Fifth Standard Solar Project

Environmental Impact Report No. 7257
Mitigation Monitoring and Reporting Program

Prepared for:

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Table of Contents

LIST OF TABLES

Abbreviations

APLIC	Avian Power Line Interaction Committee
Applicant	RWE Solar Development, LLC (formerly known as EC&R Solar Development, LLC)
BMPs	Best Management Practices
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
County	Fresno County
EIR	Environmental Impact Report
hp	horsepower
MLD	Most Likely Descendant
MMRP	Mitigation, Monitoring, and Reporting Program
NAHC	Native American Heritage Commission
NFWFL	National Fish and Wildlife Forensics Laboratory
PRC	Public Resources Code
proposed project	Fifth Standard Solar Complex Project
PV	photovoltaic
SF_6	sulfur hexafluoride
SJVAPCD	San Joaquin Valley Air Pollution Control District
SWHA	Swainson's Hawk
SWPPP	Stormwater Pollution Prevention Plan
USDOI	United States Department of the Interior
USFWS	United States Fish and Wildlife Service
UV	ultraviolet
VERA	Voluntary Emission Reduction Agreement

1.0 PROCEDURES FOR MONITORING AND REPORTING

The purpose of the Mitigation, Monitoring, and Reporting Program (MMRP) is to provide Fresno County (County) and RWE Solar Development, LLC (formerly known as EC&R Solar Development, LLC) (Applicant or Developer) with a comprehensive list of the mitigation measures identified in the Draft and Final Environmental Impact Report (EIR) for the Fifth Standard Solar Complex Project (proposed project), as well as identify responsible parties and success criteria for these mitigation measures.

For the purposes of this document the terms “Applicant”, “Property Owner”, “Developer”, “Contractor” or “Operator” shall be interchangeable in that the parties affecting or allowing the uses and improvements which are a part of the project shall be mutually and individually responsible for implementing the mitigation measures.

1.1 INTRODUCTION

The County is acting as the Lead Agency, as defined by the California Environmental Quality Act (CEQA). In accordance with Public Resources Code section 21081.6, a Lead Agency that approves or carries out a project with potentially significant environmental effects shall adopt a “reporting or monitoring program for the changes to the project which it has adopted or made a condition of a project approval to mitigate or avoid significant effects on the environment.”

The CEQA Guidelines provide direction for clarifying and managing the complex relationships between a Lead Agency and other agencies with respect to implementing and monitoring mitigation measures. In accordance with CEQA Guidelines section 15097(d), “each agency has the discretion to choose its own approach to monitoring or reporting; and each agency has its own special expertise.” This discretion will be exercised by implementing agencies at the time they consider any of the activities identified in the environmental document.

This MMRP is a working guide to facilitate both the implementation of the mitigation measures and the monitoring, compliance, and reporting activities by the County and any monitors it may designate. If the County certifies the EIR for the proposed project, the MMRP having been incorporated by reference into the FEIR, will be adopted.

As a Condition of Approval of the Conditional Use Permit Applications, the Developer shall fund a third-party monitor to document compliance with the mitigation measures and report to the County.

2.0 CEQA MITIGATION MEASURES

Table 2-1 describes the mitigation measures included in the proposed project. For each mitigation measure the required action, responsible party, implementation timing, and reporting requirements are described.

Table 2-1. Summary of the Fifth Standard Solar Complex Project Mitigation Measures

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program
Section 4.1 Aesthetics			
MM AES-1: Lighting. All outdoor lighting shall be hooded, directed downward, and permanently maintained to not shine towards adjacent properties and roads.	The Developer	Prior to construction	The final design plans shall be approved by the County prior to the issuance of any building or grading permits. Maintenance of the lighting shall be ensured by the applicant throughout the life of the proposed project, through regular inspections.
Section 4.2 Agriculture			
MM AG-1: Reclamation Plan. Prior to any ground-disturbing activity, the Applicant shall enter into a Reclamation Agreement to implement a Reclamation Plan for each Conditional Use Permit for restoration of agricultural land. The Plan shall include the following standards: • Final reclamation actions shall require that agricultural land be returned to a fertility level equivalent to that level required to support crops recommended by an agricultural consultant through consultation with the County. • Revegetation fertility level success shall be achieved when the productive capability of the revegetated area is equivalent to or exceeds, for two equivalent crop years, that of the pre-project condition or any similar crop production in the region, as determined by an agricultural consultant or as compared to the baseline onsite agricultural production, as determined by the County.	The Developer, Property Owner, and the County	Prior to construction or issuance of any grading or other development permits	The Reclamation plan shall be approved by the County prior to ground-disturbing activities. Success of the reclamation actions shall be determined by the County through inspections or reports given by the Developer. Agreements to implement the Reclamation Plan shall be recorded as a covenant with the property.

