Table 1. Mitigation Measures Proposed in This Final SEIS/SEIR

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	necessary or requested documents for the proposed compensation land to the CDFW. The CDFW may review and approve all documents conveying or conserving compensation lands and all conditions of title, in consultation with BLM and the USFWS. For conveyances to the State, approval may also be required from the California Department of General Services, the Fish and Game Commission and the Wildlife Conservation Board. **b. Title/Conveyance.** The Project Owner must transfer fee title to the compensation lands, a conservation easement over the lands, or both fee title and conservation easement as required by the CDFW. Transfer of either fee title or an approved conservation easement will usually be sufficient, but some situations, e.g., the donation of lands burdened by a conservation easement to BLM, will require both types of transfers. Any transfer of a conservation easement or fee title must be to CDFW or a non-profit organization qualified to hold title to and manage compensation lands (pursuant to California Government Code section 65965). If an approved non-profit organization holds title to the compensation lands, record a conservation easement in favor of CDFW in a form approved by CDFW. If an approved non-profit holds a conservation easement, name the CDFW as a third-party beneficiary. **c. Initial Habitat Improvement Fund.** The Project Owner must fund the initial protection and habitat improvement of the compensation lands. Alternatively, a non-profit organization may hold the habitat improvement funds if it is qualified to manage the compensation lands (pursuant to California Government Code section 65965) and if it meets the approval of CDFW and the BLM. If CDFW takes fee title to the compensation lands, the Project Owner must pay the habitat improvement fund to CDFW or its designee. **d. Property Analysis Record.** Upon identification of the compensation lands, the Project Owner must conduct a Property Analysis Record (PAR) or PAR-like analysis to establish the appropriate long-term maintenance and management fee to fund the in-perpetuity management of the acquired mitigation lands. **e. Long-term Maintenance and Management Fund.** The Project Owner must deposit in NFWF's REAT Account a capital long-term maintenance and management fee in the amount determined through the Property Analysis Record (PAR) or PAR-like analysis conducted for the compensation lands. CDFW may designate another non-profit organization to hold the long-term maintenance and management fee if the organization is qualified to manage the compensation lands in perpetuity. If CDFW takes fee title to the compensation lands, CDFW must determine whether it will hold the long-term management fee in the special deposit fund, leave the money in the REAT Account, or designate another entity to manage the long-term maintenance and management fee for CDFW and with CDFW supervision. **f. Interest, Principal, and Pooling of Funds.** The Project Owner and CDFW must ensure that an agreement is in place with the long-term maintenance and management fee holder/manager to ensure the following conditions: (i) Interest. Make available interest generated from the initial capital long-term maintenance and management fee for reinvestment into the principal and for the long-term operation, management, and protection of the approved compensation lands, including reasonable administrative overhead, biological monitoring, improvements to carrying capacity, law				

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	enforcement measures, and any other action approved by CDFW designed to protect or improve the habitat values of the compensation lands. (ii) Withdrawal of Principal. Do not draw upon the long-term maintenance and management fee principal unless such withdrawal is deemed necessary by the CDFW or the approved third-party long-term maintenance and management fee manager to ensure the continued viability of the species on the compensation lands. If CDFW takes fee title to the compensation lands, deposit monies received by CDFW pursuant to this provision in a special deposit fund established solely for the purpose to manage lands in perpetuity unless CDFW designates NFWF or another entity to manage the long-term maintenance and management fee for CDFW. (iii) Pooling Long-Term Maintenance and Management Fee Funds. CDFW, BLM, and CDFW-approved non-profit organization qualified to hold long-term maintenance and management fees solely for the purpose to manage lands in perpetuity, may pool the endowment with other endowments for the operation, management, and protection of the compensation lands for local populations of desert tortoise. However, for reporting purposes, track and report the long-term maintenance and management fee fund individually to the CDFW and BLM. g. **Other Expenses.** In addition to the costs listed above, the Project Owner must be responsible for all other costs related to acquisition of compensation lands and conservation easements, including but not limited to title and document review costs, expenses incurred from other state agency reviews, and overhead related to providing compensation lands to CDFW or an approved third party; escrow fees or costs; environmental contaminants clearance; and other site cleanup measures. h. **Mitigation Security.** The Project Owner must provide financial assurances to CDFW with copies of the document(s) to BLM and the USFWS, to guarantee that an adequate level of funding is available to implement the mitigation measures described in this condition. Use these funds solely for implementation of the measures associated with the Project in the event the Project Owner fails to comply with the requirements specified in this condition, or return the funds to the Project Owner upon successful compliance with the requirements in this condition. The CDFW's use of the security to implement measures in this condition may not fully satisfy the Project Owner's obligations under this condition. The Project Owner can provide financial assurance to the CDFW in the form of an irrevocable letter of credit, a pledged savings account or another form of security ("Security"). Prior to submitting the Security, the Project Owner must obtain the BLM's approval in consultation with CDFW and the USFWS, of the form of the Security. The actual costs to comply with this condition will vary depending on the final footprint of the Project and the actual costs of acquiring, improving and managing the compensation lands. i. **NFWF REAT Account.** The Project Owner may elect to fund the acquisition and initial improvement of compensation lands through NFWF by depositing funds for that purpose into NFWF's REAT Account. The Project Owner must make initial deposits for this purpose in the same amounts as the security required in section 3.h., above, and they may provide them in				

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	lieu of security. If this option is used for the acquisition and initial improvement, the Project Owner must make an additional deposit into the REAT Account if necessary to cover the actual acquisition costs and administrative costs and fees of the compensation land purchase once land is identified and the actual costs are known. If the actual costs for acquisition and administrative costs and fees are less than the initial deposit, return the excess money deposited in the REAT Account to the Project Owner. Money deposited for the initial protection and improvement of the compensation lands must not be returned to the Project Owner. The Project Owner may delegate responsibility for acquisition of compensation lands to a third party other than NFWF, such as a non-governmental organization supportive of desert habitat conservation, by written agreement of the CDFW. The CDFW must approve such delegation, in consultation with BLM and USFWS, prior to land acquisition, initial protection or maintenance and management activities. Implement agreements to delegate land acquisition to an approved third party, or to manage compensation lands, within 18 months of issuance of BLM's grant of a right-of-way.				
	MM WIL-10. See Impact VEG-1 above.	See WIL-10 above.	See WIL-10 above.	See WIL-10 above.	See WIL-10 above.
[redacted]					
Visual Resources	**APM 42.** Manage Visual Resources in accordance with Visual Resource Management (VRM) class IV.	The project owner shall verify that visual resources are managed in accordance to VRM class IV.	Project owner	During construction	Project owner
Visual Resources	**APM 47. Required Visual Resource BMPs.** The Project will abide by the BMPs addressed in the most recent version of the document "Reducing Visual Impacts of Renewable Energy Facilities on BLM Administered Lands," or its replacement, including, but not limited to the following: ▪ Color treat all solar facilities Shadow Gray from the BLM Environmental Color Chart CC001 unless a more effective color is selected by the Field Office VRM specialist. ▪ Transmission: **a.** Color-treat monopoles Shadow Gray per the BLM Environmental Color Chart CC001 unless a more effective color choice is selected by the local Field Office VRM specialist. **b.** Lattice towers and conductors will have non-specular qualities. **c.** Lattice Towers will be located a minimum of 3/4 miles away from Key Observation Points such as roads, scenic overlooks, trails, campgrounds, navigable rivers and other areas people tend to congregate and located against a landscape backdrop when topography allows. ▪ Night Sky – BMPs to minimize impacts to night sky including light shielding will be employed.	The project owner shall verify that visual resource BMPs are implemented.	Project owner	During construction	Project owner

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Impact VIS-1: The Project could have a substantial adverse effect on a scenic vista.	**MM VIS-1. Surface Treatment of Project Structures and Buildings.** The Project Owner must treat the surfaces of all unshaded project structures and buildings visible to the public from outside of project fencelines, such that (a) their colors minimize visual intrusion and contrast by blending with (matching) the existing characteristic landscape colors; (b) their colors and finishes do not create excessive glare; and (c) their colors and finishes are consistent with local policies and ordinances. The transmission line conductors must be non-specular and non-reflective, and the insulators must be non-reflective and non-refractive. Following in-field consultation with the BLM Visual Resources specialist and other representatives as deemed necessary, the Project Owner must submit for BLM's Authorized Officer review and approval, a specific Surface Treatment Plan that will satisfy these requirements. The treatment plan must include: 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; B. A list of each major project structure, building, tank, pipe, and wall; 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; C. One set of color brochures or color chips showing each proposed color and finish; D. A specific schedule for completion of the treatment; and E. A procedure to ensure proper treatment maintenance for the life of the Project. The Project Owner must 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 BLM's Authorized Officer. Subsequent modifications to the treatment plan are prohibited without BLM's Authorized Officer approval.	BLM shall verify that the surface of Project structures and buildings are treated to minimize visual impacts.	BLM	During construction	BLM
	MM VIS-2. Revegetation of Disturbed Soil Areas. The Project Owner must revegetate disturbed soil areas to the greatest practical extent, as described in Mitigation Measure BIO-8. In order to address specifically visual concerns, the required Closure, Revegetation and Rehabilitation Plan must include reclamation of the area of disturbed soils used for laydown, project construction, and siting of the substation and other ancillary operation and support structures.	BLM shall verify that measures in the Closure, Revegetation and Rehabilitation Plan are implemented.	BLM	During closure and decommissioning	BLM
	MM VIS-3. Temporary and Permanent Exterior Lighting. To the extent feasible, consistent with safety and security considerations, the Project Owner must 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 required FAA aircraft safety lighting (which should be an on-demand, audio-visual warning system that is	Riverside County and BLM AO shall verify that a lighting mitigation plan is submitted and approved.	Riverside County and BLM	Prior to construction	Riverside County and BLM

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	triggered by radar technology); (d) illumination of the Project and its immediate vicinity is minimized, and (e) the plan complies with local policies and ordinances. The Project Owner must submit to BLM's Authorized Officer for review and approval and simultaneously to the County of Riverside for review and comment a lighting mitigation plan that includes the following: A. Location and direction of light fixtures mate take the lighting mitigation requirements into account; B. Lighting design must consider setbacks of project features from the site boundary to aid in satisfying the lighting mitigation requirements; C. Lighting must incorporate fixture hoods/shielding, with light directed downward or toward the area to be illuminated; D. Light fixtures that are visible from beyond the project boundary must have cutoff angles that are sufficient to prevent lamps and reflectors from being visible beyond the project boundary, except where necessary for security; E. All lighting must be of minimum necessary brightness consistent with operational safety and security; and F. Lights in high illumination areas not occupied on a continuous basis (such as maintenance platforms) must have (in addition to hoods) switches, timer switches, or motion detectors so that the lights operate only when the area is occupied.				
	MM VIS-4. Project Design. To the extent possible, the Project Owner must use proper design fundamentals to reduce the visual contrast to the characteristic landscape. These include proper siting and location; reduction of visibility; repetition of form, line, color (see VIS-1) and texture of the landscape; and reduction of unnecessary disturbance. Design strategies to address these fundamentals must be based on the following factors: ▪ Earthwork. Select locations and alignments that fit into the landforms to minimize the size of cuts and fills. Avoid hauling in or hauling out of excess earth cut or fill. Avoid rounding and/or warping slopes. Retain existing rock formations, vegetation, and drainage. Tone down freshly broken rock faces with emulsions or stains. Use retaining walls to reduce the amount and extent of earthwork. Retain existing vegetation by using retaining walls or fill slopes, reducing surface disturbance, and protecting roots from damage during excavations. Avoid soil types that generate strong color contrasts. Reduce dumping or sloughing of excess earth and rock on downhill slopes. ▪ Vegetation Manipulation. Retain as much of the existing vegetation as possible. Use existing vegetation to screen the development from public viewing. Use scalloped, irregular cleared edges to reduce line contrast. Use irregular clearing shapes to reduce form contrast. Feather and thin the edges of cleared areas and retain a representative mix of plant species and sizes. ▪ Structures. Minimize the number of structures and combine different activities in one structure. Use natural, self-weathering materials and chemical treatments on surfaces to reduce color contrast. Bury all or part of the structure. Use natural appearing forms to complement the characteristic landscape. Screen the structure from view by using natural land forms and vegetation. Reduce the line contrast created by straight edges.	BLM shall verify that visual contract to the characteristic landscape are reduced to the extent possible.	BLM	During construction	BLM

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	▪ Linear Alignments: Use existing topography to hide induced changes associated with roads, lines, and other linear features. Select alignments that follow land-scape contours. Avoid fall-line cuts and bisecting ridge tops. Hug vegetation lines and avoid open areas such as valley bottoms. Cross highway corridors and less sharp angles. ▪ Reclamation and Restoration: Reduce the amount of disturbed area and blend the disturbed areas into the characteristic landscape. Replace soil, brush, rocks, and natural debris over disturbed area. Newly introduce plant species should be of a form, color, and texture that blends with the landscape.				
Impact VIS-3: The project could substantially degrade the existing visual character or quality of the site and its surroundings for landscape viewed from KOPs 7, 8, 10, and 11.	**MM VIS-1 through MM VIS-4.** See Impact VIS-1 above.	See MM VIS-1 through MM VIS-4 above.	See MM VIS-1 through MM VIS-4 above.	See MM VIS-1 through MM VIS-4 above.	See MM VIS-1 through MM VIS-4 above.
Impact VIS-4: The Project could create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	**MM VIS-1.** See Impact VIS-1 above.	See MM VIS-1 above.	See MM VIS-1 above.	See MM VIS-1 above.	See MM VIS-1 above.
	MM BLM-VIS-2. Night Lighting. As determined by the BLM AO, based on a lumen analysis of the Lighting Mitigation Plan required by VIS-3, if it is demonstrated that the Project requirements for operational lighting would significantly increase the lighting exposure in the vicinity of the Project above that of the existing baseline night lighting conditions then, in addition to the requirements imposed by Mitigation Measure VIS-3, the Project Owner must consult with the National Park Service Night Sky Program Manager in the development of the lighting plan, and comply with stricter standards for light intensity. All permanent light sources must be below 3,500 Kelvin color temperature (warm white) and must have cutoff angles not to exceed 45 degrees of nadir; any permanent light sources exceeding this standard would constitute a "significant increase" under this measure and trigger the review requirements above. The use of 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. A CCT above 2,700 would increase blue light into the environment that would impact wildlife and visors and increase light pollution; any permanent light sources exceeding this standard would constitute a "significant increase" under this measure and trigger the review requirements above. All lights, temporary and permanent, must be fully shielded such that the emission of light above the horizontal will be prevented. Prior to construction, the Applicant must submit to the BLM and NPS Joshua Tree NP for review and approval a Lighting Mitigation Plan that includes the following:	NPS and BLM shall verify that a Lighting Mitigation Plan is submitted and approved.	NPS and BLM	Prior to construction	NPS and BLM

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	▪ Specification that LPS or amber LED lighting must be emphasized, and that white lighting (metal halide) would (a) only be used when necessitated by specific work tasks, (b) not be used for dusk-to-dawn lighting, and (c) would be less than 3500 Kelvin color temperature; ▪ Specification and map of all lamp locations, orientations, and intensities, including security, roadway, and task lighting; ▪ Specification of each light fixture and each light shield; ▪ Total estimated outdoor lighting footprint, expressed as lumens or lumens per acre; ▪ Definition of the threshold for substantial contribution to light pollution in JTNP, in coordination with the Night Sky Program Manager (see below); ▪ Specifications on the use of portable truck-mounted lighting; ▪ Specification of motion sensors and other controls to be used, especially for security lighting; ▪ Surface treatment specification employed to minimize glare and skyglow; ▪ Results of a Lumen Analysis (based on final lighting plans), in consultation with the NPS Night Sky Program Manager, in order to determine the extent of night lighting exposures in the surrounding NPS lands. If the lighting exposure on NPS lands exceeds the allowable threshold (which is to be determined in consultation with the NPS Night Sky Program Manager), institute additional control measures to reduce the lighting exposures to levels below the action threshold; and ▪ Documentation that the necessary coordination with the NPS Night Sky Program Manager has occurred.				
Water Resources					
Water Resources	**APM 29.** See Vegetation Resources above.	See APM 29 above.	See APM 29 above.	See APM 29 above.	See APM 29 above.
Water Resources	**APM-30.** See Vegetation Resources above.	See APM 30 above.	See APM 30 above.	See APM 30 above.	See APM 30 above.
Water Resources	**APM-31.** Where possible, side casting shall be avoided where road construction requires cut-and-fill procedures.	The project owner shall verify that side casting be avoided where possible.	Project owner	During construction	Project owner
Water Resources	**APM-32.** All relevant requirements of Executive Orders 11988 (Floodplain Management) and 11990 (Protection of Wetlands) will be complied with.	The project owner shall verify that all relevant requirements are complied with.	Project owner	During construction	Project owner
Water Resources	**APM-33.** Surface water diversion for beneficial use will not occur absent a state water right.	The project owner shall verify	Project owner	During construction	Project owner

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		that a state water right is acquired if needed.			
Water Resources	**APM-34.** The 100-year floodplain boundaries for any surface water feature in the vicinity of the Project will be identified. If maps are not available from the Federal Emergency Management Agency (FEMA), these boundaries will be determined via hydrologic modeling and analysis as part of the environmental review process. Construction within, or alteration of, 100-year floodplains will be avoided where possible, and permitted only when all required permits are obtained.	The project owner shall verify that 100-year floodplains are avoided where possible or otherwise all required permits are obtained.	Project owner	Prior to construction	Project owner
Water Resources	**APM-35.** Water extracted or consumptively used for the construction, operation, maintenance, or remediation of the Project shall be solely for the beneficial use of the Project or its associated mitigation and remediation measures, as specified in approved plans and permits.	The project owner shall verify that water extracted or consumptively used is solely use for the Project and associated activities.	Project owner	During construction, operation, and maintenance	Project owner
Water Resources	**APM-36.** Water flow meters shall be installed on all extraction wells permitted by BLM.	The project owner shall verify that water flow meters are installed.	Project owner	During construction	Project owner
Water Resources	**APM-37.** Water-conservation measures shall be applied. These measures may include the use of specific technology, management practices, or both. Application of these measures shall be detailed in the Groundwater Water Monitoring and Mitigation Plan, which shall include a detailed discussion and analysis of the effectiveness of the specified water-conservation measures.	The project owner shall verify that water conservation measured are applied.	Project owner	During construction	Project owner
Water Resources	**APM-38.** Activities shall comply with local requirements for any long-term or short-term domestic water use and wastewater treatment.	The project owner shall verify that activities comply with local requirements.	Project owner	During construction	Project owner

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Water Resources	**APM-39.** The siting, construction, operation, maintenance, remediation, and abandonment of all wells shall conform to specifications contained in the California Department of Water Resources Bulletins #74-81 and #74-90 and their updates.	The project owner shall verify that activities using wells conform to the specified specifications.	Project owner	During all phases of the Project	Project owner
Water Resources	**APM-40.** Colorado River hydrologic basin – The concepts, principles and general methodology used in the Colorado River Accounting Surface Method, as defined in U.S. Geological Survey Scientific Investigations Report 2008-5113 (USGS, 2009); and existing and future updates or a similar methodology, are considered the best available data for assessing project-related groundwater impacts in the Colorado River hydrologic basin. The best available data and methodology shall be used to determine whether project-related pumping would result in the extracted water being replaced by water drawn from the Colorado River. If project-related groundwater pumping results in the static groundwater level at the well being near (within 1 foot), equal to, or below the Accounting Surface in a basin hydrologically connected to the Colorado River, that consumption shall be considered subject to the Law of the River (Colorado River Compact of 1922 and amendments). In such circumstances, the Applicant offset or otherwise mitigate the volume of water causing drawdown below the Accounting Surface. Details of such measures and the right to the use of water shall be described in the Groundwater Water Monitoring and Mitigation Plan.	The project owner shall verify that the best available data and methodology is used.	Project owner	Prior to construction	Project owner
Water Resources	**APM-41.** See Vegetation Resources above.	See APM 41 above.	See APM 41 above.	See APM 41 above.	See APM 41 above.
Water Resources	**APM 49.** See Soil Resources above.	See APM 49 above.	See APM 49 above.	See APM 49 above.	See APM 49 above.
Water Resources	**MM WR 6. Closure and Decommissioning Plan.** The Project Owner must prepare a decommissioning plan that will meet the requirements of the BLM. The Project Owner must identify likely decommissioning scenarios and develop specific decommissioning plans for each scenario that will identify actions to be taken to avoid or mitigate long-term impacts related to water and wind erosion after decommissioning. The Plan must include defining an approach to decommissioning the septic system, including the leach field and all buried pipes. Actions may include such measures as a decommissioning SWPPP, revegetation and restoration of disturbed areas, post-decommissioning maintenance, collection and disposal of project materials and chemicals, and access restrictions.	BLM shall verify that a Closure and Decommissioning plan is prepared.	BLM	Prior to construction	BLM

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Water Resources	**MM WR-11. Septic System Design Details.** Before the start of construction, the Project Owner must submit to BLM and the County a proposed design for the septic system, including whether it will be lined, what monitoring would be implemented for potential effects on groundwater, the leachate that will be used, and a description of the potential effects on groundwater.	Riverside County and BLM shall verify that a proposed design for the septic system is submitted.	Riverside County and BLM	Prior to construction	Riverside County and BLM
Impact WR-1: The Project could violate any water quality standards or waste discharge requirements.	**MM WR-1.** See Impact S-1 above.	See MM WR-1 above.	See MM WR-1 above.	See MM WR-1 above.	See MM WR-1 above.
	MM WR-4. Project Drainage Report and Plans. The Project Owner must provide Riverside County and the BLM with a current Drainage Report, for review and approval prior to construction, which includes the following information: A. Reassessment of upstream hydrology and consideration of the potential failure of upstream earthen berms and specifically the earthen berm located along the Corn Spring Wash crossing under I 10. B. Revised onsite hydrology calculations using CN values consistent with the Riverside County Hydrology Manual. C. A detailed onsite hydraulic analysis utilizing FLO-2D or similar two-dimensional hydraulic model acceptable to the BLM and Riverside County which models pre- and post-development flood conditions for the 10-, 25- and 100 year storm events. The post-development model must include all Proposed Action 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. Color shading schemes used for the mapping must be consistent between all maps as well as clear and easily differentiated between designated intervals for hydraulic parameters. The mapping intervals that must be used are: Flow Depth at 0.20 ft intervals up to 1 ft, and 0.40 ft intervals thereafter. Velocity: 0.5 ft/s intervals. D. Detailed analysis and documentation of onsite drainage features and all other project features including buildings, the substation, access roads, culverts, linear features and panel supports, demonstrating adequate design to protect from flooding, erosion and scour, without adversely affecting adjacent property, inducing erosion or concentrating or diverting flows. Consider using at-grade Arizona crossings instead of culverts where practicable. E. Detailed design of flood retention features necessary to avoid any increase in downstream flood peak flow rates.	Riverside County and BLM shall verify that a Drainage Report is submitted and approved.	Riverside County and BLM	Prior to construction	Riverside County and BLM

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	MM WR-5. Drainage Maintenance Program. The Project Owner must develop and implement a Drainage Maintenance Program that provides long-term guidance to implement routine maintenance of project drainage features in a feasible and environmentally sensitive manner. The Drainage Maintenance Program will be a process and policy document prepared by the Project Owner, reviewed and approved by the BLM. The Drainage Maintenance Program provides the permitting requirements for drainage maintenance work for individual routine maintenance of the engineered drainage features without having to perform separate CEQA/NEPA review or obtain permits. The Drainage Maintenance Program provides guidelines regarding timing, implementation, resource protection and reporting procedures for all drainage maintenance activities.	BLM shall verify that a Drainage Maintenance Program is submitted and approved.	BLM	Prior to construction	BLM
	MM WR-10. Groundwater Quality Monitoring and Reporting Plan. Before the start of construction, the Project Owner must submit a Groundwater Quality Monitoring and Reporting Plan to the BLM and the County for review and approval. The Groundwater Quality Monitoring and Reporting Plan must provide a description of the methodology for monitoring background and site groundwater quality. Implement the sampling required for the water quality monitoring program during groundwater level monitoring events in accordance with Mitigation Measure WR-3. Define in the Plan that, prior to project construction, monitoring must commence to establish pre-construction groundwater quality conditions in the well proposed for the program and must include pre-construction and construction water use. The water quality monitoring program must identify potential changes in the existing water quality of the proposed water supply resulting from project pumping, if any, establish pre-construction and project related groundwater quality that can be quantitatively compared against observed and simulated levels near the project pumping well and near potentially impacted existing wells, and to avoid, minimize, or mitigate significant impacts to sensitive receptors. If compliance data indicate that the water supply quality has deteriorated (exceeds pre-project constituent concentrations in TDS, sodium, chloride, or other constituents identified as part of the monitoring plan and applicable Water Quality Objectives are exceeded for the applicable beneficial uses of the water supply) for three consecutive years, the Project Owner must provide treatment or a new water supply to either meet or exceed pre-project water quality conditions to any impacted water supply wells.	Riverside County and BLM shall verify that a Groundwater Quality Monitoring and Reporting Plan is submitted and approved.	Riverside County and BLM	Prior to construction	Riverside County and BLM

