



**LAND USE SERVICES DEPARTMENT
PLANNING DIVISION
PLANNING COMMISSION STAFF REPORT**

HEARING DATE: December 3, 2015

AGENDA ITEM # 4

Project Description

Vicinity Map -

APN: 0497-071-40, 0497-121-28, 0497-101-05, and 0497-101-14
Applicant: EDF Renewable Energy (Dba Longboat Solar, LLC)
Community: Barstow/1st Supervisorial District
Location: West of State Route 58, East of Lenwood Road, and North And South of Community Boulevard
Project No: P201400516/CUP
Staff: John Oquendo, Senior Planner
Rep: Javier De La Garza, Phil Hawtin, and Christa Hudson
Proposal: A Conditional Use Permit to build and operate a 20 megawatt utility scale photovoltaic facility on approximately 234 acres of the 325-acre site.



40 Hearing Notices Sent On: November 6, 2015

Report Prepared By: John Oquendo

SITE INFORMATION

Parcel Size: 325 Acres

Terrain: Flat desert terrain with elevation increasing slightly from 2,167 feet above mean sea level (MSL) in the eastern portion of the site to 2,185 feet above MSL in the western portion.

Vegetation: Vegetation on the site is generally disturbed and consists of fallow agricultural fields with disturbed saltbush scrub, partially stabilized dunes, tamarisk/ornamental windrows, and abandoned agriculture.

SURROUNDING LAND DESCRIPTION:

AREA	EXISTING LAND USE	LAND USE ZONING DISTRICT
Project Parcels	Three agricultural residences	Agriculture (AG), Floodway (FW), and Rural Living (RL-5)
Project Site	Vacant	Agriculture (AG) and Rural Living (RL-5)
North	Largely vacant, scattered rural properties, highway, light industrial.	Agriculture (AG), Regional Industrial (IR)
South	Vacant, residences south of Community Boulevard, Mojave River	Rural Living (RL-5) and Floodway (FW)
East	Highway, Railroad, single family residences	Rural Living (RL), Rural Living (RL-5)
West	Largely vacant, scattered single family residences	Rural Living (RL)

	AGENCY	COMMENT
City Sphere of Influence:	City of Barstow	N/A
Water Service:	N/A	EHS approved onsite wells
Sewer Service:	N/A	Not required

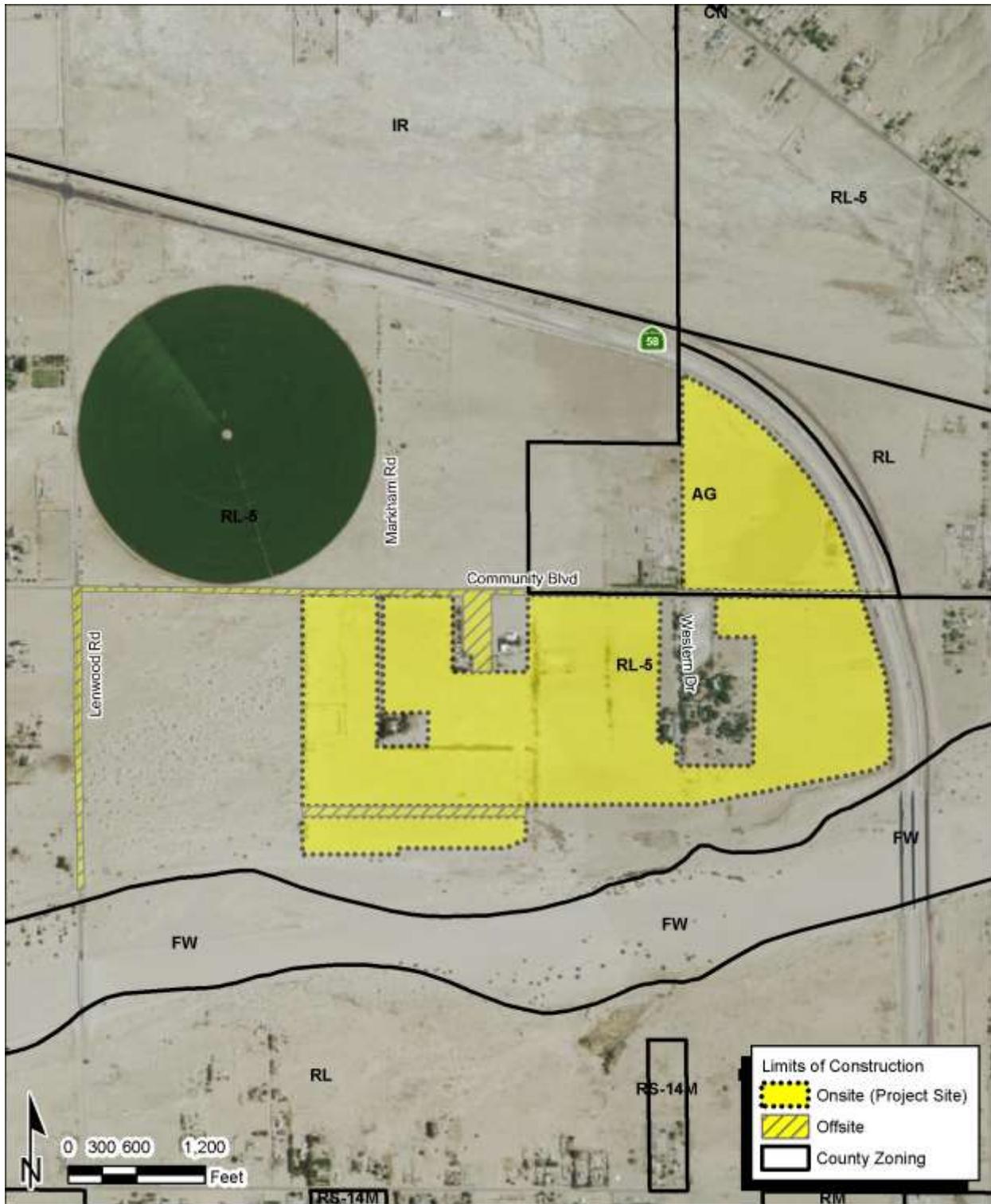
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VICINITY MAP



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EXISTING LAND USE DISTRICT MAP



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SITE AND SURROUNDING PHOTOS



Facing southeast from south side of Community Boulevard near the point of interconnection to SCE lines



Facing southwest from eastbound SR-58 bridge



Facing north from the southern perimeter of the Project site

PROJECT DESCRIPTION AND BACKGROUND:

Project: The proposed Conditional Use Permit (CUP) is a request to establish a 20-megawatt solar photovoltaic (PV) electricity generation facility (Project) on approximately 234 acres of a 325 acre site on unincorporated lands northwest of the City of Barstow. Upon completion, the facility would be unmanned, with occasional maintenance and security visits by personnel.

Location and Access: The proposed site consists of previously disturbed former agricultural lands located to the immediate northwest of the City of Barstow, and north of the community of Lenwood. State Route 58 (SR-58) bounds the site to the east and north. Community Boulevard transects the north and south portions of the Project site. Further south, the Project is bounded by undeveloped land adjacent to the Mojave River.

The primary access points to the Project site would be directly from Community Boulevard by two main driveways, one for the portion of the Project south of Community Boulevard and one for the portion of the Project site north of Community Boulevard. In addition, secondary access driveways would also be located on the south side of Community Boulevard along the parcel frontages.

Environmental Setting:

The site is mostly flat with the elevation increasing slightly from 2,167 feet above mean sea level (MSL) in the eastern portion of the site to 2,185 feet above MSL in the western portion. Vegetation on the site is generally disturbed and consists of fallow agricultural fields with disturbed saltbush scrub, partially stabilized dunes, tamarisk/ornamental windrows, and abandoned agricultural vegetation. The site photographs illustrate the general character of vegetation on the Project site and immediately adjacent areas.

Adjacent land uses include scattered rural properties and undeveloped land, light industrial use including the Green Valley Foods Product Inc., cheese factory to the north, SR-58 and railroad to the east, and active agriculture to the northwest. The existing residences are not a part of the Project site.

Solar Array Operation: Planned facilities are proposed to include a ground mounted tracking photovoltaic system. The solar panels are mounted on steel support posts that are driven into the ground. The top of the panels would be up to 12 feet above grade at the tallest point and approximately 20 inches above the grade at the lowest point. Community Boulevard transects the north and south portions of the Project site. The north and south sites would be electrically connected by underground conduit beneath Community Boulevard.

The wiring from each solar module delivers direct current (DC) power along a proposed underground trench or aboveground conduit to inverters located on electrical equipment pads throughout the project site. The inverters convert the DC power to alternating current (AC) where the power is stepped up in voltage. Concrete supports would be

used for the footings, foundations, and pads for the inverters. Underground cables would be installed in conjunction with internal access roads and panel arrays in order to connect each inverter to a feeder circuit, with the exception that the Project may use overhead collector and communication lines where it crosses two natural gas pipelines on the southern portion of APN 0497-101-14. The different solar panel circuits would gather at the switchyard and would then be sent by overhead electrical lines to a grid interconnection point.

The proposed design also includes an unmanned data acquisition system to monitor and control facility operations. The Project would receive its data service from the existing Verizon telecom lines that are currently in the public right of way adjacent to the Project. The Project would connect to the electrical grid by way of a line tap on an existing Southern California Edison (SCE) 33 kilovolt (kV) transmission line located adjacent to the site along Community Boulevard, at which point the power generated from the Project changes ownership from the Project developer to SCE. SCE would undertake distribution line upgrades, repairs and modifications along the 33kV lines to SCE's Barstow Substation located in the City of Barstow approximately 4.5 miles east of the Project site.

The SCE upgrade work would consist of up to eleven pole replacements, re-conductoring of up to 2,900 feet of electrical line, and several minor substation upgrades at an existing substation. These off-site interconnection improvements would be constructed by SCE and are analyzed in the Initial Study (Exhibit C) as part of the Project. SCE entered into a long-term Power Purchase Agreement (PPA) with the Project proponent to purchase electricity generated by the Project.

Operational activities would be limited to monitoring plant performance and responding to utility needs for plant adjustment along with preventative and unscheduled maintenance. No full-time staffing would be required to operate the facility; however one or two employees would visit the site five days per week for routine maintenance and check-ups. Washing of solar panels would occur approximately two times per year using water from an onsite well.

ANALYSIS:

Consistency with General Plan and Zoning Regulations: The proposed Project is consistent with the County General Plan and Development Code. The current General Plan Land Use Zoning designations of the Project site are Agriculture (AG), Floodway (FW), and Rural Living 5-acre minimum (RL-5). No development is proposed within the FW designation. These designations allow development of renewable energy generation facilities with a CUP, as requested by the Project applicant.

The proposed Project meets the standards outlined in San Bernardino County Development Code (Development Code) Chapter 84.29 Renewable Energy Generation Facilities. Proposed Findings of Consistency with these standards are attached to this

Staff Report (Exhibit A). Proposed Conditions of Approval are also attached to this Staff Report (Exhibit B).

General Plan Policy: The County General Plan establishes goals for renewable energy production in the County. Conservation Element Policy CO 4.12 states the County shall promote siting of renewable energy resources. Conservation Element Goal CO 8 aims to minimize energy consumption and promote safe energy extraction, uses and systems to benefit local, regional and global environmental goals. Policies under this Goal include Policy CO 8.3, which states that the County will assist in efforts to develop alternative energy technologies that have minimum adverse effect on the environment, and will explore and promote new opportunities for the use of alternative energy sources. The proposed Project would support these goals and policies.

Aesthetics/Visual: The current visual character of the site and surrounding vicinity consists of scattered low-density rural residential uses, abandoned agricultural uses, other existing agricultural and vacant lands, transportation (SR-58 and railroad) and industrial uses. Photovoltaic panels and other appurtenant structures would be sited on the majority of the 234-acre site, as shown on the Site Plan. Access roads and an eight-foot high chain link fence would also be constructed and installed around the perimeter of the site.

The Project site is rural in character with a wide variety of visual encroachments, including scattered ranch structures, electrical distribution lines, well structures, roadways, and vegetated and non-vegetated berms. The Project site is mostly flat, with no unique or unusual features. Vegetation on the site is generally disturbed and consists of fallow agriculture fields with disturbed saltbush scrub, partially stabilized dunes and ornamental windrows. The Project site is located in an area that has been subjected to significant alteration due to prior agricultural uses along with urbanization. State Route 58 (SR-58) bounds the Project site to the east and north. Given that SR-58 and the railroad are raised approximately 15 to 20 feet above the prevailing ground surface, views of the Project site from the north and east are generally obstructed.

The Draft Initial Study (Exhibit C) analyzed the potential visual effects of the Project and included simulated views of the Project from several surrounding locations. No designated scenic vistas are located in the vicinity of the Project site. Views from most areas would not be substantially altered. A few residents would have a view of the Project site; however, the existing views are not unique and have already been altered by multiple prior agricultural modifications. In addition, the broad vegetated setback and intervening vegetation obscure many views of the Project site. Project structures would not dominate the horizon or significantly modify the overall visual landscape. The Project's Visual Resources Technical Report (Appendix A to Exhibit C), explains that the resulting landscape change would not be substantial, considering the distance to the Project site, the Project's low profile, and intervening features.

The proposed Project would have a low profile and would have limited potential to create glare, because the PV panels are designed to absorb as much sunlight as

possible and engineered to inherently minimize reflectivity. Minimal lighting would be used at night, in compliance with Development Code standards for preservation of night skies. Therefore, light and glare associated with the Project would not substantially degrade the existing night-time visual character or quality of the site and its surroundings.

Biology: A *Biological Resources Technical Report for the Proposed Longboat Solar Project* was prepared by Environmental Intelligence, LLC in July 2015. Biologists with Environmental Intelligence visited the Project site on multiple occasions starting in August 2014 through July 2015 to assess current habitat conditions and evaluate the potential for the Project site to support special status biological resources. No federally threatened, endangered, or candidate species were observed within the Project site during extensive field surveys.

Although no State or federal endangered or threatened species were found on the site during surveys, the Draft Initial Study and the proposed Conditions of Approval would require a worker environmental awareness program, a biological monitor, desert tortoise and Mojave fringe-toed lizard exclusion fencing, sensitive species pre-construction surveys and daily sweeps, a raven management and trash abatement plan, and avian mortality and injury monitoring, along with other biological resource protection measures. Biological assessments and surveys are contained in the Draft Initial Study (Exhibit C).

Traffic: GC Environmental, Inc., prepared a Transportation and Traffic Assessment for the proposed Project in May 2015. Construction activities at the Project site are anticipated to take place over a period of approximately 10 months, during which the Project (including the off-site interconnection) would generate a maximum of 226 additional round trips per day. During operation, the project would generate a maximum of 12 additional round trips per day. Mitigation Measure (MM) TR-1 would reduce temporary construction-related impact to a less than significant level through the implantation of a traffic control plan.

Renewable Energy Mandates: The California Renewable Portfolio Standard (RPS) legislation, established in 2002 (Senate Bill 1078), and accelerated in 2006 (Senate Bill 107), requires retail sellers of electricity to obtain 20 percent of their supply of electricity from renewable energy sources by 2010 and 33 percent of electricity from renewable energy sources by 2020. In September 2015, SB 350, the Clean Energy and Pollution Reduction Act, which calls for a 50 percent RPS by 2030, passed the California legislature, which Governor Brown signed into law on October 7, 2015.

Greenhouse Gas Emissions Reduction: In 2006, the State of California passed the California Global Warming Solutions Act (Assembly Bill 32) which requires the state to reduce emissions of carbon dioxide (CO₂) and other greenhouse gases (GHG) to 1990 emission levels (a 30 percent reduction) by 2020. Senate Bill 1368, enacted in 2006, prohibits California electric utilities from constructing power plants or entering into long-

term energy purchase contracts with facilities that do not meet the GHG emissions standard. In December 2011, the County adopted a GHG Emissions Reduction Plan (GHG Reduction Plan) that established review criteria for GHG emissions. The proposed Project would assist in efforts to meet the California GHG emissions legislation, consistent with the County GHG Reduction Plan.