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program
Section 4.3 Air Quality			
MM AIR-1: Air Quality Best Management Practices (BMPs). During construction and decommissioning, the following measures shall be implemented: • Ozone precursor emissions from mobile construction equipment shall be controlled by maintaining equipment engines in good condition and in proper tune per manufacturers' specifications. Equipment maintenance records and equipment design specification data sheets shall be kept onsite during construction. • Electricity from power poles shall be used whenever practicable instead of temporary diesel- or gasoline-powered generators to reduce the associated emissions. • To reduce construction vehicle (truck) idling while waiting to enter or exit the site, the contractor shall submit a traffic control plan pursuant to Mitigation Measure TRA-1 that will describe in detail safe detours to prevent traffic congestion to the best of the project's ability, and provide temporary traffic control measures during construction activities that will allow both construction and on-street traffic to move with less than 5-minute idling times. • Construction equipment will use only California-certified diesel or gasoline fuels. • The Applicant will use construction equipment that is at the Tier 4 interim emission level for equipment less than or equal to 81 horsepower (hp) and Tier 3 engines for all other equipment.	The Developer and Contractor	During construction and decommissioning	During construction and decommissioning activities documentation and compliance with the mitigation measure and air quality best management practices shall be recorded and kept on file.

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program
MM AIR-2: Voluntary Emission Reduction Agreement (VERA). a. The Developer shall enter into a Voluntary Emission Reduction Agreement (VERA) with the SJVAPCD prior to the issuance of ministerial construction/grading permits or stagger the construction periods for the three facilities to avoid a significant impact. Proof of payment to the SJVAPCD shall be provided prior to issuance of grading permits for construction. If "staggering" of the timing of the construction periods is used to avoid a significant impact, the Developer shall provide documentation to the County prior to the commencement of construction activities to confirm that construction emissions would be reduced to below the applicable significance thresholds. b. Twelve months prior to initiation of decommissioning activities, the Applicant shall prepare additional analysis to determine air quality impacts from the proposed decommissioning activities. If the emissions will exceed the SJVAPCD thresholds of significance, the Applicant shall enter into a new VERA with the SJVAPCD to offset the decommissioning emissions below the thresholds of significance.	The Developer and SJVAPCD	Prior to construction and decommissioning	Proof of payment to the SJVAPCD shall be completed prior to issuance of building and grading permits. The Developer shall enter into a VERA or stagger the construction periods. The Developer will conduct the additional analysis for the decommissioning activities and submit it to the SJVAPCD for review. If it is determined a VERA is needed for decommissioning activities to reduce potentially significant construction-related air quality impacts, the Developer shall receive proof of payment from the SJVAPCD prior to issuance of a grading permit.
Section 4.4 Biological Resources			
MM BIO-1: General Measures for the Avoidance and Protection of Biological Resources. During construction, operation and maintenance, and decommissioning of the facility, the operator or contractor shall implement the following general avoidance and protective measures to protect San Joaquin kit fox and other special-status wildlife species: • The operator shall limit the areas of disturbance. Parking areas, new roads, staging, storage,	The Developer and Contractor	Prior to and during construction and decommissioning activities	Protected areas shall be staked and flagged for avoidance, as determined by a qualified biologist, prior to any earth moving activities onsite. The biological monitor shall regularly inspect the project area for special-status species and, as applicable, handle any special status species found on site, in accordance with this