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Impact WR-2: The Project could substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).	**MM WR-2. Construction and Operation Water Use.** The Proposed Action's use of groundwater during construction must not exceed 700 afy (total of 1,750 af during the 30 months) during construction and 41 afy during operation. The Project Owner must report water quantity used for project construction and operation to the BLM to ensure compliance with this condition. Prior to the use of groundwater for construction, the Project Owner must install and maintain metering devices as part of the water supply and distribution system to document project water use and to monitor and record in gallons per day the total volume(s) of water supplied to the Project from this water source. The metering devices must be operational for the life of the Project.	BLM shall verify that water metering devices are installed and maintained.	BLM	During construction	BLM
	MM WR-3. Groundwater Level Monitoring, Mitigation, and Reporting. The Project Owner must develop and submit a Groundwater Level Monitoring, Mitigation, and Reporting Plan to the BLM for review and approval in advance of construction activities and prior to the operation of onsite groundwater supply wells. The Project Owner must base the Groundwater Level Monitoring, Mitigation, and Reporting Plan on a numerical groundwater model acceptable to the BLM and provide detailed methodology and schedule for monitoring background and site groundwater levels. Monitoring must include pre-construction, construction, and project operation water use and address project-related effects to nearby wells on other property. The plan must 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 pumping wells and near potentially impacted existing wells. The plan must establish criteria and procedures for groundwater use adjustments or compensation to adjacent well owners that have been significantly affected by project pumping, which may include such measures as compensation for increased energy costs due to project-related well drawdown, or well improvements necessary due to project-related drawdown.	BLM shall verify that a Groundwater Level Monitoring, Mitigation, and Reporting Plan is submitted and approved.	BLM	Prior to construction and prior to the operation of onsite groundwater supply wells	BLM
	MM WR-7: Mitigation of Impacts to the Palo Verde Mesa Groundwater Basin. The Project Owner must develop a Colorado River Water Supply Plan (Plan) to prevent, replace or mitigate project impacts that deplete the PVMGB groundwater budget. The amount of PVMGB depletion requiring mitigation shall be equal to the amount of withdrawals from below the Colorado River Accounting Surface as determined by the Groundwater Monitoring and Mitigation Plan (APM-40, WR-3). The Plan must identify measures that will be taken to replace water on an acre-foot to acre-foot basis, if the project results in consumption of any water from within or below (+/-0.84 feet (the 95-percent confidence level of the surface) the Colorado River Accounting Surface, towards the purpose of ensuring that no allocated water from the Colorado River is consumed without entitlement to that water. The analysis must include the procedures described in Mitigation Measure WR-9 and be submitted to the BLM and Colorado River Basin Regional Water Quality Control Board for review and approval, and to the Metropolitan Water District of Southern California for review and comment, prior to the use of any water below the accounting surface. The plan is required at any time that the BLM and/or the Project Owner determine, based on the results of the Groundwater Monitoring Plan (APM-40, WR-3), that groundwater withdrawals will likely reach the Accounting Surface during the life of the project. Should an approved plan for mitigation or replacement not be in place at the time groundwater withdrawals reach the Accounting Surface, all groundwater pumping shall cease until a mitigation/replacement plan is approved	Colorado River Basin Regional Water Quality Control Board and BLM shall verify that a Colorado River Water Supply Plan is submitted and approved.	Colorado River Basin Regional Water Quality Control Board and BLM	Prior to construction	Colorado River Basin Regional Water Quality Control Board and BLM

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	The Plan must describe groundwater monitoring activities and quarterly data reports for review of depth to groundwater information, and proximity of the depth of project related groundwater pumping to the Colorado River Accounting Surface. The Plan must further describe that if project-related groundwater pumping draws water from below the accounting surface the following must occur: ▪ Based on groundwater monitoring data, record the quantity of groundwater pumped from below the Accounting Surface , and ▪ The Project Owner must implement water conservation/offset activities to replace Colorado River water on an acre-foot by acre-foot basis. To effectively implement item (2) above, the Plan shall include the following information: ▪ Identification of water conservation/offset activities to 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 replaced 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 replacing Colorado River water diversions. The project owner shall collaborate with the BLM, the Colorado River RWQCB, and/or the MWD, as appropriate, in order to identify acceptable water conservation/offset activities for the purposes of the Plan, with acceptable activities being those that are considered environmentally, physically, and economically feasible, while also effectively resulting in the replacement of Colorado River water. Water conservation/offset activities that have been considered and determined to not be viable and therefore may not be identified in the Plan include the following: ▪ Irrigation improvements in the Palo Verde Irrigation District (water unused by the PVID becomes available to MWD per the 2003 Colorado River Water Delivery Agreement executed by MWD, the Secretary of the Interior, Imperial Irrigation District, Coachella Valley Water District, and San Diego County Water Authority); ▪ Purchase of water allotments allocated by the Department of the Interior (all Colorado River water available to California in shortage, normal, or Intentionally Created Surplus conditions is already allocated and its use is limited to each entity's service area under executed water delivery contracts); ▪ Implementation of conservation programs in floodplain communities (all water unused by holders of higher priorities becomes available to MWD per the water delivery contracts executed by the Department of the Interior); and ▪ Participation in the BLM's Tamarisk Removal Program (use of Colorado River water by phreatophytes such as tamarisk is not charged as a use of water for U.S. Supreme Court Decree accounting purposes by the U.S. Bureau of Reclamation).				

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	If the Project Owner has filed an application to the U.S. Bureau of Reclamation (USBR) to obtain an allocation of water from the Colorado River and such allocation is granted, it may be used to satisfy some or all the water conservation offsets on an acre-foot per acre-foot basis. However, the filing of an application for allocation of Colorado River water does not guarantee issuance of such an allocation. In addition, the Department of the Interior has already allocated all of California's apportionment to use of Colorado River water during shortage, normal, and Intentionally Created Surplus conditions. Therefore, unless the Project Owner currently holds entitlement to the use of Colorado River water, an allocation is not assumed to be granted. If the project does not result in diversion of Colorado River water (via pumping from near (within +/-0.84 feet at the 95-percent confidence level of the accounting surface), implementation of water conservation/offset activities identified in the Colorado River Water Supply Plan is not necessary. However, groundwater pumping below the Colorado River Accounting Surface is prohibited without an approved Plan in place. The Groundwater Monitoring and Mitigation Plan is separate from the Groundwater Level Monitoring, Mitigation, and Reporting plan required per MM WR-3, and the Construction and Operation Water Use required per MM WR-2. Therefore, develop, review, approve, and implement this Plan as a separate, stand-alone document.				
	MM WR-9. Estimation of Impacts to PVMGB. Based on the results of the Groundwater Monitoring Plan (APM-40, WR-3), if it is determined by the BLM AO or Project Owner that project-related groundwater withdrawals will result in the static groundwater level at the well being near (within 1 foot), equal to, or below the Accounting Surface during the life of the project, then the Project Owner must conduct an analysis of the Project's effect on the PVMGB groundwater budget including an estimate of the decrease in underflow from the CVGB to the PVMGB. The analysis must include the following: 1. Refinement of the estimate of decrease in underflow from the CVGB to the PVMGB using the numerical groundwater flow model developed for the Project under WR-3. Develop an upper-bound estimate of the underflow decrease through sensitivity analysis of the lateral hydraulic conductivity of the pumped aquifer and the general head boundaries, as well as recharge. **a.** Conduct a statistical analysis of existing aquifer tests and specific capacity tests in the western CVGB to characterize the distribution of hydraulic conductivity values in the area. **b.** Conduct model runs using the first quartile (25%), second quartile (50%) and third quartile (75%) hydraulic conductivities to evaluate the change in underflow induced by project pumping under a reasonable range of values. **c.** Simulate the effect of recharge in the model domain by applying mountain front recharge at the appropriate locations in amounts representing 2% to 3% of total average incident precipitation falling on the model domain and tributary mountain areas. 2. Use the maximum predicted decrease in underflow from the CVGB to the PVMGB to assess the volume of water requiring mitigation under WR-7. The volume predicted must include the cumulative decrease in underflow during the period the project pumps groundwater from the	BLM shall verify that an estimation of impacts to PVMGB is analyzed.	BLM	Prior to construction	BLM

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	CVGB as well as any latency effects following cessation of pumping. The latency period must extend until underflow achieves pre-project conditions. 3. An assessment report must be prepared summarizing the methods and results of this supplemental analysis, presenting any supporting data, assumptions made, and an estimate of the uncertainty of PVMG underflow depletion. 4. The Project Owner must present the results of the conceptual model, numerical model, transient runs, and sensitivity analysis in a report for review and approval by the BLM. The report must include all pertinent information regarding the development of the conceptual and numerical models. The report must include: a. Introduction **d.** Previous Investigations **e.** Conceptual Model Development **f.** Numerical Model and Input Parameters **g.** Sensitivity Analysis **h.** Transient Modeling Runs **i.** Conclusions				
Impact WR-3: The Project could substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site.	**MM WR-1.** See Impact S-1 above.	See MM WR-1 above.	See MM WR-1 above.	See MM WR-1 above.	See MM WR-1 above.
	MM WR-4. See Impact WR-1 above.	See MM WR-4 above.	See MM WR-4 above.	See MM WR-4 above.	See MM WR-4 above.
Impact WR-4: The Project could substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner	**MM WR-4.** See Impact WR-1 above.	See MM WR-4 above.	See MM WR-4 above.	See MM WR-4 above.	See MM WR-4 above.

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which would result in flooding on- or off-site.					
Impact WR-5: The Project could create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.	**MM WR-4.** See Impact WR-1 above.	See MM WR-4 above.	See MM WR-4 above.	See MM WR-4 above.	See MM WR-4 above.
Impact WR-6: The Project could otherwise substantially degrade water quality.	**MM WR-1.** See Impact S-1 above.	See MM WR-1 above.	See MM WR-1 above.	See MM WR-1 above.	See MM WR-1 above.
	MM WR-4. See Impact WR-1 above.	See MM WR-4 above.	See MM WR-4 above.	See MM WR-4 above.	See MM WR-4 above.
	MM WR-10. See Impact WR-1 above.	See MM WR-10 above.	See MM WR-10 above.	See MM WR-10 above.	See MM WR-10 above.
Impact WR-8: The Project could be placed within a 100-year flood hazard area structures which would impede or redirect flood flows.	**MM WR-4.** See Impact WR-1 above.	See MM WR-4 above.	See MM WR-4 above.	See MM WR-4 above.	See MM WR-4 above.
Wildland Fire					
Wildland Fire	**APM-4.** See Vegetation Resources above.	See APM 4 above.	See APM 4 above.	See APM 4 above.	See APM 4 above.
Wildland Fire	**APM 5.** See Vegetation Resources above.	See APM 5 above.	See APM 5 above.	See APM 5 above.	See APM 5 above.
Wildland Fire	**APM-43.** See Public Health and Safety above.	See APM 43 above.	See APM 43 above.	See APM 43 above.	See APM 43 above.
Wildland Fire	**MM HAZ-2.** See Impact HAZ-1 above.	See HAZ-1 above.	See HAZ-1 above.	See HAZ-1 above.	See HAZ-1 above.

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Wildland Fire	**MM HAZ-3.** See Impact HAZ-1 above.	See HAZ-3 above.	See HAZ-3 above.	See HAZ-3 above.	See HAZ-3 above.
Wildland Fire	**MM WASTE-9.** See Public Health and Safety above.	See WASTE-9 above.	See WASTE-9 above.	See WASTE-9 above.	See WASTE-9 above.
Wildland Fire	**MM VEG-9.** See Impact VEG-1 above.	See VEG-9 above.	See VEG-9 above.	See VEG-9 above.	See VEG-9 above.
Impact WF-1: The Project could expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.	**MM WORKER SAFETY-7.** See Public Health and Safety above.	See WORKER SAFETY-7 above.	See WORKER SAFETY-7 above.	See WORKER SAFETY-7 above.	See WORKER SAFETY-7 above.
Wildlife Resources					
Wildlife Resources	**APM 6.** See Noise above.	See APM-6 above.	See APM-6 above.	See APM-6 above.	See APM-6 above.
Wildlife Resources	**APM 7.** See Vegetation Resources above.	See APM-7 above.	See APM-7 above.	See APM-7 above.	See APM-7 above.
Wildlife Resources	**APM 9.** If suitable habitat characteristics are identified during the habitat assessment, clearance surveys for Mojave fringe-toed lizard will be performed in suitable habitat areas.	The project owner shall verify that suitable habitat characteristics are identified.	Project owner	During habitat assessment	Project owner
Wildlife Resources	**APM 10.** In areas where protocol and clearance surveys are required, prior to construction or commencement of any long-term activity that is likely to adversely affect desert tortoises, desert tortoise exclusion fencing shall be installed around the perimeter of the activity footprint in accordance with the Desert Tortoise Field Manual (USFWS, 2009) or most up-to-date U.S. Fish and Wildlife Service (USFWS) protocol. ▪ Additionally, short-term desert tortoise exclusion fencing will be installed around short-term construction and/or activity areas (e.g., staging areas, storage yards, excavations, and linear	The project owner shall verify that desert tortoise exclusion fencing is installed where applicable.	Project owner	During construction	Project owner

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	facilities), as appropriate, per the Desert Tortoise Field Manual (USFWS, 2009) or most up-to-date USFWS protocol. ▪ Exemption from desert tortoise protocol survey requirements can be obtained from BLM, in coordination with USFWS, and CDFW as applicable, on a case-by-case basis if a designated biologist determines the activity site does not contain the elements of desert tortoise habitat, is unviable for occupancy, or if baseline studies inferred absence during the current or previous active season. ▪ Construction of desert tortoise exclusion fences will occur during the time of year when tortoise are less active in order to minimize impacts and to accommodate subsequent desert tortoise surveys. Any exemption or modification of desert tortoise exclusion fencing requirements will be based on the specifics of the activity and the site-specific population and habitat parameters. Sites with low population density and disturbed, fragmented, or poor habitat are likely to be candidates for fencing requirement exemptions or modifications. Substitute measures, such as on-site biological monitors in the place of the fencing requirement, may be required, as appropriate. ▪ After an area is fenced, and until desert tortoises are removed, the designated biologist is responsible for ensuring that desert tortoises are not being exposed to extreme temperatures or predators as a result of their pacing the fence. Remedies may include the use of shelter sites placed along the fence, immediate translocation, removal to a secure holding area, or other means determined by the BLM, USFWS, and CDFW, as applicable. ▪ Modification or elimination of the above requirement may also be approved if the activity design will allow retention of desert tortoise habitat within the footprint. If such a modification is approved, modified protective measures may be required to minimize impacts to desert tortoises that may reside within the activity area. ▪ Immediately prior to desert tortoise exclusion fence construction, a designated biologist will conduct a clearance survey of the fence alignment to clear desert tortoises from the proposed fence line's path. ▪ All desert tortoise exclusion fencing will incorporate desert tortoise proof gates or other approved barriers to prevent access of desert tortoises to work sites through access road entry points. ▪ Following installation, long-term desert tortoise exclusion fencing will be inspected for dam-age quarterly and within 48 hours of a surface flow of water due to a rain event that may damage the fencing. ▪ All damage to long-term or short-term desert tortoise exclusion fencing will be immediately blocked to prevent desert tortoise access and repaired within 72 hours.				
Wildlife Resources	**APM-11.** Following the clearance surveys within sites that are fenced with long-term desert tortoise exclusion fencing, a designated biologist will monitor initial clearing and grading activities to ensure that desert tortoises missed during the initial clearance survey are moved from harm's way. A designated biologist will inspect construction pipes, culverts, or similar structures: (a) with a diameter greater than 3 inches, (b) stored for one or more nights, (c) less than 8 inches above-	The project owner shall verify that a designated biologist will monitor initial clearing and grading activities.	Project owner	During construction	Project owner

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	ground and (d) within desert tortoise habitat (such as, outside the long-term fenced area), before the materials are moved, buried, or capped. As an alternative, such materials shall be capped before storing outside the fenced area or placing on pipe racks. Pipes stored within the long-term fenced area after completing desert tortoise clearance surveys will not require inspection.				
Wildlife Resources	**APM-12.** When working in areas where protocol or clearance surveys are required, biological monitoring will occur with any geotechnical boring or geotechnical boring vehicle movement to ensure no desert tortoises are killed or burrows are crushed.	The project owner shall verify that biological monitoring will occur with any geotechnical boring or geotechnical boring vehicle movement.	Project owner	During construction	Project owner
Wildlife Resources	**APM-13.** A designated biologist will accompany any geotechnical testing equipment to ensure no tortoises are killed and no burrows are crushed.	The project owner shall verify that a designated biologist will accompany any geotechnical testing equipment.	Project owner	During construction	Project owner
Wildlife Resources	**APM-14.** Inspect the ground under the vehicle for the presence of desert tortoise any time a vehicle or construction equipment is parked in desert tortoise habitat outside of areas fenced with desert tortoise exclusion fencing. If a desert tortoise is seen, it may move on its own. If it does not move within 15 minutes, a designated biologist may remove and relocate the animal to a safe location.	The project owner shall verify that the ground under vehicles is inspected for the presence of desert tortoise.	Project owner	During construction	Project owner
Wildlife Resources	**APM-15.** Vehicular traffic will not exceed 15 miles per hour within the areas not cleared by protocol level surveys where desert tortoise may be impacted.	The project owner shall verify that vehicular traffic does not exceed 15 mph in areas not cleared by protocol level surveys.	Project owner	During construction	Project owner

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Wildlife Resources	**APM-16.** If Bendire's thrasher is present, conduct appropriate activity-specific biological monitoring to ensure that Bendire's thrasher individuals are not directly affected by operations (i.e., mortality or injury, direct impacts on nest, eggs, or fledglings).	The project owner shall verify that activity-specific biological monitoring is conducted if Bendire's thrashers are present.	Project owner	During construction	Project owner
Wildlife Resources	**APM-17.** If burrows cannot be avoided on-site, passive burrow exclusion by a designated biologist through the use of one-way doors will occur according to the most up-to-date BLM or CDFW specifications. Before exclusion, there must be verification that burrows are empty based on the most up-to-date BLM or CDFW protocols. Confirmation that the burrow is not currently supporting nesting or fledgling activities is required prior to any burrow exclusions or excavations.	The project owner shall verify that passive burrow exclusion is done if burrows cannot be avoided on-site.	Project owner	During construction	Project owner
Wildlife Resources	**APM-18.** Provide protection from loss and harassment of active golden eagle nests through the following actions: ▪ Activities that may impact nesting golden eagles, will not be sited or constructed within 1-mile of any active or alternative golden eagle nest within an active golden eagle territory, as determined by BLM in coordination with USFWS as appropriate.	The project owner shall verify that active golden eagle nests are protected.	Project owner	During construction	Project owner
Wildlife Resources	**APM-19.** Provide specific golden eagle compensation in accordance with the most up to date BLM or USFWS policies, including applicable USFWS Eagle Conservation Plan Guidance.	The project owner and BLM/USFWS shall verify that specific golden eagled compensation is provided.	Project owner and BLM/USFWS	During construction	Project owner and BLM/USFWS
Wildlife Resources	**APM-20.** Contribute to a golden eagle monitoring program, if the Project has been determined, through the environmental analysis, to likely impact golden eagles.	The project owner shall verify that a golden eagle monitoring program is contributed to if the Project is likely to impact golden eagles.	Project owner	During construction	Project owner

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Wildlife Resources	**APM 52.** The Project owner shall implement a bird and bat adaptive management program that includes potential measures the Project owner can implement to adaptively respond to detected mortality and injuries attributable to the Project. Adaptive actions undertaken will be discussed and evaluated in survey reports prepared under the Project's BBCS. Any impact reduction measures must be commensurate (in terms of factors that include geographic scope, costs, and scale of effort) with the level of avian or bat mortality or injury that is specifically and clearly attributable to the Project facilities, consistent with the nexus and proportionality requirements of California statutory and constitutional law and of U.S. constitutional law. a. Performance Standards. Appropriate performance standards for mitigation of impacts to any species regulated by BGEPA, ESA, and CESA exist through required consultation with USFWS and CDFW under their respective regulatory and permitting frameworks, as specified in Tier 1 Measures, below. For impacts to all other special status avian and bat species, adaptive management measures must reduce or offset mortalities caused by the Project to a level that avoids a substantial, long-term reduction in the demographic viability of the population of the species in question, as estimated through implementation of the Project BBCS, which employs the structured approach set forth in the USFWS Land-Based Wind Energy Guidelines (USFWS, 2012). b. Impact Reduction Measures. i. Tier 1 Measures. In addition to the monitoring requirements described in the Project BBCS, the following measures shall be implemented to achieve the above performance standards: 1) The Project owner shall immediately report and initiate consultation with USFWS and CDFW if there is a Project-attributed injury or mortality to any species regulated by BGEPA, or CESA. The BLM will confer with the USFWS if there is injury or mortality to any species listed under the ESA. 2) PSPP MM BIO 1: Designated Biologist Selection and Qualifications 3) PSPP MM BIO 2: Designated Biologist Duties 4) PSPP MM BIO 3: Biological Monitor Selection and Qualifications 5) PSPP MM BIO 4: Biological Monitor Duties 6) PSPP MM BIO 6: Worker Environmental Awareness Program (WEAP) 7) PSPP MM BIO 8: Impact Avoidance and Minimization Measures (e.g., 1. Limit disturbance areas; 2. Minimize road impacts; 3. Minimize traffic impacts; 4. Monitor during construction; 5. Minimize impacts of transmission/pipeline alignments, roads, and staging areas; 6. Avoid use of toxic substances; 7. Minimize lighting impacts; 8. Minimize noise impacts; 12. Minimize standing water; 13. Dispose of road-killed animals; 14. Minimize spills of hazardous materials; 15. Worker guide-lines; 17. Monitor ground disturbing activities prior to pre-construction site mobilization; 18. Control unauthorized use of the project access roads; 20. Avoid spreading weeds) 8) PSPP MM BIO 12: Desert Tortoise Compensatory Mitigation 9) PSPP MM BIO 13: Raven Management Plan and Fee	The project owner and BLM shall verify that a bird and bat adaptive management program is implemented.	Project owner and BLM	During construction	Project owner and BLM

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	10) PSPP MM BIO 14: Weed Management Plan 11) PSPP MM BIO 15: Pre-Construction Nest Surveys and Avoidance Measures 12) PSPP MM BIO 16: Avian Protection Plan 13) PSPP MM BIO 18: Burrowing Owl Impact Avoidance, Minimization, and Compensation Measures 14) BIO 19: Special-Status Plant Impact Avoidance, Minimization and Compensation 15) PSPP MM BIO 21: Mitigation for Impacts to State Waters (e.g., 1. Acquire off-site state waters) 16) PSPP MM BIO 25: Golden Eagle Inventory and Monitoring 17) PSPP MM BIO 26: Evaporation Pond Netting and Monitoring 18) PSPP MM VIS 03: Temporary and Permanent Exterior Lighting (e.g., minimize visibility, minimize glare, minimize illumination) 19) PSPP MM VIS 04: Project Design (e.g., minimize the number of structures, reduce the amount of disturbed area) 20) APM 1: Designated Biologist 21) APM 2: Worker Education Program 22) APM 4: Integrated Weed Management Actions 23) APM 6: Noise Controls for Special-Status Species 24) APM 7: Standard Practices to Protect Special Status Species (e.g., prohibition of domestic pets) 25) APM 16: Bendire's Thrasher Monitoring 26) APM 17: Passive Burrow Exclusion 27) APM 18: Golden Eagle Nest Avoidance 28) APM 19: Golden Eagle Compensation 29) APM 20: Contribution to Golden Eagle Monitoring Program 30) APM 42: Manage Visual Resources as VRM Class IV 31) APM 45: Visual Design Standards 32) APM 46: Required Visual Resource BMPs ii. Tier 2 Measures. If Tier 1 measures do not achieve the performance standards described above, the monitoring results of the Project, as well as those of other PV projects and the results of their respective impact reduction efforts, will be analyzed to formulate additional impact reduction measures to achieve the performance standards. Such measures may include, but not be limited to: 1) Use of a secure cover or floating, high-density plastic balls to cover construction ponds, as recommended by the Federal Avian Administration's "Wildlife Hazard Management at Airports" manual. 2) Passive avian diverter installations along the perimeter or at other locations within the Project to reduce or minimize bird use of the site.				

