: Worker Environmental Awareness Program.</b> The WEAP shall include a personal protective
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**Table E-1. Mitigation Monitoring and Reporting Program**

	<p>equipment (PPE) program, an Emergency Action Plan (EAP), and an Injury and Illness Prevention Program (IIPP) to address health and safety issues associated with normal and unusual (emergency) conditions. It will be reviewed and approved by the BLM prior to construction. Construction-related safety programs and procedures shall include a respiratory protection program, among other things. Construction Plan documents shall relate at least to the following:</p> <ul style="list-style-type: none"> <li>■ Environmental health and safety training (including, but not limited, to training on the hazards of Valley Fever, including the symptoms, proper work procedures, how to use PPE, and informing supervisor of suspected symptoms of work-related Valley Fever)</li> <li>■ Site security measures</li> <li>■ Site first aid training</li> <li>■ Site fire protection and extinguisher maintenance, guidance, and documentation</li> <li>■ Furnishing and servicing of sanitary facilities records</li> <li>■ Trash collection and disposal</li> <li>■ Disposal of hazardous materials and waste guidance in accordance with local, state, and federal regulations</li> </ul>
Responsible Party	Project Owner
Responsible Monitoring Party	BLM
Monitoring Phase/Timing	During construction, operation, maintenance, and decommissioning
Verification Approval Party	BLM
<b>Hydrology and Water Quality</b>	
<b>MITIGATION MEASURE</b>	<p><b>MM HWQ-1: Drainage Erosion and Sedimentation Control Plan (DESCP).</b> At least 60 days prior to site mobilization, the Applicant shall submit to the Regional Water Quality Control Board and the BLM for review and approval a DESCSP for managing stormwater during project construction and operations. The DESCSP must ensure proper protection of water quality and soil resources, address exposed soil treatments in the solar fields for both road and non-road surfaces, and identify all monitoring and maintenance activities. The plan must also cover all linear project features such as the proposed gen-tie line. The DESCSP shall contain, at a minimum, the elements presented below that outline site management activities and erosion and sediment-control Best Management</p>

**Table E-1. Mitigation Monitoring and Reporting Program**

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Practices (BMPs) to be implemented during site mobilization, excavation, construction, and post construction (operating) activities.

- *Vicinity Map* – A map(s), at a minimum scale 1 inch to 500 feet, shall be provided indicating the location of all project elements with depictions of all significant geographic features including swales, storm drains, drainage concentration points and sensitive areas.
  - *Site Delineation* – All areas subject to soil disturbance for the proposed project shall be delineated showing boundary lines of all construction areas and the location of all existing and proposed structures and drainage facilities.
  - *Clearing and Grading Plans* – The DESCPC shall provide a delineation of all areas to be cleared of vegetation and areas to be preserved. The plan shall provide elevations, slopes, locations, and extent of all proposed grading as shown by contours, cross sections, or other means. The locations of any disposal areas, fills, or other special features shall also be shown. Existing and proposed topography shall be illustrated by tying in proposed contours with existing topography.
  - *Clearing and Grading Narrative* – The DESCPC shall include a table with the estimated quantities of material excavated or filled for the site and all project elements, whether such excavation or fill is temporary or permanent, and the amount of such material to be imported or exported.
  - *Erosion Control* – The plan shall address treatments to be used on exposed soil during construction and operation including specifically identifying all chemical-based dust palliatives, soil bonding, and weighting agents appropriate for use that would not cause adverse effects to vegetation. BMPs shall include measures designed to prevent wind and water erosion including application of chemical dust palliatives after rough grading to limit water use.
  - *Best Management Practices Plan* – The DESCPC shall identify on the topographic site map(s) the location of the site specific BMPs to be employed during each phase of construction (initial grading, project element excavation and construction, and final grading/stabilization). BMPs shall include measures designed to control dust, stabilize construction access roads and entrances, and control stormwater runoff and sediment transport.
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**Table E-1. Mitigation Monitoring and Reporting Program**