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program
excavation, and disposal site locations shall be confined to the smallest areas possible. All proposed impact areas, including solar fields, staging areas, access routes, and disposal or temporary placement of spoils, shall be delineated with stakes and/or flagging prior to construction to avoid special-status species where possible. Construction- related activities, vehicles, and equipment outside of the impact zone shall be avoided. • These areas shall be flagged, and disturbance activities, vehicles, and equipment shall be confined to these flagged areas. • Spoils shall be stockpiled in disturbed areas that lack native vegetation. BMPs shall be employed to prevent erosion in accordance with the project's approved Stormwater Pollution Prevention Plan (SWPPP). All detected erosion shall be remedied within two (2) days of discovery or as described in the SWPPP. • To prevent inadvertent entrapment of wildlife during construction, all excavated, steep-walled holes or trenches with a 2-foot or greater depth shall be covered with plywood or similar materials at the close of each working day or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they shall be thoroughly inspected by the approved biological monitor for trapped animals. If trapped animals are observed, escape ramps or structures shall be installed immediately to allow escape. If a listed species is trapped, the United States Fish and Wildlife Service (USFWS) and/or California Department of Fish and Wildlife (CDFW) shall be contacted immediately.			mitigation measure and all applicable state and federal laws.

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program
• All construction pipes, culverts, or similar structures with a 4-inch or greater diameter that are stored at a construction site for one or more overnight periods shall be thoroughly inspected for special-status wildlife or nesting birds before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If an animal is discovered inside a pipe, that section of pipe shall not be moved until the Lead Biologist has been consulted and the animal has either moved from the structure on its own accord or until the animal has been captured and relocated by the Lead Biologist. • Vehicles and equipment parked on the sites shall have the ground beneath the vehicle or equipment inspected for the presence of wildlife prior to moving. • Vehicular traffic shall use existing routes of travel. Cross-country vehicle and equipment use outside of the project properties shall be prohibited. • A speed limit of 20 miles per hour shall be enforced within all construction areas. • A long-term trash abatement program shall be established for construction, operations, and decommissioning and submitted to the County. Trash and food items shall be contained in closed containers and removed daily to reduce the attractiveness to wildlife such as common raven (*Corvus corax*), coyote (*Canis latrans*), and feral dogs. • Workers shall be prohibited from bringing pets and firearms to the project site and from feeding wildlife in the vicinity. • Intentional killing or collection of any wildlife species shall be prohibited.			

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program
MM BIO-2: Reduce Construction-related Impacts to Nesting Birds. Ensure that active nests of raptors and other special-status nesting birds are not affected as a result of the proposed project. If construction work is scheduled to take place outside of the avian nesting season (September 16 through January 31), no action would be required to protect nesting birds. If any activities that could harm birds or their nests (e.g., clearing temporary workspaces; staging or stockpiling machinery or supplies; parking vehicles, equipment, or trailers; grading or leveling; creating stockpiles of dirt or gravel; or any activity that could cover existing habitat or disrupt surface soils) occur during the avian nesting season (February 1 through September 15), the following measures shall be implemented to avoid impacts on nesting raptors and other protected and common birds: • No more than 14 days prior to construction, a qualified wildlife biologist shall conduct preconstruction surveys of all construction sites to determine if birds or nests are present. Surveys may be phased as construction is phased, so that each section is surveyed no more than 14 days prior to the start of construction in that area.	The Developer and Qualified Wildlife Biologist	Prior to and during construction	If construction work occurs during the avian nesting season, the preconstruction surveys shall be conducted by a qualified biologist and if any active nests are found, the no-disturbance buffer shall be marked prior to any ground-disturbing activities.

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program
• If active nests are found during preconstruction surveys, a no-disturbance buffer shall be created around nests until it is determined that all young have fledged or until the recognized nesting season has ended (i.e., September 15 annually). The size of any employed buffers will vary based on the species that is nesting, the status of the nest, site conditions, and work to be completed during the active period of the nest. All buffers will be appropriately sized, based on USFWS published recommendations to avoid take to the nest. The size of the buffer zones and types of construction activities restricted in these areas could be further modified during construction in coordination with CDFW and shall be based on the existing level of noise and human disturbance on the project site. • If preconstruction surveys indicate that nests are inactive, or potential habitat is unoccupied during the construction period, no further action is required. Trees and shrubs within the construction footprint determined to be unoccupied by nesting birds or that are outside the no-disturbance buffer for active nests could be removed. • To prevent impacts to SWHA, construction within one half-mile of the windbreak identified in photo point 4c of the Biological Survey (ESA 2016) shall occur after the bird nesting season (September 15). If construction cannot be deferred until this date, a preconstruction survey shall be performed to determine if SWHA are present. If no SWHA are detected by the survey, then construction may proceed, otherwise it must be deferred until after the nesting season. If SWHA are detected, then activities shall not proceed until after September 15.			