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	3) The use of sound, light or other means to discourage site use consistent with applicable legal requirements. 4) Onsite habitat management or prey control measures consistent with applicable legal requirements. 5) Modifications to support structures or other facilities to exclude nesting birds (e.g., netting or shielding around framework; capping open pipes or tubing). iii. Tier 3 Measures. In the event Tier 1 and Tier 2 avoidance and minimization measures do not meet the above performance standards, or upon election of the Project owner, the Project owner shall implement compensatory mitigation on terms and at ratios deemed appropriate by BLM, USFWS and/or CDFW to meet the performance standard applicable to the species in question. Such measures shall be approved by BLM, USFWS and/or CDFW and may include, but not be limited to: 1) Restoration of degraded off-site habitat with native vegetation. 2) Restoration of off-site agricultural fields to bird habitat. 3) Management of off-site agricultural fields to enhance bird populations. 4) Retrofitting of structures to minimize collisions. 5) Support for avian and bat research and/or management efforts conducted by entities approved by the USFWS and CDFW within the Project's mitigation lands or other approved locations. 6) Funding efforts to address avian diseases or depredation due to the expansion of predators in response to anthropomorphic subsidies that may adversely affect birds that use the mitigation lands or other approved locations. 7) Contributions to the Migratory Bird Conservation Fund managed by the Migratory Bird Conservation Commission.				
Impact WIL-1: The Project could have a substantial adverse direct or indirect effect on any candidate, sensitive, or special-status species identified by local, state, or federal agencies.	**MM WIL-1. Desert Tortoise Protection.** The Project Owner must undertake appropriate measures to manage the construction site and related facilities in a manner to avoid or minimize impacts to desert tortoise. Methods for clearance surveys, fence specification and installation, tortoise handling, artificial burrow construction, egg handling and other procedures must be consistent with those described in the USFWS 2013 Desert Tortoise Field Manual (https://www.fws.gov/carlsbad/PalmSprings/DesertTortoise.html) or more current guidance provided by CDFW and USFWS. The Project Owner must also implement all terms and conditions described in the Biological Opinion prepared by USFWS. These measures include, but are not limited to, the following: 1. **Desert Tortoise Fencing along Interstate 10.** If, in coordination with FWS and DFW during the development of a translocation plan, it is necessary to prevent an increased risk of vehicle-related mortality to translocated tortoise desert, the Project Owner must install tortoise-proof fencing along the existing freeway right-of-way fencing, on both sides of I 10, for the entire east-west dimension of the project configuration or another locally-important area identified by BLM in coordination with USFWS and CDFW. The Project Owner must design the tortoise fencing to	BLM shall verify that measures are taken to avoid or minimize impacts to desert tortoise.	BLM	During construction	BLM

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	direct tortoises to existing undercrossing to provide safe passage under the freeway (as applicable), and must regularly inspect and maintain it for the life of the Project. Should the BLM determine the completion of this is impractical (e.g., construction logistics, securing agreement with Caltrans, etc.), the BLM may substitute another project or location with equivalent desert tortoise benefit. 2. **Desert Tortoise Exclusion Fence Installation.** To avoid impacts to desert tortoises, the Project Owner must install permanent desert tortoise exclusion fencing in areas likely to be used by desert tortoise (e.g., not the sandfields) along the permanent perimeter security fence and temporarily installed along the utility corridors. The Project Owner must flag and survey the proposed alignments for the permanent perimeter fence and utility rights-of-way fencing within 24 hours prior to the initiation of fence construction. The Designated Biologist(s) must conduct clearance surveys of the perimeter fence and utility rights-of-way alignments using techniques outlined in the USFWS 2013 Desert Tortoise Field Manual and may conduct the surveys in any season with USFWS and CDFW approval. Biological Monitors may assist the Designated Biologist, under his or her supervision. These fence clearance surveys must provide 100 percent coverage of all areas to be disturbed and an additional transect along both sides of the fence line. This fence line transect must cover an area approximately 90 feet wide centered on the fence alignment. Transects must be no greater than 15 feet apart. Biological Monitors must examine all desert tortoise burrows, and burrows constructed by other species that might be used by desert tortoises, to assess occupancy of each burrow by desert tortoises and must handle them in accordance with the USFWS 2013 Desert Tortoise Field Manual. The Designated Biologist(s) must handle any desert tortoise located during fence clearance surveys in accordance with the USFWS 2013 Desert Tortoise Field Manual. ▪ **Timing, Supervision of Fence Installation.** The Project Owner must install the exclusion fencing prior to the onset of site clearing and grubbing. The Designated Biologist will supervise fence installation and the Biological Monitors will monitor it to ensure the safety of any tortoise present. ▪ **Fence Material and Installation.** The Project Owner must construct permanent tortoise exclusionary fencing in accordance with the USFWS 2013 Desert Tortoise Field Manual (Chapter 8 – Desert Tortoise Exclusion Fence). ▪ **Security Gates.** Design security gates with minimal ground clearance to deter ingress by tortoises. The Project Owner may electronically activate the gate to open and close immediately after the vehicle(s) have entered or exited to prevent the gates from being kept open for long periods of time. The Project Owner must install cattle grating designed to safely exclude desert tortoise at the gated entries to discourage tortoises from gaining entry. ▪ **Fence Inspections.** Inspect fencing regularly following installation of the desert tortoise exclusion fencing for both the permanent site fencing and temporary fencing in the utility corridors. If tortoise were moved out of harm's way during fence construction, inspect permanent and temporary fencing at least two times a day for the first 7 days to ensure a recently moved tortoise has not been trapped within the fence. Thereafter, inspect permanent fencing monthly and during and within 24 hours following all major rainfall events. The BLM				

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	defines a major rainfall event as one for which flow is detectable within the fenced drainage. The Project Owner must temporarily repair any damage to the fencing immediately to keep tortoises out of the site, and permanently repair the fencing within 48 hours of observing damage. Inspect permanent site fencing for the life of the Project. Inspect temporary fencing weekly and, where drainages intersect the fencing during and within 24 hours following major rainfall events. Repair all damaged temporary fencing immediately upon discovery and, if the fence may have permitted tortoise entry while damaged, the Designated Biologist must inspect the area for tortoise. 3. **Desert Tortoise Clearance Surveys within the Plant Site.** Conduct clearance surveys in accordance with the USFWS Desert Tortoise Field Manual (USFWS, 2013) (Chapter 6 – Clearance Survey Protocol for the Desert Tortoise – Mojave Population) and consisting of two surveys covering 100 percent the project area by walking transects no more than 15 feet apart. If the biologists locate a desert tortoise on the second survey, conduct a third survey. If the only desert tortoise located on the second survey is hatchling-size, the biologist may modify or reduce the requirement for a third full-coverage survey in consultation with the BLM AO, USFWS, and CDFW to focus on a more limited area, where additional hatchlings could be found. Walk each separate survey in a different direction to allow opposing angles of observation. Conduct clearance surveys of the project site only when tortoises are most active (April through May or September through October) unless the Project receives approval from CDFW and USFWS. Conduct clearance surveys of linear features during any time of the year. Translocate or relocate and monitor any tortoise located during clearance surveys of the power plant site and linear features in accordance with the project's Desert Tortoise Relocation/Translocation Plan: ▪ **Burrow Searches.** During clearance surveys, the Designated Biologist must examine all desert tortoise burrows, and burrows constructed by other species that might be used by desert tortoises, who may be assisted by the Biological Monitors, to assess occupancy of each burrow by desert tortoises and handled in accordance with the USFWS Desert Tortoise Field Manual (USFWS, 2013). To prevent re-entry by a tortoise or other wildlife, collapse all burrows once absence has been determined in accordance with the Desert Tortoise Relocation/Translocation Plan. Relocate or translocate tortoises taken from burrows and from elsewhere on the power plant site as described in the Desert Tortoise Relocation/Translocation Plan. ▪ **Burrow Excavation/Handling.** Excavate by hand all potential desert tortoise burrows located during clearance surveys, remove tortoises, and collapse or block them to prevent occupation by desert tortoises in accordance with the Desert Tortoise Relocation/Translocation Plan. The Designated Biologist must conduct all desert tortoise handling, and removal, and burrow excavations, including nests, a Biological Monitor may assist in accordance with the USFWS Desert Tortoise Field Manual (USFWS, 2013). 4. **Monitoring Following Clearing.** Following the desert tortoise clearance and removal from the power plant site and utility corridors, allow workers and heavy equipment to enter the project site to perform clearing, grubbing, leveling, and trenching activities. A Designated Biologist or Biological Monitor must be on the site for clearing and grading activities to monitor for any potential tortoises missed during the initial tortoise clearance survey. Should a tortoise be				

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	discovered, a USFWS Authorized Biologist must relocate or translocate it as described in the Desert Tortoise Relocation/Translocation Plan. 5. **Reporting.** The Designated Biologist must record the following information for any desert tortoises handled: (a) the locations (narrative and maps) and dates of observation; (b) general condition and health, including injuries, state of healing and whether desert tortoise voided their bladders; (c) location moved from and location moved to (using GPS technology); (d) gender, carapace length, and diagnostic markings (i.e., identification numbers or marked lateral scutes); (e) ambient temperature when handled and released; and (f) digital photograph of each handled desert. Mark and monitor desert tortoise moved from within project areas in accordance with the Desert Tortoise Relocation/Translocation Plan.				
	MM WIL-2. Desert Tortoise Relocation/Translocation Plan. The Project Owner must develop and implement a final Desert Tortoise Relocation/Translocation Plan (Plan) consistent with current USFWS approved guidelines, and that meets the approval of the BLM AO. The Plan must include measures to minimize the potential for repeated translocations of individual desert tortoises. The goals of the Desert Tortoise Relocation/Translocation Plan must be to: relocate/translocate all desert tortoises from the project site to nearby suitable habitat; minimize impacts on resident desert tortoises outside the project site; minimize stress, disturbance, and injuries to relocated/translocated tortoises; and assess the success of the translocation effort through monitoring. Base the final Plan on the draft Desert Tortoise Relocation/Translocation Plan prepared by the former Applicant (AECOM, 2010a, Attachment DR-BIO-55) and include all revisions deemed necessary by BLM, USFWS, and CDFW.	BLM AO shall verify that a Desert Tortoise Relocation/Translocation Plan is submitted and approved.	BLM	Prior to construction	BLM
	MM WIL-3. Desert Tortoise Compliance Verification. The Project Owner must provide BLM, CDFW and USFWS staff with reasonable access to the project site and compensation lands under the control of the Project Owner and must otherwise fully cooperate with the County's and BLM's efforts to verify the Project Owner's compliance with, or the effectiveness of, mitigation measures. The Designated Biologist must do all of the following: 1. **Notification.** Notify the BLM AO at least 14 calendar days before initiating construction-related ground disturbance activities; immediately notify the BLM AO in writing if the Project Owner is not in compliance with any conditions of certification, including but not limited to any actual or anticipated failure to implement mitigation measures within the time periods specified; 2. **Monitoring During Grubbing and Grading.** Remain on site daily while vegetation salvage, grubbing, grading and other ground-disturbance construction activities are taking place to avoid or minimize take of listed species, and verify personally or use Biological Monitors to check for compliance with all impact avoidance and minimization measures, including checking all exclusion zones to ensure that signs, stakes, and fencing are intact and that human activities are restricted in these protective zones. 3. **Monthly Compliance Inspections.** Conduct compliance inspections at a minimum of once per month after clearing, grubbing, and grading are completed and submit a monthly compliance report to the BLM, USFWS and CDFW during construction. 4. **Notification of Injured or Dead Listed Species.** If an injured or dead listed species is detected within or near the project disturbance area, notify the BLM, the Ontario Office of CDFW, and the	BLM, CDFW, and USFWS shall verify that reasonable access to the project site and compensation lands are provided.	BLM, CDFW, USFWS, and Riverside County	During construction	BLM, CDFW, USFWS, and Riverside County

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Resource Area / Environmental Impact	APMs / Mitigation Measures	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification Approval Party
	Palm Springs Office of USFWS immediately by phone. Notification must occur no later than noon on the business day following the event if it occurs outside normal business hours so that the agencies can determine if further actions are required to protect listed species. Submit written follow-up notification via FAX or electronic communication to these agencies within two calendar days of the incident and include the following information as relevant: a. **Injured Desert Tortoise.** If a desert tortoise is injured as a result of project-related activities during construction, the Designated Biologist must immediately take it to a CDFW-approved wildlife rehabilitation and/or veterinarian clinic. The Project Owner must pay any veterinarian bills for such injured animals. Following phone notification as required above, the BLM, CDFW, and USFWS must determine the final disposition of the injured animal, if it recovers. Written notification must include, at a minimum, the date, time, and location, circumstances of the incident, and the name of the facility where the animal was taken. b. **Desert Tortoise Fatality.** If a desert tortoise is killed by project-related activities during construction or operation, the Project Owner must submit a written report with the same information as an injury report to the BLM, the Ontario Office of CDFW, and the Palm Springs Office of USFWS. Salvage desert tortoises according to guidelines described in *Salvaging Injured, Recently Dead, Ill, and Dying Wild, Free-Roaming Desert Tortoise* (Berry, 2001). The Project Owner must pay to have the desert tortoises transported and necropsied. The report must include the date and time of the finding or incident. 5. **Final Listed Species Report.** The Designated Biologist must provide the BLM AO a Final Listed Species Mitigation Report that includes, at a minimum: (1) a copy of the table in the BRMIMP with notes showing when each of the mitigation measures was implemented; (2) all available information about project-related incidental take of listed species; (3) information about other project impacts on the listed species; (4) construction dates; (5) an assessment of the effectiveness of mitigation measures in minimizing and compensating for Project impacts; (6) recommendations on how mitigation measures might be changed to more effectively minimize and mitigate the impacts of future Projects on the listed species; and (7) any other pertinent information, including the level of take of the listed species associated with the Project. 6. **Stop Work Order.** The BLM AO may issue the Project Owner a written stop work order to suspend any activity related to the construction or operation of the Project to prevent or remedy a violation of one or more conditions of certification (including but not limited to failure to comply with reporting, monitoring, or habitat acquisition and/or restoration obligations) or to prevent the illegal take of an endangered, threatened, or candidate species. The Project Owner must comply with the stop work order immediately upon receipt thereof.				
	MM WIL-4. See Impact VEG-2 above.	See MM WIL-4 above.	See MM WIL-4 above.	See MM WIL-4 above.	See MM WIL-4 above.
	MM WIL-5. Raven Management Plan and Fee. The Project Owner must implement a Raven Monitoring, Management, and Control Plan (Raven Plan) that is consistent with the most current USFWS-approved raven management guidelines, and which meets the approval of the BLM AO, in consultation with USFWS and CDFW. The draft Common Raven Monitoring, Management, and	BLM AO shall verify that a Raven Monitoring,	BLM	Prior to construction	BLM

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	Control Plan submitted by the former Applicant (AECOM, 2010a, Attachment DR-BIO-57) must provide the basis for the final Raven Plan, subject to review, revisions and approval from the BLM AO, CDFW, and USFWS. The Raven Plan must include but not be limited to a program to monitor raven presence in the project vicinity, determine if raven numbers are increasing, and to implement raven control measures as needed based on that monitoring. The purpose of the plan is to avoid any project-related increases in raven numbers during construction, operation, and decommissioning. In addition, the Project Owner must also provide funding for implementation of the USFWS Regional Raven Management Program, as described below. 1. The Raven Plan shall: a. Identify conditions associated with the Project that might provide raven subsidies or attractants; **c.** Describe management practices to avoid or minimize conditions that might increase raven numbers and predatory activities; **d.** Describe control practices for ravens; **e.** Establish thresholds that would trigger implementation of control practices; **f.** Address monitoring and nest removal during construction and for the life of the Project, and; **g.** Discuss reporting requirements. 2. **USFWS Regional Raven Management Program.** The Project Owner must submit payment to the project sub-account of the REAT Account held by the National Fish and Wildlife Foundation (NFWF) to support the USFWS Regional Raven Management Program. Describe the one-time fee as by the USFWS in the *Renewable Energy Development and Common Raven Predation on the Desert Tortoise – Summary,* dated May 2010 (USFWS, 2010a) and the Cost Allocation Methodology for Implementation of the Regional Raven Management Plan, dated July 9, 2010) or more current guidance as provided by USFWS or CDFW (USFWS, 2010b).	Management, and Control Plan is submitted and approved.			
	MM WIL-6. Pre-construction Nest Surveys and Avoidance Measures. Conduct pre-construction nest surveys if construction activities would occur from February 1 through July 31. The Designated Biologist or Biological Monitor conducting the surveys must be experienced bird surveyors familiar with standard nest-locating techniques such as those described in Martin and Guepel (1993). The goal of the nesting surveys must be to identify the general location of the nest sites, sufficient to establish a protective buffer zone around the potential nest site, and need not include identification of the precise nest locations. Surveyors performing nest surveys must not concurrently conduct desert tortoise or any other surveys. The bird surveyors must perform surveys in accordance with the following guidelines: 1. Surveys must cover all potential nesting habitat in areas that could be disturbed by construction. Surveys must also include areas within 500 feet of the boundaries of the active construction areas (including linear facilities); 2. Conduct at least two pre-construction surveys, separated by a minimum 10 day interval. Conduct one of the surveys within the 14 day period preceding initiation of construction activity. The agencies may require additional follow-up surveys if periods of construction inactivity exceed	BLM shall verify that pre-construction nest surveys and avoidance measures are implemented.	BLM	Prior to construction	BLM

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Resource Area / Environmental Impact	APMs / Mitigation Measures	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification Approval Party
	three weeks, an interval during which birds may establish a nesting territory and initiate egg laying and incubation; 3. If the surveys detect active nests or suspected active nests, develop a buffer zone (protected area surrounding the nest, the size of which is to be determined by the Designated Biologist in consultation with CDFW) and monitoring plan to avoid or minimize construction-related disturbance at any active nests throughout the nesting season. Map and submit nest locations, along with a report stating the survey results to the BLM AO; and 4. The Designated Biologist or Biological Monitor must monitor the nest until he or she determines that nestlings have fledged and dispersed; prohibit activities that might, in the opinion of the Designated Biologist, disturb nesting activities, within the buffer zone until such a determination is made.				
	MM WIL-7. Bird and Bat Conservation Strategy (BBCS). The Project Owner must prepare and implement a BBCS to monitor the death and injury of birds from collisions with facility features such as transmission lines solar panels, and other project facilities. Use the monitoring data to inform an adaptive management program that would avoid and minimize project-related avian impacts. The BLM in consultation with CDFW and USFWS must approve the study design, consistent with guidance from the USFWS on development of BBCSs. Incorporate and implement the monitoring and adaptive management measures described in the BBCS into the Project's BRMIMP. The BBCS must include detailed specifications on data and carcass collection protocol and a rationale justifying the proposed schedule of carcass searches. The plan must also include seasonal trials to assess bias from carcass removal by scavengers as well as searcher bias. The BBCS must also address recent developments in understanding and mitigating for the lake effect.	BLM shall verify that a BBCS is submitted and approved.	BLM	Prior to construction	BLM
	MM WIL-8. American Badger and Desert Kit Fox Impact Avoidance and Minimization Measures. To avoid direct impacts to American badgers and desert kit fox, conduct pre-construction surveys for these species concurrent with the desert tortoise surveys to facilitate passive relocation. Conduct surveys as described below: 1. Biological Monitors must perform pre-construction surveys for badger and kit fox dens in the project disturbance area and a 20 foot buffer beyond the project disturbance area, including utility corridors and access roads. If dens are detected, classify each den as inactive, potentially active, or definitely active. Surveys may be concurrent with desert tortoise surveys. 2. Excavate inactive dens that would be directly impacted by construction activities by hand and backfill them to prevent reuse by badgers or kit fox. 3. A Biological Monitor must monitor potentially active dens that would be directly impacted by construction activities for three consecutive nights using a tracking medium (such as diatomaceous earth or fire clay) and/or infrared camera stations at the entrance. 4. If no tracks are observed in the tracking medium or no photos of the target species are captured after three nights, consider the den inactive, and excavate it and backfill it by hand.	BLM shall verify that pre-construction surveys are conducted for American badgers and desert kit fox.	BLM	Prior to construction	BLM

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Resource Area / Environmental Impact	APMs / Mitigation Measures	Monitoring Method	Responsible Monitoring Party	Monitoring Phase	Verification Approval Party
	5. If tracks are observed, consider the den active. Flag active or potentially active dens and project activities, with exceptions as listed below, avoid project activities within 100 feet (non-natal dens) or 500 feet (natal dens or any active den during the breeding season). Allow ingress/egress of construction vehicles and equipment through buffers and low intensity activities such as inspections within buffers, provided a qualified biologist determines that these activities will not impact dens or denning animals. Buffers may be modified with concurrence of BLM, in consultation with CDFW and USFWS. 6. Record all kit fox observations on a log sheet with notes regarding kit fox activity and any evidence of ill health. Provide the kit fox observation log sheet to the BLM, CDFW, and USFWS in regular monitoring reports consistent with Mitigation Measure VEG-7 (Biological Resources Mitigation Implementation and Monitoring Plan).				
	MM WIL-9: Burrowing Owl Impact Avoidance, Minimization, and Compensation Measures. The Project Owner must implement the following measures to avoid, minimize and offset impacts to burrowing owls: 1. **Pre-Construction Surveys.** The Designated Biologist or Biological Monitor must conduct pre-construction surveys for burrowing owls no more than 30 days prior to initiation of construction activities. Focus surveys exclusively on detecting burrowing owls, and conduct them from two hours before sunset to 1 hour after or from 1 hour before to 2 hours after sunrise. The survey area must include the project disturbance area and surrounding 500 foot survey buffer. 2. **Implement Burrowing Owl Mitigation Plan.** The Project Owner must implement measures described in the final Burrowing Owl Mitigation Plan. The final Burrowing Owl Mitigation Plan must follow the recommendations of CDFW's 2012 Staff Report on Burrowing Owl Mitigation, be approved by the BLM AO, in consultation with USFWS and CDFW, and must: a. identify suitable sites within 1 mile of the project disturbance areas for creation of artificial burrows or enhancement of existing burrows prior to passive relocation efforts; b. provide guidelines for creation or enhancement of at least two natural or artificial burrows per relocated owl; c. provide detailed methods and guidance for passive relocation of burrowing owls occurring within the project disturbance area; d. require that passive relocation will take place only during the non-breeding season (September 1 to February 1); and e. describe monitoring and management of the passive relocation effort, including the created or enhanced burrow location and the project area where burrowing owls were relocated from, and provide a reporting plan. 3. **Implement Avoidance Measures** If an active burrowing owl burrow is detected within 500 feet from the project disturbance area, implement the following avoidance and minimization measures: a. Establish Non-Disturbance Buffer. Install fencing at a 250-foot radius from the occupied burrow to create a non-disturbance buffer around the burrow. The project may reduce the non-	BLM shall verify that avoidance, minimization, and compensation measures are implemented for burrowing owl.	BLM	Prior to construction	BLM

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	disturbance buffer and fence line to 160 feet if all project-related activities that might disturb burrowing owls would be conducted during the non-breeding season (September 1 through January 31). Post signs in English and Spanish at the fence line indicating no entry or disturbance is permitted within the fenced buffer. b. Monitoring. If construction activities would occur within 500 feet of the occupied burrow during the nesting season (February 1 to August 31) the Designated Biologist or Biological Monitor must monitor to determine if these activities have potential to adversely affect nesting efforts, and must make recommendations to minimize or avoid such disturbance. 4. **Acquire Burrowing Owl Habitat.** The Project Owner must acquire, in fee or in easement land suitable to support a resident population of burrowing owls and must provide funding for the enhancement and long-term management of these compensation lands. The Project Owner may delegate responsibilities for acquisition and management of the compensation lands by written agreement to CDFW or to a third party, such as a non-governmental organization dedicated to habitat conservation, subject to approval by the BLM AO, in consultation with CDFW and USFWS prior to land acquisition or management activities. Base additional funds on the adjusted market value of compensation lands at the time of construction to acquire and manage habitat. a. **Criteria for Burrowing Owl Mitigation Lands.** The terms and conditions of this acquisition or easement must be as described in Mitigation Measure WIL-4 (Desert Tortoise Compensatory Mitigation), with the additional criteria to include: (1) mitigation land that must provide suitable habitat for burrowing owls, and (2) the acquisition lands must either currently support burrowing owls or be no farther than 5 miles from an active burrowing owl nesting territory. The Project Owner may include the burrowing owl mitigation lands with the desert tortoise mitigation lands ONLY if these two burrowing owl criteria are met. If the burrowing owl mitigation land is separate from the acreage required for desert tortoise compensation lands, the Project Owner must fulfill the requirements described below in this condition. b. **Security.** If the burrowing owl mitigation land is separate from the acreage required for desert tortoise compensation lands the Project Owner or an approved third party must complete acquisition of the proposed compensation lands within the time period specified for this acquisition (see the verification section at the end of this condition). Alternatively, the Project Owner can provide financial assurance to the CDFW, according to the measures outlined in Mitigation Measure Mitigation Measure WIL 4. Use these funds solely for implementation of the measures associated with the Project. The Project Owner can provide financial assurance to the CDFW in the form of an irrevocable letter of credit, a pledged savings account or another form of security ("Security") prior to initiating ground-disturbing project activities. Prior to submittal, the BLM AO must approve the Security, in consultation with CDFW and the USFWS to ensure funding. An updated appraisal and PAR analysis conducted as described in Mitigation Measure WIL-4 will determine the final amount due. CDFW's 2012 Staff Report on Burrowing Owl Mitigation must control to the extent the provisions of this measure conflict with it.				

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	MM WIL-10. See Impact VEG-1 above.	See MM WIL-10 above.	See MM WIL-10 above.	See MM WIL-10 above.	See MM WIL-10 above.
	MM WIL-11. Golden Eagle Inventory and Monitoring. The Project Owner must implement the following measures to avoid or minimize project-related construction impacts to golden eagles. 1. **Annual Inventory during Construction.** For each calendar year during which construction will occur conduct an inventory to determine if golden eagle territories occur within one mile of the project boundaries. Survey methods for the inventory must follow in the Interim Golden Eagle Inventory and Monitoring Protocols; and Other Recommendations (Pagel et al., 2010) or more current guidance from the USFWS. 2. **Inventory Data.** Data collected during the inventory must include at least the following: territory status (unknown, vacant, occupied, breeding successful, breeding unsuccessful); nest location, nest elevation; age class of golden eagles observed; nesting chronology; number of young at each visit; digital photographs; and substrate upon which nest is placed. 3. **Determination of Unoccupied Territory Status.** Consider a nesting territory or inventoried habitat unoccupied by golden eagles for the current breeding season ONLY after completing at least 2 full surveys in a single breeding season. In circumstances where ground observation occurs rather than aerial surveys, at least 2 ground observation periods lasting at least 4 hours or more are necessary to designate an inventoried habitat or territory as unoccupied as long as all potential nest sites and alternate nests are visible and monitored. These observation periods must be at least 30 days apart for an inventory, and at least 30 days apart for monitoring of known territories. 4. **Monitoring and Adaptive Management Plan.** If an occupied nest is detected within one mile of the project boundaries, the Project Owner must prepare and implement a Golden Eagle Monitoring and Adaptive Management Plan for the duration of construction to ensure that project construction activities do not result in injury or disturbance to golden eagles. The monitoring methods must be consistent with those described in the Interim Golden Eagle Inventory and Monitoring Protocols; and Other Recommendations (Pagel et al., 2010) or more current guidance from the USFWS. Prepare the Monitoring and Management Plan in consultation with the USFWS. Triggers for adaptive management must include any evidence of project-related disturbance to nesting golden eagles, including but not limited to: agitation behavior (displacement, avoidance, and defense); increased vigilance behavior at nest sites; changes in foraging and feeding behavior, or nest site abandonment. The Monitoring and Adaptive Management Plan must include a description of adaptive management actions, which must include, but not be limited to, cessation of construction activities that are deemed by the Designated Biologist to be the source of golden eagle disturbance.	BLM shall verify that inventory and monitoring are implemented for golden eagle.	BLM	Prior to construction	BLM
	MM WIL-12. Water Tank Covers. During the construction, O&M, and decommissioning phases, the Project Owner must cover all open water storage tanks, immediately after installation and prior to adding water to the tanks, with a solid material (i.e., not netting) to exclude birds and other wildlife from becoming trapped in the tank while attempting to access the water. The BLM will review and approve the type of cover to be used prior to installation.	BLM shall verify that all open water storage tanks are covered.	BLM	During construction, operations, maintenance, and	BLM

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	1. **Monthly Monitoring.** Subject to applicable safety requirements, the Designated Biologist or Biological Monitors must regularly survey the tanks at least once per month starting with the first month of operation of the tanks. The purpose of the surveys are to determine if the tank covers are effective in excluding birds and wildlife, if the covers pose an entrapment hazard to birds and wildlife, and to assess the structural integrity of the covers. If safety requirements do not allow the Designated Biologist or Biological Monitor to survey the tanks, project construction or operations personnel will provide assistance as needed to accomplish the survey. 2. Operations staff at the project site must also report finding any dead or injured birds or other wildlife in or near the tanks to the Designated Biologist within 1 day of the detection of the carcass. 3. The Designated Biologists must report any bird or other wildlife deaths or injuries within 2 days of the discovery to the BLM AO, CDFW, and USFWS. 4. **Dead or Injured Birds.** If dead or injured birds are detected, the Designated Biologist must take immediate action to correct the source of mortality or entanglement. Project construction or operations personnel will provide assistance as needed to accomplish the remedial action. The Designated Biologist must make immediate efforts to contact and consult with the BLM AO, CDFW, and USFWS by phone and electronic communications prior to taking remedial action upon detection of the problem, but the inability to reach these parties must not delay taking action that would, in the judgment of the Designated Biologist, prevent further mortality of birds or other wildlife at the tanks. 5. **Quarterly Monitoring.** If after 12 consecutive monthly site visits, the Designated Biologist does not detect any bird or wildlife deaths or injuries nor are they reported, at the tanks, conduct monitoring, as described in Item 1 on a quarterly basis. 6. **Biannual Monitoring.** If after 12 consecutive quarterly site visits, the Designated Biologist does not detect any bird or wildlife deaths or injuries nor are they reported to him, and with approval from the BLM AO, USFWS, and CDFW, reduce future surveys to 2 surveys per year, during the spring nesting season and during fall migration. If approved by the BLM AO, USFWS, and CDFW, the Environmental Compliance Manager may monitor outside the nesting season. 7. **Modification of Monitoring Program.** BLM, CDFW, or USFWS may submit a request for modifications to the tank monitoring program based on information acquired during monitoring, and may also suggest adaptive management measures to remedy any problems that are detected during monitoring or modifications if bird impacts are not observed. Make modifications to the tank monitoring described above and implementation of adaptive management measures only after approval from the BLM AO, in consultation with USFWS and CDFW. If storage tanks no longer contain water, monitoring will continue unless alternative provision is made to ensure wildlife does not become trapped in the tank. Remove storage tanks no longer in use from the project site. Discontinue tank covers and monitoring only with approval of the BLM AO, USFWS, and CDFW.			decommissioning	
Impact WIL-2: The Project could interfere	**MM WIL-1.** See Impact WIL-1 above.	See MM WIL-1 above.	See MM WIL-1 above.	See MM WIL-1 above.	See MM WIL-1 above.