	<p>■ <i>Best Management Practices Narrative</i> – The DESCOP shall show the location, timing, and maintenance schedule of all erosion- and sediment-control BMPs to be used prior to initial grading, during excavations and construction, final grading/stabilization, and operation. Separate BMP implementation schedules shall be provided for each project element for each phase of construction. The maintenance schedule shall include post-construction maintenance of structural-control BMPs, or a statement provided about when such information would be available.</p> <p>The DESCOP shall be prepared, stamped, and sealed by a professional engineer or erosion control specialist. The DESCOP shall include copies of recommendations, conditions, and provisions from the Regional Board and/or BLM.</p>
Responsible Party	Project Owner
Responsible Monitoring Party	RWQCB and BLM
Monitoring Phase/Timing	At least 60 days prior to site mobilization
Verification Approval Party	RWQCB and BLM
<b>MITIGATION MEASURE</b>	<p><b>MM HWQ-2: Mitigation of Impacts to the Palo Verde Mesa Groundwater Basin (PVMGB).</b> If water for the project, to be obtained from on- or off-site well(s) within the Chuckwalla Valley Groundwater Basin (CVGB), is extracted from on- or off-site well(s) that would be owned and/or operated by the Applicant, the Applicant shall develop a Colorado River Water Supply Plan (Plan) to monitor groundwater extractions from the Applicant owned and/or operated on- or off-site well(s) and prevent, replace, or mitigate project impacts that deplete the PVMGB groundwater budget to prevent impacts to the adjacent PVMGB related to groundwater extraction below the Colorado River Accounting Surface.</p> <p>The Plan shall be submitted to the U.S. Bureau of Reclamation and BLM for review and approval at least 60 days prior to the initiation of construction and is required to be implemented at any time during the life of the project that groundwater withdrawals reach the Accounting Surface, based on the results of the Groundwater Monitoring, Reporting, and Mitigation Plan (MM HWQ-3). No pumping of groundwater below the accounting surface shall occur without compensatory mitigation according to the approved plan. A copy of the Plan shall also be submitted to the Metropolitan Water District for review and comment.</p>

**Table E-1. Mitigation Monitoring and Reporting Program**

The amount of PVMGB depletion requiring mitigation shall be equal to the amount of withdrawals from below the Colorado River Accounting Surface. Toward ensuring that no allocated water from the Colorado River is consumed without entitlement to that water, the Plan shall identify measures that will be taken to reduce and replace water on an acre-foot to acre-foot basis should the project consume any water from within or below the Colorado River Accounting Surface.

The Plan shall describe groundwater monitoring activities and quarterly data reports to be closely reviewed for depth to groundwater information, and proximity of the depth of project related groundwater pumping to the Colorado River Accounting Surface. The Plan shall further describe that if project-related groundwater pumping draws water from below the accounting surface the following shall occur:

1. Based on groundwater monitoring data, the quantity of groundwater pumped from below the Accounting Surface shall be recorded, and
2. The Applicant shall implement water conservation/offset activities to reduce the amount of water withdrawn from within or below the Colorado River Accounting Surface and to replace Colorado River water on an acre-foot by acre-foot basis. To effectively implement this requirement, the Plan shall include the following information:
  - Identification of water conservation/offset activities that reduce/replace the quantity of water diverted from the Colorado River;
  - Identification of any required permits or approvals and compliance of conservation/offset activities with CEQA and NEPA;
  - An estimated schedule of completion for each identified activity;
  - Performance measures that would be used to evaluate the amount of water reduction and replacement by each identified activity; and
  - Monitoring and reporting protocol to ensure that water conservation/offset activities are effectively implemented and achieve the intended purpose of reducing and replacing Colorado River water diversions.