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program
MM BIO-3: Reduce Potential for Avian Collisions with Power Lines. Avian Power Line Interaction Committee (APLIC) Guidelines in accordance with Reducing Avian Collisions with Power Lines: The State of the Art in 2012 (APLIC 2012) will be incorporated into the power line design to minimize the likelihood of avian electrocutions. Transmission lines and all electrical components shall be designed, installed, and maintained in accordance with APLIC guidance to reduce the likelihood of large bird electrocutions and collisions (APLIC 2012).	The Developer	Pre-construction, during final design	The Developer shall confirm that design implements current methodologies for the reduction of avian collisions and electrocution.
MM BIO-4: Reduce Avian Collisions with Photovoltaic Array. • Visual deterrents to encourage bird avoidance of the project site will be installed. These deterrents will be made of a material that is both reflective and highly visible, such that the material reflects ambient light and is stimulated by air movement. The effect of such installation will create the visual impression of continuous and varied movement, which has been shown as an avian deterrent in agricultural applications. An example of the types of material that could be used includes reflective tape. Within 30 days after project commissioning, materials will be installed in 50-acre blocks within the solar facility on a 3-month trial basis to examine panel performance issues. Following the initial 3-month period, visual deterrents will either be adjusted to reduce performance issues and reexamined on continuing 3-month basis, or if adjustments are not deemed necessary to improve panel performance, deployed on the remainder of the site and maintained for the life of the project or until determined infeasible (based on the definition of "feasible" in CEQA Guidelines Section 15364) or	The Developer	During construction	The Developer shall ensure that the visual deterrents are installed at the project site within 30 days after project commissioning.

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program
ineffective by the project owner in consultation with CDFW and the County. • Panels shall include, if feasible, a light-colored, ultraviolet (UV)-reflective, or otherwise nonpolarizing outline, frame, grid, or border, which has been shown to substantially reduce panel attractiveness to aquatic insects, which in turn would reduce the attractiveness of the panels to birds that feed on the aquatic insects (Horvath et al. 2010) in order to reduce avian mortality by avoiding collisions with panel faces (NFWFL 2014).			
MM BIO-5 Reduce Impacts to Nocturnal Wildlife from Lighting. • No lighting shall be placed near or oriented towards any transmission lines running through the project site to avoid affecting wildlife that may use this area for nighttime movement. • Narrow spectrum bulbs shall be used to limit the range of species affected by project lighting.	The Developer	Prior to construction, during final design	The Developer shall ensure during the final design that no lighting will be placed near or oriented towards any transmission lines.
Section 4.5 Cultural Resources			
MM CUL-1: Retain a Qualified Archaeologist: The Applicant/contractor shall retain a qualified archaeologist, defined as an archaeologist meeting the Secretary of the Interior's Standards for professional archaeology, to carry out all Mitigation Measures related to archaeological and historical resources prior to the issuance of demolition or grading permits. The Applicant shall ensure that the qualified archaeologist has conducted a Cultural Resources Awareness Training for all construction personnel working on the proposed project. The training shall include an overview of potential cultural resources that could be encountered during ground disturbing activities to facilitate worker recognition, avoidance, and subsequent immediate notification to the qualified	The Developer, Contractor, and Qualified Archaeologist	The qualified archaeologist shall be retained prior to issuance of building permit and shall be retained throughout construction activities.	The Developer shall ensure that a qualified archaeologist is retained throughout construction and implements the Cultural Resources Awareness Training to all construction workers prior to any earth moving activities. The training shall be implemented for any new construction worker on their first day on the construction site throughout all construction activities.