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substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.	**MM VEG-8.** See Impact VEG-1 above.	See MM VEG-8 above.	See MM VEG-8 above.	See MM VEG-8 above.	See MM VEG-8 above.
Impact WIL-4: The Project could conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state conservation plan in desert wash habitat.	**MM WIL-1 through MM WIL-12.** See Impact WIL-1 above.	See MM WIL-1 through WIL-12 above.	See MM WIL-1 through WIL-12 above.	See MM WIL-1 through WIL-12 above.	See MM WIL-1 through WIL-12 above.

Exhibit B

Applicant Proposed Measures

Palen Solar Project: Applicant Proposed Measures

The Applicant has committed to certain Applicant Proposed Measures (APMs) that would reduce or eliminate potential significant impacts when implemented as part of project construction or operation. The APMs are included in the project's mitigation monitoring and reporting plan because they are adopted to reduce the effects of the project. Many of the APMs were derived from the Conservation Management Actions included in the DRECP. The APMS are presented below, and, like the MMRP, are organized by their environmental discipline (rather than in numerical order):

Biological Resources

- APM-1: Designated biologist(s) will conduct, and oversee where appropriate, activity-specific required biological monitoring during pre-construction, construction, and decommissioning to ensure that avoidance and minimization measures are appropriately implemented and are effective. The appropriate required monitoring will be determined during the environmental analysis and BLM approval process. The designated biologist(s) will submit monitoring reports directly to BLM.
- APM-2: All activities, as determined appropriate on an activity-by-activity basis, will implement a worker education program that meets the approval of the BLM. The program will be carried out during all phases of the Project (site mobilization, ground disturbance, grading, construction, operation, closure/decommissioning or project abandonment, and restoration/reclamation activities). The worker education program will provide interpretation for non-English speaking workers, and provide the same instruction for new workers prior to their working on site. As appropriate based on the activity, the program will contain information about:
  - Site-specific biological and nonbiological resources.
  - Information on the legal protection for protected resources and penalties for violation of federal and state laws and administrative sanctions for failure to comply with project-specific requirements intended to protect site-specific biological and nonbiological resources.
  - The required project-specific measures for avoiding and minimizing effects during all project phases, including but not limited to resource setbacks, trash, speed limits, etc.
  - Reporting requirements and measures to follow if protected resources are encountered, including potential work stoppage and requirements for notification of the designated biologist.
  - Measures that personnel can take to promote the conservation of biological and nonbiological resources.
- APM-3: All activities that are required to close and decommission the site (e.g., renewable energy activities) will specify and implement project-specific closure and decommissioning actions that meet the approval of BLM, and that at a minimum address the following:
  - Specifying and implementing the methods, timing (e.g., criteria for triggering closure and decommissioning actions), and criteria for success (including quantifiable and measurable criteria).
  - Recontouring of areas that were substantially altered from their original contour or gradient and installing erosion control measures in disturbed areas where potential for erosion exists.

- Restoring vegetation as well as soil profiles and functions that will support and maintain native plant communities, associated carbon sequestration and nutrient cycling processes, and native wildlife species.
- Vegetation restoration actions will identify and use native vegetation composition, native seed composition, and the diversity to values commensurate with the natural ecological setting and climate projections.

- APM-4: Consistent with BLM state and national policies and guidance, integrated weed management actions, will be carried out during all phases of activities, as appropriate, and at a minimum will include the following:
  - Thoroughly clean the tires and undercarriage of vehicles entering or reentering the project site to remove potential weeds.
  - Store project vehicles on site in designated areas to minimize the need for multiple washings whenever vehicles re-enter the project site.
  - Properly maintain vehicle wash and inspection stations to minimize the introduction of invasive weeds or subsidy of invasive weeds.
  - Closely monitor the types of materials brought onto the site to avoid the introduction of invasive weeds and non-native species.
  - Reestablish native vegetation quickly on disturbed sites.
  - Monitor and quickly implement control measures to ensure early detection and eradication of weed invasions to avoid the spread of invasive weeds and non-native species on site and to adjacent off-site areas.
  - Use certified weed-free mulch, straw, hay bales, or equivalent fabricated materials for installing sediment barriers.
- APM-5: Implement the following measures for controlling nuisance animals and invasive species:
  - No fumigant, treated bait, or other means of poisoning nuisance animals including rodenticides will be used in areas where Focus and BLM Special Status Species are known or suspected to occur.
  - Manage the use of widely spread herbicides and do not apply herbicides effective against dicotyledonous plants within 1,000 feet from the edge of a 100-year floodplain, stream and wash channels, and riparian vegetation or to soils less than 25 feet from the edge of drains. Exceptions will be made when targeting the base and roots of invasive riparian species such as tamarisk and Arundo donax (giant reed). Manage herbicides consistent with the most current national and California BLM policies.
  - Minimize herbicide, pesticide, and insecticide treatment in areas that have a high risk for groundwater contamination.
  - Clean and dispose of pesticide containers and equipment following professional standards. Avoid use of pesticides and cleaning containers and equipment in or near surface or subsurface water.
  - When near surface or subsurface water, restrict pesticide use to those products labeled safe for use in/near water and safe for aquatic species of animals and plants.

- APM-6: For activities that may impact Focus or BLM Special Status Species, implement the following measures for noise:
  - To the extent feasible, and determined necessary by BLM to protect Focus and BLM sensitive wildlife species, locate stationary noise sources that exceed background ambient noise levels away from known or likely locations of and BLM sensitive wildlife species and their suitable habitat.
  - Implement engineering controls on stationary equipment, buildings, and work areas including sound-insulation and noise enclosures to reduce the average noise level, if the activity will contribute to noise levels above existing background ambient levels.
  - Use noise controls on standard construction equipment including mufflers to reduce noise.
- APM-7: Implement the following general standard practices to protect Focus and BLM Special Status Species:
  - Feeding of wildlife, leaving of food or trash as an attractive nuisance to wildlife, collection of native plants, or harassing of wildlife on a site is prohibited.
  - Any wildlife encountered during the course of an activity, including construction, operation, and decommissioning will be allowed to leave the area unharmed.
  - Domestic pets are prohibited on sites. This prohibition does not apply to the use of domestic animals (e.g., dogs) that may be used to aid in official and approved monitoring procedures/ protocols, or service animals (dogs) under Title II and Title III of the American with Disabilities Act.
  - All construction materials will be visually checked for the presence of wildlife prior to their movement or use. Any wildlife encountered during the course of these inspections will be allowed to leave the construction area unharmed.
  - All steep-walled trenches or excavations used during the Project will be covered, except when being actively used, to prevent entrapment of wildlife. If trenches cannot be covered, they will be constructed with escape ramps, following up-to-date design standards to facilitate and allow wildlife to exit, or wildlife exclusion fencing will be installed around the trench(s) or excavation(s). Open trenches or other excavations will be inspected by a designated biologist immediately before backfilling, excavation, or other earthwork.
  - Minimize natural vegetation removal through implementation of crush and drive or cut or mow vegetation rather than removing entirely.
- APM-8: Use state-of-the-art, as approved by BLM, construction and installation techniques, appropriate for the specific activity/project and site, that minimize new site disturbance, soil erosion and deposition, soil compaction, disturbance to topography, and removal of vegetation.
- APM-9: If suitable habitat characteristics are identified during the habitat assessment, clearance surveys for Mojave fringe-toed lizard will be performed in suitable habitat areas.
- APM-10: In areas where protocol and clearance surveys are required, prior to construction or commencement of any long-term activity that is likely to adversely affect desert tortoises, desert tortoise exclusion fencing shall be installed around the perimeter of the activity footprint in accordance with the Desert Tortoise Field Manual (USFWS, 2009) or most up-to-date U.S. Fish and Wildlife Service (USFWS) protocol.

Additionally, short-term desert tortoise exclusion fencing will be installed around short-term construction and/or activity areas (e.g., staging areas, storage yards, excavations, and linear facilities), as appropriate, per the Desert Tortoise Field Manual (USFWS, 2009) or most up-to-date USFWS protocol.

- Exemption from desert tortoise protocol survey requirements can be obtained from BLM, in coordination with USFWS, and CDFW as applicable, on a case-by-case basis if a designated biologist determines the activity site does not contain the elements of desert tortoise habitat, is unviable for occupancy, or if baseline studies inferred absence during the current or previous active season.
- Construction of desert tortoise exclusion fences will occur during the time of year when tortoise are less active in order to minimize impacts and to accommodate subsequent desert tortoise surveys. Any exemption or modification of desert tortoise exclusion fencing requirements will be based on the specifics of the activity and the site-specific population and habitat parameters. Sites with low population density and disturbed, fragmented, or poor habitat are likely to be candidates for fencing requirement exemptions or modifications. Substitute measures, such as on-site biological monitors in the place of the fencing requirement, may be required, as appropriate.
- After an area is fenced, and until desert tortoises are removed, the designated biologist is responsible for ensuring that desert tortoises are not being exposed to extreme temperatures or predators as a result of their pacing the fence. Remedies may include the use of shelter sites placed along the fence, immediate translocation, removal to a secure holding area, or other means determined by the BLM, USFWS, and CDFW, as applicable.
- Modification or elimination of the above requirement may also be approved if the activity design will allow retention of desert tortoise habitat within the footprint. If such a modification is approved, modified protective measures may be required to minimize impacts to desert tortoises that may reside within the activity area.
- Immediately prior to desert tortoise exclusion fence construction, a designated biologist will conduct a clearance survey of the fence alignment to clear desert tortoises from the proposed fence line's path.
- All desert tortoise exclusion fencing will incorporate desert tortoise proof gates or other approved barriers to prevent access of desert tortoises to work sites through access road entry points.
- Following installation, long-term desert tortoise exclusion fencing will be inspected for damage quarterly and within 48 hours of a surface flow of water due to a rain event that may damage the fencing.
- All damage to long-term or short-term desert tortoise exclusion fencing will be immediately blocked to prevent desert tortoise access and repaired within 72 hours.

- APM-11: Following the clearance surveys within sites that are fenced with long-term desert tortoise exclusion fencing a designated biologist will monitor initial clearing and grading activities to ensure that desert tortoises missed during the initial clearance survey are moved from harm's way.

A designated biologist will inspect construction pipes, culverts, or similar structures: (a) with a diameter greater than 3 inches, (b) stored for one or more nights, (c) less than 8 inches above-ground and (d) within desert tortoise habitat (such as, outside the long-term fenced area), before the materials are moved, buried, or capped.

As an alternative, such materials shall be capped before storing outside the fenced area or placing on pipe racks. Pipes stored within the long-term fenced area after completing desert tortoise clearance surveys will not require inspection.

- APM-12: When working in areas where protocol or clearance surveys are required, biological monitoring will occur with any geotechnical boring or geotechnical boring vehicle movement to ensure no desert tortoises are killed or burrows are crushed.
- APM-13: A designated biologist will accompany any geotechnical testing equipment to ensure no tortoises are killed and no burrows are crushed.
- APM-14: Inspect the ground under the vehicle for the presence of desert tortoise any time a vehicle or construction equipment is parked in desert tortoise habitat outside of areas fenced with desert tortoise exclusion fencing. If a desert tortoise is seen, it may move on its own. If it does not move within 15 minutes, a designated biologist may remove and relocate the animal to a safe location.
- APM-15: Vehicular traffic will not exceed 15 miles per hour within the areas not cleared by protocol level surveys where desert tortoise may be impacted.
- APM-16: If Bendire's thrasher is present, conduct appropriate activity-specific biological monitoring to ensure that Bendire's thrasher individuals are not directly affected by operations (i.e., mortality or injury, direct impacts on nest, eggs, or fledglings).
- APM-17: If burrows cannot be avoided on site, passive burrow exclusion by a designated biologist through the use of one-way doors will occur according to the most up-to-date BLM or CDFW specifications. Before exclusion, there must be verification that burrows are empty based on the most up-to-date BLM or CDFW protocols. Confirmation that the burrow is not currently supporting nesting or fledgling activities is required prior to any burrow exclusions or excavations.
- APM-18: Provide protection from loss and harassment of active golden eagle nests through the following actions:
  - Activities that may impact nesting golden eagles, will not be sited or constructed within 1-mile of any active or alternative golden eagle nest within an active golden eagle territory, as determined by BLM in coordination with USFWS as appropriate.
- APM-19: Provide specific golden eagle compensation in accordance with the most up to date BLM or USFWS policies, including applicable USFWS Eagle Conservation Plan Guidance.
- APM-20: Contribute to a golden eagle monitoring program, if the Project has been determined, through the environmental analysis, to likely impact golden eagles.
- APM-50: In assessing potential compensatory mitigation lands, the applicant would (APM 51) utilize a filtering criterion to determine in GIS where potential creosote rings may exist, with the goal of providing lands that have an equal or greater likelihood of creosote ring occurrence than the Project site. Use of this data would inform acquisition choices for mitigation lands.

- APM-51: All activities will follow applicable BLM state and national regulations and policies for salvage and transplant of cactus, yucca, other succulents, and BLM Sensitive plants.
- APM-52: The Project owner shall implement a bird and bat adaptive management program that includes potential measures the Project owner can implement to adaptively respond to detected mortality and injuries attributable to the Project. Adaptive actions undertaken will be discussed and evaluated in survey reports prepared under the Project's BBCS. Any impact reduction measures must be commensurate (in terms of factors that include geographic scope, costs, and scale of effort) with the level of avian or bat mortality or injury that is specifically and clearly attributable to the Project facilities, consistent with the nexus and proportionality requirements of California statutory and constitutional law and of U.S. constitutional law.

a. *Performance Standards.* Appropriate performance standards for mitigation of impacts to any species regulated by BGEPA, ESA, and CESA exist through required consultation with USFWS and CDFW under their respective regulatory and permitting frameworks, as specified in Tier 1 Measures, below. For impacts to all other special status avian and bat species, adaptive management measures must reduce or offset mortalities caused by the Project to a level that avoids a substantial, long-term reduction in the demographic viability of the population of the species in question, as estimated through implementation of the Project BBCS, which employs the structured approach set forth in the USFWS Land-Based Wind Energy Guidelines (USFWS, 2012).

b. Impact Reduction Measures.

i. Tier 1 Measures.

In addition to the monitoring requirements described in the Project BBCS, the following measures shall be implemented to achieve the above performance standards:

1) The Project owner shall immediately report and initiate consultation with USFWS and CDFW if there is a Project-attributed injury or mortality to any species regulated by BGEPA, or CESA. The BLM will confer with the USFWS if there is injury or mortality to any species listed under the ESA.

2) PSPP MM BIO-1: Designated Biologist Selection and Qualifications

3) PSPP MM BIO-2: Designated Biologist Duties

4) PSPP MM BIO-3: Biological Monitor Selection and Qualifications

5) PSPP MM BIO-4: Biological Monitor Duties

6) PSPP MM BIO-6: Worker Environmental Awareness Program (WEAP)

7) PSPP MM BIO-8: Impact Avoidance and Minimization Measures (e.g., 1. Limit disturbance areas; 2. Minimize road impacts; 3. Minimize traffic impacts; 4. Monitor during construction; 5. Minimize impacts of transmission/pipeline alignments, roads, and staging areas; 6. Avoid use of toxic substances; 7. Minimize lighting impacts; 8. Minimize noise impacts; 12. Minimize standing water; 13. Dispose of road-killed animals; 14. Minimize spills of hazardous materials; 15. Worker guidelines; 17. Monitor ground disturbing activities prior to pre-construction site mobilization; 18. Control unauthorized use of the project access roads; 20. Avoid spreading weeds)

8) PSPP MM BIO-12: Desert Tortoise Compensatory Mitigation
9) PSPP MM BIO-13: Raven Management Plan and Fee
10) PSPP MM BIO-14: Weed Management Plan
11) PSPP MM BIO-15: Pre-Construction Nest Surveys and Avoidance Measures
12) PSPP MM BIO-16: Avian Protection Plan
13) PSPP MM BIO-18: Burrowing Owl Impact Avoidance, Minimization, and Compensation Measures
14) BIO-19: Special-Status Plant Impact Avoidance, Minimization and Compensation
15) PSPP MM BIO-21: Mitigation for Impacts to State Waters (e.g., 1. Acquire off-site state waters)
16) PSPP MM BIO-25: Golden Eagle Inventory and Monitoring
17) PSPP MM BIO-26: Evaporation Pond Netting and Monitoring
18) PSPP MM VIS-03: Temporary and Permanent Exterior Lighting (e.g., minimize visibility, minimize glare, minimize illumination)
19) PSPP MM VIS-04: Project Design (e.g., minimize the number of structures, reduce the amount of disturbed area)
20) APM-1: Designated Biologist
21) APM-2: Worker Education Program
22) APM-4: Integrated Weed Management Actions
23) APM-6: Noise Controls for Special-Status Species
24) APM-7: Standard Practices to Protect Special Status Species (e.g., prohibition of domestic pets)
25) APM-16: Bendire's Thrasher Monitoring
26) APM-17: Passive Burrow Exclusion
27) APM-18: Golden Eagle Nest Avoidance
28) APM-19: Golden Eagle Compensation
29) APM-20: Contribution to Golden Eagle Monitoring Program
30) APM-42: Manage Visual Resources as VRM Class IV
31) APM-45: Visual Design Standards
32) APM-46: Required Visual Resource BMPs

ii. Tier 2 Measures.

If Tier 1 measures do not achieve the performance standards described above, the monitoring results of the Project, as well as those of other PV projects and the results of their respective impact reduction efforts, will be analyzed to formulate additional impact

reduction measures to achieve the performance standards. Such measures may include, but not be limited to:

1) Use of a secure cover or floating, high-density plastic balls to cover construction ponds, as recommended by the Federal Avian Administration's "Wildlife Hazard Management at Airports" manual.

2) Passive avian diverter installations along the perimeter or at other locations within the Project to reduce or minimize bird use of the site.

3) The use of sound, light or other means to discourage site use consistent with applicable legal requirements.

4) Onsite habitat management or prey control measures consistent with applicable legal requirements.

5) Modifications to support structures or other facilities to exclude nesting birds (e.g., netting or shielding around framework; capping open pipes or tubing).

iii. Tier 3 Measures.

In the event Tier 1 and Tier 2 avoidance and minimization measures do not meet the above performance standards, or upon election of the Project owner, the Project owner shall implement compensatory mitigation on terms and at ratios deemed appropriate by BLM, USFWS and/or CDFW to meet the performance standard applicable to the species in question. Such measures shall be approved by BLM, USFWS and/or CDFW and may include, but not be limited to:

1) Restoration of degraded off-site habitat with native vegetation.

2) Restoration of off-site agricultural fields to bird habitat.

3) Management of off-site agricultural fields to enhance bird populations.

4) Retrofitting of structures to minimize collisions.

5) Support for avian and bat research and/or management efforts conducted by entities approved by the USFWS and CDFW within the Project's mitigation lands or other approved locations.

6) Funding efforts to address avian diseases or depredation due to the expansion of predators in response to anthropomorphic subsidies that may adversely affect birds that use the mitigation lands or other approved locations.

7) Contributions to the Migratory Bird Conservation Fund managed by the Migratory Bird Conservation Commission.

Cultural Resources

- APM-21: Identify places of traditional cultural and religious importance to federally recognized Tribes and maintain access to these locations for traditional use.
- APM-22: Design activities to minimize impacts on cultural resources including places of traditional cultural and religious importance to federally recognized Tribes.

- APM-23: Develop partnerships to assist in the training of groups and individuals to participate in site stewardship programs.
- APM-24: Promote desert vegetation types/communities by avoiding them where possible, then use required compensatory mitigation, off-site mitigation, and other means to ensure Native American vegetation collection areas and practices are maintained.

Paleontological Resources

- APM-25: If not previously available, prepare paleontological sensitivity maps consistent with the Potential Fossil Yield Classification for activities prior to NEPA analysis.
- APM-26: Incorporate all guidance provided by the Paleontological Resources Protection Act.
- APM-27: Ensure proper data recovery of significant paleontological resources where adverse impacts cannot be avoided or otherwise mitigated.
- APM-28: Paleontological surveys and construction monitors are required for ground disturbing activities that require an EIS.

Soil and Water Resources

- APM-29: In addition to the applicable required governmental safeguards, implement up-to-date standard industry construction practices to prevent toxic substances from leaching into the soil.
- APM-30: Prepare an emergency response plan, approved by the BLM contaminant remediation specialist that ensures rapid response in the event of spills of toxic substances over soils.
- APM-31: Where possible, side casting shall be avoided where road construction requires cut-and-fill procedures.
- APM-32: All relevant requirements of Executive Orders 11988 (Floodplain Management) and 11990 (Protection of Wetlands) will be complied with.
- APM-33: Surface water diversion for beneficial use will not occur absent a state water right.
- APM-34: The 100-year floodplain boundaries for any surface water feature in the vicinity of the Project will be identified. If maps are not available from the Federal Emergency Management Agency (FEMA), these boundaries will be determined via hydrologic modeling and analysis as part of the environmental review process.

  Construction within, or alteration of, 100-year floodplains will be avoided where possible, and permitted only when all required permits are obtained.
- APM-35: Water extracted or consumptively used for the construction, operation, maintenance, or remediation of the Project shall be solely for the beneficial use of the Project or its associated mitigation and remediation measures, as specified in approved plans and permits.
- APM-36: Water flow meters shall be installed on all extraction wells permitted by BLM.
- APM-37: Water-conservation measures shall be applied. These measures may include the use of specific technology, management practices, or both. Application of these measures shall be detailed in the Groundwater Water Monitoring and Mitigation Plan, which shall include a detailed discussion and analysis of the effectiveness of the specified water-conservation measures.

- APM-38: Activities shall comply with local requirements for any long-term or short-term domestic water use and wastewater treatment.
- APM-39: The siting, construction, operation, maintenance, remediation, and abandonment of all wells shall conform to specifications contained in the California Department of Water Resources Bulletins #74-81 and #74-90 and their updates.
- APM-40: Colorado River hydrologic basin – The concepts, principles and general methodology used in the Colorado River Accounting Surface Method, as defined in U.S. Geological Survey Scientific Investigations Report 2008-5113 (USGS, 2009); and existing and future updates or a similar methodology, are considered the best available data for assessing project-related groundwater impacts in the Colorado River hydrologic basin. The best available data and methodology shall be used to determine whether project-related pumping would result in the extracted water being replaced by water drawn from the Colorado River. If project-related groundwater pumping results in the static groundwater level at the well being near (within 1 foot), equal to, or below the Accounting Surface in a basin hydrologically connected to the Colorado River, that consumption shall be considered subject to the Law of the River (Colorado River Compact of 1922 and amendments). In such circumstances, the Applicant offset or otherwise mitigate the volume of water causing drawdown below the Accounting Surface. Details of such measures and the right to the use of water shall be described in the Groundwater Water Monitoring and Mitigation Plan.
- APM-41: Environmental analysis for activities involving groundwater extraction that are in the vicinity of Joshua Tree National Park shall analyze and address any potential impacts of groundwater extraction on Joshua Tree National Park. The National Park Service shall be consulted on this process. The analysis or analyses shall include:
  - Potential impacts on the water balances of groundwater basins within these parks;
  - A map identifying all potentially impacted surface water resources in the vicinity of the Project, including a narrative discussion of the delineation methods used to discern those surface waters in the field;
  - Any project-related modifications to surface water resources, both temporary and permanent;
  - Analysis of any potential impacts on perennial streams, intermittent streams, and ephemeral drainages that could negatively impact natural riparian buffers;
  - Impacts of any project proposed truncation, realignment, channelization, lining, or filling of surface water resources that could change drainage patterns, reduce available riparian habitat, decrease water storage capacity, or increase water flow velocity or sediment deposition, in particular where stormwater diverted around or through the project site is returned to natural drainage systems downslope of the Project;
  - Any potential indirect project-related causes of hydrologic changes that could exacerbate flooding, erosion, scouring, or sedimentation in stream channels; and
  - Alternatives and measures proposed to reduce or eliminate such impacts.
- APM-49: All facility components that alter site hydrology will be designed to maintain continued aeolian sediment sorting and transport to downwind deposition zones, with designs subject to approval by BLM.