Responsible Party	Project Owner
Responsible Monitoring Party	United States Bureau of Reclamation and BLM

**Table E-1. Mitigation Monitoring and Reporting Program**

Monitoring Phase/Timing	60 days prior to the initiation of construction and any time groundwater withdrawal will likely reach Accounting Surface during life of Project
Verification Approval Party	United States Bureau of Reclamation

**MITIGATION MEASURE**     **MM HWQ-3: Groundwater Monitoring, Reporting, and Mitigation Plan.** Before the project uses groundwater pumped from any Applicant owned and/or operated well (on site or off site) that extracts water from the CVGB, the Applicant shall retain a BLM-approved qualified hydrogeologist to develop a Groundwater Monitoring, Reporting, and Mitigation Plan (GMRMP), in coordination with the RWQCB and BLM, to ensure that groundwater wells surrounding project supply well(s) are not adversely affected by project activities. The Applicant shall submit the GMRMP to the RWQCB and BLM for review and approval. Additionally, although no Groundwater Sustainability Agencies (GSAs) has been established for the CVGB, in the event that such agencies have been established when the GMRMP is developed, the Applicant also shall submit the plan to the GSAs. The Applicant shall implement the approved GMRMP throughout any project phase that pumps groundwater for consumptive use.

The GMRMP shall provide a detailed methodology for monitoring site groundwater levels and comparisons for levels within the basin including identification of the closest private wells to the project’s well(s). Groundwater level data from wells at adjacent and nearby solar facilities and other projects on BLM administered public lands shall be provided by the BLM for review and comparison. Monitoring shall be performed during pre-construction, construction, and operation of the project, to establish pre-construction and project-related groundwater level and water quality trends that can be quantitatively compared against observed and simulated trends near the project’s pumping well(s) and near potentially impacted existing wells. The GMRMP shall include a schedule for submittal of quarterly data reports by the Applicant to the GMRMP designated agencies and the GSA (if established), for the duration of the construction period. These quarterly data reports shall be prepared and submitted for review and shall include water level monitoring data and effect on the nearest off-site private wells. The designated agencies shall determine whether groundwater wells surrounding the project supply well(s) are adversely affected by project activities in a way that requires additional mitigation and, if so, shall determine what measures are needed. Examples of additional

**Table E-1. Mitigation Monitoring and Reporting Program**

	<p>mitigation, if approved by the designated agencies, could include:</p> <ul style="list-style-type: none"> <li>■ Cessation or reduction of pumping at the project well(s) until groundwater levels return to levels that allow nearby wells to resume pre-project pumping levels;</li> <li>■ Compensation for whatever additional equipment is necessary to lower nearby pumps to levels that can adequately continue pumping;</li> <li>■ Compensation to repair or replace wells found to be damaged or inoperable due to lowered groundwater levels; or</li> <li>■ Compensation for increased energy cost due to project-related well drawdown.</li> </ul> <p>After the completion of construction, the Applicant and the BLM shall jointly evaluate the effectiveness of the GMRMP and determine if monitoring and reporting frequencies or procedures should be revised or eliminated.</p>
Responsible Party	Project Owner
Responsible Monitoring Party	RWQCB and BLM
Monitoring Phase/Timing	Prior to using any water pumped from any Applicant owned and/or operated well that extracts water from the CVGB
Verification Approval Party	RWQCB and BLM
<b>MITIGATION MEASURE</b>	<p><b>MM HWQ-4: Project Drainage Plan.</b> The Applicant shall provide the RWQCB and BLM with a drainage plan for review and approval prior to construction, which includes the following information:</p> <p>Hydrologic assessment of flood discharges affecting each parcel.</p> <p>A detailed on-site hydraulic analysis utilizing FLO-2D or similar two-dimensional hydraulic model which models pre- and post-development flood conditions for the 10- and 100-year storm events. The post-development model must include all proposed project features, contours, and drainage improvements. Graphical output must include depth and velocity mapping as well as mapping which graphically shows the changes in both parameters between the pre- and post-development conditions.</p> <p>The Drainage Plan shall show the location of all watercourses, drainage concentration points and drainage ditches as they enter, cross, and exit the site. It shall include pre-development and post-development peak flow estimates. It shall include hydraulic calculations to</p>