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program
archaeologist for further evaluation and action, as appropriate, and penalties for unauthorized artifact collecting or intentional disturbance of archaeological resources. The qualified archaeologist shall conduct construction worker archaeological resources sensitivity training prior to the start of ground-disturbing activities. In the event that construction is phased, additional trainings shall be conducted for all new construction personnel. The training sessions shall focus on the recognition of the types of archaeological resources that could be encountered at the project site and the procedures to be followed if they are found. Documentation shall be retained demonstrating that all construction personnel attended the training.			
MM CUL-2: Inadvertent Discovery of Archaeological Resources or Tribal Cultural Resources: If prehistoric or historic-era cultural resources are encountered during the course of grading or construction, all ground-disturbing activities within 50 feet of the find shall cease. The qualified archaeologist shall evaluate the significance of the resources and recommend appropriate treatment measures. Per CEQA Guidelines Section 15126.4(b)(3)(A), project redesign and preservation in place shall be the preferred means to avoid impacts to significant archaeological sites. Consistent with CEQA Guidelines Section 15126.4(b)(3)(C), if it is demonstrated that resources cannot be avoided, the qualified archaeologist shall develop additional treatment measures in consultation with Fresno County, which may include data recovery or other appropriate measures. Fresno County shall consult with appropriate Native American representatives in determining appropriate treatment for unearthed cultural resources if the resources are prehistoric or Native American in nature. Archaeological materials recovered during any investigation shall be curated at an accredited curational facility. The qualified archaeologist shall prepare	The Developer Qualified Archaeologist, Native American representative, and County	During construction	The qualified archaeologist shall evaluate the significance of the resources and recommend appropriate treatment measures should any discovered archaeological or tribal resources be discovered. If it is demonstrated that resources cannot be avoided, the qualified archaeologist shall develop additional treatment measures in consultation with Fresno County, which may include data recovery or other appropriate measures. Fresno County shall consult with appropriate Native American representatives in determining appropriate treatment.

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program
a report documenting evaluation and/or additional treatment of the resource. A copy of the report shall be provided to Fresno County and to the Southern San Joaquin Valley Information Center. Construction can recommence based on direction of the qualified archaeologist.			
MM CUL-3: Inadvertent Discovery of Unmarked Burials. If human remains are uncovered during project construction, the project operator shall immediately halt work within 50 feet of the find, contact the Fresno County Coroner to evaluate the remains, and follow the procedures and protocols set forth in CEQA Guidelines Section 15064.4 (e)(1). If the County Coroner determines that the remains are Native American in origin, the Native American Heritage Commission (NAHC) will be notified, in accordance with Health and Safety Code Section 7050.5(c), and Public Resources Code (PRC) 5097.98 (as amended by Assembly Bill 2641). The NAHC shall designate a Most Likely Descendent (MLD) for the remains per PRC Section 5097.98, and the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in PRC Section 5097.98 with the MLD regarding their recommendations for the disposition of the remains, taking into account the possibility of multiple human remains.	The Developer and County	During construction	If any discovered human remains onsite, construction work shall be halted within 50 feet of the find. The Fresno County Coroner will be contacted to evaluate the remains. the County Coroner determines that the remains are Native American in origin, the Native American Heritage Commission (NAHC) will be notified.

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program
Section 4.6 Geology and Soils			
MM AG-1: Reclamation Plan. See Section 4.2, Agriculture	See Section 4.2, Agriculture	See Section 4.2, Agriculture	See Section 4.2, Agriculture
MM GEO-1: Retain a Qualified Paleontologist. A qualified paleontologist, defined as one meeting the Society of Vertebrate Paleontology Standards (the "Qualified Paleontologist") shall be retained prior to the issuance of grading permits. The Qualified Paleontologist shall provide technical and compliance oversight of all work as it relates to paleontological resources, attend the project kick-off meeting and project progress meetings on a regular basis, and report to the site in the event that potential paleontological resources are encountered.	The Developer	The qualified paleontologist shall be retained prior to issuance of building permit and shall be retained throughout construction activities.	The Developer shall ensure that a qualified paleontologist is retained throughout construction and implements oversight of paleontological resources potentially discovered onsite.
MM GEO-2: Pre-construction Training. The Qualified Paleontologist shall conduct Paleontological Resources Awareness Training for all construction personnel. This may be conducted in conjunction with the archaeological resources training. The training shall include an overview of potential paleontological resources that could be encountered during ground-disturbing activities to facilitate worker recognition, avoidance, and subsequent immediate notification to the Qualified Paleontologist for further evaluation and action, as appropriate; and penalties for unauthorized collecting or intentional disturbance of paleontological resources. A sign-in sheet shall be completed and retained to demonstrate attendance at the awareness training. In the event that construction crews are phased, additional trainings shall be conducted for new construction personnel. The training session shall focus on the recognition of the types of paleontological resources that could be encountered within the project site and the procedures to be followed if they are found. Documentation	The Developer and Contractor	The paleontological Resources Awareness Training shall be conducted prior to the start of construction activities, in conjunction with the Cultural Resources Awareness training.	The Developer and Contractor shall ensure that the Paleontological Resources Awareness Training is given to all construction workers prior to any earth moving activities. The training shall be implemented for any new construction worker on site on their first day on the construction site throughout all construction activities.