The proposed Project supports adopted plans, policies, and regulations of the State of California intended to reduce GHG emissions because it generates renewable electricity. SCE has selected this Project through the competitive bid process over several others and has issued a PPA in order to help meet this goal.

PUBLIC COMMENTS

The Planning Division has sent out public notices to surrounding property owners within a one-quarter mile radius of the site, in compliance with the Notice of Pending Land Use Decisions requirements. Notices were sent out at the time the Project was deemed complete, upon the release of the Project initial study, and 10 days prior to the public hearing date. Additionally, a legal advertisement was published in the local newspaper on November 22, 2015, advertising the public hearing. At the time the Project was deemed complete for review and processing, four responses were received from the public. Commenters stated concern about impacts upon property values, groundwater issues, noise, views, temperature effects, the proposed interconnection, traffic and wildlife. Two Emails in support of the Project were received. Most comments are addressed in the environmental document. One abutting property owner associated with the plans for construction submitted comments that resulted in modifications to the Project plans, as summarized below:

In 2014, Mr. Max Eddy, owner of APN 0497-101-09 entered into a lease with the applicant to lease approximately 3.83 acres of his 9.85 parcel for a temporary laydown yard in support of the Project during its construction. On March 16, 2015, Mr. Eddy contacted the County and voiced his concerns and objections to the proposed Project regarding property values, environmental impacts, fencing, height, and water usage.

The applicant proposed substantial modifications to the proposed Project in response to the issues raised by Mr. Eddy, specifically:

- The height of the solar panels was reduced by 25%, from 16 feet to 12 feet. The applicant noted that this lower profile limits the types of solar panels that they can use, but agreed to this concession.
- Increased Project setbacks from Mr. Eddy's property line. The setback to the eastern Project fence was increased to 74 feet. The setback to the southern Project fence was increased to 34 feet. The setback to the western Project fence was increased to 55 feet, which would allow for retaining existing wind-rows and other existing natural screening.
- Inverters were relocated to a minimum of 500 feet from Mr. Eddy's property.

In communicating these modifications to Mr. Eddy, the Project applicant noted that the southern fence of Mr. Eddy's parcel encroaches onto the Project site by 24.1 feet on the east end to 26.5 feet on the west end. The applicant negotiated with the property owner (Soppeland Trust) and obtained an access easement (subject to Project approval) on the portion of the property on which Mr. Eddy is currently encroaching.

ENVIRONMENTAL REVIEW

A Draft Initial Study (IS) was prepared for the Project pursuant to Section 15063 of the California Environmental Quality Act (CEQA) Guidelines. A Notice of Intent to Adopt a Mitigated Negative Declaration was prepared for the Project and submitted to the State CEQA Clearinghouse on October 5, 2015. A 30-day public comment period ended on November 4, 2015. As of the writing of this document, comment letters were received from 2 individuals, and 2 responsible agencies. The comment letters and responses are attached as Exhibit D.

In summary, Staff believes that the proposed mitigation measures and Conditions of Approval suggested in the Draft Initial Study adequately address potential impacts of the Project. As a result, Staff recommends adoption of a Mitigated Negative Declaration.

SUMMARY:

The proposed Project would assist in meeting the renewable energy targets for retail sellers of electricity in California and is consistent with the State's GHG emissions goals. In addition, the proposed Project is consistent with the applicable County goals, policies, and regulations regarding renewable energy. Therefore, Staff recommends approval of the Project.

RECOMMENDATION: That the Planning Commission:

- 1) **ADOPT** the Mitigated Negative Declaration and find that the Draft Initial Study has been completed in compliance with CEQA, that it has been reviewed and considered prior to approving the Project and that the Draft Initial Study/Mitigated Negative Declaration reflects the independent judgment of San Bernardino County.
- 2) **APPROVE** a Conditional Use Permit to establish a 20-MW solar photovoltaic electricity generation facility on 235 acres of a 325 acre site subject to the recommended Conditions of Approval.
- 3) **ADOPT** the proposed Findings for approval of the Conditional Use Permit per Development Code Section 85.06.040, and the Required Findings for Approval of a Commercial Solar Energy Facility per Development Code Section 84.29.035.
- 4) **FILE** a Notice of Determination.

ATTACHMENTS:

- Exhibit A: Findings
- Exhibit B: Conditions of Approval
- Exhibit C: Draft Initial Study/Mitigated Negative Declaration
- Exhibit D: Comments on the Initial Study & Response to Comments
- Exhibit E: Other Public Comments Received

EXHIBIT A

Findings

EXHIBIT A FINDINGS

Longboat Solar Project

Findings per Development Code Section 85.06.040 [Conditional Use Permit]

Per Development Code Section 85.06.040, the following are the required findings that the reviewing authority must determine to be true before approving any Conditional Use Permit. For the proposed 20-megawatt solar photovoltaic electricity generation facility (Project) located on approximately 234 acres of land (APN 0497-071-40, 0497-121-28, 0497-101-05, and 0497-101-14) in unincorporated San Bernardino County, the Project's consistency with each finding is described:

1. The site for the proposed use is adequate in terms of shape and size to accommodate the proposed use and all landscaping, loading areas, open spaces, parking areas, setbacks, walls and fences, yards, and other required features pertaining to the application.

Project Consistency: The Project site is located on approximately a 234 acre site located on four subject properties totaling 325 acres. The subject site is adequate in shape and size to provide for all required features pertaining to the proposed solar facility in compliance with applicable development standards, including all required setbacks and fences. The site is able to accommodate the proposed solar panels and all ancillary facilities associated with the Project. No permanent open spaces or yards are required as the proposed facility will be unmanned with occasional maintenance and service.

2. The site for the proposed use has adequate access, which means that the site design incorporates appropriate street and highway characteristics to serve the proposed use.

Project Consistency: The proposed Project provides for adequate site access. Community Boulevard transects the north and south portions of the Project site and the site will be accessed directly from Community Boulevard. Access will be provided by two main driveways, one for the portion of the Project south of Community Boulevard and one for the portion of the Project site north of Community Boulevard. In addition, a secondary access driveway and a temporary access driveway into the temporary storage and laydown area are also located on the south side of Community Boulevard along the parcel frontages. These additional access points would also be used for emergency access. The fences and gates for general site access are located at a minimum of 15 feet inside the property lines so that incoming vehicles will be able to park at the gate, outside of the right-of-way and avoid any traffic conflicts. The setback will also preserve a broad line of sight along Community Boulevard. Typical site access will consist of a 30-foot-wide driveway to accommodate wide turning radii in both directions. The proposed site access will include a 60-foot-long drive apron off Community Boulevard. The design includes a 26-foot wide perimeter access road and 20-foot wide interior access roads to allow for emergency access. Both the perimeter access road and the internal access roads would be constructed in conformance with County Fire Department

standards required for fire prevention. Adjacent land uses include scattered rural properties and undeveloped land, light industrial use including a Green Valley Foods Product Inc. cheese factory to the north, and active agriculture to the northwest resulting in light traffic volumes on area roadways. The Project would generate negligible traffic during operations; and therefore, would not require an increase in roadway capacity or changes in roadway design.

3. The proposed use will not have a substantial adverse effect on abutting property or the allowed use of the abutting property, which means that the use will not generate excessive noise, traffic, vibration, or other disturbance. In addition, the use will not substantially interfere with the present or future ability to use solar energy systems.

Project Consistency: A Draft Initial Study (IS) has been prepared for the proposed Project resulting in a proposed Mitigated Negative Declaration (MND). The IS analyzed potential impacts to surrounding properties, and recommended mitigation measures to address any potentially significant impacts, including traffic, vibration and noise. These measures are incorporated into the Project's proposed Conditions of Approval. Consequently, no significant adverse impacts to abutting properties are anticipated. The proposed solar panels would not exceed a maximum of 12 feet in height, lower than the typical single-story residence.

The Project would comply with the noise restrictions established by Development Code Section 83.01.080 during construction and operations. Construction would be temporary and would not involve blasting or produce noise and/or vibration that exceed Development Code requirements. Operation of the facility would generate minimal noise that is within County Development Code standards. No discernible vibrations are expected during operations given the nature of the proposed use.

Construction traffic was also analyzed in the IS and was determined to have a less than significant impact after mitigation. During Project operations, the facility will be unmanned; and minimal traffic will come to the site other than for maintenance. Dust would be controlled onsite during Project construction pursuant to Mojave Desert Air Quality Management District (MDAQMD) requirements. The proposed facility would not shade adjacent parcels and in no other way would limit the future development of solar energy systems or other development on neighboring properties in any way. The Project would not substantially interfere with the present or future ability to use solar energy systems, as this Project is a solar energy Project. The facility is a passive use and would not otherwise produce any disturbance for the surrounding community.

4. The proposed use and manner of development are consistent with the goals, maps, policies, and standards of the General Plan and any applicable community or specific plan.

Project Consistency: Solar energy generation is a conditionally permitted use within the Rural Living (RL) and Agriculture (AG) land use zone; therefore, the Project's land use is consistent with the General Plan map for the area. The

General Plan is strongly supportive of the development of renewable energy resources and businesses that operate in the renewable energy field. Specifically, the General Plan states that the County should:

- Encourage utilization of renewable energy resources (Goal D/CO 2).
- Encourage use of renewable and alternative energy systems for residential uses (Policy D/CO 2.2).
- Provide incentives to promote siting or use of clean air technologies (e.g., fuel cell technologies, renewable energy sources, UV coatings, and hydrogen fuel) (Policy CO 4.12).
- Assist in efforts to develop alternative energy technologies that have minimum adverse effect on the environment, and explore and promote newer opportunities for the use of alternative energy sources (Policy CO 8.3).

The Project will not conflict with any applicable adopted land use plan, policy, or regulation of an agency with jurisdiction over the Project.

5. There is supporting infrastructure, existing or available, consistent with the intensity of development, to accommodate the proposed development without significantly lowering service levels.

Project Consistency: During construction and operation the Project's required use of local infrastructure will not significantly affect existing service levels. Operation of the Project will generate an insignificant number of vehicle trips that would easily be accommodated by existing local roadways and mitigation will ensure the effects of temporary construction traffic is less than significant. Community Boulevard transects the north and south portions of the Project site. The Project would connect to the electrical grid by way of a line tap on an existing Southern California Edison (SCE) 33 kilovolt (kV) transmission line located adjacent to the site along Community Boulevard, at which point the power generated from the Project changes ownership from the Project developer to SCE. The Project will also receive its data service from the existing Verizon telecom lines that are currently in the public right of way adjacent to the Project. The Project will source its water from an on-site private well located in the southwest corner of APN 0497-071-04. No wastewater, natural gas, or cable television infrastructure is required to serve the Project. Pursuant to Development Code Section 84.29.040, the Project is also required to pay public safety services impact fees to offset any potential increased need for public safety services.

6. The lawful conditions stated in the approval are deemed reasonable and necessary to protect the public health, safety, and general welfare.

Project Consistency: The Project's Conditions of Approval reflect County conditions refined over time and designed to protect the public health, safety, and general welfare. These conditions are based on established legal requirements and are applicable to all similar projects. Consequently, they are considered reasonable and necessary to protect the public health, safety, and general welfare.

7. The design of the site has considered the potential for the use of solar energy systems and passive or natural heating and cooling opportunities.

Project Consistency: The Project is a solar energy generation facility and therefore fully complies with this finding. Implementation of the Project would not impede development of solar energy generation systems on adjacent parcels.

8. A Draft Environmental IS has been prepared in compliance with the California Environmental Quality Act (CEQA) and represents the independent judgment of the County acting as lead agency for the Project.

Project Consistency: A Draft Environmental IS in compliance with CEQA has been prepared for the proposed Project and has concluded that the Project will not have a significant adverse impact on the environment with incorporation of, and adherence to, recommended mitigation measures, which have been incorporated into the Conditions of Approval. The preparation of the Draft IS was directed and supervised by County Staff and all analysis was reviewed for adequacy under CEQA. The Draft Environmental IS and MND represent the independent judgment of the County acting as lead agency for the Project.

Findings per Development Code Section 84.29.035 [Findings for a Commercial Solar energy Facility]

Per Development Code Section 84.29.035, the following are the required findings that the reviewing authority must determine to be true before approving a commercial solar energy facility. The Project's consistency with each finding is described:

1. The proposed commercial solar energy generation facility is either (a) sufficiently separated from existing communities and existing/developing rural residential areas so as to avoid adverse effects, or (b) of a sufficiently small size, provided with adequate setbacks, designed to be lower profile than otherwise permitted and sufficiently screened from public view so as to not adversely affect the desirability and future development of communities, neighborhoods, and rural residential use.

Project Consistency: The Project is located on unincorporated lands to the immediate northwest of the City of Barstow, and north of the community of Lenwood, in San Bernardino County, California. The Project is sufficiently separated from existing communities and rural residential areas by the SR 58 and railroad embankment to the east and north of the Project site and by the Mojave River to the south of the Project site. Project facilities are generally 0.60 miles from the nearest residences to the west along Lenwood Road and at least 0.25 miles from the nearest residences to the north. The embankment supporting the elevated State Route 58 (SR 58) and Santa Fe railroad tracks forms a visual barrier between the Project and the residential neighborhood to the east of the Project site, as well as residential areas to the north. To the south of the Project and separated by the Mojave River is vacant land followed by scattered rural residential parcels along Agate Road, with the closest residence over 0.55 miles south of the Project.

To the immediate north of the Project is a cheese manufacturing facility, Green Valley Foods. A windrow along the Green Valley Foods property line screens the Project from view. Owners of three residences on the Project parcels leased their property for use by the Longboat Solar Project, two of which support the Project. The third, who has leased 3.45 acres of its property for use as a Project construction yard, has expressed concerns regarding the Project. The applicant has responded to those concerns as follows:

- The height of the solar panels was reduced by 25%, from 16 feet to 12 feet. This is shorter than most residences and significantly lower than the applicable 35-foot height limit of the RL and AG zones. The applicant noted that this lower profile limits the types of solar panels that it can use, but agreed to this concession as it will result in a significant reduction in Project visibility.

- Increased Project setbacks from the residence owner's property line. The setback to the eastern Project fence was increased to 74 feet (a 490% increase over the County's standard). The setback to the southern Project fence was increased to 34 feet (a 226% increase over the County standard). The setback to the western Project fence was increased to 55 feet (a 365% increase over the County's standard), which will allow for retaining existing wind-rows and other existing natural screening.
- Inverters were relocated a minimum of 500 feet away from the subject property line.

A corrugated metal fence near the southern boundary of the same parcel effectively screens the Project site from view and, the applicant will install slatted fencing along the southern boundary of the parcel to provide permanent screening.

Additional measures have been incorporated into the Project design to minimize impacts on adjacent areas. A 26-foot-wide, unpaved perimeter access road constructed along the boundary of the Project site, in addition to a minimum 15-foot buffer between Community Boulevard and the Project's fenceline, would provide a wide setback between the solar arrays and adjacent off-site uses. The top of the solar panel arrays would be up to a maximum of 12 feet in height when the panels are at their maximum tilt, which is shorter than the typical single story residence in the area and significantly shorter than the maximum height (35 feet) allowed in the RL and AG zone. Within the Project setbacks, the facility would attempt to retain desert vegetation typical of the area to further buffer the solar panels planned equipment. The facility setbacks and buffering measures would reduce Project impacts and not significantly affect the desirability of the adjacent local properties. No new utility lines would be required to accommodate the electricity generated by the Project because the Project would be able to connect to adjacent existing electrical infrastructure that fronts the Project site.