**Table E-1. Mitigation Monitoring and Reporting Program**

	<p>determine flood conditions, floodplain limits, flood depths and velocities. It shall show the relationship of drainage and flood features to the features of the project, including buildings, fences, substations, access roads, culverts, linear features and panel supports, demonstrating adequate design to protect from flooding, erosion and scour, and to do so without adversely affecting adjacent property, inducing erosion, or concentrating or diverting flows.</p> <p>The Plan shall show how drainage will be conveyed through the site without adversely affecting other property, either through increased flood hazard or increased potential for scour and erosion. Proposed fencing shall allow runoff to traverse the project site unencumbered, as feasible. In areas of increased flood hazard where desert tortoise exclusion fencing would be installed, breakaway fencing shall be designed and installed so as not to adversely affect flooding or scour at adjacent properties. The Plan shall include an assessment of existing diversion berms and channels around parcel perimeters and the magnitude and frequency of flood that would be diverted by these existing features, and the probable integrity of these features to withstand flows. It shall show how those that are on the project site will be affected by project grading. It shall include an assessment of flows approaching proposed perimeter fences, whether or not adjacent to existing berms, and make design recommendations to avoid flow diversions by these fences. Design recommendations may include creating fence openings large enough to allow the passage of debris-laden flows without the potential for diversions to other property.</p> <p>The Plan shall have detailed design of flood retention features necessary to avoid any increase in downstream flood peak flow rates.</p> <p>Drainage of Project Site Narrative – The Plan shall include a narrative of the measures necessary to protect the site and project features from flooding, erosion and sedimentation, and measures taken to prevent project-induced erosion and flooding of adjacent property.</p>
Responsible Party	Project Owner
Responsible Monitoring Party	RWQCB and BLM
Monitoring Phase/Timing	Prior to construction
Verification Approval Party	RWQCB and BLM

**Table E-1. Mitigation Monitoring and Reporting Program**

<b>MITIGATION MEASURE</b>	<p><b>MM HWQ-5: Flood Protection.</b> Substations, the O&amp;M Building, energy storage system, and all other project buildings shall either be situated outside of the 100-year floodplain or sufficiently protected against dislodgement by flooding where placement outside the floodplain is not practical. Flood protection shall consist of elevating the structures on fill to at least the highest anticipated adjacent flood level as measured from a horizontal stow position. Solar panels shall be situated at least one foot above the highest anticipated local flood level. All structures using posts or poles for foundations, including transmission poles or towers, shall be designed to protect against substantial scour from the 100-year flood event. The project must comply with Riverside County Ordinance No. 458 for projects within a Special Flood Hazard Area or floodplain: electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities must be designed or located to prevent water from entering or accumulating within the components during flooding.</p>
Responsible Party	Project Owner
Responsible Monitoring Party	RWQCB
Monitoring Phase/Timing	Prior to final engineering
Verification Approval Party	Riverside County and RWQCB
<b>Noise</b>	
<b>MITIGATION MEASURE</b>	<p><b>MM N-1: Construction Restrictions.</b> Heavy equipment operation and noisy construction work relating to any project features within 0.25 miles of a sensitive receptor shall be restricted to the times delineated below, unless a special permit has been issued by the County of Riverside:</p> <ul style="list-style-type: none"> <li>■ June through September: 6:00 a.m. to 6:00 p.m.</li> <li>■ October through May: 7:00 a.m. to 6:00 p.m.</li> </ul> <p>Haul truck engines and other engines powering fixed or mobile construction equipment shall be equipped with adequate mufflers. Haul trucks shall be operated in accordance with posted speed limits. Truck engine exhaust brake use shall be limited to emergencies.</p> <p>The construction contractor shall locate equipment staging in areas to create the greatest distance between construction-related noise sources and noise sensitive receivers nearest the project site during project construction. Where feasible, the construction contractor shall place all stationary construction equipment so that</p>