Visual Resources

- APM-42: Manage Visual Resources in accordance with Visual Resource Management (VRM) class IV.
- APM-47: Required Visual Resource BMPs. The Project will abide by the BMPs addressed in the most recent version of the document "Reducing Visual Impacts of Renewable Energy Facilities on BLM-Administered Lands," or its replacement, including, but not limited to the following:
  - Color treat all solar facilities Shadow Gray from the BLM Environmental Color Chart CC001 unless a more effective color is selected by the Field Office VRM specialist.
  - Transmission:
    - Color-treat monopoles Shadow Gray per the BLM Environmental Color Chart CC001 unless a more effective color choice is selected by the local Field Office VRM specialist.
    - Lattice towers and conductors will have non-specular qualities.
    - Lattice Towers will be located a minimum of 3/4 miles away from Key Observation Points such as roads, scenic overlooks, trails, campgrounds, navigable rivers and other areas people tend to congregate and located against a landscape backdrop when topography allows.
  - Night Sky – BMPs to minimize impacts to night sky including light shielding will be employed.

Public Health and Safety

- APM-43: Implement the following standard practice for fire prevention/protection:
  - Implement site-specific fire prevention/protection actions particular to the construction and operation of the Project that include procedures for reducing fires while minimizing the necessary amount of vegetation clearing, fuel modification, and other construction-related activities. At a minimum these actions will include designating site fire coordinators, providing adequate fire suppression equipment (including in vehicles), and establishing emergency response information relevant to the construction site.

Comprehensive Trails and Travel Management

- APM-44: Avoid Tier 1, Tier 2, Tier 3 roads/primitive roads/trails, Backcountry Byways, and other significant linear features. If avoidance is not practicable, relocate access to the same or higher standard and maintain the recreation setting characteristics and access to recreation activities, facilities, and destination.
- APM-45: If residual impacts to Tier 1 and Tier 2 roads/primitive roads/trails, Backcountry Byways, or other significant linear features cannot be protected and maintained, commensurate compensation in the form of an enhanced recreation operations, recreation facilities or opportunities will be required.
- APM-46: The Project will incorporate visual design standards and include the best available, most recent BMPs, as determined by BLM.

Recreation / Transportation

- APM-48: For the designated vehicle routes directly impacted by activities (includes modification of existing route to accommodate industrial equipment, restricted access or full closure of

designated route, pull outs, and staging areas to the public, etc.), mitigation will include the development of alternative routes to allow for continued vehicular access with proper signage, with a similar recreation experience. In addition, mitigation will also include the construction of an "OHV (off-highway vehicle) touring route" which circumvents the activity area and allows for interpretive signing materials to be placed at strategic locations along the new touring route, if determined to be appropriate by BLM.

Exhibit C

Errata

Palen Solar Project: Errata to the Final SEIS/EIR

Changes have been made to the Final SEIS/EIR as shown below (with underline for added text and strikeout for deleted text).

ES.11 Impact Summary Tables for CEQA Impact Significance

Page ES-12

Table ES-1 and ES-2 have been revised to correct errors from the Final SEIS/EIR. Note, these errors were in the table only; none of the revisions represent a new or increased impact. Only the impacts with changes are included in the table. Any impacts not included did not have any revisions.

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Table ES-1. Summary of Significant Unmitigable Impacts of the Proposed Action

CEQA Criterion	Mitigation Measure (if any)
Cultural Resources	
CR-4: Project would contribute to cumulative effects	**MM CUL-15:** Desert Training Camp/California-Arizona Maneuver Area (DTC)~~Palen Pass Historic District Recording~~ **MM-CUL-21:** Survey and Long-Term Monitoring of Resources in the Palen Dry Lake ACEC **MM-CUL-22:** Implement Protective Measures at Sensitive Areas
Wildlife Resources	
WIL-1: Have a substantial adverse direct or indirect effect on any candidate, sensitive, or special-status species identified by local, state, or federal agencies. [Applies to avian collision with project facilities and "lake effect" only]	**MM WIL-7:** Bird and Bat Conservation Strategy (BBCS)

Table ES-2. Summary of Significant but Mitigable Impacts and Mitigation for the Proposed Action

CEQA Criterion	Mitigation Measure(s)
Cultural Resources	
CR-1: Cause Adverse Change in Significance of Historical Resource	**MM CUL-1:** Cultural Resources Personnel **MM CUL-2:** Project Documentation for Cultural Resources Personnel **MM CUL-3:** Monitoring and Discovery Plan **MM CUL-4:** Cultural Resources Report (CRR) **MM CUL-5:** Environmental Awareness Program (WEAP) **MM CUL-6:** Construction Monitoring Program **MM CUL-7:** Authority to Halt Construction and Treatment of Discoveries **MM CUL-8:** Flag and Avoid **MM CUL-9:** Data Recovery for Simple Prehistoric Sites **MM CUL-10:** Data Recovery for Complex Prehistoric Sites **MM CUL-11:** Data Recovery for Historic-Period Refuse Scatters **MM CUL-12:** Data Recovery for Historic-Period Sites with Features **MM CUL-16:** Coordination with Interested Tribes **MM CUL-17:** Avoidance, Preservation and Relocation **MM CUL-18:** Archaeological and Native American Tribal Monitoring **MM CUL-19:** Monitoring Program for Decommissioning **MM CUL-20:** Native American Tribal Monitoring during Decommissioning ~~**MM CUL-21: Survey and Long-Term Monitoring of Resources in the Palen Dry Lake ACEC**~~ ~~**MM CUL-22: Implement Protective Measures at Sensitive Areas**~~
CR-2: Cause adverse change in significance of a unique archaeological resource	**MM CUL-1:** Cultural Resources Personnel **MM CUL-2:** Project Documentation for Cultural Resources Personnel **MM CUL-3:** Monitoring and Discovery Plan **MM CUL-4:** Cultural Resources Report (CRR) **MM CUL-5:** Environmental Awareness Program (WEAP) **MM CUL-6:** Construction Monitoring Program **MM CUL-7:** Authority to Halt Construction and Treatment of Discoveries **MM CUL-8:** Flag and Avoid **MM CUL-9:** Data Recovery for Simple Prehistoric Sites **MM CUL-10:** Data Recovery for Complex Prehistoric Sites **MM CUL-11:** Data Recovery for Historic-Period Refuse Scatters **MM CUL-12:** Data Recovery for Historic-Period Sites with Features **MM CUL-16:** Coordination with Interested Tribes **MM CUL-17:** Avoidance, Preservation and Relocation **MM CUL-18:** Archaeological and Native American Tribal Monitoring **MM CUL-19:** Monitoring Program for Decommissioning **MM CUL-20:** Native American Tribal Monitoring during Decommissioning ~~**MM CUL-21: Survey and Long-Term Monitoring of Resources in the Palen Dry Lake ACEC**~~ ~~**MM CUL-22: Implement Protective Measures at Sensitive Areas**~~
Noise	
NOI-1: Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. [Applies only to construction-phase impacts.]	~~**MM NOISE-3: Employee Noise Control Program**~~ **MM NOISE-4:** Noise Restrictions ~~**MM NOISE-5: Occupational Noise Survey**~~ **MM NOISE 6:** Construction Restrictions

Table ES-2. Summary of Significant but Mitigable Impacts and Mitigation for the Proposed Action

CEQA Criterion	Mitigation Measure(s)
Public Health and Safety	
HAZ-1: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	**MM HAZ-1:** Hazardous Material Requirements **MM HAZ-2:** Hazardous Materials Management Plan (HMMBP) **MM HAZ-3:** Safety Management Plan **MM WASTE-2:** Resume of Professional Engineer or Geologist **MM WASTE-3:** Inspection and Reporting of Potentially Contaminated Soil **MM WASTE-7:** Operation Waste Management Plan
HAZ-2: Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	**MM HAZ-1:** Hazardous Material Requirements **MM HAZ-2:** Hazardous Materials Management Plan (HMMBP) **MM HAZ-3:** Safety Management Plan **MM WASTE-2:** Resume of Professional Engineer or Geologist **MM WASTE-3:** Inspection and Reporting of Potentially Contaminated Soil **MM WASTE-7:** Operation Waste Management Plan
Water Resources	
WR-2: Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).	**MM WR-2:** Construction and Operation Water Use **MM WR-3:** Groundwater Level Monitoring, Mitigation, and Reporting **MM WR-7:** Mitigation of Impacts to the Palo Verde Mesa Groundwater Basin ~~**MM WR-8: Ground Subsidence Monitoring and Action Plan**~~ **MM WR-9:** Estimation of Impacts to PVMGB
Wildlife Resources	
WIL-4: Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state conservation plan. [Applies to desert wash habitat.]	~~**MM WIL-1: Desert Tortoise Protection**~~ ~~**MM WIL-2: Desert Tortoise Relocation/Translocation Plan**~~ ~~**MM WIL-3: Desert Tortoise Compliance Verification**~~ ~~**MM WIL-4: Desert Tortoise Compensatory Mitigation**~~ ~~**MM WIL-5: Raven Management Plan and Fee**~~ ~~**MM WIL-6: Pre-construction Nest Surveys and Avoidance Measures**~~ ~~**MM WIL-7: Bird and Bat Conservation Strategy (BBCS)**~~ ~~**MM WIL-8: American Badger and Desert Kit Fox Impact Avoidance and Minimization Measures**~~ ~~**MM WIL-9: Burrowing Owl Impact Avoidance, Minimization, and Compensation Measures**~~ **MM WIL-10:** Sand Dune/Mojave Fringe-toed Lizard Mitigation ~~**MM WIL-11: Golden Eagle Inventory and Monitoring**~~ ~~**MM WIL-12: Water Tank Covers**~~

Section 3.15.2 Special Designations: Existing Conditions

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- The Chuckwalla ACEC is approximately 0.25 miles southwest of the project site and is ~~352,633~~508,920 acres. This ACEC has cultural, scenic, vegetative and wildlife values.

Section 4.4.1.4 Cultural Resources: Mitigation Measures

CUL-3 Monitoring and Discovery Plan [...]

14. Tribal Participation Plan shall be appended to the Monitoring and Discovery Plan if it can be completed by the Applicant prior to the submittal of the ROD to the BLM Washington DC Office for review. The Applicant is encouraged to develop the Tribal Participation Plan working with all affected tribes. The BLM will approve the final Monitoring and Discovery Plan whether or not the TPP has been completed by the Applicant.

The Monitoring and Discovery Plan required under CUL-3, also known as the Monitoring, Post-Review Discovery, and Unanticipated Effects Plan, will be updated in response to the clarifications below.

Rationale: This revision does not change the requirements of the mitigation, it clarifies the timing based on the federal Record of Decision for the project. Because the mitigation requirements are not changed and because under CEQA, additional coordination with the tribes is required by Mitigation Measure CUL-16, the revision would not change the significance of any impact.

CUL-7 **Authority to Halt Construction and Treatment of Discoveries.** (Previously PSPP MM CUL-9) The Pproject Oowner shall grant authority to halt ground disturbance to the CRS, alternate CRS, and other supervisory cultural resource field staff (i.e., PI or Field Director listed on the BLM California cultural resource use permit) in the event of a discovery. Archaeological monitors (operating under the BLM California Cultural Resource Use Permit and associated Fieldwork Authorization) shall have authority to temporarily halt or divert construction until the CRS, alternate CRS, or supervisory archaeological monitor makes a determination that a post-review discovery has been made (or unanticipated effects to a historic property have occurred). Redirection of ground disturbance shall be accomplished under the direction of the construction supervisor in consultation with the CRS. In the event that a cultural resource over 50 years of age is found (or if younger, determined exceptionally significant by the BLM), 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, as provided in other Mitigation Measures, shall continue during the Project's ground-disturbing activities elsewhere. The halting or redirection of ground disturbance shall remain in effect until the CRS has visited the discovery, and all of the following have occurred:

1. The CRS has notified the Pproject Oowner, and the BLM ~~project manager~~ AO has been notified within 24 hours of the discovery, or by Monday morning if the cultural resources discovery occurs between 8:00 AM on Friday and 8:00 AM on Sunday morning, including a description of the discovery (or changes in character or attributes), the action taken (i.e., work stoppage or redirection), a recommendation of NRHP and CRHR eligibility, and recommendations for data recovery from any cultural resources discoveries, whether or not a determination of NRHP and CRHR eligibility has been made.

2. If the discovery would be of interest to Native Americans, the BLM ~~project manager~~ AO ~~has~~ will notify~~ied~~ all Native American groups that expressed a desire ~~to be notified~~ in the event of such a discovery.
3. The CRS has completed field notes, measurements, and photography for a DPR 523 "Primary" form. Unless the find can be treated prescriptively, as specified in the monitoring and discovery plan, the "Description" entry of the DPR 523 "Primary" form shall include a recommendation on the NRHP and CRHR eligibility of the discovery. The Pproject Oowner shall submit completed forms to the BLM ~~project manager~~AO.
4. The CRS, the Pproject Oowner, and the BLM ~~project manager~~ AO have conferred, and the BLM ~~project manager~~ AO has concurred with the recommended eligibility of the discovery and approved the CRS's proposed data recovery plan, if any, including the curation of the artifacts, or other appropriate mitigation; and any necessary data recovery and mitigation ~~have been~~ are complete~~d~~. The BLM may, in consultation with the SHPO, assume the NRHP eligibility (under Criterion D) for an archaeological property discovery, consistent with the Section 106 NHPA regulations addressing post-review discoveries (36 CFR 800.13(c)). The BLM reserves the right to request that the Project owner conduct studies pursuant to the MDP and other standard professional procedures to evaluate the NRHP eligibility of any cultural property discovery during construction.

Rationale: CUL-7 is clarified to grant authority to archaeological monitors (operating under the BLM California Cultural Resource Use Permit and associated Fieldwork Authorization) to temporarily halt or divert construction until a supervisory archaeological monitor and/or the CRS makes a determination that a post-review discovery has been made (or unanticipated effects to a historic property have occurred). The supervisory monitor and/or CRS then has authority to permanently halt or divert construction until the situation is resolved pursuant to the MDP and 36 CFR 800.13.

Step 4 of CUL-7 requires that the eligibility of any cultural property discovery be determined by the BLM, based on the study and recommendations of the CRS. These steps are clarified so that the BLM may, in consultation with the SHPO, assume the NRHP eligibility (under Criterion D) for an archaeological property discovery, consistent with the Section 106 NHPA regulations addressing post-review discoveries (36 CFR 800.13(c)). The BLM reserves the right to request that the Project owner conduct studies pursuant to the MDP and other standard professional procedures to evaluate the NRHP eligibility of any cultural property discovery during construction.

Both the revisions strengthen the mitigation measure to ensure that resources are protected and evaluated. Therefore, the revisions would not result in any new significant impacts.

CUL-8 **Flag and Avoid.** (Previously PSPP MM CUL-10) To ensure that the 18th Ordinance Battalion site (CA-RIV-9481) ~~If resources~~ within the transmission line corridor is avoided during construction, the project owner shall: ~~can be spanned~~

~~rather than impacted, or in the event that new resources are discovered during construction where impacts can be reduced or avoided, the project owner shall~~:

1. Ensure that a CRS, alternate CRS, or other supervisory cultural resource field staff re-establish the boundary of the ~~each~~ site, add a 10-meter-wide buffer around the periphery of each site boundary, and flag the resulting space in a conspicuous manner;
2. Ensure that a CRM enforces avoidance of the flagged areas during construction; and
3. Ensure, after completion of construction, boundary markings around the ~~each~~ site and buffer are removed so as not to attract vandals.

Rationale: CUL-8 calls for flagging any cultural resources in the Project gen-tie line that can be avoided. CUL-8 is clarified so that the only the cultural resource that will be avoided under this mitigation measure is the 18th Ordinance Battalion site (CA-RIV-9481), which is the only historic property identified within the Project's direct APE. Because the revision only clarifies the resources and does not reduce the protection for the resource, it would not result in a new significant impact.

CUL-9Data Recovery for Simple Prehistoric Sites: (Sparse Lithic Scatters, Cairns, and [...]

8. Surface scrape to a depth of 5 centimeters a 5-meter-by-5-meter area centered on the artifact concentration where such a method is warranted by surface conditions. If the CRS determines that a surface scrap is not useful in certain contexts, note why in the treatment plan for the resource. ~~;~~ ~~f~~Field-record the lithic artifacts as to location, material type, and the reduction sequence stage each represents, record the location of all other artifacts, and retain the obsidian and ceramic artifacts and botanical and faunal remains for laboratory analysis and curation;

[...]

11. Notify the BLM ~~project manager~~ AO by telephone or e-mail that subsurface deposits were or were not encountered and either make a recommendation on the site's NRHP and CRHR eligibility or the BLM may assume eligibility (under Criterion D) for the site, in consultation with the SHPO~~;~~. The BLM reserves the right to request that the Project Owner conduct studies pursuant to the MDP and other standard professional procedures to evaluate the NRHP eligibility of any cultural property discovery during construction;

Rationale: CUL-9 outlines data recovery methods for lithic scatters and pot drops found during construction. These site types are among the most likely to be encountered during construction. Typically, the steps prescribed in CUL-9 are appropriate for this resources type. However, Step 8 requires the use of surface scrape. Surface scrapes have been used in the past on other projects and can be useful in deposits with soft sand or other loose deposits. They are less effective on other types of deposits. Step 8 of CUL-9 is clarified to make surface scrapes optional if it is warranted.

Step 11 of CUL-9 is clarified so that the BLM may, in consultation with the SHPO, assume NRHP eligibility (under Criterion D) of any newly discovered archaeological property. The CRS and/or supervisory archaeological monitor shall notify the BLM project manager by telephone or e-mail that subsurface deposits were or were not encountered. The CRS will either make a recommendation on the deposits' NRHP and CRHR eligibility at the request of the BLM or the BLM may assume NRHP Criterion D eligibility for the deposits, consistent with 36 CFR 800.13(c) and treat it accordingly.

The revisions provide some flexibility regarding recovery methods but only under specific conditions where the recovery method would not be useful. It clarified methods of determining eligibility. Because of the revisions to the mitigation measure are limited to appropriate conditions and must be reviewed by the agencies, the revisions would not result in a new significant impact.

CUL-10 Data Recovery for Complex Prehistoric Sites. (Previously PSPP MM CUL-12)
[...]

9. Notify the BLM project manager by telephone or e-mail that subsurface deposits were or were not encountered and either make a recommendation on the site's NRHP and CRHR eligibility or the BLM may assume eligibility (under Criterion D) for the site, in conjunction with the SHPO. The BLM reserves the right to request that the Project owner conduct studies pursuant to the MDP and other standard professional procedures to evaluate the NRHP eligibility of any cultural property discovery during construction;

[...]

11. If subsurface deposits arewere found, develop a sampling design for additional data recovery in consultation with the CRS; ~~plans for this contingency shall be described in detail in the monitoring and discovery plan required in CUL-3;~~

Rationale: Step 9 of CUL-10 is clarified so that the CRS and/or supervisory archaeological monitor shall notify the BLM project manager by telephone or e-mail that subsurface deposits were or were not encountered. The CRS will either make a recommendation on the deposits' NRHP and CRHR eligibility at the request of the BLM or the BLM may assume NRHP Criterion D eligibility for the deposits, consistent with 36 CFR 800.13(c) and treat it accordingly.

Step 11 of CUL-10 is clarified so that this step will be included in the treatment plan developed after the initial discovery of the new archaeological property assumed NRHP eligible under Criterion D.

The revisions to the mitigation measure do not reduce the effectiveness at protecting the resources so do not result in a new significant impact.

CUL-12 Data Recovery for Historic-Period Sites with Features. (Previously PSPP MM
[...]

6. The Pproject Oowner ~~shall ensure~~ may use a systematic metal detector survey ~~be completed~~ at each site, and ensure that each "hit" is investigated.

All artifacts and features thus found must be mapped, measured, photographed, and fully described in writing.

Rationale. Most of the steps in CUL-12 are within standard parameters for recording historic sites. However, Step 6 calls for a systematic metal detector survey for sites with features. Metal detector surveys have been used on other solar projects in the past and have proven to be not effective in identifying additional intact resources. Step 6 of CUL-12 (use of metal detector) is clarified to be an optional, rather than mandatory, method of data recovery for historic-period sites with features. Because the revision is only to one step for recording historic sites that has been shown not to be effective and all other steps remain the same, the revision would not result in a new significant impact.

CUL–15 ~~**Palen Pass Historic District Recording.**~~**Desert Training Camp/California-Arizona Maneuver Area (DTC).**- In order to address cumulative impacts to the DTC~~/C-AMA~~, the Pproject Oowner ~~shall~~must retain cultural resources specialists, including a historian (preferably a military historian), who are qualified to receive a California BLM Cultural Resources Use Permit and ~~BLM-~~associated Fieldwork Authorization to prepare a desktop inventory, ~~and~~ map, ArcGIS file geodatabase using existing aerial photography, digital surface models, and orthoimagery of WWII-era features at~~in~~ the 36th Evacuation Hospital near Desert Center, CA, not far from the Project area~~Palen Pass area~~. The maps will be displayed on California Department of Parks and Recreation (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. ~~A field visit to record (photography and plan maps) a 5% sample of the features in more detail will also be conducted and a DPR 523 historic district form will be prepared. Results of the work shall reported in documents that conform to California BLM Cultural Resource Use Permit stipulations regarding reporting.~~ The project owner ~~shall~~must ensure that the details of this effort are ~~stipulated in the Monitoring and Discovery Plan (Mitigation Measure CUL-3) are~~ provided to the BLM Project Manager or AO for BLM review and approval prior to the implementation of CUL-15.

Rationale. Mitigation measure CUL-15, as revised, requires creating a map and geodatabase for the 36th Evacuation Hospital (Hospital). As noted in CR-4 of the SEIR, none of the WWII-era historic resources impacted by the project are individually eligible for listing on the CRHR and their destruction as a result of the Project contributes in a small but measureable way to the destruction of the DTC. CUL-15 as presented in the Final SEIS/EIR required recording a 5% sample of the Palen Pass resource area, located over 11 miles east of the Project area in a valley outside Project's viewshed. This action would not be commensurate with the Project's contribution to the cumulative impact. Creating maps and a geodatabase of the Hospital is more proportionate because it is closer to the Project and the alteration of the overall environment caused by Project would affect the Hospital more than Palen Pass. Digitization of aerial photography of the Hospital will also assist the BLM in preparation of their nomination of the DTC as multiple property at a

cost appropriate to the size and scale of the Project. The revised measure is consistent with the analysis in the Final SEIS/EIR and would still reduce the Project's contribution to the cumulative impact to less than considerable.

CUL-21 **Survey ~~and Long-Term Monitoring~~ of Cultural Resources within the Palen Dry Lake ACEC.** In order to address cumulative impacts to significant prehistoric cultural resources within the project's indirect APE, ~~site CA-RIV-1515, North Chuckwalla Petroglyph National Register District (CA-RIV-1383), North Chuckwalla Quarry National Register District (CA-RIV-1814), and Corn Springs Petroglyph Site (CA-RIV-32)~~ the Pproject Oowner ~~shall~~must retain ~~a~~ cultural resources specialists who are qualified to receive a ~~California~~ BLM California Cultural Resources Use Permit and ~~BLM~~ Fieldwork Authorization. CA-RIV-1515 must be revisited and its site record updated to current standards using DRP 523 forms. The Project Owner's cultural resource specialists will conduct a field survey of the known boundaries of site CA-RIV-1515 (100 meters beyond the known current site boundaries) as well as a 5% sample inventory of the site area within these boundaries. The Project Owner's cultural resource specialists shall update bBoundaries for CA-RIV-1515. ~~Because CA-RIV-1515 is geographically closest to the project and little is know about resources in the site vicinity, work shall emphasize the Palen Dry Lake ACEC. Known cultural resources in the Palen Dry Lake ACEC shall be revisited and all DPR 523 forms updated to current standards. In addition, 5% of the unsurveyed portions of the ACEC shall be surveyed and recorded.~~ Results of the work ~~shall~~must be reported in DPR 523 forms and other documents that conform to ~~California~~ BLM California Cultural Resource Use Permit stipulations regarding reporting. ~~The ACEC Management Plan shall also be updated to current standards.~~ The Pproject Oowner ~~shall~~must provide the details of this effort to the BLM Project Manager or AO for BLM review and approval prior to the implementation of CUL-21 ~~ensure stipulate that the details of this agreement are stipulated in the Monitoring and Discovery Plan (Mitigation Measure CUL-3)~~.

Rationale. The Project will have a cumulative impact on significant cultural resources within the Project's indirect APE. However, CUL-21 as presented in the Final SEIS/EIR to survey and record 5% of the 3,600-acre Palen Dry Lake ACEC and update the ACEC management plan is not commensurate with the "small but measurable" contribution to the cumulative impact the Project would have on significant cultural resources within the indirect APE. The revision to the measure includes a more appropriate level of effort inventorying a 5% sample of archaeological site CA-RIV-1515 (within Palen Dry Lake ACEC) and attempting to refine the boundaries of this site, also through field survey, because CA-RIV-1515 is among significant cultural resource closest in distance to the Project footprint. Data generated by field investigations can be used by the BLM to further develop management plans for the ACEC and manage CA-RIV-1515. The revised measure is consistent with the analysis in the Final SEIS/EIR and would help reduce the contribution of the project to cumulative impacts. However, as stated in the Final SEIS/EIR, the overall cumulative impact would remain significant.

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Mitigation Measures CUL-16 through CUL-20 and CUL-22 are suggested by the County to reduce effects to tribal and cultural resources. CUL-16 through CUL-20 and CUL-22 would only be required by Riverside County. These measures relate specifically to the relationship between the County and tribes, and to the treatment of cultural resources and tribal cultural resources under CEQA. Those resources may not be considered historical properties. As such, these measures are not required by the BLM or under NEPA, but will be implemented to the extent consistent with federal law and policy.