In addition, environmental analysis conducted for the proposed Project determined that the proposed facility would not have any significant adverse impacts, with recommended mitigation measures that have been incorporated as Conditions of Approval.

2. Proposed fencing, walls, landscaping and other perimeter features of the proposed commercial solar energy generation facility will minimize the visual impact of the project so as to blend with and be subordinate to the environment and character of the area where the facility is to be located.

Project Consistency: Several Project design features, as noted above, will act to minimize visual impacts. A substantial buffer between the arrays and Community Boulevard and SR 58 will minimize the visual impact of the Project to ensure it is subordinate to the surrounding environment. Specifically, the solar arrays would stand at least forty-five feet from Community Boulevard and forty-five feet from SR 58, with the buffer retaining existing desert vegetation. A

proposed chain link fence near Community Boulevard and SR-58 would be consistent in type with that of other rural properties in the area and within the maximum allowed height. By imposing a substantial buffer instead of building to the property line and enclosing the Project with a wall or opaque fence, the Project harmonizes better with the broad, open views generally experienced along Community Boulevard. Retaining vegetation along the buffer area between the property boundary and the solar arrays will further attenuate the visual effects of the Project by “softening” the viewshed of drivers along Community Boulevard and SR 58 with the same vegetation that exists on site now.

The Project site is flat and contains no significant geological features or vegetation that could be considered scenic. None of the proposed onsite equipment would obstruct any viewsheds in the area. Overall, the Project is largely obscured from view of adjacent residences by SR 58, the elevated railroad tracks, the Mojave River and natural vegetation common to the area. Consequently, the proposed facility would blend with and be subordinate to the environment and character of the area.

3. The siting and design of the proposed commercial solar energy generation facility will either be: (a) unobtrusive and not detract from the natural features, open space and visual qualities of the area as viewed from communities, rural residential uses, and major roadways and highways or (b) located in such proximity to already ‘disturbed’ lands -- such as electrical substations, surface mining operations, landfills, wastewater treatment facilities, etc. that it will not further detract from the natural features, open space and visual qualities of the area as viewed from communities, rural residential uses, and major roadways and highways.

Project Consistency: The Project would not detract from the visual qualities of the area as viewed from communities, rural residential uses, and major roadways and highways. The Project is sufficiently separated from existing communities and rural residential areas by the SR 58 and railroad embankment to the east and north of the Project site and by the Mojave River to the south of the Project site. Project facilities are generally 0.60 miles feet from the nearest residences to the west along Lenwood Road and at least 0.25 miles from the nearest residences to the north. The embankment supporting the elevated SR 58 and Santa Fe railroad tracks forms a visual barrier between the Project and the residential neighborhood to the east of the Project site, as well as residential areas to the north. To the south of the Project and separated by the Mojave River is vacant land followed by scattered rural residential parcels along Agate Road, with the closest residence over 0.55 miles south of the Project. As discussed above, the Project site is immediately adjacent to three rural residences, the owners of each of which have leased lands for the Project and for one of which the applicant has modified the Project to address concerns. As discussed in detail above, views of the Project from Community Boulevard and

SR 58 would be attenuated by the broad, vegetated setback of the solar arrays from the road-side and by visibility through the rows of posts supporting the solar panels. The Project's low, flat profile would also limit views of the site through the effect of foreshortening, as evidenced by simulations in the attached IS. The inferior position of the Project relative to the raised SR 58 embankment to the east of the Project site would afford a broader view of the site from that segment of SR 58, however, the lower position of the facility and its low, regular profile would correspond with the low, regular profile of the existing furrowed fields and would not obscure views of nearby hills or mountains or the Mojave River. As discussed in the IS, the Project site currently consists of previously disturbed, abandoned agricultural lands of low scenic value. Large, vegetated setbacks from SR 58 and Community Boulevard, combined with the inferior position of the Project relative to the SR 58 embankment to the east ensure that the Project would be unobtrusive. The broad setback would prevent the Project from encroaching upon the immediate field of view, and its flat, regular profile would not detract from the broad, flat, open views of the vicinity and surrounding region from the SR 58 embankment.

Furthermore, the Project is sited on previously disturbed, and now abandoned, agricultural lands with an elevated highway and rail line to the north and east, an industrial cheese factory to the north along Community Boulevard. Existing infrastructure (e.g., power lines and roads) abuts the site for the Project's use.

4. The siting and design of project site access and maintenance roads have been incorporated in the visual analysis for the project and shall minimize visibility from public view points while providing needed access to the development site.

Project Consistency:

The primary access points to the Project site would be directly from the existing public right of way, Community Boulevard, by two main driveways, one for the portion of the Project south of Community Boulevard and one directly across the street for the portion of the Project site north of Community Boulevard. In addition, a third driveway further to the west would provide secondary access to the western half of the Project from the south side of Community Boulevard. Each driveway would be 30 feet wide and 60 feet long. Visibility of the driveways from Community Boulevard would be minimized by their low profile and compliance with County development standards. In accordance with County standards, a 26-foot-wide perimeter road and 20-foot-wide internal roads have been incorporated into the site design. Visibility of the perimeter road and internal roads would be minimized by their low profile and by their construction from compacted native soils, consistent with the agricultural character of the vicinity. If construction of the Project exposes sand or fine deposits, a dust palliative or covering with a stabilizing layer of gravel that is similar in color to the surface soil and sands encountered, will be required to eliminate visible wind-blown dust or sand. Where feasible, the Project will retain existing vegetation

and windrows at least 15 feet from the property line which, in addition to the unimproved portion of the Community Boulevard right-of-way, would further attenuate views of the perimeter access road on the sides of the facility facing Community Boulevard. Views of other segments of the perimeter access road and the internal access roads would be attenuated by the solar panels and support posts. Temporary access roads would be restored following completion of construction.

5. The proposed commercial solar energy generation facility will not adversely affect the feasibility of financing infrastructure development in areas planned for infrastructure development or will be located within an area not planned for future infrastructure development (e.g., areas outside of water agency jurisdiction).

Project Consistency: The solar facility will be unmanned and will not require connection to water or sewer facilities. No element of the proposed Project is expected to impact the feasibility of financing infrastructure development for the local area. With regard to areas unplanned for infrastructure development, the site is adequately served by the existing and planned Project infrastructure improvements.

6. The proposed commercial solar energy generation facility will not adversely affect to a significant degree the availability of groundwater supplies for existing communities and existing and developing rural residential areas.

Project Consistency: The Project would not adversely affect the availability of groundwater supplies to a significant degree. The Project would not be connected to the local water system for operations, as none exists in the area. Water for construction and operations will be purchased at market rate from Hill's Ranch, Inc. a landowner of the Project site. Hill's Ranch, Inc. owns sufficient water rights to supply water to the Project site for construction and operations. Construction water use is estimated to be 40 acre-feet of water over the approximate 10-month construction period. Water used during operations for cleaning the panels would be less than 3 acre-feet per year. Hill's Ranch, Inc. has a 1,868 acre-foot stipulated water right within the adjudicated Mojave basin as well as a 1,868 acre-foot Carryover Right available for the 2014-2015 Water Year, resulting in an available water right of 3,736 AF in 2015, more than 90 times the amount of water required for construction of the Project. Because land has not been farmed in the 2014-2015 Water Year; a similar amount of water is expected to be available in 2016. Because the adjudicated water right is allocated to prevent overdraft of the groundwater basin, any use below the annual allocation and available Carryover Right would not adversely affect the availability of groundwater supplies to a significant degree.

In contrast to the Project, if the Hill's Ranch and Soppeland Trust properties that make up the Project were to resume their previous agricultural uses (alfalfa and

dairy farming), they could use up to 2,813 acre-feet of water per year under their combined water rights.

7. The proposed commercial solar energy generation facility will minimize site grading, excavating, and filling activities by being located on land where the existing grade does not exceed an average of five (5) percent across the developed portion of the project site, and by utilizing construction methods that minimize ground disturbance.

Project Consistency: Minimal site grading is proposed for the majority of the site with finished topographical grades being similar to existing conditions. The Project site has an average grade of less than one percent (.0034%), which greatly reduces the amount of grading necessary to prepare the site for construction. Construction activities would further minimize grading by avoiding Project buffer areas, maintaining the existing site grade and drainage pattern where feasible, balancing the site in terms of cut and fill and locating site access roads only where necessary to meet County Fire safety requirements. The Project would not significantly change the site contouring as the site is previously leveled agricultural land.

8. The proposed commercial solar energy generation facility is located in proximity to existing electrical infrastructure such as transmission lines, utility corridors and roads such that: (a) minimal ground disturbance and above ground infrastructure will be required to connect to the existing transmission grid, (b) new electrical generation tie lines have been co-located on existing power poles whenever possible, and (c) existing rights-of-way and designated utility corridors will be utilized to the extent practicable.

Project Consistency: The Project site is located adjacent to power lines on Community Boulevard. The Project will use existing rights-of-way and designated utility corridors because interconnection will occur within the adjacent public right-of-way of Community Boulevard with a direct line tap of the existing 33kV / 12 kV power lines that run east to west along Community Boulevard. Up to 2,900 feet of the existing 33kV conductors would be replaced with new conductors, but no net increase in the number of power lines (conductors) would be required; up to 11 off-site power line poles will be replaced with new poles of the same height, but no net increase in new off-site power line poles would be needed; on-site, to safely facilitate the transition from the underground collection system and the Project switchgear, SCE will place up to three additional forty foot (40') wooden poles south of the existing pole on Community Boulevard to accommodate various switching and control mechanisms for the Project; and the three new utility poles constructed south of Community Boulevard would be masked by the existing windrows in addition to blending with the existing overhead lines due to their close placement adjacent to existing utility poles in the existing right-of-way. Minimal ground disturbance and above ground infrastructure will be required to connect to the existing transmission grid

because (i) the Project is located adjacent to existing transmission infrastructure; (ii) the new conductor would replace an existing conductor; (iii) existing power poles would be used; (iv) for the up to 11 poles to be replaced, existing power pole locations would be used; and (v) collector lines connecting the north and south portions of the Project across Community Boulevard would be constructed underneath the previously disturbed right-of-way.

9. The proposed commercial solar energy generation facility will be sited so as to avoid or minimize impacts to the habitat of special status species, including threatened, endangered, or rare species, Critical Habitat Areas as designated by the U.S. Fish and Wildlife Service, important habitat/wildlife linkages or areas of connectivity designated by County, State or Federal agencies, and areas of Habitat Conservation Plans or Natural Community Conservation Plans that discourage or preclude development.

Project Consistency: The Biological Resources Technical Report (BRTR) contained in the IS/MND appendices indicates that biologists visited the Project site on multiple occasions starting in August 2014 through July 2015 to assess current habitat conditions and evaluate the potential for the Project site (and limits of proposed construction) to support special status biological resources. A combination of database search, literature review, and field reconnaissance was conducted to determine the potential for special status wildlife species to occur on the Project site and areas subject to the off-site improvements. Due to prior agricultural use, the BRTR concluded the site is low quality habitat for desert tortoise and Mohave ground squirrel. No federally threatened, endangered, or candidate species were observed within the Project site during extensive protocol field surveys conducted from August 2014 through July 2015. A Swainson's hawk was observed, but it was soaring high above to the north of the Project site; the nearest Swainson's hawk breeding area is 50 miles away. No burrowing owls, desert kit fox or American badger were identified on site after protocol surveys. A total of nine sensitive avian species were observed; most were migrants soaring above the Project site and no nests of these species were observed. The Project avoids Mojave fringe-toed lizard habitat and a sensitive desert panic grass habitat community. No sensitive plants were observed on site after surveys. The Project avoids the Mojave River, a known connectivity corridor. The pre-disturbed nature of the site and the surrounding SR 58, Community Boulevard and Lenwood Road all reduce its contribution to wildlife movement in the region. In large part due to the previously disturbed nature of the Project site, the BRTR determined there would be no significant impact to protected habitats or species following the implementation of mitigation measures. The site is not within the boundaries of an adopted Critical Habitat Area, designated important habitat/wildlife linkage, area of connectivity, Habitat Conservation Plan, or Natural Community Conservation Plan.

10. Adequate provision has been made to maintain and promote native vegetation and avoid the proliferation of invasive weeds during and following construction.

Project Consistency: The Project will not cause or encourage the growth of invasive weeds during and following construction. The Project will involve grubbing, which will remove and destroy existing invasive species on the site. In areas of the Project site where feasible, mowing and rolling techniques would be used to maintain plant root systems for soils stabilization. As evaluated in the IS/MND, a Weed Abatement Plan will be required as mitigation (BIO-4). This plan will describe all requirements pertaining to the removal of invasive weeds, fire protection, and fuel modification including periodic clearance of the site of all non-complying vegetation under San Bernardino County Desert Area Fire Hazard Abatement regulations [County Code 23.031-23.043].

11. The proposed commercial solar energy generation facility will be located so as to avoid or mitigate impacts to significant cultural and historic resources, as well as sacred landscapes.

Project Consistency: The Cultural Resources Assessment prepared for the Project included desktop and pedestrian phase 1 surveys of the site. As specified in the Cultural Resource Assessment and summarized in the IS/MND, no significant cultural or historic resources were identified within the Project boundary.

A sacred lands record search was requested from the Native American Heritage Commission and Native American tribes associated with the Project area were contacted regarding the Project pursuant to AB 52. No tribal cultural resources were identified at the site. However, as a precaution, the IS requires implementation of detailed mitigation measures (CR-1, CR-2 and CR-3) developed during the AB 52 consultation process for the treatment of inadvertent discoveries of tribal cultural resources, including the use of Native American monitors and consultation with affected tribes in the event of an inadvertent discovery.

12. The proposed commercial solar energy generation facility will be designed in a manner that does not impede flood flows, avoids substantial modification of natural water courses, and will not result in erosion or substantially affect area water quality.

Project Consistency: Minimal site grading is proposed for the majority of the site with finished topographical grades being similar to existing conditions. The Project site minimizes impacts to storm water flows and impacts to natural drainage courses because the vast majority of the Project site would remain permeable once constructed and the area of disturbance does not contain any state or federal jurisdictional streams or wetlands. The Project consequently

would not require the placement of any new facilities or structures within the Mojave River or the delineated 100-year floodplain which could otherwise change or re-direct existing flood conveyance facilities. See #13 for a discussion on flooding. A stormwater pollution prevention plan (SWPPP) incorporating best management practices (BMPs) for erosion control will be prepared and approved prior to the start of construction. During site preparation, the SWPPP will be implemented and preliminary erosion and sediment control features will be installed. The Project would also comply with applicable post-construction water quality requirements adopted by the Regional Water Quality Control Board.

13. The proposed commercial solar energy generation facility will not be located within a floodway designated by the Federal Emergency Management Agency (FEMA), has been evaluated for flood hazard impacts pursuant to Chapter 82.14 of the Development Code, and will not result in increased flood hazards to upstream or downstream properties.

Project Consistency: The Project site is not located within a 100-year floodplain or in a floodway. The Project engineering prepared for the Project and summarized in the IS/MND calculates the increased runoff volume resulting from the Project to be minimal and would not increase off-site flooding hazards. Implementation of mitigation measures (HWQ-1 and HWQ-2) would reduce potential drainage impacts by requiring post-Project peak runoff conditions to be maintained at pre-Project levels.

14. All on-site solar panels, switches, inverters, transformers and substations will be located at least one foot above the base flood elevation as shown on the Flood Insurance Rate Maps.

Project Consistency: No portion of the proposed development is within a 100-year flood zone, and there are therefore no established base flood elevations for the area. The entire solar facility therefore will be located more than one foot above the base flood elevation as shown on Flood Insurance Rate Maps. Additional hydrologic modeling completed for the Project confirms that the Project would not be subject to inundation during a 100-year flood event. The Project site minimizes impacts to annual storm water flows by preserving the existing onsite drainage path. The Hydrology Report prepared for the Project and summarized in the IS/MND estimated that increased runoff volume resulting from the proposed Project is insignificant. Implementation of mitigation measures (HWQ-1 and HWQ-2) would reduce potential drainage impacts by requiring post-Project peak runoff conditions to be maintained at pre-Project levels.