**Table E-1. Mitigation Monitoring and Reporting Program**

	emitted noise is directed away from the noise sensitive receptors nearest the project site. No music or electronically reinforced speech from construction workers shall be audible at noise-sensitive properties.
Responsible Party	Project Owner
Responsible Monitoring Party	RWQCB
Monitoring Phase/Timing	During construction
Verification Approval Party	RWQCB
<b>MITIGATION MEASURE</b>	<b>MM N-2: Public Notification Process.</b> At least 15 days prior to the start of ground disturbance, the Applicant shall notify all residents within 500 feet of the project site boundaries and BLM trails or roads used for site access, by mail or by other effective means, of the commencement of project construction. At the same time, the Applicant shall establish a telephone number for use by the public to report any undesirable noise conditions associated with the construction and operation of the project. If the telephone is not staffed 24 hours a day, the Applicant shall include an automatic answering feature, with date and time stamp recording, to answer calls when the phone is unattended. This telephone number shall be posted at the project site during construction where it is visible to passersby. This telephone number shall be maintained until the project has been operational for at least 1 year.
Responsible Party	Project Owner
Responsible Monitoring Party	RWQCB
Monitoring Phase/Timing	At least 15 days prior to ground disturbance
Verification Approval Party	RWQCB
<b>MITIGATION MEASURE</b>	<b>MM N-3: Noise Complaint Process.</b> Throughout the construction and operation of the project, the Applicant shall document, investigate, evaluate, and attempt to resolve all project-related noise complaints. The Applicant or authorized agent shall: <ol style="list-style-type: none"> <li>1. Use a Noise Complaint Resolution Form, or other documentation procedure acceptable to the BLM and RWQCB (or its designated representative) to record and report the Applicant's response to resolving each noise complaint;</li> <li>2. Attempt to contact the person(s) making the noise complaint within 24 hours;</li> </ol>

**Table E-1. Mitigation Monitoring and Reporting Program**

	<ol style="list-style-type: none"> <li>3. Conduct an investigation to determine the source of noise in the complaint;</li> <li>4. If the noise is project-related, take all feasible measures to reduce the source of the noise; and</li> <li>5. Submit a report to the BLM and RWQCB (or its designated representative) documenting the complaint and actions taken. The report shall include: a complaint summary, including the final results of noise reduction efforts and, if obtainable, a signed statement by the complainant stating that the noise problem has been resolved to the complainant's satisfaction.</li> </ol>
Responsible Party	Project Owner
Responsible Monitoring Party	RWQCB and BLM
Monitoring Phase/Timing	During construction and operation
Verification Approval Party	RWQCB and BLM
<b>MITIGATION MEASURE</b>	<p><b>MM N-4: Noise Performance Standard.</b> The project design and implementation shall include appropriate placement of inverter-transformer stations within the site boundaries to ensure that the operation of these sources will not cause the noise levels due to plant operation alone to exceed 45 dBA Lmax at any receiving land use that includes an inhabited dwelling (Section 4 of County Ordinance No. 847). No new pure-tone components shall be caused by the power inverters or transformers associated with the project. No single piece of equipment shall be allowed to stand out as a source of noise that draws legitimate complaints.</p> <p>The project design in site plans shall avoid placing stationary sources of noise within 1,000 feet of an inhabited dwelling. If the final design of the project includes any noise-generating air conditioner, inverter, transformer, substation or switchyard component within 1,000 feet of an inhabited dwelling, then the following adaptive management measures shall be required:</p> <ol style="list-style-type: none"> <li>1. When the project first achieves a sustained output of 85 percent or greater of rated capacity, the Applicant shall conduct a 25-hour community noise survey by monitoring levels at locations of any affected inhabited dwelling, or at a closer location in consultation with the County. The measurement of power plant noise for the purposes of demonstrating compliance with this mitigation measure may alternatively be made at a location, in consultation with the County, closer to the plant (e.g., 100 feet from power inverters or trans-</li> </ol>

**Table E-1. Mitigation Monitoring and Reporting Program**

	<p>formers) and this measured level then mathematically extrapolated to determine the plant noise contribution at the affected dwelling.</p> <p>2. If the results from the noise survey indicate that the power plant noise at the affected receptor site exceeds the above value during the above time period, noise control features, such as enclosures or barriers, shall be implemented to reduce noise to a level of compliance with this limit, or the sources of noise shall be relocated to achieve the standard.</p>
Responsible Party	Project Owner
Responsible Monitoring Party	RWQCB
Monitoring Phase/Timing	During project design and during operation
Verification Approval Party	RWQCB