Section 4.9.4 Noise: Mitigation Measures

Page 4.9-9

NOISE-4 **Noise Restrictions.** The project design and implementation ~~shall~~must include appropriate noise mitigation measures adequate to ensure that the operation of the Project will not cause the noise levels due to plant operation alone, during the daytime hours of 7 a.m. to 10 p.m. to exceed an average of 42 dBA Leq measured at or near monitoring location LT1.

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. If the final design of the Project includes any inverter or transformer within 180 feet of LT1, or if the Project Substation is within 1,535 feet of LT1, then the following adaptive management measures are required:

A. When the Project first achieves a sustained output of 85% or greater of rated capacity, the ~~P~~project ~~W~~owner ~~shall~~must conduct a 25-hour community noise survey at monitoring location LT1, or at a closer location acceptable to the BLM APO. ~~This survey shall also include measurement of one-third octave band sound pressure levels to ensure that no new pure-tone noise components have been caused by the Project.~~

The measurement of power plant noise for the purposes of demonstrating compliance with this ~~condition of certification~~ mitigation measure ~~may alternatively be made~~ to be at a location~~,~~ acceptable to the BLM APO, closer to the plant (e.g., 400 feet from the plant boundary) and this measured level then mathematically extrapolated to determine the plant noise contribution at the affected residence. ~~The character of the plant noise shall be evaluated at the affected receptor locations to determine the presence of pure tones or other dominant sources of plant noise.~~

B. 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, mitigation measures ~~shall~~must be implemented to reduce noise to a level of compliance with this limit.

~~C. If the results from the noise survey indicate that pure tones are present, mitigation measures shall be implemented to eliminate the pure tones.~~

Rationale. Mitigation measure NOISE-4 in the FSEIS/EIR related more to operation of a solar thermal project with steam turbines than a photovoltaic project so the revisions would not result in

a new significant impact. The revisions will ensure that the potentially affected residence is protected from operational noise effects.

~~**NOISE-5** **Occupational Noise Survey.** Following the Project's attainment of a sustained output of 85% or greater of its rated capacity, the project owner shall conduct an occupational noise survey to identify any noise hazardous areas in the facility.~~

~~The survey shall be conducted by a qualified person in accordance with the provisions of Title 8, California Code of Regulations, sections 5095-5099 (Article 105) and Title 29, Code of Federal Regulations, section 1910.95. The survey results shall be used to determine the magnitude of employee noise exposure.~~

~~The project owner shall prepare a report of the survey results and, if necessary, identify proposed mitigation measures to be employed in order to comply with the applicable California and federal regulations.~~

Rationale. Mitigation measure NOISE-5 is deleted, because it would have applied primarily to a solar thermal project with steam generators and air-cooled condensers. Impacts NOI-1, NOI-2, and NOI-4 all address temporary and permanent increases in ambient noise levels and conclude that operational-phase noise levels from facility would be less than the most-stringent property line standard of 55 dBA for daytime noise as in the County Noise Ordinance. Any increase in noise levels already be reduced by implementation of measure NOISE-4, which includes appropriate noise mitigation measures adequate to ensure that the operation of the Project will not cause the noise levels due to plant operation alone, during the daytime hours of 7 a.m. to 10 p.m. to exceed an average of 42 dBA Leq measured at or near monitoring location LT1. Therefore, deleting measure NOISE-5 does not result in a new significant impact.

NOISE-6 **Construction Restrictions.** Heavy equipment operation and noisy construction work relating to any project features <u>within one-quarter of a mile of an inhabited dwelling</u> ~~shall~~<u>must</u> be restricted to the times delineated below, unless ~~a special permit has been issued by~~ the County of Riverside <u>has issued a special permit</u>:

- June through September: 6 a.m. to 6 p.m.
- October through May: 7 a.m. to 6 p.m.

Haul trucks and other engine-powered equipment ~~shall~~<u>must</u> be equipped with adequate mufflers. Haul trucks ~~shall~~<u>must</u> be operated in accordance with posted speed limits. <u>Limit</u> ~~Truck engine~~ exhaust brake use ~~shall be limited~~ to emergencies.

Rationale. Mitigation measure NOISE-6 is revised to clarify that it applies only in proximity to an inhabited dwelling. This clarification is consistent with the Riverside County Noise Ordinance. The Ordinance allows noise from construction activities and designates construction noise as exempt from controls when the construction project is located a quarter mile or more from the nearest inhabited dwelling, or when the construction project is located within a quarter mile of an inhabited dwelling and the activities are limited to certain daytime hours. The revised measure is consistent with the analysis in the Final SEIS/EIR and would not result in a new significant impact.

Section 4.11.4 Public Health and Safety: Mitigation Measures

Page 4.11-12

HAZ-2 **Hazardous Materials Management Plan (HMMBP).** The Pproject Oowner ~~shall~~must concurrently provide:

1. a Hazardous Materials Management ~~Business~~ Plan (~~HMBP~~HMMP). The Project Owner must prepare the plan for approval by the BLM with review and comment by the County of Riverside;

2. a Spill Prevention, Control, and Countermeasure Plan (SPCC). Prior to construction permit issuance, the project owner must submit to BLM for review and approval~~and~~;

3. An Environmental Health and Safety Plan must be prepared. The Project Owner must develop an Environmental Health and Safety Plan for the construction and operation of the project to ensure it includes all activities and complies with all local, state and federal regulatory requirements. Develop an Illness and Injury Prevention Program for construction and operation. The Project Owner must prepare the plan for review and approval by the BLM and the Riverside County Environmental Health Department. The Project Owner will be responsible for implementing the approved plan.~~a Process Safety Management Plan (PSMP) to the BLM AO and the Riverside County Environmental Health Department for review.~~

After receiving comments from the ~~RCEHD and the~~ BLM, the project owner ~~shall~~must reflect all recommendations in the final documents. ~~Copies of the final HMBP, SPCC Plan, and PSMP will be provided to the RCEHD and BLM for approval.~~

Rationale. Revisions to Mitigation Measure PHS-HAZ-2 clarify the contents of the plans related to hazardous materials management but do not change the requirements regarding these plans which are based primarily on existing regulations. The revised measure is consistent with the analysis in the Final SEIS/EIR and would not result in a new significant impact.

Section 4.12.4 Recreation: Mitigation Measures

Page 4.12-9

RC-2 **Provide Interpretive and Informational Signs.** To compensate for Palen Solar Project blockage of existing open roads, the Applicant ~~shall~~must not constrain ~~ensure continued~~ access for OHV use on route DC502. The ~~Applicant~~ Project Owner ~~shall~~must coordinate with BLM staff to provide funding for interpretive panels explaining the solar project and its benefits, and providing signs showing all open routes within a ten-mile radius of the Project. Open routes ~~shall~~must be marked with carsonite route marker posts that are within sight of each other.

Rationale. Portions of the route DC502 are located on private land where the BLM does not have jurisdiction. The measure was revised to clarify that the applicant is not responsible for allowing

access to route DC502, whether on private or BLM land. Instead the applicant must not block access to the route. The revised measure is consistent with the analysis in the FSEIS/EIR and would not result in a new significant impact.

Section 4.15.3 and 4.15.4 Special Designations: Cumulative Effects and Mitigation Measures

Page 4.15-3

Alligator Rock ACEC has significant cultural, biological, and scientific resource value. ~~The Alligator Rock area is designated as a National Register Site and is the site of the North Chuckwalla Mountains Petroglyph District, and the North Chuckwalla Prehistoric Quarry.~~ The Alligator Rock ACEC contains cultural resources that have been listed on the National Register of Historic Places. These resources include the North Chuckwalla Mountains Petroglyph District and the North Chuckwalla Mountains Prehistoric Quarry District.

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As discussed above, incremental impacts on areas with special designations resulting from the Project could combine with the incremental impacts of past, present, or reasonably foreseeable future actions to cause or contribute to a cumulative impact. However, the CDCA amendment defined by the DRECP has established protective designation of large areas, through the creation of additional ACECs and designation of National Landscape Conservation System lands. As a result, the CDCA amendments developed in the DRECP would offset the cumulative impacts that would be caused by solar energy development in the Desert Center area. Examples of these nearby conservation designations are the Palen Dry Lake ACEC (3,506 acres) Palen-Ford Playa Dunes ACEC (12,437 acres), and Chuckwalla ACEC (~~352,633~~508,920 acres). The solar projects in the area would be located between these protected areas, but would have only very small direct effects (from the gen-ties to the Red Bluff Substation).

Page 4.15-8

Note: Appendix G of the State CEQA Guidelines does not provide significance criteria for special designations, except those stated for agriculture and forestry resources (addressed under Section 4.6, Lands and Realty). No significance determination was made in the Final EIS/EIR for these resources and the revisions provided here are for informational purposes only.

SD-1 **Plan Review.** If the BLM identifies adverse impacts to the Joshua Tree National Park relating to vegetation resources, fugitive dust or construction traffic, then, as applicable and at the discretion of the BLM AO, the ~~The NPS~~ Joshua Tree National Park ~~shall~~will be afforded the opportunity to review and comment on the following pre-construction plans required for the Project prior to approval of the plans by the BLM: Weed Management Plan (VEG-9), Dust Control Plans (AQ-SC-3 and AQ-SC-7), and Construction Traffic Control Plan (TRA-1). Review and comment by the NPS must be within the timeframe specified by the BLM.

Rationale: This measure is adaptive management. It provides an opportunity for review of the plans that would protect the resources and that are required by other mitigation measures. The language has been clarified to highlight that this opportunity will be afforded if an adverse impact

to the Park is identified. The revised measure is consistent with the analysis in the Final SEIS/EIR and no new analysis is needed. There would be no impacts from implementing the measure.

SD-2 **Funding Agreement.** If temporary indirect impacts to Joshua Tree National Park are identified relating to fugitive dust, noise or nighttime lighting, then as applicable and at the discretion of the BLM AO, ~~T~~the ~~Applicant~~ Project Owner ~~shall~~must enter into an ~~funding~~ agreement or other ~~financial~~ mechanism ~~, as may be specified in the ROD or ROW grant,~~ to reimburse the NPS for reasonable costs incurred in the monitoring of the following measures to address temporary indirect impacts to the Joshua Tree National Park:

- *Fugitive dust:* AQ-SC-3 and AQ-SC-7, requiring the development and implementation of dust control plans during construction and operations, and WR-1H requiring the development and implementation of measures designed to prevent wind and water erosion including application of chemical dust palliatives after grading to limit water use.
- *Noise:* NOISE-6, limiting most construction activity to daytime hours.
- *Nighttime lighting:* VIS-3 requiring the design and installation of a lighting mitigation plan concerning temporary and permanent exterior lighting.

Rationale: This measure is adaptive management. It provides an opportunity for monitoring measures that would protect the resources from temporary impacts and that are required by other mitigation measures. The language has been clarified to highlight that this opportunity will be afforded if an adverse impact to the Park is identified. The revised measure is consistent with the analysis in the Final SEIS/EIR and no new analysis is needed. There would be no impacts from implementing the measure.

~~**SD-3** **Signage and Guidance Plan.** A Signage and Guidance Plan shall be developed for Joshua Tree National Park by the Applicant and reviewed and approved by the NPS and BLM prior to the start of construction of the Project. The intent of this plan is to address the potential indirect effects on NPS land as a result of the influx of workers associated with mobilization, construction, and demobilization of the Project. The plan shall include the following elements:~~

- ~~Design and installation of directional and informational signage that identify areas of Joshua Tree National Park available for day, overnight, and long-term stays, off-limit areas, and pertinent park rules and regulations;~~
- ~~Design and installation of strategically placed gates, bollards, or the like, inside the boundary of Joshua Tree National Park, where deemed necessary, for the purpose of vehicular control on NPS parkland located nearest the project boundary;~~
- ~~Educational instruction for project construction workers on park rules and regulations pertinent to Joshua Tree National Park and Joshua Tree Wilderness Areas. This instruction shall be integrated into the Worker Environmental Awareness Program;~~

- ~~Requirements for the retention and/or removal of any items installed as part of the plan following completion of construction of the project; and,~~
- ~~Funding mechanism for implementing the plan.~~

~~Items installed as part of the plan shall have a nexus to the NPS's need to address the likely impacts associated with above normal numbers of users of JTNP facilities during the mobilization, construction, and demobilization period of the Project.~~

Rationale: This measure is deleted because the distance between the Joshua Tree National Park and the Project reduces any indirect effects to the Park as discussed in the Final SEIS/EIR. The revised measure is consistent with the analysis in the Final SEIS/EIR and no new analysis is needed. There would be no impacts from implementing the measure.

Section 4.16.4 Transportation and Public Access: Mitigation Measures

TRA-1 **Construction Traffic Control Plan.** (Previously PSPP MM TRANS-4) Prior to the start of construction, the ~~Applicant~~ Project Owner ~~shall~~must prepare and submit a Construction Traffic Control Plan for review and/or approval to Caltrans, the BLM, and the County of Riverside for I-10, Corn Springs Road, and any other public roadway affected by construction of the necessary transmission tie-in. The Construction Traffic Control Plan ~~shall~~must include, but not be limited to:

- Methods to reduce project-generated trips during peak travel hours ~~(8:00-10:00 a.m. and 4:00-6:00 p.m.) to the maximum extent feasible~~.
- Methods to ensure site ingress/egress has minimum disruption to local roadways and motorists.
- A work schedule and end-of-shift departure plan designed to ensure that stacking does not occur at intersections necessary to enter and exit the project sites. The project owner ~~shall~~must consider using one or more of the following measures designed to prevent stacking: staggered work shifts, off-peak work schedules, and/or restricting travel to and departures from each project site to ten~~10~~ or fewer vehicles every three minutes during peak travel hours on I-10.
- Provisions for an incentive program, such as employer-sponsored commuter checks, to encourage construction workers to carpool and/or use van or bus service.
- The locations and durations of any temporary lane closures or disruptions.
- The locations and use of flaggers, warning signs, lights, barricades, delineators, cones, arrow boards, etc., according to standard guidelines outlined in the Manual on Uniform Traffic Control Devices, the Standard Specifications for Public Works Construction, and/or the California Joint Utility Traffic Control Manual.
- Defining methods to obtain and adhere to encroachment or oversize vehicle permits (as needed) throughout construction to minimize impacts to circulation.
- ~~Plans for making any necessary improvements to ensure County roadways provide sufficient load-bearing capacity for construction and operation traffic based on pavement testing for all County roads that could be used by construction~~

~~and operation activities. Improvements must meet the minimum Riverside County or Caltrans standard (whichever is applicable) for a roadway that accommodates heavy trucks.~~

- Methods and agreements to ensure repair of any damage to local roadways ~~demonstrable to~~ because of project activities ~~is repaired and restored to~~ pre-project or better conditions in coordination with Caltrans and/or Riverside County. Pre-project roadway conditions must be documented by video prior to use of the local roadways. Repair and restoration of access roads may be required at any time during the construction phase of the Project to assure public safety.

Rationale: The measure was revised because the Project would not require making improvements to County roadways for construction and operation traffic so pavement testing would not be necessary. Instead, the measure now requires the applicant to document pre-project roadway conditions by video to ensure they are returned to the same or better conditions. The revised measure is consistent with the analysis in the Final SEIS/EIR and would not result in a new significant impact.

Section 4.17.4 Vegetation Resources: Mitigation Measures and 4.17.7 CEQA Significance Thresholds and Determinations

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VEG-7 **Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP).** The project owner ~~shall~~must develop a Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP) and~~, and shall submit the proposed BRMIMP~~ submit it to the BLM AO for review and approval. The project owner ~~shall~~must implement the measures identified in the approved BRMIMP. The BRMIMP ~~shall~~must incorporate avoidance and minimization measures described in final versions of the Desert Tortoise Relocation Translocation Plan, the Raven Management Plan, the Decommissioning and Reclamation Plan, Revegetation Plan, the Burrowing Owl Mitigation and Monitoring Plan, and the Integrated Weed Management Plan.

The BRMIMP ~~shall~~must be prepared in consultation with the Designated Biologist and ~~shall~~must include accurate and up-to-date maps depicting the location of sensitive biological resources that require temporary or permanent protection during construction and operation. The BRMIMP ~~shall~~must include complete and detailed descriptions of the following:

1. All biological resources mitigation, monitoring, and compliance measures proposed and agreed to by the project owner;
2. All biological resources mitigation measures identified as necessary to avoid or mitigate impacts;
3. All biological resource mitigation, monitoring, and compliance measures required in federal agency terms and conditions, such as those provided in the USFWS Biological Opinion;

4. Avoidance or mitigation of ~~A~~all sensitive biological resources ~~to be avoided or mitigated~~ by project construction, operation, and closure;
5. All required mitigation measures for each sensitive biological resource;
6. All measures required ~~that shall be taken~~ to avoid or mitigate temporary disturbances from construction activities;
7. Duration for each type of monitoring and a description of monitoring methodologies and frequency;
8. Clear and concise project procedures for non-compliance issues.
9. Performance standards ~~to be~~ used to help decide if/when proposed mitigation is or is not successful;
10. Implementation of ~~A~~all performance standards and remedial measures ~~to be implemented~~ if performance standards are not met;
11. Biological resources-related facility closure measures including a description of funding mechanism(s);
12. A process for proposing plan modifications to BLM AO and appropriate agencies for review and approval; and
13. A requirement to submit any sightings of any special status species ~~that are~~ observed on or in proximity to the project site, or during project surveys, to the California Natural Diversity Data Base (CNDDB) per CDFW and BLM requirements; and
14. Specify content and format for monthly and annual Compliance Reports to be submitted to the BLM AO.

The BLM may determine, in writing, that the Environmental and Construction Compliance Monitoring Plan (ECCMP) would meet the objectives of the BRMIMP, and therefore not require the project owner to prepare a separate BRMIMP.

Rationale. The proposed revisions clarify that the monitoring plan requirements defined in Mitigation Measure VEG-7 could also be met through preparation of an ECCMP (typically prepared prior to construction). This revision would not result in a new significant impact to resources and falls within the analysis provided in the Final SEIR/EIS.

VEG-8 **Impact Avoidance and Minimization Measures.** The project owner ~~shall~~must undertake the following measures to manage the project site and related facilities during construction, operation and maintenance in a manner to avoid or minimize impacts to biological resources:

1. **Limit Disturbance Areas.** Minimize soil disturbance by locating staging areas, laydowns, and temporary parking or storage for linear features (e.g. gen-tie and project access road) in existing disturbed areas. Do not conduct e~~E~~quipment maintenance and refueling ~~shall not be conducted~~ within 100 feet of any sensitive resource (for example, waters of the state, desert dry wash woodland, dune habitats, and rare plant populations). Limit the width of the work area near

sensitive resources. Avoid blading temporary access roads where feasible and instead drive over and crush the vegetation to preserve the shrub root systems, seed bank, and biological soil crusts. Delineate t~~T~~he boundaries of all areas to be disturbed (including staging areas, access roads, and sites for temporary placement of spoils) ~~shall be delineated~~ with stakes and flagging prior to construction activities in consultation with the Designated Biologist. Stockpile spoils and topsoil temporarily disturbed along the gen-tie, ~~and~~ main access road routes, and within the solar facility where there is alluvial sand that would be graded, ~~shall~~must, to the extent practicable, ~~be stockpiled~~ in disturbed areas lacking native vegetation and which do not provide habitat for special status species. Locate p~~P~~arking areas, staging and disposal site locations along the gen-tie and project access road ~~shall similarly be located~~ in areas without native vegetation or special status species habitat, to the extent practicable. Confine ~~A~~all disturbances, project vehicles, and equipment ~~shall be confined~~ to the flagged areas. [...]

3. **Minimize Traffic Impacts.** ~~V~~Confine vehicular traffic during project construction and operation ~~shall be confined~~ to existing routes of travel to and from the project site, and prohibit cross-country vehicle and equipment use outside designated work areas ~~shall be prohibited~~. The speed limit ~~shall~~must not exceed 25 miles per hour within the portions of the project area cleared of desert tortoise and surrounded by tortoise exclusion fence (e.g., solar facility), ~~on maintenance roads for linear facilities, or on access roads to the project site~~. [...]

5. **Minimize Impacts of Transmission/~~Pipeline~~ Alignments, Roads, and Staging Areas.** Staging areas for construction on the plant site ~~shall~~must be within the area ~~that has been~~ fenced with desert tortoise exclusion fencing and cleared. For construction activities outside of the plant site (transmission line~~, pipeline~~ alignments), design, install, and maintain access roads, pulling sites, and storage and parking areas ~~shall be designed, installed, and maintained~~ with the goal of minimizing impacts to native plant communities and sensitive biological resources. Design, install, and maintain ~~T~~transmission lines and all electrical components ~~shall be designed, installed, and maintained~~ in accordance with the Avian Power Line Interaction Committee's (APLIC's) *Reducing Avian Collisions with Power Lines* (APLIC, 2012), *Suggested Practices for Avian Protection on Power Lines* (APLIC, 2006) and *Mitigating Bird Collisions with Power Lines* (APLIC, 1994) or more current guidelines if available, to reduce the likelihood of large bird electrocutions and collisions. Where feasible, avoid impacts to desert washes and special-status plants by adjusting the locations of poles and laydown areas, and the alignment of the roads and pipelines. In ~~C~~construction drawings and grading plans, ~~shall~~ depict the locations of sensitive resources and demonstrate where temporary impacts to sensitive resources can be avoided and where they cannot. [...]

10. **Install Box Culvert.** To provide for connectivity for desert tortoise and other wildlife, the project owner ~~shall~~ may install one or more box culverts (depending on the final location and the length of the access road, as determined by BLM)

suitable for passage by desert tortoise and other wildlife under the project site access road. The box culvert ~~shall~~must be a concrete structure no less than 4 feet high and 6 feet wide with 3:1 side slopes and ~~shall~~must maintain a minimum of 18 inches of native material on the floor of the culvert at all times to facilitate tortoise movement. [...]

21. **Salvage Topsoil.** ~~T~~Salvage, preserve, and re-use topsoil from the project site ~~shall be salvaged, preserved and re-used~~ for restoration of temporarily disturbed areas along the gen-tie and project access road, and within the solar facility where there is alluvial sand that would be graded. Collect, store, and apply ~~S~~salvaged topsoil ~~shall be collected, stored and applied~~ in a way that maintains the viability of seed and biological soil crusts. The project owner ~~shall~~must excavate and collect the upper soil layer (the top 1 to 2 inches that includes the seed bank and biological soil crust) as well as the lower soil layer up to a depth of 6 to 8 inches. Stockpile ~~T~~the topmost and the underlying soil layers ~~shall~~must ~~be stockpiled~~ separately in areas that will not be impacted by other grading, flooding, erosion, or pollutants. If the soil is to be stored more than 2 weeks, spread the soil ~~it shall be spread~~ out to a depth of no more than 6 inches to maintain the seed and biological soil crust viability. The project owner ~~shall~~must install temporary construction fencing around stockpiled topsoil, and signage that indicates whether the pile is the upper layer seed bank, or the lower layer, and clearly indicates that the piles are for use only in erosion control. After construction, the project owner ~~shall~~must replace the topsoil in the temporarily disturbed areas in the reverse order of stockpiling, starting with the 6-8-inch layer of subsoil, and then the seed-containing upper layer using a harrow or similar equipment to thinly distribute the layer to depths no greater than 1 to 2 inches. [...]

23. **Wildlife-friendly Fencing.** To prevent potential entanglement of deer and other wildlife, all permanent project fencing, including perimeter security fencing, will be no less than 8 feet tall, constructed of chain link, and will not have barbed, razor, or other wire strung across the top. Submit ~~P~~project fence design(s) ~~will be submitted~~ to the BLM AO, CDFW, and USFWS for review and approval prior to installation. If determined by the BLM AO that the installation of fencing is necessary to control recreational travel through the wash area post-construction, a non-barbed traditional four-wire ranch fence may be placed across the wash area, at the northern and southern ends of the wash, on-line with the perimeter fencing of the solar fields.

Rationale. The revisions to Mitigation Measure VEG-8 primarily clarify the project components to which each requirement was intended to apply. These revisions are consistent with the analysis presented in the Final SEIS/EIR and would not result in a new significant impact.

VEG-10 **Special-Status Plant Impact Avoidance, Minimization and Compensation.** This condition contains the following three sections: [...]

Section C: Off-Site Compensatory Mitigation for Special Status Plants [...]

5. **Compensation Lands Acquisition Requirements.** The project owner shall comply with the following requirements relating to acquisition of the compensation lands after the BLM AO has approved the proposed compensation lands: [...]

   b. **Title/Conveyance.** The project owner shall acquire and transfer fee title to the compensation lands, a conservation easement over the lands, or both fee title and conservation easement, as required by the BLM. Any transfer of a conservation easement or fee title must be to CDFW, a non-profit organization qualified to hold title to and manage compensation lands (pursuant to California Government Code section 65965), or ~~to BLM or~~ other public agency approved by the BLM AO. [...]

   g. **Mitigation Security.** The project owner shall provide financial assurances to the CDFW, a non-profit organization qualified to hold title to and manage compensation lands (pursuant to California Government Code section 65965), or other public agency approved by the BLM AO~~BLM AO~~ to guarantee that an adequate level of funding is available to implement any of the mitigation measures required by this condition that are not completed prior to the start of ground-disturbing project activities. Financial assurances shall be provided to the ~~BLM AO~~ entity in the form of an irrevocable letter of credit, a pledged savings account or another form of security ("Security") approved by the BLM AO. The amount of the Security shall use the estimated cost per acre for desert tortoise mitigation as a best available proxy, at a ratio of 3:1 for Rank 1 plants and 2:1 for Rank 2 plants, for every acre of habitat supporting the target special status plant species which is significantly impacted by the Project. The actual costs to comply with this condition will vary depending on the actual costs of acquiring compensation habitat, the costs of initially improving the habitat, and the actual costs of long-term management as determined by a PAR report. Prior to submitting the Security ~~to the BLM AO~~, the project owner shall obtain the BLM's approval of the form of the Security. The ~~BLM AO~~ designated entity may draw on the Security if the BLM AO determines the project owner has failed to comply with the requirements specified in this condition. The ~~BLM AO~~ designated entity may use money from the Security solely for implementation of the requirements of this condition. The ~~BLM AO~~ designated entity use of the Security to implement measures in this condition may not fully satisfy the project owner's obligations under this condition, and the project owner remains responsible for satisfying the obligations under this condition if the Security is insufficient. The unused Security shall be returned to the project owner in whole or in part upon successful completion of the associated requirements in this condition.