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program
shall be retained demonstrating that all construction personnel attended the training.			
MM GEO-3: Inadvertent Discovery of Paleontological Resources. If a paleontological resource is found, all ground-disturbing activities within 50 feet of the find shall immediately cease. The Qualified Paleontologist shall evaluate the significance of the resources and recommend appropriate treatment measures. At each fossil locality, field data forms shall be used to record pertinent geological data, stratigraphic sections shall be measured, and appropriate sediment samples shall be collected and submitted for analysis. Any fossils encountered and recovered shall be catalogued and donated to a public, nonprofit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County. Accompanying notes, maps, and photographs shall also be filed at the repository. The Qualified Paleontologist shall prepare a report documenting evaluation and/or additional treatment of the resource. The report shall be filed with the County and with the repository. Full-time paleontological resources monitoring shall be conducted for all ground-disturbing activities occurring in older Quaternary alluvium or the Tulare Formation, which is estimated to occur at or below approximately 10 feet in depth. Paleontological resources monitoring shall be performed by a qualified paleontological monitor (or cross-trained archaeological/paleontological monitor) under the direction of the Qualified Paleontologist. Monitors shall have the authority to temporarily halt or divert work away from exposed fossils to recover the fossil specimens. Any significant fossils collected during proposed project-related excavations shall be prepared to the point of identification and curated into an accredited repository with retrievable storage. Monitors shall prepare daily logs detailing the types of activities and soils observed and any discoveries.	The Developer and Qualified Paleontologist	During construction	The Developer shall ensure that a qualified paleontologist is retained throughout construction and implements oversight of paleontological resources potentially discovered onsite. If a paleontological resource is found, all ground-disturbing activities within 50 feet of the find shall immediately cease. The Qualified Paleontologist shall evaluate the significance of the resources and recommend appropriate treatment measures.

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program
The Qualified Paleontologist shall prepare a final monitoring and mitigation report to document the results of the monitoring effort.			
Section 4.7 Greenhouse Gas Emissions			
Mitigation Measure GHG-1: Greenhouse Gas Reduction Measures. In order to further reduce greenhouse gas emissions, the Applicant shall: • Prior to the start of construction, develop and implement a program encouraging construction workers to carpool or use public transportation for travel to and from construction sites. • Implement a construction waste recycling program with the objective of recycling at least 65% of the project waste (by weight), pursuant to the California Green Building Standards Code. This is discussed further in Section 4.16, Utilities. • Minimize welding and cutting by requiring the use of compression of mechanical applications where practical and within standards.	The Developer	Prior to and during construction	The Developer shall ensure that a program is implemented for carpooling or use of public transport to travel to and from the construction site. The Developer shall perform regular inspections of the project site during construction to ensure that a waste recycling program is implemented and that welding activities are minimized.
Mitigation Measure GHG-2: Circuit Breakers. All breakers used for this project will have a manufacturer-guaranteed sulfur hexafluoride (SF_6) leakage rate of 0.5% per year or less.	The Developer	Prior to construction	The Developer shall ensure that all breakers used for this project meet the requirements of this mitigation measure.
Section 4.8 Hazards and Hazardous Materials			
MM HAZ-1: Broken Photovoltaic Module Detection and Handling Plan. Prior to the issuance of construction permits, the Applicant shall prepare and implement a broken photovoltaic (PV) module detection and handling plan. The plan shall describe the Applicant's method for identifying, handling, and disposing of PV modules that may break, chip, or crack at some point during the	The Developer, Contractor, and County	Prior to, during, and post construction	The Developer, or chosen consultant, shall develop the broken PV module detection and handling plan prior to issuance of a building permit for the project. Through regular inspections the Developer and Operator shall