**Paleontological Resources**

**MITIGATION MEASURE**

**MM PR-1: Paleontological Resource Monitoring and Mitigation Plan (PRMP).** Prior to the start of any project-related construction activities, the Applicant shall retain a BLM-approved paleontologist (Project Paleontologist) to prepare and implement a project-specific PRMP to be approved by the BLM. The Project Paleontologist shall hold a BLM-issued Paleontological Resource Use Permit and be responsible for implementing all the paleontological conditions of approval and for using qualified paleontologists to assist in work and field monitoring. At a minimum, information to be contained in the PRMP, in addition to other information required under BLM paleontology program policy and standards, is as follows:

- Description of the project site and planned earthwork and excavation.
- A site-specific plan and map prepared by the Project Paleontologist which identifies construction impact areas with sediments of moderate (PFYC 3) sensitivity (or higher is identified) for encountering significant paleontological resources and the approximate depths at which those resources are likely to be encountered for each project component.
- The PRMP shall require the qualified paleontological monitor(s) to monitor all construction-related earth-moving activities in sediments determined to have a moderate (PFYC 3) (or higher) sensitivity.

**Table E-1. Mitigation Monitoring and Reporting Program**

	<ul style="list-style-type: none"> <li>■ The PRMP shall define monitoring procedures and methodology and shall specify that sediments of undetermined sensitivity shall be monitored on a part-time basis (as determined by the Project Paleontologist). Sediments with very low or low potential will not require paleontological monitoring (PFYC 1 and 2).</li> <li>■ The PRMP shall detail methods of recovery, preparation, and analysis of specimens, the final curation location of specimens at the repository identified in the BLM-issued Paleontological Resource Use Permit, data analysis, and reporting. Where possible, recovery is preferred over avoidance in order to mitigate the potential for looting of paleontological resources.</li> <li>■ The PRMP shall specify that all paleontological work undertaken by the Applicant on public lands administered by BLM shall be carried out by qualified, permitted paleontologists with the appropriate current BLM Paleontological Resources Use Permit.</li> <li>■ Identification of personnel with authority and responsibility to temporarily halt or divert ground disturbance activities to allow for recovery of large specimens.</li> </ul> <p>The PRMP shall be submitted to the BLM for review and approval 60 days prior to start of project construction. The PRMP must be approved by the BLM prior to the Notice To Proceed.</p>
Responsible Party	Project Owner
Responsible Monitoring Party	BLM
Monitoring Phase/Timing	Prior to the start of any project-related construction activities
Verification Approval Party	BLM
<b>MITIGATION MEASURE</b>	<p><b>MM PR-2: Worker Environmental Awareness Program (WEAP).</b> Prior to the start of project-related construction activities, a paleontological component to the WEAP shall be developed by the Project Paleontologist. The WEAP shall address the potential to encounter paleontological resources in the field, the sensitivity and importance of these resources, and the legal obligations to preserve and protect such resources. The training program shall also include the set of reporting procedures that workers are to follow if paleontological resources are encountered during project activities. The WEAP may be combined with other environmental training programs for the project. All field</p>

**Table E-1. Mitigation Monitoring and Reporting Program**

	personnel will receive WEAP training on paleontological resources prior to project-related construction activities.
Responsible Party	Project Owner
Responsible Monitoring Party	BLM
Monitoring Phase/Timing	Prior to the start of any project-related construction activities
Verification Approval Party	BLM

**MITIGATION MEASURE**

**MM PR-3: Paleontological Monitoring and Fossil Recovery.** The PRMP shall identify monitoring frequency and intensity of all areas of the project site, particularly in areas potentially underlain by Pleistocene aged Quaternary alluvial deposits (areas identified as PFYC 3 [moderate] sensitivity). Monitoring will entail the visual inspection of excavated or graded areas and trench sidewalls. If the Project Paleontologist determines full-time monitoring is no longer warranted, based on the geologic conditions at depth, he or she may recommend to the BLM Authorized Officer that monitoring be reduced or cease entirely.