15. For development sites proposed on or adjacent to undeveloped alluvial fans, the commercial solar energy generation facility has been designed to avoid potential channel migration zones as demonstrated by a geomorphic

assessment of the risk of existing channels migrating into the proposed development footprint, resulting in erosion impacts.

Project Consistency: The Project site is not located on or adjacent to undeveloped alluvial fans. The Project site is located in an area that has extensive rural development, including agricultural fields, homes, roads, highways, utility lines and railroad tracks, which prevent the migration of channels onto the development footprint, and the attendant erosion impacts.

16. For proposed facilities located on prime agricultural soils or land designated by the California Farmland Mapping and Monitoring Program as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, where use of the land for agricultural purposes is feasible, the proposed commercial solar energy generation facility will not substantially affect the agricultural viability of surrounding lands.

Project Consistency: The Project is located on Range Land, as mapped by the California Farmland Mapping and Monitoring Program. The Project is not located on Prime Farmland, Unique Farmland or Farmland of Statewide Importance, as mapped by the State.

17. If the proposed site is subject to a Williamson Act contract, the proposed commercial solar energy generation facility is consistent with the principles of compatibility set forth in California Government Code Section 51238.1.

Project Consistency: The Project site is not subject to a Williamson Act contract.

18. The proposed commercial solar energy generation facility will not preclude access to significant mineral resources.

Project Consistency: The Project site is not located in an area of known, significant mineral resources. There are no identified important mineral resources on the Project site and the site is not within a Mineral Resource Zone Overlay. Additionally, solar energy generation is considered an interim land use (with a limited-term contract with a utility) and is expected to be removed after its contractual lifetime. Additionally the owners of the parcels hosting the Project own their respective mineral rights and have made the decision to forego potential mineral exploration in favor of renewable energy during the lifecycle of the Project within the Project boundaries.

19. The proposed commercial solar energy generation facility will avoid modification of scenic natural formations.

Project Consistency: No designated scenic natural formations as identified by the County are located at the Project site. As explained in the IS, the Project site itself as viewed from multiple vantages has been disturbed for previous agricultural uses with other existing agricultural, rural residential, transportation (State Route 58 and railroad) and industrial uses surrounding the Project site. The Project site is located on flat land, and will not result in the modification of any recognized scenic natural formations.

20. The proposed commercial solar energy generation facility will be designed, constructed, and operated so as to minimize dust generation, including provision of sufficient watering of excavated or graded soil during construction to prevent excessive dust. Watering will occur at a minimum of three (3) times daily on disturbed soil areas with active operations, unless dust is otherwise controlled by rainfall or use of a dust palliative, or other approved dust control measure.

Project Consistency: The IS/MND assessed potential air quality impacts, and incorporated a mitigation measure which requires preparation and implementation of a Dust Control Plan, which in turn requires watering three times daily or other comparable effective dust control methods. The Project will apply dust control measures in compliance with Mojave Desert Air Quality Management District (MDAQMD) regulations. Compliance with MDAQMD regulations and mitigation required by the IS/MND ensure that the facility minimizes dust generation.

21. All clearing, grading, earth moving, and excavation activities will cease during period of winds greater than 20 miles per hour (averaged over one hour), or when dust plumes of 20 percent or greater opacity impact public roads, occupied structures, or neighboring property, and in conformance with Air Quality Management District (AQMD) regulations.

Project Consistency: The Project will apply dust control measures in compliance with MDAQMD regulations. The Dust Control Plan prepared for the Project requires activities on unpaved surfaces cease when wind speeds exceed 20 miles per hour averaged over one hour or when dust plumes of 20 percent or greater opacity impact public roads, occupied structures, or neighboring property. Mitigation has been incorporated as Conditions of Approval.

22. For sites where the boundary of a new commercial solar energy generation facility is located within one-quarter mile of a primary residential structure, an adequate wind barrier will be provided to reduce potentially blowing dust in the direction of the residence during construction and ongoing operation of the commercial solar energy generation facility.

Project Consistency: The Project will apply dust control measures in compliance with MDAQMD regulations and mitigation required by the IS/MND. This includes using water trucks to apply water and/or palliatives to minimize the

production of visible dust emissions in areas where grading occurs, within the staging areas, and on any unpaved roads used during Project construction.

A wind fencing evaluation was prepared for the Project and summarized in the Draft IS/MND. The direction of prevailing winds at the Project site is from the west-southwest. Four residences are located within 200 feet of the Project site on the same side of the embankment supporting the elevated SR 58 and Santa Fe railroad tracks as the Project. Along facility boundaries near these residences, fence slats will be used as an adequate wind barrier on the prevailing windward (upwind) side of each primary residential structure.

Additional residences are located within a quarter mile of the Project, but to the east of the SR 58/railroad embankment. The SR 58 embankment rises 15 to 20 feet above ground level along the Project's eastern and northeastern perimeter. The embankment is twice as high as the allowed Project perimeter fence. Based on the height and orientation of SR 58, the existing embankment already functions as a wind barrier for prevailing wind patterns consistent with the requirements of this finding.

To control wind erosion in dry climates where soil moisture levels are difficult to maintain, the Project would implement a series of measures to provide proper soil stabilization both during and following construction. These measures include rolling and mowing techniques in order to maintain plant roots to the extent feasible, daily watering, limiting vehicle speeds, and any reestablishment of vegetation following construction grading required by a SWPPP. Per the requirements of the State General Construction Permit, the SWPPP is required to include an erosion control plan and post-construction BMPs. These measures are effective in controlling wind erosion during and following construction activities.

The soil materials on site would be stabilized through the measures implemented during and following Project construction, such as the use of water trucks to apply water and/or dust palliatives where grading occurs and, if necessary, application of gravel or other surface fixing materials to the Project's unpaved internal access roads. Existing vegetation (e.g. windrows) at both on and off-site locations would provide an initial wind barrier to reduce potentially blowing dust in the direction of residences. The solar arrays would also be expected to provide some level of wind-break. Fence slats would be strategically incorporated into the Project design to provide a form of wind fencing. During operations, there would be no regular earth-disturbing activities that would have the potential to generate any significant amount of blowing dust.

23. Any unpaved roads and access ways will be treated and maintained with a dust palliative or graveled or treated by another approved dust control method to prevent excessive dust and paving requirements will be applied pursuant to Chapter 83.09 of the Development Code.

Project Consistency: The Project will apply dust control measures in compliance with MDAQMD regulations. The Project's Dust Control Plan contains measures requiring the use of dust palliatives or gravel to control dust generation on unpaved access roads on the Project site. The Project's driveways will be subject to applicable paving requirements of the County.

24. On-site vehicle speed will be limited to 15 miles per hour.

Project Consistency: The Dust Control Plan prepared for the Project limits vehicle speeds on unpaved roads to 15 miles per hour.

25. For proposed commercial solar energy generation facilities within two (2) miles of the Joshua Tree National Park boundaries, the location, design, and operation of the proposed commercial solar energy generation facility will not be a predominant visual feature along the main access roads to the park (Park Boulevard and Utah Trail), nor will it substantially impair views from hiking/nature trails, campgrounds, and backcountry camping areas within the National Park.

Project Consistency: The Project site is not within two miles of Joshua Tree National Park. Joshua Tree National Park is approximately 70 miles to the southeast.

26. For proposed facilities within two (2) miles of the Mojave National Preserve boundaries, the location, design, and operation of the proposed commercial solar energy facility will not be a predominant visual feature of, nor substantially impair views from, hiking and backcountry camping areas within the National Preserve.

Project Consistency: The Project site is not within two miles of Mojave National Preserve. Mojave National Preserve is approximately 55 miles to the east.

27. For proposed facilities within two (2) miles of Death Valley National Park boundaries, the location, design, and operation of the proposed commercial solar energy facility will not be a predominant visual feature of, nor substantially impair views from, hiking and backcountry camping areas within the National Park.

Project Consistency: The Project site is not within two miles of Death Valley National Park. Death Valley National Park is approximately 52 miles to the north.

28. For proposed facilities within two (2) miles of the boundaries of a designated wilderness area, the location, design, and operation of the proposed commercial solar energy facility will not be a predominant visual feature of, nor substantially impair views from, the designated wilderness area.

Project Consistency: The Project site is not within two miles of any designated wilderness area. The nearest designated wilderness area is the Black Mountain Wilderness Area, located 11 miles to the north.

29. For proposed facilities within two (2) miles of the boundaries of any active military base, the location, design, and operation of the proposed commercial solar energy facility will not substantially impair the mission of the facility.

Project Consistency: The Project site is not within two miles of any active military base. The nearest active military base is the Marine Corps Logistics Base, 7 miles to the east.

30. When located within a city's sphere of influence, in addition to other County requirements, the proposed commercial solar energy facility will also be consistent with relevant city zoning requirements that would be applied to similar facilities within the city.

Project Consistency: The Project site is located within the sphere of influence of the City of Barstow (City). Before applying to the County, the Project submitted the Site Plan and other information to the City and obtained a letter dated September 10, 2014 concurring that the Project is consistent with relevant City zoning requirements that would be applied to similar facilities within the City.

31. On terms and in an amount acceptable to the Director, adequate surety is provided for reclamation of commercial solar energy facility sites should energy production cease for a continuous period of 180 days and/or if the site is abandoned.

Project Consistency: Decommissioning of the site will occur in compliance with Development Code Section 84.29.070, which requires removal of site facilities when operations cease. A removal surety bond equal to 120 percent of the cost of removal (as estimated by a civil engineer) will be required in the Project's Conditions of Approval.

EXHIBIT B

Conditions of Approval

CONDITIONS OF APPROVAL

GENERAL REQUIREMENTS

Conditions of Operation and Procedure

[Not subject to Condition Compliance Release Form (CCRF) signatures]

LAND USE SERVICES – Planning Division (760) 995-8140

1. Project Approval Description. For the proposed twenty (20) megawatt (MW) solar photovoltaic electricity generation facility (Project) on approximately 234 acres of land (APN(s) 0497-101-14,-05,-09, 0497-121-28, & 0497-071-40) northwest of the City of Barstow and north of the Lenwood community in unincorporated San Bernardino County (County), this Conditional Use Permit (CUP) Project is approved to be constructed and operated in compliance with the San Bernardino County Code (SBCC), California Building Codes (CBC), the following Conditions of Approval, the approved site plan, and all other required and approved reports and displays (e.g., elevations). This CUP Project is approved to establish a twenty (20) megawatt MW commercial solar power generation facility located on 234 acres of a 325 acre site. The arrays of PV panels will be mounted on single-axis tracking systems and will have a maximum height of 12 feet. Each solar module shall be installed to the ground surface via driven piles resulting in minimal disturbance to topsoil and allowing retention of much of the on-site vegetation. The Project site will be surrounded by an eight-foot high chain link fence. No barbed wire or other sharp pointed material shall be allowed. Any proposed change to this Project Description including maximum height and/or tracking systems shall require a Revision to an Approved Action application to be filed with County Planning. The developer of any approved commercial solar energy generation facility shall maintain a Special Use Permit and pay public safety services impact fees on an annual basis in compliance with SBCC §84.29.040.

The developer shall provide a copy of the approved conditions and the site plan to every current and future Project tenant, lessee, and property owner to facilitate compliance with these Conditions of Approval and continuous use requirements for the Project Site with APN(s) 0497-101-14,-05,-09, 0497-121-28, & 0497-071-40 and Project Number: P201400516.

2. Project Location. The Project site is northwest of the City of Barstow and north of the unincorporated community of Lenwood on Community Blvd, approximately ½ mile east of Lenwood Road.
3. Zoning Standards. The Project site is located in the Desert Region, within the Agriculture (AG), Floodway (FW), and Rural Living 5-acre Minimum (RL-5) (AG/RL-5, FW) Land Use Zoning Districts. No development is proposed within the FW designation. Development Standards are listed in SBCC Chapter 82.04.

4. Facility Design. The facility design shall incorporate the following guidelines:
 - The applicant shall arrange the arrays in a logical, orderly manner and pattern.
 - The applicant shall maintain the panels, inverters, and transformers so that electrical interference will not affect adjacent properties.
 - The applicant shall perform any repairs or upgrades to the components of the solar power facility at such times and in such a manner that noise and glare will not be significantly disruptive to adjacent properties, roads, or traffic.
5. Continuous Maintenance. The Project property owner shall continually maintain the property so that it is not dangerous to the health, safety, and general welfare of both on-site users (e.g. employees) and surrounding properties. The developer shall ensure that all facets of the development are regularly inspected, maintained and that any defects are timely repaired. The elements to be maintained, include but are not limited to:
 - Annual maintenance and repair inspections shall be conducted for all structures, fencing/walls, driveways, and signs to assure proper structural, electrical, and mechanical safety.
 - Graffiti and debris shall be removed within 48 hours of notification.
 - Dust control measures shall be maintained on any undeveloped areas where landscaping has not been provided.
 - Erosion control measures shall be maintained to reduce water runoff, siltation, and promote slope stability.
 - Signage. All on-site signs, including posted area signs (e.g. “No Trespassing”) shall be maintained in a clean readable condition at all times and all graffiti and vandalism shall be removed and repaired on a regular basis. Signs on the site shall be of the size and general location as shown on the approved site plan or subsequent County Planning-approved sign plan.
 - Fire Lanes. All markings required by the Fire Department, including “No Parking” designations and “Fire Lane” designations shall be clearly defined and shall be maintained in good condition at all times.
6. Performance Standards. The approved land uses shall operate in compliance with the general performance standards listed in the SBCC Chapter 83.01, regarding air quality, electrical disturbance, fire hazards (storage of flammable or other hazardous materials), heat, noise, vibration, and the disposal of liquid waste. In addition to these, none of the following shall be perceptible without instruments at any point outside the Project boundaries at adjoining property lines:
 - Odors: No offensive or objectionable odor.

- Smoke: No smoke of a greater density than that described in No. 2 on the Ringelmann Chart, as published currently by the United States Bureau of Mines, shall be emitted from any Project source.
 - Radiation: No dangerous amount of radioactive emissions.
 - Toxic Gases: No emission of toxic, noxious or corrosive fumes of gases.
 - Glare: No intense glare that is not effectively screened from view at any point outside the Project boundary.
7. Revisions. Any proposed change to the approved use/activity on the site (e.g. from solar facility to other uses); or any increase in the developed area of the site or expansion to the approved facilities, including changes to structures, tracking system, equipment, elevations, heights, signs, parking allocation, lighting, or a proposed change in the Conditions of Approval, including operational restrictions from those shown either on the approved site plan and/or in the Conditions of Approval shall require that an additional land use application (e.g. Revision to an approved Action) be approved by the County. The developer shall prepare, submit with fees, and obtain approval of the application prior to implementing any such revision or modification. (SBCC §86.06.070)
8. Continuous Effect/Revocation. All of the Conditions of Approval applied to this Project shall be effective continuously throughout the operative life of the Project for all approved structures and approved land uses/activities. Failure of the Project owner or developer to comply with any or all of the conditions at any time may result in a public hearing and possible revocation of the approved land use, provided adequate notice, time, and opportunity is provided to the property owner, developer, or other interested party to correct the non-complying situation.
9. Indemnification. In compliance with SBCC §81.01.070, the developer shall agree to defend, indemnify, and hold harmless the County or its “indemnitees” (herein collectively the County’s elected officials, appointed officials [including Planning Commissioners], Zoning Administrator, agents, officers, employees, volunteers, advisory agencies or committees, appeal boards or legislative body) from any claim, action, or proceeding against the County or its indemnitees to attack, set aside, void, or annul an approval of the County by an indemnitee concerning the map or permit or any other action relating to or arising out of County approval, including the acts, errors, or omissions of any person and for any costs or expenses incurred by the indemnitees on account of any claim, except where such indemnification is prohibited by law. In the alternative, the developer may agree to relinquish such approval.