Rationale. The revisions to Mitigation Measure VEG-10 clarify that the compensatory mitigation would not include transfer of funds to the BLM. These revisions are consistent with the analysis presented in the Final SEIS/EIR.

VEG-11 **Mitigation for Impacts to State Waters.** The project owner shall implement the following measures to avoid, minimize and mitigate for direct and indirect impacts to waters of the state and to satisfy requirements of California Fish and Game Code sections 1600 and 1607. [...]

2. **Security for Implementation of Mitigation.** The project owner shall provide financial assurances to the ~~BLM and~~ CDFW to guarantee that an adequate level of funding is available to implement the acquisitions and enhancement of state waters as described in this condition. These funds shall be used solely for implementation of the measures associated with the Project. Financial assurance can be provided to the ~~BLM and~~ CDFW in the form of an irrevocable letter of credit, a pledged savings account or Security prior to initiating ground-disturbing project activities. Prior to submittal to the ~~BLM~~CDFW, the Security shall be approved by the BLM, in consultation with CDFW, to ensure funding. The final amount due shall be determined by updated appraisals and the PAR analysis conducted pursuant to Mitigation Measure WIL-4.

Rationale. The revisions to Mitigation Measure VEG-11 clarify that the compensatory mitigation would not include transfer of funds to the BLM but does not change the compensatory mitigation requirements. These revisions are consistent with the analysis presented in the Final SEIS/EIR and do not result in a new significant impact.

VEG-13 **Revegetation of Temporarily Disturbed Areas.** The P~~p~~roject O~~o~~wner will contract a qualified Restoration Ecologist to prepare and implement a Vegetation Resources Management Plan~~,~~ . The BLM AO must review and approve the Plan in writing ~~to be reviewed and approved in writing by BLM AO.~~; Submit ~~T~~the plan ~~will be submitted~~ to Riverside County for review and comment, and the Resource Agencies, if required. The plan must be approved prior to the initiation of any vegetation-disturbing activities. The Plan's goal will be to prevent further degradation of disturbed sites, but not necessarily to restore to pre-disturbance habitat values. The Vegetation Resources Management Plan ~~will~~ must detail the methods for revegetation of temporarily impacted sites; and long-term management of vegetation within the solar facility during its operations. Supplement ~~T~~the Vegetation Resources Management Plan ~~will be supplemented~~ prior to decommissioning to provide a framework for vegetation management and post-decommissioning restoration/reclamation. The Vegetation Resources Management Plan will include the following components: [...]

4. **Monitoring Requirement and Success Criteria.** The Plan ~~will~~ must include objective, quantifiable success criteria, commensurate with the goals of the Plan. Monitoring of the reclamation, revegetation, or restoration sites will continue annually for 3 years or until the defined success criteria are achieved, whichever is later. The project owner will be responsible for implementing remediation measures as needed. Following remediation work, the site will be subject to the success criteria and monitoring period as required for the initial reclamation, revegetation, or restoration. If, after a period of five years the restoration has not met the success criteria, then the project owner ~~shall~~must confer with CDFW and the BLM on another method to meet the compensation goals, including, but not limited to, acquisition of ~~state waters~~mitigation lands.

Rationale. The revisions to Mitigation Measure VEG-13 are administrative and have no effect on the resource. The proposed revision is consistent with the analysis presented in the Final SEIS/EIR and do not result in a new significant impact.

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With implementation of the mitigation measures identified above, impacts to riparian habitat or other sensitive natural communities under Criterion VEG-2 would be less than significant for the Proposed Action or Alternative 1 for desert dry wash woodland, unvegetated ephemeral dry wash, ~~and~~ groundwater-dependent vegetation, and stabilized and partly stabilized desert dunes and the Proposed Action or Alternative 1 would not contribute considerably to cumulative impacts. ~~For stabilized and partially stabilized desert dunes, the Proposed Action and Alternative 1 may have significant and unmitigable direct and indirect effects on aeolian sand habitat and sand transport and may have a considerable contribution to the significant cumulative loss of aeolian sand habitat and sand transport.~~

Section 4.18.4 Visual Resources: Mitigation Measures

Page 4.18-22

VIS-1 **Surface Treatment of Project Structures and Buildings.** The project owner ~~shall~~must treat the surfaces of all unshaded project structures and buildings visible to the public from outside of project fencelines, such that (a) their colors minimize visual intrusion and contrast by blending with (matching) the existing characteristic landscape colors; (b) their colors and finishes do not create excessive glare; and (c) their colors and finishes are consistent with local policies and ordinances. The transmission line conductors ~~shall~~must be non-specular and non-reflective, and the insulators ~~shall~~must be non-reflective and non-refractive.

Following in-field consultation with the BLM Visual Resources specialist and other representatives as deemed necessary, the project owner ~~shall~~must submit for BLM's Authorized Officer review and approval, a specific Surface Treatment Plan that will satisfy these requirements. The treatment plan ~~shall~~must include: [...]

Rationale. The revisions clarify the project components to which Mitigation Measure VIS-1 would apply, and the changes are consistent with the analysis in the Final SEIS/EIR. It would not change the conclusions for the CEQA analysis, Impact VIS-1 and VIS-3 would remain significant and unmitigable.

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BLM-VIS-2 **Night Lighting.** As determined by the BLM AO, based on a lumen analysis of the Lighting Mitigation Plan required by VIS-3, if it is demonstrated that the Project requirements for operational lighting would significantly increase the lighting exposure in the vicinity of the Project above that of the existing baseline night lighting conditions then, ~~I~~in addition to the requirements imposed by Mitigation Measure VIS-3, the project owner ~~shall~~must consult with the National Park Service Night Sky Program Manager in the development of the lighting plan, and comply with stricter standards for light intensity. All permanent light sources ~~shall~~must be

below 3,500 Kelvin color temperature (warm white) and ~~shall~~must have cutoff angles not to exceed 45 degrees of nadir; any permanent light sources exceeding this standard would constitute a "significant increase" under this measure and trigger the review requirements above. The use of 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. A CCT above 2,700 would increase blue light into the environment that would impact wildlife and visors and increase light pollution; any permanent light sources exceeding this standard would constitute a "significant increase" under this measure and trigger the review requirements above. All lights, temporary and permanent, ~~are to~~ must be fully shielded such that the emission of light above the horizontal will be prevented. Prior to construction, the Applicant ~~shall~~must submit to the BLM and NPS Joshua Tree NP for review and approval a Lighting Mitigation Plan that includes the following: [...]

Rationale: The measure is revised to allow for adaptive management if the Lighting Mitigation Plan and a lumen analysis of the existing baseline conditions in the vicinity of the Project indicate that the contribution of the Project would not significantly increase lighting exposure. Because the analysis includes Mitigation Measure VIS-3 (Temporary and Permanent Exterior Lighting) that would reduce the lighting and glare from the project and because the revised measure would still be required if an impact were found, the revisions do not result in a new, significant impact. Impact VIS-4 would remain less than significant with mitigation.

Section 4.18 Water Resources: Mitigation Measures

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~~**WR-8 Ground Subsidence Monitoring and Action Plan.** One monument monitoring station per production well or a minimum of three stations shall be constructed to measure potential inelastic subsidence that may alter surface characteristics of the Chuckwalla Valley near the proposed production wells. The Project owner shall:~~

~~A. Prepare and submit a Subsidence Monitoring Plan (SMP). The plan shall include the following elements:~~

- ~~Construction diagrams of the proposed monitoring station including size and description, planned depth, measuring points, and protection measures;~~
- ~~Map depicting locations (minimum of three) of the planned monument monitoring stations;~~
- ~~Monitoring program that includes monitoring frequency, thresholds of significance, reporting format.~~

~~B. Prepare quarterly reports commencing three (3) months following commencement of groundwater production during construction and operations. The reports shall include presentation and interpretation of the data collected including comparison to the thresholds developed in Item C.~~

~~C. Prepare a Mitigation Action Plan that details the following:~~

- ~~Thresholds of significance for implementation of proposed action plan;~~
- ~~Any subsidence that may occur will not be allowed to damage existing structures either on or off the site or alter the appearance or use of the structure;~~
- ~~Any subsidence that may occur will not be allowed to alter the natural drainage patterns or permit the formation of playas or lakes;~~
- ~~Any subsidence that violates (a) or (b) will result in the project owner investigating the need to immediately reduce/cease pumping until the cause is identified or subsidence caused by project pumping abates and the structures and/or drainage patterns are stabilized and corrected.~~
- ~~Action Plan that details proposed actions by the Project owner in the event thresholds are achieved during the monitoring program.~~

~~The Project owner shall submit the Ground Subsidence Monitoring and Action Plan that is prepared by an Engineering Geologist registered in the State of California 30 days prior to the start of extraction of groundwater for construction or operation.~~

Rationale: Mitigation Measure WR-8 is deleted because it would have applied to solar thermal technologies that required more groundwater throughout the life of the project due to cooling for the project. The Palen Solar Project requires significantly less water than the original project so would produce a significantly lesser drawdown than what was calculated for the original solar thermal proposal. The Palen Solar Project is not expected to substantially alter groundwater levels due to groundwater production and the risk of subsidence in the vicinity of the project is considered remote. Mitigation Measure WR-8 was required for Impact WR-2 (Deplete Groundwater Supplies). Mitigation Measures WR-2 (Construction and Operation Water Use), WR-3 (Groundwater Level Monitoring, Mitigation, and Reporting), WR-7 (Mitigation of Impacts to the Palo Verde Mesa Groundwater Basin), and WR-9 (Estimation of Impacts to PVMGB) would still be required and would ensure that groundwater supplies are not substantially depleted and groundwater recharge is not interfered with substantially. Deleting Mitigation Measure WR-8 would not result in a new significant impact.

WR-9 **Estimation of Impacts to Palo Verde Mesa Groundwater Basin (PVMGB).** Based on the results of the Groundwater Monitoring Plan (APM-40, WR-3), if it is determined by the BLM AO or Project Owner that project-related groundwater withdrawals will result in the static groundwater level at the well being near (within 1 foot), equal to, or below the Accounting Surface during the life of the project, then ~~T~~the project owner ~~shall~~must conduct an analysis of the Project's effect on the PVMGB groundwater budget including an estimate of the decrease in underflow from the CVGB to the PVMGB. The analysis ~~shall~~must include the following:

A. Refinement of the estimate of decrease in underflow from the CVGB to the PVMGB using the numerical groundwater flow model developed for the Project under WR-3. Develop ~~A~~an upper-bound estimate of the underflow decrease ~~shall be developed~~ through sensitivity analysis of the lateral hydraulic conductivity of the pumped aquifer and the general head boundaries, as well as recharge.

a. Conduct a~~A~~ statistical analysis of existing aquifer tests and specific capacity tests in the western CVGB ~~shall be conducted~~ to characterize the distribution of hydraulic conductivity values in the area.

b. Conduct ~~M~~model runs ~~shall be conducted~~ using the first quartile (25%), second quartile (50%) and third quartile (75%) hydraulic conductivities to evaluate the change in underflow induced by project pumping under a reasonable range of values.

c. Simulate ~~T~~the effect of recharge in the model domain ~~shall be simulated~~ by applying mountain front recharge at the appropriate locations in amounts representing 2% to 3% of total average incident precipitation falling on the model domain and tributary mountain areas.

B. Use ~~T~~the maximum predicted decrease in underflow from the CVGB to the PVMGB ~~shall be used~~ to assess the volume of water requiring mitigation under WR-7. The volume predicted ~~will~~ must include the cumulative decrease in underflow during the period the project pumps groundwater from the CVGB as well as any latency effects following cessation of pumping. The latency period ~~will~~ must extend until underflow achieves pre-project conditions.

C. An assessment report ~~shall~~must be prepared summarizing the methods and results of this supplemental analysis, presenting any supporting data, assumptions made, and an estimate of the uncertainty of PVMG underflow depletion.

D. The project owner ~~shall~~must present the results of the conceptual model, numerical model, transient runs, and sensitivity analysis in a report for review and approval by the BLM. The report ~~shall~~must include all pertinent information regarding the development of the conceptual and numerical models. The report ~~shall~~must include:

a. Introduction

b. Previous Investigations

c. Conceptual Model Development

d. Numerical Model and Input Parameters

e. Sensitivity Analysis

f. Transient Modeling Runs

g. Conclusions

Rationale: This measure was revised to allow for adaptive management due to the significantly less water use projected for the Palen Solar Project. The revised measure would not result in a new significant impact because it would require the same mitigation but only if the drawdown of the groundwater was projected to be within the Accounting Surface for the Palo Verde Mesa Groundwater Basin. The revision would not result in a new significant impact.

WR-10 **Groundwater Quality Monitoring and Reporting Plan.** Before the start of construction, the project owner ~~shall~~must submit a Groundwater Quality

Monitoring and Reporting Plan to the BLM and the County for review and approval. The Groundwater Quality Monitoring and Reporting Plan ~~shall~~must provide a description of the methodology for monitoring background and site groundwater quality. Implement ~~T~~the sampling required for the water quality monitoring program ~~shall be implemented~~ during groundwater level monitoring events in accordance with Mitigation Measure WR-3. Define ~~T~~the Plan ~~shall define~~ that, prior to project construction, monitoring ~~shall~~must commence to establish pre-construction groundwater quality conditions in the well proposed for the program and ~~shall~~must include pre-construction and~~,~~ construction~~, and project operation~~ water use. The water quality monitoring program ~~shall~~must identify potential changes in the existing water quality of the proposed water supply resulting from project pumping, if any, establish pre-construction and project related groundwater quality that can be quantitatively compared against observed and simulated levels near the project pumping well and near potentially impacted existing wells, and to avoid, minimize, or mitigate significant impacts to sensitive receptors. If compliance data indicate that the water supply quality has deteriorated (exceeds pre-project constituent concentrations in TDS, sodium, chloride, or other constituents identified as part of the monitoring plan and applicable Water Quality Objectives are exceeded for the applicable beneficial uses of the water supply) for three consecutive years, the project owner ~~shall~~must provide treatment or a new water supply to either meet or exceed pre-project water quality conditions to any impacted water supply wells.

Rationale: This measure was clarified to eliminate the need to monitor during operation of the Project due to the significantly less water use projected for the Palen Solar Project for operations. Because of the very limited use of water during Project operations, removing monitoring during operations would not result in a new significant impact.

Section 4.21.4 Wildlife Resources: Mitigation Measures

Page 4.21-39

WIL-4 **Desert Tortoise Compensatory Mitigation.** To fully mitigate for habitat loss and potential take of desert tortoise, the project owner ~~shall~~ must provide compensatory mitigation based on the size of the final project footprint. For purposes of this condition, the project footprint means all lands disturbed in the construction and operation of the Palen Project, including all project linears, as well as undeveloped areas inside the Project's boundaries that will no longer provide viable long-term habitat for the desert tortoise. To satisfy this condition, the project owner ~~shall~~ must acquire, protect and transfer 5 acres of desert tortoise habitat for every acre of habitat within critical habitat and within the final project footprint, and 1 acre of desert tortoise habitat for every acre of habitat outside of critical habitat but within the final project footprint, and provide associated funding for the acquired lands, as specified below. In addition to or as a substitute for acquisition, restoration of degraded BLM land in ACEC and/or California Desert National Conservation Lands, other protected lands (e.g., Wilderness, NPS, etc.), Wildlife Allocations, or other designations may be used as compensation lands, if they can be shown to

assure durability of conservation on public lands to a degree acceptable to the agencies with jurisdiction over the species in question. This will satisfy the mitigation obligation. The project owner may also use Desert Tortoise fencing along important roadways, where the fencing is not a requirement of a translocation plan or ~~the mitigate~~ mitigation of other impacts, ~~may also be used~~ (in coordination with USFWS and CDFW) as a part of a restoration plan to help fulfill the compensatory mitigation requirement. In lieu of acquiring or restoring land itself, the project owner may satisfy the requirements of this condition by depositing funds into the Renewable Energy Action Team (REAT) Account established with the National Fish and Wildlife Foundation (NFWF), as provided below in section 3.i of this measure. If the project owner acquires compensation lands ~~are acquired~~ in fee title or in easement, the requirements for acquisition, initial improvement and long-term management of compensation lands include all of the following: [...]

3. **Compensation Lands Acquisition Requirements.** The project owner shall comply with the following requirements relating to acquisition of the compensation lands after the CDFW, in consultation with BLM and the USFWS, have approved the proposed compensation lands: [...]

   b. **Title/Conveyance.** The project owner shall transfer fee title to the compensation lands, a conservation easement over the lands, or both fee title and conservation easement as required by the CDFW. Transfer of either fee title or an approved conservation easement will usually be sufficient, but some situations, e.g., the donation of lands burdened by a conservation easement to BLM, will require that both types of transfers be completed. Any transfer of a conservation easement or fee title must be to CDFW or, ~~,~~ a non-profit organization qualified to hold title to and manage compensation lands (pursuant to California Government Code section 65965)~~, or to BLM under terms approved by CDFW~~. If an approved non-profit organization holds title to the compensation lands, a conservation easement shall be recorded in favor of CDFW in a form approved by CDFW. If an approved non-profit holds a conservation easement, CDFW shall be named a third-party beneficiary. [...]

   h. **Mitigation Security.** The project owner shall provide financial assurances to CDFW with copies of the document(s) to BLM and the USFWS, to guarantee that an adequate level of funding is available to implement the mitigation measures described in this condition. These funds shall be used solely for implementation of the measures associated with the Project in the event the project owner fails to comply with the requirements specified in this condition, or shall be returned to the project owner upon successful compliance with the requirements in this condition. The ~~BLM or~~ CDFW's use of the security to implement measures in this condition may not fully satisfy the project owner's obligations under this condition. Financial assurance can be provided to the ~~BLM and~~ CDFW in the form of an irrevocable letter of credit, a pledged savings account or another form of security ("Security"). Prior to submitting the Security, the project owner shall obtain the BLM's approval in consultation with CDFW and the

USFWS, of the form of the Security. The actual costs to comply with this condition will vary depending on the final footprint of the Project and the actual costs of acquiring, improving and managing the compensation lands.

Rationale. The revisions clarify that the compensatory mitigation would not include transfer of funds to the BLM. The requirements regarding compensatory mitigation were not revised so the revision would not result in a new significant impact.

Page 4.21-46

WIL-9 **Burrowing Owl Impact Avoidance, Minimization, and Compensation Measures.** The project owner shall implement the following measures to avoid, minimize and offset impacts to burrowing owls: [...]

4. **Acquire Burrowing Owl Habitat.** The project owner shall acquire, in fee or in easement land suitable to support a resident population of burrowing owls and shall provide funding for the enhancement and long-term management of these compensation lands. [...]

b. **Security.** If the burrowing owl mitigation land is separate from the acreage required for desert tortoise compensation lands the project owner or an approved third party shall complete acquisition of the proposed compensation lands within the time period specified for this acquisition (see the verification section at the end of this condition). Alternatively, financial assurance can be provided by the project owner to the ~~BLM APO and~~ CDFW, according to the measures outlined in Mitigation Measure Mitigation Measure WIL-4. These funds shall be used solely for implementation of the measures associated with the Project. Financial assurance can be provided to the ~~BLM AO~~ CDFW in the form of an irrevocable letter of credit, a pledged savings account or another form of security ("Security") prior to initiating ground-disturbing project activities. Prior to submittal, the Security shall be approved by the BLM AO, in consultation with CDFW and the USFWS to ensure funding. The final amount due will be determined by an updated appraisal and PAR analysis conducted as described in Mitigation Measure WIL-4. CDFW's 2012 Staff Report on Burrowing Owl Mitigation shall control to the extent the provisions of this measure conflict with it.

Rationale. The revisions clarify that the compensatory mitigation would not include transfer of funds to the BLM. The requirements regarding compensatory mitigation were not revised so the revision would not result in a new significant impact.

Page 4.21-48

WIL-10 **Sand Dune/Mojave Fringe-toed Lizard Mitigation.** To mitigate for habitat loss and direct impacts to Mojave fringe-toed lizards, the project owner ~~shall~~must provide compensatory mitigation, which may include compensation lands purchased in fee or in easement in whole or in part, at the ratios below. The project owner may accomplish ~~C~~compensation ~~may be accomplished~~ through acquisition

and management of off-site habitat (subsection I below) or, if suitable compensation habitat is not available, through off-site habitat enhancement and restoration (subsection II below).

- 3:1 mitigation for direct impacts to sand transport corridor Zone II (per final acreage impacted by the project footprint);
- 1:1 mitigation for direct impacts non-dune (sand transport corridor Zones III and IV) Mojave fringe-toed lizard habitat as shown on Figure 3.21-5 (per final acreage impacted by the project footprint); and
- 0.5:1 mitigation for indirect impacts to ~~stabilized and partially stabilized~~ sand transport corridor Zone II dunes (per final acreage impacted by the project footprint).

I. **Compensation Habitat Acquisition.** If compensation lands are acquired, the project owner ~~shall~~must provide funding for the acquisition in fee title or in easement, initial habitat improvements, and long-term maintenance and management of the compensation lands. The project owner may evaluate ~~C~~compensation habitat evaluated for compliance with this mitigation measure ~~may additionally be evaluated~~ for creosote ring occurrence as described in APM 50. [...]

2. **Security for Implementation of Mitigation.** The project owner shall provide financial assurances to the ~~BLM AO~~ CDFW to guarantee that an adequate level of funding is available to implement the acquisitions and enhancement of Mojave fringe-toed lizard habitat as described in this condition. These funds shall be used solely for implementation of the measures associated with the Project. Financial assurance can be provided to the ~~BLM AO~~ CDFW according to the measures outlined in Mitigation Measure WIL-4. The final amount due will be determined by an updated appraisal and a PAR analysis conducted as described in Mitigation Measure WIL-4.

II. **Compensatory Mitigation by Habitat Enhancement/Restoration.** As an alternative or adjunct to land acquisition for compensatory mitigation the project owner may undertake habitat enhancement or restoration for MFTL in ACECs and/or California Desert National Conservation Lands, other protected lands (e.g., Wilderness, NPS, etc.)~~;~~, the project owner may use Wildlife Allocations, or other designations ~~may be used~~ as compensation lands, if they can ~~be shown to~~ assure durability of conservation on public lands to a degree acceptable to the agencies with jurisdiction over the species in question. Habitat enhancement or restoration activities must achieve protection at the compensation ratios specified in the first paragraph of this measure (WIL-10), as follows: 3:1 mitigation for direct impacts to sand transport Zone II; 1:1 mitigation for direct impacts non-dune Mojave fringe-toed lizard habitat in sand transport Zones III and IV (Figure 3.21-5); and 0.5:1 mitigation for indirect impacts to sand transport corridor Zone II~~stabilized and partially stabilized sand dunes~~. Examples of suitable enhancement projects include but are not limited to the following: (i) control unauthorized vehicle use into an MFTL occurrence; (ii) control of invasive non-native plants that infest or pose an immediate threat

to an MFTL occurrence; (iii) restore lost or degraded hydrologic or geomorphic functions critical to the species by restoring previously diverted flows, or removing obstructions to the wind sand transport corridor. [...]

Rationale. The revision clarifies the type of sand transport habitat for which mitigation would be required. The revisions clarify that the compensatory mitigation would not include transfer of funds to the BLM. The requirements regarding compensatory mitigation were not revised so the revision would not result in a new significant impact.

Section 4.22.3 Other CEQA and NEPA Considerations: Significant Unavoidable Environmental Impacts

Page 4.22-4 through 4.22-7

Cultural Resources

Impact: Cumulative Impacts to Archaeological Resources

CEQA Criterion CR-4: Project would contribute to cumulative effects.

The effects of the Proposed Action, when combined with impacts from past, present, and reasonably foreseeable projects, contribute to the cumulatively considerable adverse impacts to two cultural landscapes/historic districts in eastern Riverside County. Cumulative impacts to the World War II Desert Training Center Cultural Landscape would be addressed through Mitigation Measure CUL-15 (Palen Pass Historic District Recording) and with this mitigation, the project would not result in a considerable contribution to cumulative effects on these World War II-era resources.

Seven prehistoric-era resources and eight sensitive archaeological resources are present within the direct and indirect effects study area for the Prehistoric Trails Network Cultural Landscape. The destruction of the seven prehistoric-era resources as a result of the direct impacts of the Project contributes in a small but measureable way to the destruction of the PTNCL as a whole. Cumulative impacts to the PTNCL as a result of visual intrusion from the indirect effects to the eight sensitive archaeological resources compromises the integrity of the resource. Implementation of Mitigation Measure CUL-21 (Survey and Long-Term Monitoring of Resources in the Palen Dry Lake ACEC) and CUL-22 (Implement Protective Measures at Sensitive Areas) would reduce the contribution of the project to cumulative effects, but the overall cumulative impact would remain significant due to the scale of the resource and the number of cumulative projects that could impact it.

Rationale: this discussion applies to the EIR under CEQA, and is outside the scope of the BLM's decision under the NEPA and FLPMA. It is included here because this is a joint EIS/EIR.