In the event that a paleontological resource is discovered, the paleontological monitor will have the authority to temporarily divert the construction equipment around the find until it is assessed for scientific significance and, if appropriate, collected. If the resource is determined to be of scientific significance, the Project Paleontologist shall complete the following:

- **Salvage of Fossils.** If fossils are discovered, all work in the immediate vicinity shall be halted to allow the paleontological monitor, and/or Project Paleontologist to evaluate the discovery and determine if the fossil may be considered significant. If the fossils are determined to be potentially significant, the Project Paleontologist (or paleontological monitor) should recover them following standard field procedures for collecting paleontological as outlined in the PRMP prepared for the project. The Project Paleontologist shall have the authority to temporarily direct, divert or halt construction activity to ensure that the potentially significant fossil(s) can be removed in a safe and timely manner.
- **Fossil Preparation and Curation.** The museum that has agreed to accept fossils that may be discovered during project-related excavations will be identified on the Paleontological Resources Use Permit held by the Project Paleontologist and in the PRMP. Upon completion

**Table E-1. Mitigation Monitoring and Reporting Program**

	of project ground disturbing activities, all significant fossils collected would be prepared in a properly equipped laboratory to a point ready for curation. Preparation may include the removal of excess matrix from fossil materials and stabilizing or repairing specimens. During preparation and inventory, the fossils specimens shall be identified to the lowest taxonomic level practical prior to curation at an accredited museum. The fossil specimens must be delivered to the BLM approved repository (identified on the permit and in the PRMP) and receipt(s) of collections submitted to the BLM no later than 60 days after all ground disturbing activities are completed.
Responsible Party	Project Owner
Responsible Monitoring Party	BLM
Monitoring Phase/Timing	During construction
Verification Approval Party	BLM
<b>MITIGATION MEASURE</b>	<b>MM PR-4: Paleontological Resources Monitoring Report.</b> The Applicant shall ensure preparation of a paleontological resource mitigation and monitoring report by the Project Paleontologist following completion of ground disturbing activities. The contents of the report shall include, but not be limited to, a description and inventory list of recovered fossil materials (if any); a map showing the location of paleontological resources found in the field; determinations of scientific significance; proof of accession of fossil materials into the pre-approved museum or other repository, and a statement by the Project Paleontologist that project impacts to paleontological resources have been mitigated. In addition, all appropriate fossil location information shall be submitted to the BLM.
Responsible Party	Project Owner
Responsible Monitoring Party	BLM
Monitoring Phase/Timing	Following completion of ground disturbing activities
Verification Approval Party	BLM
<b>Traffic and Transportation</b>	
<b>MITIGATION MEASURE</b>	<b>MM TRA-1: Construction Traffic Carpool and Trip Reduction Plan.</b> Prior to the start of construction, the Applicant shall submit a Construction Traffic Carpool and Trip Reduction Plan for review and approval by Caltrans or Riverside County, which shall include, but not be limited to:

**Table E-1. Mitigation Monitoring and Reporting Program**

	<ul style="list-style-type: none"> <li>■ Methods that encourage or provide ridesharing opportunities for construction workers.</li> <li>■ Methods to reduce vehicle miles travelled by both construction employees and construction-related truck trips, such as encouraging hiring of local construction workers or providing temporary on-site housing accommodations for those workers with the longest daily commutes.</li> <li>■ Use of rail transport for specialized equipment that may originate from ports or other long distances to reduce VMT associated with vehicle delivery to the project site.</li> <li>■ Define potential methods to coordinate with adjacent solar project developers where project construction may overlap to potentially provide group ridesharing opportunities for construction workers.</li> <li>■ Means for local hiring practices of operations workers and local procurement of maintenance supplies in efforts to reduce VMT of operations and maintenance trips.</li> </ul>
Responsible Party	Project Owner
Responsible Monitoring Party	Caltrans or Riverside County
Monitoring Phase/Timing	Prior to the start of construction
Verification Approval Party	Caltrans or Riverside County
<b>MITIGATION MEASURE</b>	<p><b>MM TRA-2: Repair Roadways and Transportation Facilities Damaged by Construction Activities.</b> If roadways, medians, curbs, shoulders, or other such transportation features are damaged by project construction activities, as determined by the affected public agency, such damage shall be repaired and restored to a pre-project condition. Prior to construction, the Applicant shall confer with Caltrans or Riverside County regarding the roads within 500 feet in each direction of project access points (where heavy vehicles would leave public roads to reach the project site) and gen-tie crossing of I-10. At least 30 days prior to construction, or as requested by Caltrans or Riverside County, the Applicant shall photograph or video record all affected roadway segments and shall provide Caltrans or Riverside County with a copy of these images, if requested.</p> <p>At the end of major construction, the Applicant shall coordinate with each affected jurisdiction to confirm what repairs are required, if any. Any damage demonstrable to the project is to be repaired to the pre-construction condition within 60 days from the end of all construction, or on a</p>