Any Condition of Approval imposed in compliance with the County Development Code or County General Plan shall include a requirement that the County acts reasonably to promptly notify the developer of any claim, action, or proceeding and that the County cooperates fully in the defense. The developer shall reimburse the County and its indemnitees for all expenses resulting from such actions, including

any court costs and attorney's fees, which the County or its indemnitees may be required by a court to pay as a result of such action.

At its sole discretion, the County may participate at its own expense in the defense of any such action, but such participation shall not relieve the developer of their obligations under this condition to reimburse the County or its indemnitees for all such expenses.

This indemnification provision shall apply regardless of the existence or degree of fault of indemnitees. The developer's indemnification obligation applies to the indemnitee's "passive" negligence but does not apply to the indemnitee's "sole" or "active" negligence or "willful misconduct" within the meaning of Civil Code Section 2782.

10. Local Labor. *The developer shall give preference to and employ San Bernardino County residents as much as practicable during construction and operation of the facility.*
11. Development Impact Fees. Additional fees may be required prior to issuance of development permits. Fees shall be paid as specified in adopted fee ordinances.
12. Project Account. Project Account. The Job Costing System (JCS) account number is P201400516. This is an actual cost Project with a deposit account to which hourly charges are assessed. The developer shall maintain a positive account balance at all times. A minimum balance of \$1000 must be in the Project account at the time the Condition Compliance Review is initiated. Sufficient funds must remain in the account to cover the charges during each compliance review. All fees required for processing shall be paid in full prior to final inspection, occupancy and operation of the approved use. There shall be sufficient funds remaining in the account to properly fund file closure and any other required post-occupancy review and inspection (e.g. landscape performance).
13. Expiration/CUP. This Project permit approval shall expire and become void if it is not exercised within three years of the effective date of this approval, unless an extension of time is approved. The permit is deemed exercised when either:
 - The permittee has commenced actual construction or alteration under a validly issued Building Permit or
 - The permittee has substantially commenced the approved land use or activity on the Project site, for those portions of the Project not requiring a Building Permit. (SBCC 86.06.060)

Occupancy of completed structures and operation of the approved exercised land use remains valid continuously for the life of the Project and the approval runs with the land, unless one of the following occurs:

- Construction permits for all or part of the Project are not issued or the construction permits expire before the structure is completed and the final inspection is approved.
- The land use is determined by the County to be abandoned or non-conforming.
- The land use is determined to be not operating in compliance with these Conditions of Approval, the County Code, or other applicable laws, ordinances, or regulations. In these cases, the land use may be subject to a revocation hearing and possible termination.

***PLEASE NOTE:** This will be the ONLY notice given of the expiration date. The developer is responsible for initiation of any Extension of Time application.*

14. Extension of Time/CUP. Extensions of time to the expiration date (listed above or as otherwise extended) may be granted in increments each not to exceed an additional three years beyond the current expiration date. An application to request consideration of an extension of time may be filed with the appropriate fees no less than 30 days before the expiration date. Extensions of time may be granted based on a review of the application, which includes a justification of the delay in construction and a plan of action for completion. The granting of such an extension request is a discretionary action that may be subject to additional or revised Conditions of Approval or site plan modifications. (SBCC §86.06.060)

15. Condition Compliance. In order to obtain construction permits for grading, building, final inspection and/or tenant occupancy for each approved building, the developer shall process a Condition Compliance Release Form (CCRF) for each respective building and/or phase of the development through County Planning in accordance with the directions stated in the Approval letter. County Planning shall release their holds on each phase of development by providing to County Building and Safety the following:

- Grading Permits – a copy of the signed CCRF for grading/land disturbance and two “red” stamped and signed approved copies of the grading plans.
- Building Permits – a copy of the signed CCRF for building permits and three “red” stamped and signed approved copies of the final approved site plan.
- Final Inspection – a copy of the signed CCRF for final inspection of each respective building, after an on-site compliance inspection by County Planning.

16. Additional Permits. The property owner, developer, and land use operator are all responsible to ascertain and comply with all laws, ordinances, regulations, and any other requirements of Federal, State, County, and Local agencies as are applicable to the development and operation of the approved land use and Project site. These include:

- a) FEDERAL: U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service
- b) STATE: California Department of Fish and Wildlife, Mojave Desert Air Quality Management District, Lahonton Regional Water Quality Control Board, California Energy Commission
- c) COUNTY: Land Use Services – Divisions of Planning, Building and Safety, Code Enforcement, Land Development; County Fire; Environmental Health Services; and Public Works
- d) LOCAL: Mojave Water Agency

17. Lighting. Any lighting shall be maintained so that all lights are operating properly for safety purposes and shall not Project onto adjoining properties or roadways. Lighting shall adhere to San Bernardino County Desert and Mountain night light regulations.

18. Clear Sight Triangle. Adequate visibility for vehicular and pedestrian traffic shall be provided at clear sight triangles at all 90-degree angle intersections of public rights-of-way and private driveways. All signs, structures, and landscaping located within any clear sight triangle shall comply with the height and location requirements specified by County Development Code (SBCC 83.02.030) or as otherwise required by County Traffic.

19. Tribal Monitoring. There will be one comprehensive training session to present needed information about coordinating with San Manuel for cultural resources and related issues about this project as part of the Project's WEAP training prior to any ground disturbing activities. The meeting shall be recorded for use in future orientation sessions relating to the project. Tribal monitoring shall be conducted during all ground-disturbing activities, which includes but is not limited to, archaeological studies, auguring, excavation, geotechnical investigations, vegetation clearing, ground surface leveling, trenching, and conventional mass grading. Tribal monitors will be from the San Manuel Band of Mission Indians and the Morongo Band of Mission Indians with San Manuel taking the lead. One tribal monitor from each Tribe shall be present on the project site during ground-disturbing activities. A single tribal monitor shall be assigned to each simultaneous ground-disturbing activity on site. Additional tribal monitors shall be assigned if more than two simultaneous ground-disturbing activities occur on site. If simultaneous ground-disturbing activities require an odd number of more than two tribal monitors, the Tribes shall bring in additional monitors representing each tribe according to the number needed. The tribal monitors will represent the Tribes' interests and will follow the Native American Heritage Commission Guidelines for Monitors, which shall include daily completion of the Native American Monitoring Daily Activity Report/Log.
[MM CR-1]

20. Discovery of Archaeological Resources. On-site workers will be informed of the potential for discovery of archaeological resources or human remains during excavation or trenching as part of the Project's WEAP training.

If an archaeological or cultural resource is encountered during ground-disturbing activities for the Project, tribal monitors and/or the Applicant are empowered to stop excavation activities within 50 feet of the discovery until a qualified archaeologist can evaluate whether the resource is a unique archaeological resource or historical resource as defined in Public Resources Code Section 21083.2 and/or 14 C.C.R. Section 15064.5 or a tribal cultural resource as defined in Public Resources Code Section 21074 in consultation with the tribes. Work may continue in other areas. The project archaeologist in consultation with the tribal representatives shall determine importance and significance of the resource as tribal cultural resources, historical resources or unique archaeological resources, defined above. Tribal monitors will cooperate with the qualified archaeologist to locate all cultural materials exposed during ground disturbing activities. Recovery of artifacts or excavation for resource evaluations will be the responsibility of the qualified archaeologist. [MM CR-2]

21. Treatment of Archaeological Resources. If the qualified archaeologist determines that the discovery is a historic resource (as defined in MM CR-2) of an archaeological nature, then the mitigation standards of 14 C.C.R. 15126.4(b) specifying preservation in place shall be the preferred manner of mitigation. Preservation in place may be accomplished by, but is not limited to, the following:

1. Planning construction to avoid archaeological sites;
2. Incorporation of sites within open space;
3. Covering the archaeological sites with a layer of chemically stable soil; or
4. Deeding the site into a permanent conservation easement.

If preservation in place is not feasible, a cultural resources treatment plan shall be prepared pursuant to 14 C.C.R. 15126.4(b) and The Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation. The treatment plan shall include (i) provisions for assessment and treatment of the resources identified; (ii) reporting of results in a timely manner; and (iii) the opportunity for Tribes to engage in the recovery of material and provide comments on the draft report. The plan must be submitted to the County Land Use Services Department prior to excavation of the historical or unique archaeological resource. The Final Cultural Resources Mitigation report(s) shall be provided to the Lead Agency and disseminated to the regional CHRIS system Information Center and interested professionals and tribes upon request.

Each landowner or their assigned representative will confer with the Tribes on the disposition of all non-human burial related tribal cultural resources, historical resources and unique archaeological resources, including ceremonial items, which may be found at the portion of the Project located on the subject property. The property owner is entitled to keep all artifacts not covered and defined above. If the landowner wishes to keep and curate the materials in an institution meeting Federal and State curation guidelines, the Landowner agrees to do so at the San Bernardino County Museum.

If human remains are encountered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur in the vicinity of the find(s) until the San Bernardino County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the San Bernardino County Coroner determines the remains to be Native American, the Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then identify the “most likely descendant(s)”. The landowner shall confer with the most likely descendant (MLD). The MLD will make recommendations concerning the treatment of the remains within 48 hours as provided in Public Resources Code 5097.98. If the landowner cannot come to an agreement with the MLD, Public Resources Code Section 5097.98(e) requires the landowner to reinter the human remains and items associated with Native American remains with appropriate dignity on the property in a location not subject to further surface disturbance.”

The assessment of resources collected shall be conducted in a timely manner, which will not exceed three months from the date of discovery of the materials and/or the completion of all fieldwork and monitoring. Possession of all cultural materials by the qualified archeologist, if necessary, shall not exceed 90 calendar days after the final report has been submitted. No photography of human remains and associated artifacts is permitted.

A preliminary draft report shall be submitted within three months of the end of the Project fieldwork, and that two copies of the draft archaeological report shall be provided to Tribes by the Lead Agency. Should the qualified archaeologist need an extension of time, approval of a justified time extension shall be permitted at the discretion of the San Manuel Band of Mission Indians and the Morongo Band of Mission Indians. The Tribes shall be given an opportunity to provide comments for inclusion in the final report. All surface and subsurface artifacts and features are to be mapped and described in a final report prepared by the qualified archaeologist following the Secretary of the Interior's Standards and Guidelines for archaeological documentation.

Data recovery shall not be required for an historical resource if the County Land Use Services Department determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the archaeological or historical resource, provided that the studies are deposited with the California Historical Resources Regional Information Center.

If the qualified archaeologist determines that the excavated sediments were previously disturbed or are unlikely to contain significant cultural materials, the qualified archaeologist can specify that construction activities are no longer limited and may resume.

All cultural resources recovered will be documented on California Department of Parks and Recreation Site Forms to be filed with the California Historic Resources Information System (CHRIS) South Central Coastal Information Center (SCCIC) at California State University Fullerton. The qualified archaeologist will prepare a final report about the find to be filed with the Applicant/landowner and the CHRIS-SCCIC. The report will include documentation and interpretation of resources recovered. Interpretation will include full evaluation of the eligibility with respect to the National Register of Historic Places and California Register of Historical Resources and CEQA. At that time, the Applicant, in consultation with the Lead Agency and qualified archaeologist, will designate repositories in the event that resources are recovered. [MM CR-3]

22. AQ/Construction Mitigation. During construction and decommissioning of the Project, all off-road diesel-powered pieces of equipment used by the construction contractors shall comply with the California Air Resources Board Tier 3 standard for off-road engines. [MM AQ-1]
23. Construction Noise Mitigation. Prior to issuance of a grading permit, the project operator will require all construction contractor/subcontractor employees to attend the WEAP training prior initiating their activities. All contract and subcontract employees will be required to implement the following noise attenuation measures during all phases of construction:
- a) Noise levels of any Project use or activity will be maintained at or below adopted County noise standards (San Bernardino County Code 83.01.080). The use of noise-producing signals, including horns, whistles, alarms, and bells, will be for safety warning purposes only.
 - b) Exterior construction activities will be limited between 7.a.m and 7 p.m. There will be no exterior construction activities on Sundays or National Holidays.
 - c) Construction equipment will be muffled per manufacturer's specifications.

- d) All stationary construction equipment will be placed in a manner so that emitted noise is directed away or blocked from sensitive receptors nearest the Project site. [MM N-1]

24. Traffic Control Plan. Prepare and submit a Construction Traffic Control Plan in accordance with both the California Department of Transportation Manual on Uniform Traffic Control Devices and Work Area Traffic Control Handbook that will include:

- i. Timing the delivery of heavy equipment and building materials under the contractor's control during non-peak commute hours, to the extent feasible;
- ii. Directing construction traffic with a flag person;
- iii. Placing temporary signing, 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;
- iv. Ensuring access for emergency vehicles to the project site;
- v. Temporarily closing travel lanes or delaying traffic during materials delivery, transmission line stringing activities, or any other utility connections;
- vi. Bicycle and pedestrian detour plans if/where applicable;
- vii. Maintaining access to adjacent property;
- viii. Specifying both construction-related vehicle travel and oversize load haul routes, minimizing construction traffic during the a.m. and p.m. peak hour, distributing construction traffic flow across alternative routes to access the Project site in a way that maintains LOS conditions at the time of construction, and avoiding residential neighborhoods to the maximum extent feasible;
- ix. Traffic control plan coordination with the County, and potential traffic control plan adjustments, in the event of concurrent projects generating potentially overlapping traffic effects; and
- x. Additional traffic control plan coordination with Caltrans regarding the SR-58 Hinkley Expressway Project if construction of the proposed Project occurs concurrently with construction of the expressway project.

Copies of the approved Construction Traffic Control Plan and all issued permits that may be necessary for construction such as (without limitation) work within roadway right-of-ways, the operation of oversized/overweight vehicles on San Bernardino County-maintained roads, and the use of a California Highway Patrol or pilot car escort shall be submitted to the San Bernardino County Public Works, Traffic Division; San Bernardino County Land Use Services, Land Development Division; San Bernardino County Land Use Services, Planning Division; and Caltrans. [MM TR-1]

LAND USE SERVICES – Code Enforcement (760) 995-8140

25. Enforcement. If any County enforcement activities are required to enforce compliance with the Conditions of Approval, the property owner shall be charged for such enforcement activities in accordance with the County Code Schedule of Fees.
26. Weed Abatement. In conjunction with required permits, the applicant shall comply with San Bernardino County Desert Area Fire Hazard Abatement regulations [SBCC§ 23.031-23.043] and periodically clear the site of all non-complying vegetation. This includes removal of all Russian thistle (tumbleweeds). **[See also MM BIO-4]**

PUBLIC HEALTH – Environmental Health Services [DEHS] (800) 442-2283

27. Noise. Noise level shall be maintained at or below County Standards, Development Code Section 83.01.080. For information, please call DEHS at 1-800-442-2283. **[See also MM N-1]**

SAN BERNARDINO COUNTY FIRE – (760) 995-8190

28. Jurisdiction. The above referenced Project is under the jurisdiction of the San Bernardino County Fire Department, herein “Fire Department”. Prior to any construction occurring on any parcel, the developer shall contact the Fire Department for verification of current fire protection requirements. All new construction shall comply with the current Uniform Fire Code requirements and all applicable statutes, codes, ordinances, and standards of the Fire Department.
29. Expiration. Construction permits, including Fire Condition Letters, shall automatically expire and become invalid unless the work authorized by such permit is commenced within 180 days after its issuance, or if the work authorized by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced. Suspension or abandonment shall mean that no inspection by the Department has occurred within 180 days of any previous inspection. After a construction permit or Fire Condition Letter, becomes invalid and before such previously approved work recommences, a new permit shall be first obtained and the fee to recommence work shall be one-half the fee for the new permit for such work, provided no changes have been made or will be made in the original construction documents for such work, and provided further that such suspension or abandonment has not exceeded one year. A request to extend the Fire Condition Letter or Permit may be made in writing PRIOR TO the expiration date justifying the reason that the Fire Condition Letter should be extended.
30. Additional Requirements. In addition to the Fire requirements stated herein, other requirements from the Solar Photovoltaic Installation Guideline from the California State Fire Marshal may arise at the time of field inspection.