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program
proposed project's life cycle. The proposed methods shall be compliant with applicable law and protective of human health and the environment. The plan shall have but not be limited to the following elements: • **Worker Health and Safety Provisions and Handling Protocol.** This protocol shall address isolating workers from hazardous materials during the recovery of broken PV panels and shall include, but not be limited to the following requirements: – Workers shall wear gloves during the handling of broken pieces of PV panels to prevent cuts. – If broken pieces are separated from the PV panel, the pieces shall be collected, and the areal extent of the collected pieces shall be compared to the broken area on the PV panel to ensure that all the pieces have been accounted for. – The broken pieces shall be placed in drums, sealed boxes, puncture-proof bags, or equivalent containers so as to prevent the broken pieces from tearing the containers and being rereleased into the environment. • **Timing of removal.** The PV panels shall be inspected for breakage prior to each PV panel washing event. In the event that broken PV panels are discovered, the broken PV panels and any pieces shall be removed prior to washing any adjacent PV panels. • **Recycling or disposal requirements**. If available, broken panels shall be sent to a PV panel manufacturing facility licensed for the recycling of PV panels; if recycling is unavailable, the broken panels shall be sent to a landfill licensed to receive broken PV panels. The plan shall identify the likely facility to receive broken panels.			ensure that the plan is being implemented on the project site

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program
The plan shall be submitted to the County for review and approval and shall be distributed to all construction crew members and temporary and permanent employees prior to construction and operation of the proposed project. All available data from the panel manufacturer(s) regarding materials used and safety procedures and concerns shall be appended to the plan to assist the County with identifying potential hazards and abatement measures.			
MM HAZ-2: Fire Protection Plan. The Applicant shall prepare a Fire Protection Plan prior to issuance of construction permits. The Fire Protection Plan shall include but not be limited to the following measures: • Internal combustion engines, stationary and mobile, shall be equipped with spark arresters in good working order. • All personnel shall be trained in fire safety practices relevant to their duties. • All construction and maintenance personnel shall be trained and equipped to extinguish small fires. • Work crews shall have fire-extinguishing equipment on hand, as well as emergency numbers and cell phones or other means of contacting the Fire Department. • Security gates shall be approved by the Fire Department and shall include the installation of a key switch or padlock, whichever is most appropriate. • Smoking shall be prohibited while operating equipment and shall be limited to paved or graveled areas or areas cleared of all vegetation. Smoking shall be prohibited within 30 feet of any combustible material storage area (including fuels, gases, and solvents). Smoking shall be prohibited in any location during a	The Developer and Contractor	Prior to and during construction	The Developer shall develop the Fire Protection Plan prior to issuance of any building or grading permits. Regular inspections by the Developer shall ensure compliance with the Fire Protection Plan.

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program
Red Flag Warning issued by the National Weather Service for the project area.			
Section 4.10 Land Use and Planning			
MM AG-1: Reclamation Plan. See Section 4.2, Agriculture.	See Section 4.2, Agriculture.	See Section 4.2, Agriculture.	See Section 4.2, Agriculture.
Section 4.12 Noise			
MM NOI-1: Stationary Construction Equipment. All stationary equipment shall be placed so that emitted noise is directed away from sensitive receptors nearest to the project site during construction and decommissioning activities.	The Developer and Contractor	During construction	The Developer shall document noise levels from stationary equipment and ensure that stationary equipment is located away from sensitive receptors.
MM NOI-2: Equipment Staging Areas. Equipment staging shall be located in areas as far as feasible from noise-sensitive receptors nearest to the project site during all project construction and decommissioning activities.	The Developer and Contractor	During construction	During construction, regular inspections shall be performed for construction noise prevention measures by a Developer representative and reports shall be kept on file by the Developer for inspection interested parties.
MM NOI-3: Construction and Decommissioning Equipment. All construction and decommissioning equipment shall be equipped with manufacturer-approved mufflers and baffles.	The Developer and Contractor	During construction	The Developer shall document the equipment used on side and ensure that all equipment is equipped with manufacturer-approved mufflers and baffles.
MM NOI-4: Construction and Decommissioning Hours. During all project construction and decommissioning, all noise-producing construction-related activities shall be limited to the hours of 6:00 AM to 9:00 PM, Monday through Friday, and to the hours of 7:00 AM to 5:00 PM on Saturdays and Sundays.	The Developer and Contractor	During construction	The Developer shall document timing of construction activities and verify that construction timing restrictions are being met throughout construction activities.