**Table E-1. Mitigation Monitoring and Reporting Program**

	schedule mutually agreed to by the Applicant and the affected jurisdiction. If multiple projects are using the transportation features, the Applicant will pay its fair share of the required repairs, which shall occur when construction of all projects using the feature is completed. The Applicant shall provide Caltrans or Riverside County (as applicable) proof when any necessary repairs have been completed.
Responsible Party	Project Owner
Responsible Monitoring Party	Caltrans or Riverside County
Monitoring Phase/Timing	Prior to the start of construction and at end of major construction
Verification Approval Party	Caltrans or Riverside County

**Wildfire**

**MITIGATION MEASURE**

**MM FIRE-1: Fire Safety.** The Fire Management and Prevention Plan prepared by the project owner to ensure the safety of workers and the public during construction, operation and maintenance, and decommissioning for the project shall include, but not be limited to, the following elements:

- Procedures for minimizing potential ignition, including, but not limited to, vegetation clearing, parking requirements/restrictions, idling restrictions, smoking restrictions, proper use of gas-powered equipment, and hot work restrictions.
- Work restrictions during Red Flag Warnings and High to Extreme Fire Danger days.
- All internal combustion engines used at the project site shall be equipped with spark arrestors. Spark arrestors shall be in good working order.
- 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.
- Fire rules shall be posted on the project bulletin board at the contractor’s field office and areas visible to employees.
- Equipment parking areas and small stationary engine sites shall be cleared of all flammable materials.
- Smoking shall be prohibited in all vegetated areas and within 50 feet of combustible materials storage, and shall be limited to paved areas or areas cleared of all vegetation.

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**Table E-1. Mitigation Monitoring and Reporting Program**

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- Each construction site (if construction occurs simultaneously at various locations) shall be equipped with fire extinguishers and fire-fighting equipment sufficient to extinguish small fires.
- The project owner shall coordinate with the BLM and RCFD to create a training component for emergency first responders to prepare for specialized emergency incidents that may occur at the project site, including incidents such as fire or explosion at or with the BESS.
- The plan shall include information about the type of BESS technology on site, potential hazards, and procedures for disconnecting or shutting down the BESS in case of fire or to reduce the chance of fire.
- All construction workers, plant personnel, and maintenance workers visiting the plant and/or transmission lines to perform maintenance activities shall receive training on fire prevention procedures, 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 BLM and RCFD. Fire prevention procedures shall be included in the project's WEAP.
- 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 Weed Management Plan.
- The BLM and RCFD shall be consulted during plan preparation and fire safety measures recommended by these agencies included in the plan.
- The plan shall list fire prevention procedures and specific emergency response and evacuation measures that would be required to be followed during emergency situations.
- All on-site employees shall participate in annual fire prevention and response training exercises with the BLM and RCFD.
- The plan shall list all applicable wildland fire management plans and policies established by state and local agencies and demonstrate how the project will comply with these requirements.
- The project owner 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 project owner shall notify the BLM and RCFD of the name and contact information

**Table E-1. Mitigation Monitoring and Reporting Program**

	<p>of the current emergency services coordinator in the event of any change.</p> <ul style="list-style-type: none"> <li>■ 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.</li> <li>■ Fires ignited on site shall be immediately reported to BLM and the RCFD.</li> <li>■ The engineering, procurement, and construction contract(s) for the project shall provide reference to or clearly state the requirements of this mitigation measure.</li> <li>■ The project owner must provide the Fire management and Prevention Plan to the BLM for review and approval and to the RCFD for review and comment before construction.</li> </ul>
Responsible Party	Project Owner
Responsible Monitoring Party	BLM and RCFD
Monitoring Phase/Timing	Prior to the start of construction
Verification Approval Party	BLM and RCFD