LAND USE SERVICES – Land Development – Drainage (909) 387-8311

31. Minimum set back. Flood Control District recommends a minimum building setback of 200 feet from the District's right-of-way or bank of the Mojave River for structures. This set back may be reduced if flood proofing mitigation measures are proposed, such as rock slope protection, or scour wall.
32. Tributary Drainage. Adequate provisions should be made to manage the tributary off-site/on-site drainage flows around and through the site in a manner that will not adversely affect adjacent or downstream properties.
33. Natural Drainage. The natural drainage courses traversing the site shall not be occupied or obstructed.
34. Additional Drainage Requirements. In addition to drainage requirements stated herein, other on-site and/or off-site improvements may be required that cannot be determined from tentative plans at this time and would have to be reviewed after more complete improvement plans and profiles have been submitted to this office.

LAND USE SERVICES – Land Development– Roads (909) 387-8311

35. Road Standards. All required street improvements shall comply with the latest San Bernardino County Road Planning and Design Standards and the San Bernardino County Standard Plans.

PUBLIC WORKS – Solid Waste Management Division (909) 386-8701

36. Mandatory Commercial Recycling. Beginning July 1, 2012 all businesses defined to include a commercial or public entity that generates 4 or more cubic yards of commercial solid waste a week or is a multi-family residential dwelling of 5 units or more to arrange for recycling services. The County is required to monitor business recycling and will require the business to provide recycling information. This requirement is to assist the County in compliance with the recycling requirements of AB 341.
37. The developer shall provide adequate space and storage bins for both refuse and recycling materials. This requirement is to assist the County in compliance with the recycling requirements of AB 341.

PRIOR TO ANY LAND DISTURBANCE OR ISSUANCE OF ANY GRADING PERMITS

Completion of the following must occur, with CCRF signatures

LAND USE SERVICES – Building and Safety (760) 995-8140

38. Erosion and Sediment Control Plan. Applicant shall submit an erosion and sediment control plan and permit application to Building and Safety for review and approval prior to any land disturbance.
40. Erosion Control Installation. Erosion control devices must be installed at all perimeter openings and slopes. No sediment is to leave the job site.
41. Grading Plans. Grading plans shall be submitted to Building and Safety for review and approval prior to grading/land disturbance of more than 50 cubic yards.
42. NPDES Permit. An NPDES permit – Notice of Intent (NOI) - is required on all grading of one (1) acre or more prior to issuance of a grading/construction permit. Contact your Regional Water Quality Control Board for specifics. www.swrcb.ca.gov
43. Regional Board Permit Letter. CONSTRUCTION projects involving one or more acres must be accompanied by a copy of the Regional Board permit letter with the WDID#. Construction activity includes clearing, grading, or excavation that results in the disturbance of at least one (1) acre of land total.
44. Retaining Wall Plans. Submit plans and obtain separate building permits for any required walls or retaining walls.
45. Demolition Permit. Obtain a Demolition Permit for any buildings/structures to be demolished. Underground structures must be broken in, backfilled and inspected before covering.
46. Geotechnical (Soil) Report. A Geotechnical (soil) Report shall be submitted to the Building and Safety Division for review and approval prior to issuance of grading permits.
47. Geology Report. A geology report shall be submitted to the Building and Safety Division for review and approval by the County Geologist and fees paid for the review prior to final project approval.
48. Erosion Control and Stormwater Pollution Prevention Plan. The Project was sited to avoid direct impacts to riparian habitat, however indirect impacts may occur via stormwater or non-stormwater runoff. As such, a SWPPP, created by a Qualified SWPPP Developer (QSD) and implemented by a Qualified SWPPP Practitioner (QSP), will be prepared and implemented for the Project. This SWPPP will list all measures to eliminate the discharge of pollutants other than stormwater) and non-storm water discharges authorized by the California Construction General Permit

Order 2009-0009-DWQ or another National Pollutant Discharge Elimination System (NPDES) permit. The SWPPP will contain programs to monitor visual pollutants, chemical pollutants, and potential sediments. Specific and Best Management Practices, Numeric Action Levels, Numeric Effluent Levels, and Rain Event Action Plans will be implemented as required to ensure non-permitted discharges are eliminated. The SWPPP will be prepared prior to commencement of Project construction. [MM HWQ-1]

49.

LAND USE SERVICES – Planning (760) 995-8140

50. Reciprocal Access Agreement. Prior to land disturbance, the developer shall record a reciprocal access easement between the owners of the project parcels.

51. Adequate Wind Barrier. An adequate wind barrier of fence slats or similar wind barrier shall be installed at strategic locations aligned with the predominant wind direction to minimize wind-blown dust at adjacent residences. Provide verification of compliance (i.e. material specification sheets, site photos showing installation, etc.) to the Planning Division prior to land disturbance.

52. Mojave Desert Air Quality District / Dust Control Plan. The developer will prepare, submit and obtain approval from the Mojave Desert Air Quality District (MDAQD) a Dust Control Plan (DCP) consistent with MDAQMD guidelines. The DCP will include the following elements to reduce dust production:

- a) Exposed soils and haul roads will be watered three (3) times per day to reduce fugitive dust during all grading/construction activities. Inactive areas will be treated with soil stabilizers such as hay bales, non-toxic soil binder, or aggregate cover.
- b) Street sweeping will be conducted when visible soil accumulations occur along site access roadways to remove dirt dropped by construction vehicles.
- c) Site access driveways and adjacent streets will be washed daily, if there are visible signs of any dirt track-out at the conclusion of any workday.

53. Worker Environmental Awareness Program. **All construction and operations staff working on the Site will be required to attend a Worker Environmental Awareness Program (WEAP) as prepared and presented by a qualified biologist. This program will emphasize the conservation of sensitive biological resources during Project construction and operations and will include, at a minimum:**

- **The purpose of resource protection and relevant mitigation requirements;**
- **A description of the existing habitats and special status species including identification tips;**

- The conservation measures that will be implemented in conjunction with Project construction and operation;
- A protocol for documenting and reporting dead or injured wildlife encountered during construction and at least one year of operation;
- Contact information for Project biologists and monitors; and
- fire protection measures;
- measures to minimize the spread of weeds;
- hazardous substance spill prevention and containment measures; and
- Penalties for violation

A copy of the worker education training materials shall be provided to San Bernardino County prior to the issuance of a grading or construction permit.

The names of all personnel who attend the training shall be recorded and workers shall be issued hardhat decals denoting they have received the workshop training as well as informational fliers for quick reference. No personnel shall be permitted to operate equipment within construction zones unless they have completed the WEAP and are displaying hardhat decals denoting this attendance. [MM BIO-1]

54. **Pre-Construction Surveys and Daily Sweeps.** Before initiating any ground-disturbing task (e.g., mechanized clearing, trenching, grading, etc.) associated with Project-related construction activities, pre-construction surveys will be conducted by a qualified biologist, in all Project areas slated for vegetation clearing or ground disturbing Project activities and the appropriately sized buffer. The surveys will be conducted no more than 30 days before disturbance activities are scheduled to begin within suitable Project habitat. Should sensitive resources be observed, biologists will establish Environmental Sensitive Area (ESA) buffers and no construction activities will be allowed within said ESA until the sensitive resource has left on its own accord or until otherwise authorized by the responsible trustee agency. Biological monitors will conduct daily sweeps prior to construction activity to verify no new sensitive resource occurs within that day's construction activity site.

(a) **Desert tortoise.** Focused desert tortoise surveys, as described in Preparing for Any Action that May Occur within the Range of the Mojave Desert Tortoise (USFWS, 2010) will be conducted in areas of potentially suitable habitat within 30 days of initial ground-disturbing activities. All tortoise sign will be mapped and all scat collected during the first clearance survey. If fresh scat is found during the second clearance survey, the surrounding area will be searched.

If encountered, tortoise burrow locations will be georeferenced in the field using Global Positioning System (GPS), and the size and approximate age of the burrow identified. Where possible, tortoise burrows would also be flagged only if the flagging would not attract poaching.

No more than 24 hours prior to fence installation and vegetation removal, all disturbance areas would be surveyed to ensure no desert tortoise individuals or burrows are present. Should desert tortoise be observed on the Project site, all potential activities with the possibility to impact an observed desert tortoise shall cease until the individual has left the area on its own accord. A report shall be sent to the California Department of Fish and Wildlife and U.S. Fish and Wildlife Service within five calendar days of the sighting and will include:

- Name and contact information of the biologist who observed the species;
- Date, time and location of the observation;
- Measures taken to avoid impacts following the observation;
- Monitoring methods used to ensure no impacts to desert tortoise have occurred; and
- Recommendations for ongoing activity at the Site that avoid impacts to desert tortoise.

If a dead desert tortoise is encountered, all work shall stop in the immediate vicinity of the encounter and the California Department of Fish and Wildlife and U.S. Fish and Wildlife Service shall be contacted immediately to determine the appropriate course of action under the respective statutory and regulatory endangered species regimes administered by each agency.

(b) Mohave fringe-toed lizard. Focused Mohave fringe-toed lizard (MFTL) surveys will be conducted in areas of potentially suitable habitat. These surveys shall occur within 30 days of initial ground-disturbing activities and during the seasonal activity period (typically, March to September) . A qualified MFTL biologist will prepare a Mohave Fringe-toed Lizard Management Plan. This Plan shall be submitted to San Bernardino County and the CDFW for approval prior to the issuance of a grading or construction permit. This Plan will include, at a minimum:

- A discussion on the species' biology including known distribution maps;
- Minimum qualifications for biologists to work with the species;
- Measures to avoid impacts to MFTL during Project construction including, but not limited to survey requirements, MFTL exclusionary fencing, speed limit enforcements, WEAP requirements, and avoidance of dune habitats.

- **MFTL relocation requirements in the event an MFTL is observed within the Project disturbance area. These relocation requirements will include, at a minimum: handler requirements and qualifications, means of relocation and necessary equipment, clear microhabitat description and map of an approved receptor site, and relevant restrictions. All MFTL will be relocated to a County- and CDFW-approved receptor site.**
- **Reporting requirements. All MFTL encountered during surveys shall be reported to the County and CDFW in monthly monitoring reports. Should an individual require relocation, additional information shall be included including: date and time of capture, date and time of release, name and qualifications of the MFTL biologist, GPS coordinates and photo-documentation of capture and receptor microhabitat, and additional relevant information.**

All observations will be mapped and all observed MFTL will be relocated to a County- and CDFW-approved receptor site.

(c) Burrowing Owl. Pre-construction burrowing owl surveys will be conducted by a qualified biologist, in conformance with the Staff Report on Burrowing Owl Mitigation (CDFW 2012) within 500 feet of all Project areas slated for vegetation clearing or ground disturbing Project activities. The surveys will be conducted no more than 30 days before disturbance activities are scheduled to begin within suitable Project habitat and 500-foot buffer zones. If burrowing owls are observed using burrows during the non-breeding season (September 1 – January 31) or breeding season (February 1 – August 31), an Environmental Sensitive Area (ESA) buffer shall be established around each burrow, and no activities will be allowed within the buffer until the nest is complete (young have fledged or the nest fails). Nest buffer distance will be a minimum of 300 feet. All ESAs will be clearly identified using visible markers such as orange snow fencing, flagging, signage or other visual cues. This protected area will remain in effect until August 31 or until the young owls are foraging independently. If disturbance of owls and their burrows is unavoidable, owls will be excluded from all active burrows as described in a Burrowing Owl Relocation Plan. All relocation will be passive in nature using burrow exclusion methods and all relocation will be performed in conformance with the Staff Report on Burrowing Owl Mitigation (CDFW 2012) after conferring with the CDFW and County of San Bernardino.

(d) Nesting Birds and raptors. Pre-construction surveys for nesting birds will be conducted if construction, ground disturbance, and/or vegetation trimming/removal activities are scheduled to occur during the breeding season (February 1 to August 31). A qualified avian biologist shall conduct the surveys no more than 30 days before disturbance activities are scheduled to begin within suitable Project habitat and 500-foot buffer zones. If active nests are found, a qualified biologist will determine appropriate

buffer distances around each nest as specified in the Nesting Bird Management Plan, to minimize disturbance to the nest and prevent potential take of the nest. The buffer distance will be based on the species behavior characteristics and conservation status, nest location, and nature of anticipated project activities nearby. The buffer area will be conspicuously demarcated on the ground and the Permittee will ensure that all project activities in the vicinity of the site are monitored to prevent incursion into the buffer area. The buffer will remain in place until the nest is vacated and juveniles have fledged, or the nest is no longer active, as determined by a qualified biologist. An inactive nest is characterized by no longer containing viable eggs and/or living young and is not being used by a bird as part of the reproductive cycle (eggs, young, fledging young still dependent upon nest). All fledglings must leave the nest on their own accord (e.g., without take) to be considered inactive. In some cases, a nest can be abandoned by the bird constructing it and become inactive prior to egg laying. In such cases, determination that the nest is inactive is made on a case-by-case basis based on consistent observations and the determination of an avian biologist.

A qualified biologist will prepare a Nesting Bird Management Plan describing the measures to avoid nests in the event they are observed. This Plan is applicable to all nesting birds protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code. This Plan shall be submitted to San Bernardino County and the CDFW for approval prior to the issuance of a grading or construction permit. This Plan will include, at a minimum:

- Minimum qualifications for biologists to work with the species;
- Measures to avoid impacts to nesting birds during Project construction including, but not limited to survey requirements, monitoring requirements, WEAP requirements, and avoidance of dune habitats.
- Communications protocol in the event of a nest discovery;
- A list of potentially occurring avian species (or guild) and minimum no disturbance buffer for each. Buffer sizes will be site-specific and based on the sensitivity of specific species or guilds and not based on generalized assumptions regarding all nesting birds;
- Contingency and emergency activity measures; and
- Reporting requirements. All nests and their status (active versus inactive), species descriptions, date of inactivity, location (including GPS coordinates), and other information will be provided in monthly construction monitoring reports.

If for any reason a bird nest must be removed during the nesting season, the Project proponent(s) shall provide written documentation of concurrence from the United States Fish and Wildlife Service and the California Department of Fish and Wildlife authorizing the nest relocation to the County of San Bernardino. This documentation will include what actions were taken to avoid moving the nest, the location of the nest, what species is being relocated, the number and condition of the eggs taken from the nest, the

location of where the eggs are incubated, the survival rate, the location of the nests where the chicks are relocated, and outcome (whether or not the chicks survived and fledged).

(e) *Mohave ground squirrel.* Presence/absence pre-construction surveys for Mohave ground squirrel will be conducted no more than one (1) year before disturbance activities are scheduled to begin within suitable Project habitat. If a Mohave ground squirrel is observed during pre-construction surveys or at any point, work shall be halted and redirected to other areas of the Project Site that would not affect the individual observed. A report shall be sent to the California Department of Fish and Wildlife within five calendar days of the sighting and will include:

- Name and contact information of the biologist who observed the species;
- Date, time and location of the observation;
- Measures taken to avoid impacts following the observation;
- Monitoring methods used to ensure no impacts to Mohave ground squirrel have occurred; and
- Recommendations for ongoing activity at the Site that avoid impacts to Mohave ground squirrel.

If a dead Mohave ground squirrel is encountered, all work shall stop in the immediate vicinity of the encounter and the California Department of Fish and Wildlife shall be contacted immediately to determine the appropriate course of action under the California Endangered Species Act.