~~***Impact: Historical, Archaeological, and Tribal Cultural Resources***~~

~~**CEQA Criterion CR-1**: Cause a substantial adverse change in the significance of a historical resource.~~

~~The direct and indirect impacts of project construction, operation, and decommissioning, to historical resources would be significant. Information currently available from recent ethnographic~~

~~interviews and tribal consultation associated with other projects suggests that the Project and Alternatives would not result in indirect impacts to the Palen Dry Lake ACEC. However, government-to-government consultation between BLM and interested tribes is ongoing to confirm that Palen Dry Lake ACEC is not eligible for the NRHP and CRHR under Criterion A/1 and that the Project would not result in impacts to this area. The Project Alternatives would result in direct impacts to CA-RIV-9481, the DTC/C-AMA associated 18th Ordinance Battalion Campsite. Mitigation Measures CUL-1 through CUL-14 and CUL-16 through CUL-20 would reduce the severity of impacts to historical resources and tribal cultural resources (those eligible for the CRHR) by putting procedures in place for their management and treatment. However, important resources that are not now known may be identified through ongoing tribal consultation or during construction. If the loss of these resources cannot be fully mitigated, the impacts would be significant and unmitigable.~~

~~**CEQA Criterion CR-2**: Cause a substantial adverse change in the significance of a (unique) archaeological resource.~~

~~The direct and indirect impacts of project construction, operation, and decommissioning, to unique archaeological resources could create significant impacts. However, they are not anticipated because no unique archaeological resources have been identified to date. If important archaeological resources are found during construction, implementation of MM CUL-1 through MM CUL-15 and MM CUL-16 through MM CUL-20 would reduce some of these impacts to less than significant levels. However, because the severity of the residual impact would depend on the value of each resource found and the extent of its destruction during construction, the impact may remain significant even with all mitigation implemented.~~

~~**CEQA Criterion TCR-1**: Cause a substantial adverse change in the significance of a tribal cultural resource identified through consultation with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project (Public Resources Code Section 21084.2).~~

~~The direct and indirect impacts of project construction, operation, and decommissioning, to tribal cultural resources could create significant impacts. However, they are not anticipated because no tribal cultural resources have been identified through tribal consultation. The implementation of MM CUL-1 through MM CUL-15 and MM CUL-16 through MM CUL-20 would reduce some of these impacts to less than significant levels. However, if important resources are identified through ongoing consultation or as a result of discoveries during construction, some of the impacts may remain significant.~~

~~**CEQA Criterion TCR-2**: Cause a substantial adverse change in the significance of a tribal cultural resource listed in, or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources, and it is demolished or materially altered as described in State CEQA Guidelines section 15064.5 (b).~~

~~The direct and indirect impacts of project construction, operation, and decommissioning, to tribal cultural resources could create significant impacts. However, they are not anticipated because no tribal cultural resources that are eligible or listed on the CRHR have been identified. The implementation of MM CUL-1 through MM CUL-15 and MM CUL-16 through MM CUL-20 would reduce some of these impacts to less than significant levels. However, if important resources are~~

identified through ongoing consultation or as a result of discoveries during construction, some impacts may remain significant and unmitigable.

Impact: Human Remains

CEQA Criterion CR-3: Disturb any human remains, including those interred outside of dedicated cemeteries.

The impacts of project construction, operation, and decommissioning to human remains are not anticipated because no human remains have been found in the project area. However, the remains of Native Americans are the most likely to be discovered within or nearby the project area. Tribal consultation indicates that both direct and indirect impacts to Native American remains would be partially addressed and reduced to less than significant levels by MM CUL-1 through MM CUL-15 and MM CUL-16 through MM CUL-20. However, if remains are found, these measures would not reduce impacts to less than significant levels; the impacts would remain significant.

Vegetation Resources

Impact: Sand Habitats and Sand Transport Corridor

CEQA Criterion VEG-2: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified by local, state, or federal agencies.

It is uncertain whether sufficient private lands meeting the habitat criteria may be available for purchase or whether off-site enhancement and restoration can feasibly and effectively restore natural sand transport function and aeolian sand habitat values per Mitigation Measure WIL-10, Sand Dune/Mojave Fringe-toed Lizard Mitigation. Therefore, Mitigation Measures VEG-1 through VEG-9, VEG-11, VEG-13, WIL-4, and WIL-10 would reduce impacts on sand habitats and the sand transport corridor, but there may be significant and unmitigable direct and indirect effects on aeolian sand habitat and sand transport.

Impact: Cumulative Sand Habitats and Sand Transport Corridor Impacts

CEQA Criterion VEG-2: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified by local, state, or federal agencies.

Similar to the above, it is uncertain whether sufficient private lands meeting the habitat criteria may be available for purchase or whether off-site enhancement and restoration can feasibly and effectively restore natural sand transport function and aeolian sand habitat values per Mitigation Measure WIL-10, Sand Dune/Mojave Fringe-toed Lizard Mitigation. Mitigation Measures VEG-1 through VEG-9, VEG-11, VEG-13, WIL-4, and WIL-10 would reduce impacts on sand habitats and the sand transport corridor, but there may be a considerable contribution to the significant cumulative loss of aeolian sand habitat and sand transport.

Visual Resources

Page 4.22-7

~~***Impact: Cumulative Night Lighting Impacts***~~

~~**CEQA Criterion VIS-4:** Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.~~

~~The Proposed Action and Alternatives could combine with any of the 16 local energy projects or eight regional energy projects to cause cumulative night lighting impacts on night sky visibility in the Chuckwalla Valley and for users of nearby designated wilderness and Joshua Tree National Park. Mitigation Measures VIS-3 and BLM-VIS-2 would reduce the severity of the cumulative night lighting effects. However, the cumulative impact to night sky visibility in the Chuckwalla Valley and for users of nearby designated wilderness and JTNP would remain significant and unavoidable.~~

~~**Wildlife Resources**~~

~~***Impact: Mojave Fringe-Toed Lizard and Special Status and Migratory Birds***~~

~~**CEQA Criterion WIL-1:** Have a substantial adverse direct or indirect effect on any candidate, sensitive, or special-status species identified by local, state, or federal agencies.~~

~~It is uncertain whether sufficient private lands meeting the habitat criteria may be available for purchase or whether off-site enhancement and restoration can feasibly and effectively restore natural sand transport function and aeolian sand habitat values per Mitigation Measure WIL-10. Mitigation Measure WIL-10 would reduce impacts on sand habitats and the sand transport corridor, but there may be significant and unmitigable direct and indirect effects on Mojave Fringe-Toed Lizard and its habitat Mitigation Measure WIL-7 would reduce most impacts to special status birds to less than significant, but the potential impacts of avian collision with project facilities and "lake effect" cannot be fully evaluated and could remain significant.~~

Appendix I: Section I.4 Response to Comments

Page I-419

C1-6 The BLM further notes that no ACEC would be directly affected by the proposed ~~Project~~solar facility. Construction and other activities of the solar facility would occur outside of all ACEC boundaries. The gen-tie line would enter into the Chuckwalla ACEC to reach the existing Red Bluff Substation that is located within the Chuckwalla ACEC.

Page I-427

C1-31 The commenter states that the growth-inducing analysis is not adequate because CEQA is required to address growth inducing impacts if a project may "encourage or facilitate" another project that could have significant impacts to the environment. The comment states that the Palen Solar Project gen-tie line may induce further solar development in the region. There is no evidence that a gen-tie line would encourage the development of other renewable projects or that this has happened in the past. There are no renewable projects in the Desert Center region or along the I-10 that share gen-tie lines or any indication that EDF and a separate developer

would be able to share the gen-tie line without substantial additional work. The EIS acknowledges that there are many other potential solar projects proposed in the region and analyzes them appropriately in the Cumulative Analysis; however, these projects are not being proposed because of the Palen Solar Project gen-tie line. It is not reasonable to think that absent other criteria, a gen-tie line by itself would induce a project that would not otherwise be proposed. ~~This issue is addressed in SEIS/EIR Section 4.22.1, and the text has been revised to address the comment.~~

Exhibit D

Mitigation Measure Revision Rationale

Palen Solar Project: Mitigation Measures Revision Rationale

The following provides additional rationale for the revisions to the Mitigation Measures presented in Exhibit C.

- **MM CUL-8. Rationale for revision**: MM CUL-8 was originally prepared for the project in 2010 before resources along the gen-tie route had been assessed for eligibility. Eligibility determinations have since been completed with the identification of a single eligible cultural resource along the gen-tie route, the 18th Ordinance Battalion site. Any new resources discovered along the gen-tie route during construction would be subject to the cultural resources monitoring and unanticipated discovery protocols applicable to the project (e.g., MM CUL-3, CUL-9, MM CUL-10). The revision improves the effectiveness of the project's cultural resources mitigation framework by clarifying the mitigation measure based on subsequent cultural resources work and by preventing inconsistencies between the treatment protocols of separate cultural resources mitigation measures. The revision would not reduce the effectiveness of the measure.
- **MM CUL-15. Rationale for revision:** Creating a map and geodatabase of the 36th Evacuation Hospital (Hospital) is a measure that is commensurate with the impacts of the project to the overall Desert Training Center (DTC). The project does not impact any historic properties associated with the DTC; the sites to be impacted by construction are generally degraded and do not retain integrity. Recording a five percent sample of the Palen Pass resource area, which is located over 11 miles east of the project site and to the north of the Genesis solar project in a valley outside project's viewshed, would not have an adequate nexus to or be commensurate with the project's impacts. Creating maps and a geodatabase of the Hospital is more proportionate because it is closer to the PSP and the alteration of the overall environment caused by the project would affect the Hospital more than Palen Pass. Digitization of aerial photography of the Hospital will also assist BLM in preparation of their nomination of the DTC as a multiple property district at a cost appropriate to the size and scale of the project. The revision improves the effectiveness of the mitigation measure by focusing on a specific, proximate resource cumulatively affected by the project. The revision would more effectively reduce and not intensify the impact it addresses.
- **MM CUL-21. Rationale for revision:** While the project will have a cumulative impact on the cultural landscape, the requests of CUL-21 to update the entire ACEC management plan, in addition to surveying and recording 5% of the 3,600-acre Palen Dry Lake ACEC, is not commensurate with the "small but measurable" cumulative impact the project will have on the overall environment. The task of updating the entire ACEC management plan is reserved to the managerial expertise and policy discretion of the BLM and extends beyond the project's "small but measurable" contribution to cumulatively significant impacts on landscape-scale cultural values. In addition, the cumulative impact analysis was revised in the final SEIS/SEIR to assesses impacts to historic properties, not ACECs; mitigation therefore must be specific to historic properties as well. Investigating the status of CA-RIV-1515 and attempting to refine site boundaries is an appropriate level of effort for the cumulative impacts of the project because CA-RIV-1515 is the historic property closest to the project site. Data generated by field investigations can be used by BLM to further develop management plans for the ACEC and manage CA-RIV-1515. The revision would more effectively reduce and not intensify the impact

it addresses because it properly relegates managerial discretion to the expertise of the BLM rather than to the project proponent, which has no such expertise.

- **MM NOISE-4. Rationale for Revision:** This mitigation measure originally came from the 2010 CEC Revised Staff Assessment for the Palen Solar Power Project (PSPP) and was related to the noise impacts of operating a solar thermal trough project. The CEC found that the primary noise source of the PSPP plant would be the power blocks, where the steam turbine generators, air-cooled condensers, electric transformers, and various pumps and fans would be located *(CEC PSPP Revised Staff Assessment, p. C7-9).*

  The Palen Solar PV would not use any of this equipment. As stated in the SEIS/SEIR:

  "(Section 4.92, p. 4.9-4 & 4.9-5) Assuming that the inverters would be at least 200 feet from any property site boundary, the resulting noise level would be 55 dBA Leq or lower for all off-site locations, including the adjacent residence. As such, these sources would not be expected to generate adverse off-site noise effects..... Because the inverters and transformers would not be positioned near the site boundary, the noise from the inverters within the site would diminish over the distance to levels comparable to daytime ambient levels at the project site boundary. These stationary sources would not create noise during the nighttime."

  It is clear from the SEIS/SEIR that the 55 dBA referenced in the highlighted language above is based on the 55 dBA property-line noise limit of Riverside County's Noise Ordinance rather than on an estimate of actual noise levels at the project boundary during operations, which would be significantly lower. This is evidenced by the Desert Harvest FEIS use of an in-depth analysis from the Desert Sunlight FEIS which found lower dBA levels. The Desert Sunlight FEIS (which assumes the same equipment the Palen PV project would use) noted:

  "(Section 4.10, p. 4.10-20 - 4.10-21) Inverters and transformers at the [power conversion station] PCS would produce low levels of noise during facility operations, but this noise would be limited to daytime hours when the solar arrays are generating electricity.....For analysis purposes, the overall noise generation from the PCS (inverter housing, air conditioner, and transformer) has been estimated at 65 dBA at a distance of 10 feet. This noise level would be reduced to 50 dBA at a distance of 56 feet, to 40 dBA at a distance of 178 feet, and to 35 dBA at a distance of 312 feet. The PCS would be centrally located within each 1 MW array of solar panels, about 240 to 300 feet from the sides of the array. No solar arrays would be within 100 feet of the western property line. Thus, the PCS would generate little audible noise beyond the solar farm property line during daytime hour. The PCS would not be a source of noise during nighttime hours.....Transformers at the on-site substation would have cooling fans that operate during daytime hours, but which would not be needed at night when the solar arrays are not generating power. The transformers at the on-site substation are expected to generate noise levels of 89 dBA at a distance of six feet during the daytime, and 86 dBA at a distance of one foot during nighttime hours (Beck 2010c). Daytime noise generation from the on-site substation is expected to be 70.6 dBA at a distance of 50 feet from the substation, 60 dBA at 168 feet, 50 dBA at 521 feet, 45 dBA at 907 feet, and 40 dBA at 1,535 feet. Nighttime noise generation from the on-site substation is expected to be 52.1 dBA at a distance of 50 feet, 50 dBA at a distance of 64 feet, 40 dBA at a distance of 200 feet, and 35 dBA at a distance of 353 feet."

  Based on preliminary design layouts of the Palen PV proposal, the closest inverter would be approximately 680 feet from the nearest residence (LT1) at the northwesterly corner of the project. The project substation would be approximately 4,800 feet from the nearest residence

(LT1) at the northwesterly corner of the project. Therefore, as evidenced by the Desert Sunlight analysis quoted above, noise levels from the project's nearest inverter would not exceed 40 dBA at LT1 if it remains at least 180 feet away. Similarly, as also evidenced by the Desert Sunlight analysis quoted above, the project's substation would not exceed 40 dBA at LT1 if it remains at least 1,535 feet away. Mitigation Measure Noise-4 therefore should only be required if the project's inverters or substation are respectively located within 180 feet and 1,535 feet of LT1.

Language regarding "pure tone" effects was removed from NOISE-4 because page 4.9-5 of the SEIS/SEIR expressly states that the project would not generate "simple tones or a 'hum'". This is because the project does not require the power block equipment proposed for PSPP.

Similar mitigation measures of the Modified Blythe Solar SFEIS were similarly revised due to the elimination of the Solar Thermal proposal and lesser impacts of noise produced by PV solar, Single axis tracking systems. (Modified Blythe Solar FSEIS at Section 3.10-6 para. 3 & Section 3.10.5.4, Para 1)

The project's solar PV design avoids the potential significant impact caused by pure-tone noises associated with solar thermal technologies that the measure originally sought to mitigate. Furthermore, because the solar PV design is significantly quieter than the solar thermal technologies the mitigation measure was originally designed for, the revision adds a new performance standard triggering the mitigation measure if estimated low noise levels are exceeded. Because the project's PV design substantially reduces the impacts the mitigation measure was originally designed to address, these edits to the measure do not intensify the impact but instead tailor the measure to the impacts of the solar PV proposal.

- **MM NOISE-5. Rationale for Revision:** This mitigation measure originally came from the 2010 PSPP CEC Revised Staff Assessment and was related to the noise impacts of operating a solar thermal trough project. The CEC found that the primary noise source of the PSPP plant would be the power blocks, where the steam turbine generators, air-cooled condensers, and various pumps and fans would be located, particularly due to steam blows in excess of 129 dBA at 50 feet. (CEC PSPP Revised Staff Assessment, p. C. 7-9 through C.7-11).

  The Palen PV project will not use such equipment because it does not require a steam turbine to generate electricity. Please refer to the rationale for revision of mitigation measure NOISE-4, above. Both the California Code of Regulations and the Code of Federal Regulations referenced in mitigation measure NOISE-5 apply to the continued exposure of employees over an 8-hour workday to average levels of noise above 85 dBA (California) or 90 dBA (Federal). However, as stated in the Desert Harvest FEIS 2013, Section 4.12, p. 4.12-12, last paragraph (which assumes the same equipment the Palen PV project would use), an inverter *"would generate a noise level of about 80 dBA at a distance of 3.28 feet or 74 dBA at a distance of 6.5 feet."* Similarly, p. 4.12-13 of the Desert Harvest FEIS states, *"The transformers at the on-site substation are expected to generate noise levels of 89 dBA at a distance of 6 feet during the daytime, and 86 dBA at a distance of 1 foot during nighttime hours (BLM 2011). Daytime noise generation from the on-site substation is expected to be 70.6 dBA at a distance of 50 feet from the substation, 60 dBA at 168 feet, 50 dBA at 521 feet, 45 dBA at 907 feet, and 40 dBA at 1,535 feet (BLM 2011)."*

  While an operations employee standing next to an inverter or a transformer may be briefly exposed to a noise level of 89 dBA or less, no employee would stand within 10 feet of an inverter or transformer for so long that average noise levels would exceed 85 dBA during an 8-hour work

day (both as a practical matter and, in any event, to remain OSHA-compliant), thus not exceeding the OSHA and CAL-OSHA 8-hour workday standards. Based on this review, and based on the change of technology from solar thermal trough to solar PV, this mitigation measure is no longer warranted. This determination is similar to the determination made in the Modified Blythe Solar Power Project FEIS, Section 3.10.5.4, p. 3.10-9, *"Based on the modifications proposed.....several of the approved mitigation measures no longer would be warranted or would not be applicable for the Modified Project. Specifically....Mitigation Measure NOISE-5 requires an occupational noise survey (Modified Project operation and maintenance noise levels would not exceed OSHA and CAL-OSHA standards, such that a noise survey would not be necessary);"*

Because the project's PV design and background OSHA regulations avoid the impacts the mitigation measure was originally designed to address, mitigation measure NOISE-5 is no longer necessary.

- **MM NOISE-6. Rationale for Revision:** The SEIS/SEIR modified the original PSPP measure NOISE-6 without justification. Because the measure is based on Riverside County's Noise Ordinance, it has been restored to its original wording to reflect the ordinance's quarter-mile standard, which was also included in the original PSPP measure.

- **MM HAZ-2. Rationale for Revision:** Mitigation measures that were carried over from the CEC Commission Decision to the Palen SFEIS 2018 were originally assigned implementation to a CEC Compliance Project Manager. Now that the CEC no longer has jurisdiction over the project because it is non-thermal, either BLM, the County, or both must be identified as responsible for implementation of each mitigation measure. The Palen PV Project as noted in the SEIS/SEIR is located entirely on federal lands. HAZ-2 requires 3 separate plans to satisfy the measure. Using the precedent set in the Desert Harvest Solar Project FEIS and ROD as a template, the same jurisdictional review and comment process should be used for the Palen PV Project, with ultimate approval of plans being with the BLM, where applicable (Mitigation measures pertinent to this justification can be referenced in the Desert Harvest Solar Project ROD 2013 as MM PHS-1 (Hazardous Materials Management Plan), MM PHS-3 and MM PHS-4).

  Specific to the referenced Process Safety Management Plan (PSMP) in HAZ-2, this requirement is specific to CAL-OSHA Process and Safety Management (Title 8 CCR Section 5189). The requirement for the PSPP project to prepare a PSMP was specifically associated with its storage of liquefied petroleum gas (LPG) in quantities up to 72,000 gallons and Therminol VP-1, in quantities up to 2,600,000 gallons, as referenced in the CEC Revised Staff Assessment for PSPP: "(C.4-7) Additionally, the Cal-OSHA Process Safety Management (PSM) standard will apply and thus staff proposes that this requirement be included in proposed Condition of Certification HAZ-2." (RSA-2, Hazardous Materials Management, P. C.4-7 – C.4-8). The Palen Solar PV Project would not use LPG or Therminol VP-1 in any quantity; the requirement for a PSMP therefore is not applicable to the project. The requirement in HAZ-2 for a PSMP that would undergo Riverside County review has been replaced with the requirement for an Environmental Health and Safety Plan which is more suitable to PV projects on federal lands.

  The revision conforms to jurisdictional and project changes caused by the solar PV proposal without weakening the measure's substantive provisions as applied to a PV project. The revision will not intensify the impact addressed by the measure.

- **MM VEG-8. Rationale for Revision:** VEG-8.1 and 8.21 (Topsoil) - The majority of the disturbance areas, with the exception of the westernmost extent of the gen-tie line, is dominated by lower alluvial fan deposits composed primarily of sand. These areas lack stabilized surfaces that meet the traditional definition of topsoil and lack developed biological (cryptogamic) crusts due to the dynamic properties of alluvial and aeolian processes. The topsoil measures have therefore been revised to conform to the geographic extent of the impact. VEG-8.1 (Access Road Culvert) - The requirement for Box Culverts was originally pertinent to the PSPP project because the main access road entered the project and continued easterly along a path that was parallel to, and near, the I-10 and crossed the main wash area to get to the Laydown Area and Maintenance Buildings. The project does not have an access road crossing the wash areas and is set back from these areas. Furthermore, the currently proposed access road follows relatively flat terrain and runs parallel to surface flow, thus making the use of box culverts infeasible and unnecessary. VEG-8.3 - Minimize Traffic Impacts. APM-15 prohibits vehicle speeds in excess of 15 miles per hour within areas not cleared by protocol level surveys where desert tortoise may be impacted. The higher 25 mile per hour limit applies only in areas where tortoises have been cleared and excluded by tortoise fencing. The edit was necessary to ensure the measure conformed to the more stringent requirements of APM-15. By conforming the measure to the geographic extent of topsoil impacts, to the project as redesigned by the applicant, and to more stringent vehicular speed limits volunteered by the applicant, these revisions to the measure do not reduce its effectiveness.
- **MM VIS-1. Rationale for Revision:** The revision clarifies that the measure applies only to unshaded structures and buildings visible to the public from outside the project fence line. Applying treatments to structures and buildings not visible to the public would not reduce the impact. Because tracker systems follow the sun, the underside of the PV panels and most of the structure supporting them do not require surface treatment because they are shadowed throughout the day due to the solar panels' constant 90- degree, perpendicular orientation toward the sun. The revisions clarify how the measure should be applied without reducing its effectiveness.
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- **MM BLM-VIS-2. Rationale for Revision:** The SEIS/SEIR determined that the project would have minimal night lighting impacts: "Unlike the solar power tower technology, night lighting for the solar PV project is expected to be minimal, so little detrimental effect to night skies and star gazing would be anticipated. Joshua Tree National Park is located approximately 7 miles from the project site..." SEIS/SEIR p. 4.12-3. Because of the project's minimal night lighting impacts and distance from Joshua Tree National Park, the mitigation measure has been revised to reflect the project's reduced night lighting effects by requiring consultation with the National Park Service in the development of a lighting plan if the project's proposed lighting exceeds the

quantitative thresholds specified in the measure. The revision tailors the measure to the less impactful PV proposal without reducing its ability to mitigate potential significant effects.

- **MM WR-8. Rationale for Revision:** Mitigation WR-8 was originally carried forward into the SEIS/SEIR from the CEC analysis of the original solar trough proposal (PSPP RSA PT. 2, C.9-46).

  The Palen PV proposal requires 3.3 to 4.7 times less water during construction and 7 to 20 times less water during operation than the original solar trough proposal. The use of substantially less water will result in a correspondingly reduced drawdown.

  The Palen PV SEIS/SEIR 2018 states "*The Proposed Action is not anticipated to substantially alter groundwater levels due to groundwater production withdrawal beneath this area. A preliminary estimate of the groundwater level decline in the Final EIS for PSPP, which used a much higher operational groundwater use estimate (seven times that of the proposed project), indicated approximately 0.2 to 0.6 feet in this area at the end of 33 years of operation (BLM, 2011). The Proposed Action would have a reduced effect due to the reduced actual smaller amount of needed operational water need volume for operations.....Further, the groundwater modeling described above, using an extraction rate seven times the rate for the proposed project, gave a long-term drawdown 3 to 6 miles away as only 0.2 to 0.6 feet. Assuming a linear proportion, the Project drawdown at the same distance would be about 0.34 to 1 inch.*" (4.19-5). Such limited drawdown estimates are unlikely to result in subsidence.

  Furthermore, the SEIS/SEIR indicates the risk of subsidence in the locality of the project site is very low even if drawdown impacts were significantly greater: "*Based on the geologic/sedimentary characteristics of the CVGB, and on a lack of measured subsidence during previous, historic drawdown events, the potential for subsidence from ground-water level declines is considered very low (BLM, 2011).*" (4.19-6) As further stated in the SEIS/SEIR: "*...even during the 1980s and 1990s when regional groundwater extraction was at its historic maximum of approximately 48,000 acre-feet per year (ac-ft/yr) no localized or regional subsidence was recorded ... The potential for local or regional ground subsidence resulting from petroleum, natural gas, or groundwater extraction is considered to be very low and less than significant.*" (4.11-21, -22).

  The risk of the PV proposal causing subsidence is less than significant such that Mitigation Measure WR-8 is not warranted because (i) as a geological matter, the SEIS/SEIR determined the potential for local or regional subsidence from groundwater level declines is very low and less than significant; and (ii) the PV proposal is estimated to result in minimal drawdown impacts due to substantially lower amounts of water use than the original solar trough proposal.

- **MM WR-10. Rationale for Revision:** This measure is a previous mitigation measure adopted by the CEC for the prior solar trough proposal to mitigate the potential for groundwater contamination due to operational us of evaporation ponds, land treatment units, and excessive water use by cooling condensers (PSPP Commission Decision – Soil & Water Resources - #6 Ground Water Quality Pgs. 8-12). The Palen PV Project would not use any of these design features. The potential operational water quality effects of the solar PV proposal is so low that the CRWQCB does not seek Waste Discharge Requirements for it due to the lack of evaporation ponds, land treatment units or cooling condensers. Similar mitigation does not exist in recent BLM PV projects. Furthermore, project operations will remain subject to all applicable water quality laws and regulations, irrespective of project-specific mitigation. Because the potential

water quality impacts of the project during operation are negligible and subject to background law, revising the measure to apply to construction activities only does not reduce its effectiveness or otherwise intensify the impact.