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program
Section 4.14 Transportation and Traffic			
MM TRA-1: Construction and Decommissioning Traffic Control and Management Plan. Prior to issuance of construction permits, building permits, or encroachment permits, the Applicant Developer and/or its construction contractors shall prepare and submit a traffic control and management plan to Fresno County Department Public Works and Planning and the California Department of Transportation (Caltrans) District 6 office for approval. The traffic control and management plan shall be prepared in accordance with both the California's Manual on Uniform Traffic Control Divisions and Work Area Traffic Control Handbook and must include but not be limited to the following items: • Specify timing of deliveries of heavy equipment and building materials. • Direct construction traffic with a flagger. • Place temporary signage, lighting, and traffic control devices, if required, including but not limited to appropriate signage along access routes to indicate the presence of heavy vehicles and construction traffic. • Ensure access for emergency vehicles to the project site. • Maintain access to adjacent property. • Specify both construction-related vehicle travel and oversize-load haul routes, minimize construction traffic during the AM and PM peak hours, and avoid residential neighborhoods to the maximum extent feasible. • Obtain all necessary permits from the appropriate agencies for work within the road right-of-way or use of	The Developer and Contractor	Prior to and during construction	The Developer shall prepare the Traffic Control and Management Plan prior to issuance of any building or grading permits. The Developer shall monitor and coordinate with the contractor during construction meetings to ensure that the Traffic Control and Management Plan is implemented successfully as documented in inspection logs, and the construction traffic management plan shall remain on file at the Developer's offices and provided to the County for their files.

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program
oversized/overweight vehicles, which may require California Highway Patrol or a pilot car escort. • Submit plans for any work on the proposed intersection improvements on Lassen Avenue at the site access driveways to the County and Caltrans District 6 for review and approval prior to the issuance of any encroachment or road improvement permit for the work. • Clean or remove any material that is deposited onto the roadways as soon as possible and at least prior to the end of each working day. • Obtain any access easements from private property owners necessary to perform required repair work.			
MM-TRA-2: Preconstruction and Pre-Decommissioning Road Survey Report. A preconstruction report and a pre-decommissioning report shall be prepared by a qualified registered engineer to include a detailed analysis of road suitability to accommodate haul trucks during project construction. The report shall be submitted to the Fresno County Department of Public Works and Planning. Prior to initiating the preconstruction or decommissioning report, the proposed methodology shall be presented to the Fresno County Department of Public Works and Planning for review and approval. Improvements to existing roads may be necessary based on the findings of the report.	The Developer and County	Prior to construction and decommissioning	The Developer shall retain a qualified engineer to conduct the Road Survey reports. Documentation of the reports shall be provided to the County and made available to any other interested parties, upon request. If County review of these reports indicates that improvements are required for the roads, these improvements shall be implemented by the Developer.
MM TRA-3: Road Repair Agreement. Prior to the start of construction, the Applicant shall enter into a secured agreement with the County to ensure that the proposed project contributes its fair-share portion towards repairs of any County roads that are impacted by this project. The scope of impacts shall be determined in consultation with the County of Fresno and Caltrans District 6.	The Developer and County	Prior to construction	Payment of fees shall occur prior to the start of construction activities. The Developer shall obtain written documentation from the County on all fees payed.

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program
Section 4.15 Tribal Cultural Resources			
MM CUL-1: Retain a Qualified Archaeologist. See Section 4.5, Cultural Resources.	See Section 4.5, Cultural Resources.	See Section 4.5, Cultural Resources.	See Section 4.5, Cultural Resources.
MM CUL-2: Inadvertent Discovery of Archaeological Resources or Tribal Cultural Resources. See Section 4.5, Cultural Resources.	See Section 4.5, Cultural Resources.	See Section 4.5, Cultural Resources.	See Section 4.5, Cultural Resources.
Section 4.17 Wildfire			
MM HAZ-2: Fire Protection Plan. See Section 4.8, Hazards and Hazardous Materials.	See Section 4.8, Hazards and Hazardous Materials.	See Section 4.8, Hazards and Hazardous Materials.	See Section 4.8, Hazards and Hazardous Materials.

3.0 REFERENCES

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