(f) *Desert Kit Fox and American Badger.* Focused surveys for American badger and desert kit fox will be conducted by a qualified biologist within 500 feet of all Project areas slated for vegetation clearing or ground disturbing Project activities. The surveys will be conducted no more than 30 days before disturbance activities are scheduled. The survey shall be performed by walking parallel transects spaced no more than 20 meters apart within areas of suitable habitat, and shall be focused on detecting dens that are occupied, or are suitable for occupation, by either species. Potential burrows will be monitored for 72 hours using motion detecting infrared cameras or similar trackers to determine activity.

Inactive dens are burrows that have largely collapsed or the end of the burrow is clearly visible. Inactive dens that will be directly impacted by construction activities shall be excavated and backfilled by hand to prevent reuse by American badger or desert kit fox.

If occupied burrows are observed outside of the pupping season, the occupants may be passively excluded from their burrow using natural materials over a period of five consecutive days. Once the den is confirmed vacated, it shall be excavated to ensure no wildlife are trapped within the den

and then backfilled by hand to prevent reuse by American badger or desert kit fox.

If an occupied den is observed during the pupping season (typically, February to July), then the burrow will be clearly flagged and a minimum 200-foot no disturbance area surrounding the den shall be established. This buffer shall remain in place until the end of the pup-rearing season or the den is determined inactive or abandoned by a qualified biologist. At this point, passive exclusion methods (see above) shall be used.

If an American badger or desert kit fox is observed, a report shall be sent to the California Department of Fish and Wildlife within 30 calendar days of the sighting and will include:

- Name and contact information of the biologist who observed the species;
- Date, time and location of the observation;
- Measures taken to avoid impacts following the observation;
- Monitoring methods used to ensure no impacts to American badger or desert kit fox have occurred; and
- Recommendations for ongoing activity at the Site that avoid impacts to American badger or desert kit fox.

If a dead or injured American badger is encountered, all work shall stop in the immediate vicinity of the encounter and the California Department of Fish and Wildlife shall be contacted within eight hours to determine the appropriate course of action.

To minimize the likelihood of the transmission of canine distemper, no pets shall be allowed on the site. If a dead, sick, or injured desert kit fox is encountered, all work shall stop in the immediate vicinity of the encounter and the California Department of Fish and Wildlife shall be contacted within eight hours to determine the appropriate course of action.

(g) Bats. Focused surveys for bats, including Townsend's big-eared bat, will be conducted by a qualified biologist within 300 feet of all Project areas slated for vegetation clearing or ground disturbing Project activities where roosting habitat occurs. The surveys will be conducted no more than 30 days before disturbance activities are scheduled to begin within suitable Project habitat and 300-foot buffer zones surrounding rocky outcrops, buildings, bridges, large trees, or any other habitat capable of supporting roosts or hibernacula.

If active maternity roosts or hibernacula are found on site, the roost shall be avoided (i.e., not removed) by the project, if feasible. If avoidance of the roost

is not feasible, the bat biologist shall notify the California Department of Fish and Wildlife in writing and additional surveys (via Anabat telemetry or other - approved methods) for nearby alternative roosting sites will be conducted. If the bat biologist identifies, in consultation with and with the approval of the California Department of Fish and Wildlife, that there are alternative roost sites used by the maternity colony and young are not present, then no further action is required.

If no active alternative roosts are found, substitutive roosting habitat for the colony shall be provided on, or in close proximity to, the Project Site. Following establishment of the substitutive roosting site for a period of no less three months, then exclusion of the bats from the original roost may occur. Following the exclusionary period, the demolition of the roost site must commence before maternity colonies form (typically, March) or after young are flying (Typically, August).

If accidental take should occur, the California Department of Fish and Wildlife and/or the United States Fish and Wildlife Service shall be notified within 30 days. [MM BIO-2]

55. **Biological Monitoring.** The Project proponent will retain a qualified Biological Monitor for all activities associated with ground disturbance, grading, construction, decommissioning, and restoration throughout the Project lifetime. The Biological Monitor must be knowledgeable of general and focused species issues on the Project, qualified by the County of San Bernardino to conduct such work, and must be competent to monitor all biological mitigation measures. The Biological Monitor will have the authority to ensure compliance with mitigation measures set forth in this report including the authority to halt work as necessary to ensure full compliance.

Duties of the Biological Monitor will include, but will not be limited to the following:

- The Biological Monitor will ensure that all established buffers surrounding identified Environmentally Sensitive Areas are maintained.
- Conduct daily pre-construction clearance sweeps for plants and wildlife (including nests) to determine the need for any new no disturbance buffers.
- All dead wildlife will be immediately removed and disposed of properly as to not attract dogs, ravens, raptors, and other opportunistic scavengers and predators.
- To prevent entrapment, all potential wildlife pitfalls (i.e., steep trenches, bores, and other excavations) will be inspected daily (i.e., morning and/or evening) and immediately before backfilling to monitor for wildlife entrapment. Large/steep excavations will be covered and/or fenced nightly to prevent wildlife entrapment. If the excavation cannot practicably be

covered or fenced, excavations will be sloped at a 3:1 ratio at the ends, or an earthen ramp will be provided to allow wildlife to escape. If any wildlife species become entrapped, construction will not continue until the animal has left the trench voluntarily or the Biological Monitor has removed the animal.

- No listed species will be handled without the appropriate permits; and
- The Biological Monitor will inspect the site to ensure trash and food-related waste is placed in closed-lid containers and that workers do not feed wildlife. [MM BIO-3]

56. **Weed Abatement Plan.** Prior to the initiation of vegetation removal within the Project, the Applicant will submit to the County of San Bernardino a copy of the final Weed Abatement Plan and letter of approval from the appropriate fire authority. This plan will describe all requirements pertaining to weed abatement, fire protection, and fuel modification including periodic clearance of the site of all non-complying vegetation under San Bernardino County Desert Area Fire Hazard Abatement regulations [County Code 23.031-23.043]. These measures may include, but will not be limited to, the removal of brush and dead plant materials, removal of non-native plant species, and other periodic management measures including mowing, particularly beneath PV arrays. The location of fuel modification zones and/or fire breaks to minimize impacts to sensitive biological resources will be identified within the Plan. To the degree practicable, mowing or any other vegetation maintenance will occur between August 15 and February 15 to minimize impacts to nesting birds. [MM BIO-4]

57. **Trash Abatement Program.** A Trash Abatement Program will be initiated during pre-construction phases of the Project, and would continue through the lifetime of the Project. Trash and food items would be contained in closed containers and removed regularly (at least once per week) to avoid attracting opportunistic predators such as ravens, coyotes, and feral dogs. [MM BIO-5]

58. **Other Biological Resource Protection Measures.** The following additional measures will be implemented during Project construction:

- All equipment maintenance, staging, and the dispensing of fuel, oil, coolant, or any other such activities will be restricted to designated areas within the Project impact limits. These designated areas will be located in previously compacted and disturbed areas to the maximum extent possible in such a manner as to prevent runoff from entering existing native vegetation areas. These areas will be clearly designated in the construction plans and SWPPP (See HWQ-1)
- Twenty miles per hour speed limits will be enforced for all vehicles traveling on the Project site.
- Trash will be stored properly (i.e., in a manner that is inaccessible to scavengers including condors, ravens, crows, and raccoons), in

accordance with the CGP, and removed from the construction site on a regular basis.

- Pets will not be permitted on the Site during construction.
- Entry to all areas flagged, staked, or otherwise marked as special status by the Environmental Monitor will be prohibited. [MM BIO-6]

59. **Raven Management Plan.** The Project proponent adhere to the following measures to ensure that the construction, operation, maintenance, and decommissioning of the Project does not adversely impact regional desert tortoise populations by attracting common ravens to the Project area and increasing the probability of tortoise predation. The following measures shall be implemented to mitigate potential project-specific impacts that could result in a local increase in common ravens:

- All trash and food-related waste will be disposed of in secure, self-closing receptacles to prevent the introduction of subsidized food resources for common ravens.
- Use water for construction, operation and maintenance in a manner that does not result in pooling or puddling.
- The biological monitor identified in BIO-3 shall implement the following at the project site:
 - Remove and dispose of road kills of common wildlife species from the project site and access road. No species protected by federal or state law would be removed.
 - Document common raven use of the project site and access road on a daily basis, during vegetation clearing and ground disturbance [BIO-2]. If frequently used perching locations are identified, use physical, auditory or visual bird deterrents to discourage use by common ravens.
 - Remove any inactive raven nests in the project site or along the access road.
- Implement Avian Power Line Interaction Committee (APLIC) guidelines [BIO-10].
- Implement the following measure to mitigate indirect and cumulative impacts: Contribute to the Regional Raven Management Plan fund managed by the National Fish & Wildlife Fund. The contribution shall consist of a one-time total payment of \$105 per acre of disturbance, including the project site and gen-tie improvement corridor. [MM BIO-7]

60. **Exclusionary Fencing Plan.** The Project proponent will submit an Exclusionary Fencing Plan, describing permanent desert tortoise and Mohave fringe-toed lizard exclusionary fencing to be used at the Project, to the County of San Bernardino prior to the issuance of a building or grading permit. This plan will describe fencing materials, locations, access areas, monitoring requirements, and other information pertaining to the erection and maintenance of these fences. [MM BIO-8]

61. Avian Mortality and Injury Monitoring. The Project proponent shall perform operations-phase avian mortality and injury monitoring at the Project site. The program shall be initiated upon commencement of commercial operation and continue for one year following commercial operation. Prior to issuance of a grading permit for the project, the Project proponent shall submit an Avian Mortality and Injury Monitoring Plan to the County of San Bernardino and USFWS that, at a minimum, includes the following elements:

1. Monitoring Protocol

a. A description and summary of the baseline survey methods, raw data, and results.

b. Full survey methodology and field documentation, identification of appropriate survey locations, control sites, and seasonal considerations.

c. Avian mortality and injury monitoring that includes:

i. Onsite monitoring that will periodically survey representative locations within the facility, and, in combination with an integrated carcass detection trial, will produce accurate project-wide impact estimates.

ii. Statistical methods used to generate facility estimates of potential avian impacts based on the observed number of detections during standardized searches and adjusted by integrated detection trials.

iii. Field detection and mortality or injury identification, cause attribution, handling and reporting requirements.

iv. Detailed specifications on data and carcass collection protocols and a rationale justifying the proposed schedule of carcass searches.

d. All monitoring studies included in the program shall be conducted by a third party contractor for one year following commencement of commercial operation. At the end of the one year period, USFWS shall determine whether the survey program must be continued.

e. Monitor the death and injury of birds and bats from collisions with facility features.

2. Adaptive Management Program. The Project shall be subject to additional, adaptive management mitigation in the event mortality and injury survey results indicate the Project fails to meet applicable 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. For impacts to all other special-status avian species, mitigation 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 local population of the species in question, as estimated through the results of implementation of the monitoring protocol required in by this mitigation measure.

The Plan shall include an adaptive management program that identifies and implements reasonable and feasible measures to reduce levels of avian mortality or injury attributable to the Project (whether project-specific or cumulatively considerable) to levels that accomplish the performance standards referenced above. To that end, the adaptive management program shall include (i) reasonable measures for characterizing the extent and importance of detected mortality and injuries clearly attributable to the Project; and (ii) potential measures that the Project owner could implement to adaptively respond to detected mortality and injuries attributable to the Project. Undertaken adaptive actions will be discussed and evaluated in survey reports.

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 mortality or injury that is specifically and clearly attributable to the Project facilities in excess of the performance standards referenced above, consistent with the proportionality requirements of California statutory and constitutional law and of U.S. constitutional law. Such measures may include, but not be limited to:

- a. The Project owner shall initiate consultation with USFWS and CDFW if there is project-attributed injury or mortality to any species regulated by BGEPA, ESA or CESA.**
 - b. Passive avian diverter installations along the perimeter or at other locations within the Project to reduce or minimize bird use of the site.**
 - c. The use of sound, light or other means to discourage site use consistent with applicable legal requirements.**
 - d. Onsite habitat management or prey control measures consistent with applicable legal requirements.**
 - e. Modifications to support structures or other facilities to exclude nesting birds (e.g., netting or shielding around framework; capping open pipes or tubing).**
 - f. Incorporation of visual cues to panels, such as UV-reflective or solid contrasting bands if proven to be effective and economically and technically feasible.**
 - g. Additional mortality monitoring to assess impact reductions achieved through adaptive management.**
 - h. Such other reasonable, feasible measures required by USFWS under its regulatory authority that are applicable to special-status avian species.**
- [MM-BIO-9]**

62. **APLIC Guidelines.** The Project will implement Avian Power Line Interaction Committee (APLIC) guidelines to reduce avian collisions with power lines and poles installed as part of the Right-of-Way Improvement Area. [MM BIO-10]
63. **Prepare Project Health and Safety Plan.** A Health and Safety Plan, which complies with applicable OSHA and Cal-OSHA guidelines for the types of activities being performed, shall be prepared for Project construction and operation. The Health and Safety Plan shall include the following:
- General material safety data sheets for all hazardous materials stored on site will be retained on site during Project construction and operation.
 - On-site fueling of equipment and vehicles shall be completed in areas at least 100 feet away from drainages, or in designated fueling areas. Fuel and other hazardous materials stored on site will be located in areas with secondary containment, unless secondary containment is built into the tank.
 - Transformers shall be inspected for oil leakage on a regular basis and diversionary structures shall be provided for all oil-containing equipment, including transformers, at the Project site.
 - Employees shall attend a health and safety training and shall be trained in the proper protocol for notification and cleanup of hazardous materials.
 - A spill prevention and countermeasure control plan (SPCC) will be prepared and available on-site for the duration of project construction, operation, and decommissioning. The SPCC will also provide protocols and procedures for the discovery of undocumented hazardous materials during construction and decommissioning of the Project. [MM HHM-1]

PUBLIC WORKS – Surveyor (909) 387-8149

64. **Record of Survey.** The following conditions are for the occasion where the monuments of record cannot be located and the boundary must be determined for construction purposes. A Record of Survey/Corner Record shall be filed in the following instances:
- Performance of a field survey to establish property boundary lines for the purposes of construction staking, establishing setback lines, writing legal descriptions or boundary establishment/mapping of the subject parcel.
 - Monuments set to mark the property lines.
 - Any other applicable circumstances pursuant to applicable sections of the Business and Professions Code that would necessitate filing of a Record of Survey.

65. Monumentation. If any activity on this Project will disturb **any** land survey monumentation, including but not limited to vertical control points (benchmarks), said monumentation shall be located and referenced by or under the direction of a licensed land surveyor or registered civil engineer authorized to practice land surveying **prior** to commencement of any activity with the potential to disturb said monumentation, and a corner record or record of survey of the references shall be filed with the County Surveyor (Section 8771(b) Business and Professions Code).

LAND USE SERVICES – Land Development – Drainage (909) 387-8311

66. Drainage Facility Design. A Registered Civil Engineer shall investigate and design adequate drainage facilities to intercept and conduct the off-site and on-site drainage flows around and through the site in a manner, which will not adversely affect adjacent or downstream properties. Submit a drainage study for review and obtain approval. A \$550 deposit for drainage review will be collected upon submittal to the Land Development Division. Deposit amounts are subject to change in accordance with the latest approved fee schedule.

67. FEMA Flood Zone. Northerly portion of Parcel APN 0497-071-40 of the Project is located within Flood Zone D according to FEMA Panel Number 3915H dated 08/28/2008. Flood Hazards are undetermined in this area but possible. Southerly portion of Parcels APN 0497-121-28 and 0497-101-05 are located within Flood Zone AE according to FEMA Panel Number 3915H dated 08/28/2008. Development within Flood Zone AE is required to elevate pad to a minimum 1 foot above highest known flood elevation in compliance with FEMA/SBC regulations, an Elevation Certificate is required. The requirements may change based on the recommendations of a drainage study accepted by the Land Development Division and the most current Flood Map prior to issuance of grading permit.

68. Topo Map. A topographic map shall be provided to facilitate the design and review of necessary drainage facilities.

69. Grading Plans. Grading plans shall be submitted for review and approval obtained. An \$806 deposit for grading plan review will be collected upon submittal to the Land Development Division. Deposit amounts are subject to change in accordance with the latest approved fee schedule.

70. Prepare Drainage Plan for Structural Facilities. The project proponent shall prepare a site specific Drainage Plan for all facilities constructed in conjunction with the Project that meets San Bernardino County Land Use Services, Land Development Division – Drainage Section requirements, as applicable. The Drainage Plan shall incorporate measures to maintain off-site runoff during peak conditions to pre-construction discharge levels. Design specifications shall accommodate the 100-year, 24-hour storm event to pre-project conditions. [MM HWQ-2]

PUBLIC WORKS – Solid Waste Management Division (909) 386-8701

71. Construction and Demolition Waste Management Plan (CDWMP) – Part 1. The developer shall prepare, submit, and obtain approval from Solid Waste Management Division (SWMD) of a “Construction Waste Management Recycling Plan (CDWMP), Part I. The CDWMP shall list the types and volumes of solid waste materials expected to be generated from grading and construction. The Plan shall include options to divert from landfill disposal materials for reuse or recycling by a minimum of 50 percent of total volume.

Upon completion of construction, the developer shall complete SWMD’s CDWMP Part 2. This summary shall provide documentation of diversion of materials including but not limited to receipts or letters from diversion facilities or certification regarding reuse of materials on site.

SAN BERNARDINO COUNTY FIRE – (760) 995-8190

72. Access. The development shall have a minimum of one point of vehicular access per fenced area. This is for fire/emergency equipment access and for an evacuation route.

PRIOR TO ISSUANCE OF BUILDING PERMITS

Completion of the following must occur, with CCRF signatures

LAND USE SERVICES – Land Development – Roads (909) 387-8311

73. Road Dedication/Improvements. The developer shall submit for review and obtain approval from the Land Use Services Department the following dedications and plans for the listed required improvements, designed by a Registered Civil Engineer (RCE), licensed in the State of California. These shall be submitted to the Land Use Services Department, located at 385 N. Arrowhead Ave, San Bernardino CA 92415-0187. Phone: (909) 387-8311.

Community Blvd (Local Street – 60')

- Street Improvements. Design AC dike [with match up paving 18 feet from centerline.] Where project fronts more than one side of Community Blvd, a full width section of 36 feet shall be required.
- Driveway Approach. Design driveway approach per San Bernardino County Standard 129, and located per Standard 130.

74. Road Standards and Design. All required street improvements shall comply with latest San Bernardino County Road Planning and Design Standards and the San Bernardino County Standard Plans. Road sections shall be designed to Desert Road Standards of San Bernardino County, and to the policies and requirements of the County Department of Public Works and in accordance with the General Plan, Circulation Element.

75. Street Improvement Plans. The developer shall submit for review and obtain approval of street improvement plans prior to construction. Final plans and profiles shall indicate the location of any existing utility facility or utility pole which would affect construction, and any such utility shall be relocated as necessary without cost to the County.

76. Encroachment Permits. Prior to installation of road and drainage improvements, a permit is required from County Public Works, Transportation Operations Division, Permit Section, (909) 387-8039, as well as other agencies prior to work within their jurisdiction. Submittal shall include a materials report and pavement section design in support of the section shown on the plans. Applicant shall conduct classification counts and compute a Traffic Index (TI) Value in support of the pavement section design.

77. Soils Testing. Any grading within the road right-of-way prior to the signing of the improvement plans shall be accomplished under the direction of a soils testing engineer. Compaction tests of embankment construction, trench back fill, and all

sub-grades shall be performed at no cost to San Bernardino County and a written report shall be submitted to the Transportation Operations Division, Permits Section of County Public Works, prior to any placement of base materials and/or paving.

78. Open Roads/Cash Deposit. Existing County roads, which will require reconstruction, shall remain open for traffic at all times, with adequate detours, during actual construction. A cash deposit shall be made to cover the cost of grading and paving prior to issuance of road encroachment permit. Upon completion of the road and drainage improvement to the satisfaction of the Department of Public Works, the cash deposit may be refunded.
79. Transitional Improvements. Right-of-way and improvements (including off-site) to transition traffic and drainage flows from proposed to existing, shall be required as necessary.
80. Street Gradients. Road profile grades shall not be less than 0.5% unless the engineer at the time of submittal of the improvement plans provides justification to the satisfaction of County Public Works confirming the adequacy of the grade.
81. Caltrans Review. Obtain comments from Caltrans for access requirements and working within their right-of-way.

LAND USE SERVICES – Building and Safety (760) 995-8140

82. Building Plans. Any building, sign, or structure to be constructed or located on site will require professionally prepared plans based on the most current County and California Building Codes, submitted for review and approval by the Building and Safety Division.
83. Permits. Obtain permits for all structures located on site and all work done without a permit.

SAN BERNARDINO COUNTY FIRE – (760) 995-8190

84. Building Plans. No less than three complete sets of Solar/Photovoltaic Plans shall be submitted to the Fire Department for review and approval. Plans shall be submitted and approved prior to CCRF for building permit issuance.
85. Road Standards. All roads must be an all-weather driving surface or an aggregate base compacted to 85% to hold 75,000 pounds. Roads must have a 45' outside turning radius. Access roads must be a maximum of 600' apart. Perimeter roads must be no less than 26' wide and interior roads no less than 20' wide. Fire Access roadways must be 26' wide minimum, where no paved roadways exist and road grades do not exceed 8%, and where serving only single family dwellings or accessory buildings, roads may be constructed with approved native materials or gravel compacted to 85% compaction. One point of access required for each fenced in area.

86. Street Sign. This Project is required to have an approved street sign (temporary or permanent). The street sign shall be installed on the nearest street corner to the Project. Installation of the temporary sign shall be prior any combustible material being placed on the construction site. Prior to final inspection and occupancy of the first structure, the permanent street sign shall be installed.

ENVIRONMENTAL HEALTH SERVICES- (800) 442-2283

87. Water. Water purveyor shall be EHS approved.

88. Wells. Industrial grade wells are required and will not be allowed for use as potable water. Provide the well completion reports for the industrial wells that show when the wells were constructed with a minimum 50 foot annular seal. For information contact DEHS at 1-800-442-2283 or the Department of Water Resources at 818-500-1645.

89. Additional Permits. Contact DEHS for proper permits if well destruction, modification or reconstruction is required.

90. Additional Well Requirements. If there is more than one well onsite, an additional well may be used for emergency non- potable purposes only. All other wells onsite must be properly destroyed.

91. Acoustic Study. Submit preliminary acoustical information demonstrating that the proposed project maintains noise levels at or below San Bernardino County Noise Standard(s), San Bernardino Development Code Section 83.01.080. The purpose is to evaluate potential future on-site and/or adjacent off-site noise sources. If the preliminary information cannot demonstrate compliance to noise standards, a project specific acoustical analysis shall be required. Submit information/analysis to the DEHS for review and approval. For information and acoustical checklist, contact DEHS at 1-800-442-2283.

LAND USE SERVICES – Planning (760) 995-8140

92. Special Use Permit. The developer shall submit for review and gain approval for a Special Use Permit (SUP) from County Code Enforcement. Thereafter, the SUP shall be renewed annually subject to annual inspections. The annual SUP inspections shall review & confirm continuing compliance with the listed Conditions of Approval, including all mitigation measures. This comprehensive compliance review shall include evaluation of the maintenance of all storage areas, landscaping, screening and buffering. Failure to comply shall cause enforcement actions against the developer. Such actions may cause a hearing or an action that could result in revocation of this approval and imposition of additional sanctions and/or penalties in accordance with established land use enforcement procedures. Any additional inspections that are deemed necessary by the Code Enforcement Supervisor shall constitute a special inspection and shall be charged at a rate in accordance with the County Fee Schedule, including travel time, not to exceed

three (3) hours per inspection. As part of this, the developer shall pay an annual public safety services impact fee in accordance with Code §84.29.040(d).

93. Decommissioning Requirements. In accordance with SBCC 84.29.060, Decommissioning Requirements, the Developer shall submit a Closure Plan to the Planning Division for review and approval. The Decommissioning documents shall satisfy the following requirements:

- a) Closure Plan. Following the operational life of the Project, the Project owner shall perform site closure activities to meet federal, state, and local requirements for the rehabilitation and re-vegetation of the Project Site after decommissioning. The applicant shall prepare a Closure Plan and submit to the Planning Division for review and approval prior to building permit issuance. Under this plan, all aboveground structures and facilities shall be removed off-site for recycling or disposal. Concrete, piping, and other materials existing below three feet in depth may be left in place. Areas that had been graded shall be restored to original contours unless it can be shown that there is a community benefit for the grading to remain as altered. Following the implementation of a decommissioning plan, all equipment and fencing shall be removed and the site would be re-vegetated so that the end use and site are in a stable condition.
- b) Closure Compliance. Following the operational life of the Project, the developer shall perform site closure activities in accordance with the approved closure plan to meet federal, state, and local requirements for the rehabilitation and re-vegetation of the Project site after decommissioning. Project decommissioning shall be performed in accordance with all other plans, permits, and mitigation measures that would assure the Project conforms to applicable requirements and would avoid significant adverse impacts. These plans shall include the following as applicable:
 - Erosion and Sediment Control Plan
 - Drainage Report
 - Notice of Intent and Stormwater Pollution Prevention Plan
 - Air Quality Permits
 - Biological Resources Report
 - Cultural Records Report
 - The County may require a Phase 1 Environmental Site Assessment be performed at the end of decommissioning to verify site conditions.

PRIOR TO FINAL INSPECTION OR OCCUPANCY,
Completion of the following must occur, with CCRF signatures

SAN BERNARDINO COUNTY FIRE – (760) 995-8190

94. Haz-Mat Approval. The applicant shall contact the San Bernardino County Fire Department/Hazardous Materials Division (909) 386-8400 for review and approval of building plans, where the planned use of such buildings will or may use hazardous materials or generate hazardous waste materials.
95. Inspection by Fire Department. Permission to occupy or use the building (Certification of Occupancy or Shell Release) will not be granted until the Fire Department inspects, approves and signs off on the Building and Safety job card for "fire final".

COUNTY FIRE DEPARTMENT – Hazardous Materials Division (909) 386-8401

96. Disclosure Information. Prior to occupancy, operator shall submit disclosure information using the California Environmental Reporting System (CERS) for emergency release or threatened release of hazardous materials and wastes or apply for exemption from hazardous materials laws and regulations. Contact the Office of the Fire Marshall, Hazardous Materials Division at (909) 386-8401
97. Permits. Prior to occupancy, the applicant shall be required to apply for one or more of the following: a Hazardous Materials Handler Permit, a Hazardous Waste Generator Permit, and/or an Underground Storage Tank Permit. For information, contact the Office of the Fire Marshall, Hazardous Materials Division at (909) 386-8401.

PUBLIC WORKS – Solid Waste Management Division (909) 386-8701

98. Construction and Demolition Waste Management Plan (CDWMP) – Part 2. The developer shall complete SWMD's CDWMP Part 2. This summary shall provide documentation of diversion of materials including but not limited to receipts or letters from diversion facilities or certification reuse of materials on site. The CDWMP Part 2 shall provide evidence to the satisfaction of County Solid Waste that demonstrates that the Project has diverted from landfill disposal materials for reuse or recycling by a minimum of 50 percent of total volume of all construction waste.

LAND USE SERVICES – Land Development– Roads (909) 387-8311

99. Road Improvements. All required on-site and off-site improvements shall be completed by the applicant and inspected and approved by County Public Works.
100. Structural Section Testing. A thorough evaluation of the structural road section, to include parkway improvements, from a qualified materials engineer, shall be submitted to County Public Works.
101. Caltrans Approval. Obtain approval from Caltrans for access requirements and working within their right-of-way.
102. Open Roads/Cash Deposit. Existing County roads, which will require reconstruction, shall remain open for traffic at all times, with adequate detours, during actual construction. A cash deposit shall be made to cover the cost of grading and paving prior to issuance of road encroachment permit. Upon completion of the road and drainage improvement to the satisfaction of the Department of Public Works, the cash deposit may be refunded.
103. Parkway Planting. Trees, irrigation systems, and landscaping required to be installed on public right-of-way shall be approved by County Public Works and Current Planning and shall be maintained by the adjacent property owner or other County-approved entity.

Land Use Services Department – Land Development Division – Drainage Section (909) 387-8311

104. Drainage Improvements. All required drainage improvements shall be completed by the applicant. The private registered engineer shall inspect improvements outside the County right-of-way and certify that these improvements have been completed according to the approved plans. Certification letter shall be submitted to Land Development.

LAND USE SERVICES – Building and Safety (760) 995-8140

105. Final Occupancy/Use. Prior to occupancy/use, all Planning Division requirements and sign-offs shall be completed.

LAND USE SERVICES – Planning (760) 995-8140

106. CCRF/Occupancy. Prior to occupancy/use, all Condition Compliance Release Forms (CCRF) shall be completed to the satisfaction of County Planning with appropriate authorizing signatures from each affected agency.
107. Dust Control – Operation. Prior to final inspection, the Applicant shall develop an Operational Dust Control Plan that shall be approved and implemented prior to energization of the solar facility. The Operational Dust Control Plan shall include Dust Control Strategies sufficient to ensure that areas within the Project site shall not generate visible fugitive dust (as defined in Mojave Desert Air Quality Management District’s [MDAQMD’s] Rule 403.2) such that dust remains visible in the atmosphere beyond the property boundary. During high wind events, Dust Control Strategies shall be implemented so as to minimize the Project site’s contribution to visible fugitive dust beyond that observed at the upwind boundary.
108. Removal Surety. Surety in a form and manner determined acceptable to County Counsel and the Land Use Services Director shall be required for the closure costs and complete removal of the solar energy generating facility and other elements of the facility. The developer shall either:
- a) Post a performance or other equivalent surety bond issued by an admitted surety insurer to guarantee the closure costs and complete removal of the solar panels and other elements of the facility in a form or manner determined acceptable to County Counsel and the Land Use Services Director in an amount equal to 120% of the cost estimate generated by a licensed civil engineer and approved by the Land Use Services Director; OR
 - b) Cause the issuance of a certificate of deposit or an irrevocable letter of credit payable to the County of San Bernardino issued by a bank or savings association authorized to do business in this state and insured by the Federal Deposit Insurance Corporation for the purpose of guaranteeing the closure costs and complete removal of the solar panels and other elements of the facility in a form or manner determined acceptable to County Counsel and the Land Use Services Director in an amount equal to 120 percent of the cost estimate generated by a licensed civil engineer and approved by the Land Use Services Director.
109. Installation of Improvements. All required on-site and off-site improvements shall be installed.
110. Payment of Fees. Prior to final inspection by Building and Safety Division and/or issuance of a Certificate of Conditional Use by the Planning Division,

the applicant shall pay in full all fees required under actual cost job number P201400516.

END OF CONDITIONS

EXHIBIT C

Draft Initial Study/Mitigated Negative Declaration



MITIGATED NEGATIVE DECLARATION
(Pending Planning Commission Action)

385 North Arrowhead Avenue, First Floor, San Bernardino, CA 92415-0182

Project Description

APN:	0497-071-40, 0497-121-28, 0497-101-05, and 0497-101-14
Applicant:	EDF Renewable Energy (Dba Longboat Solar, LLC)
Community:	Barstow/1 st Supervisorial District
Location:	West of State Route 58, East of Lenwood Road, and North And South of Community Boulevard
Project No:	P201400516/CUP
Staff:	John Oquendo, Senior Planner
Rep:	Javier De La Garza, Phil Hawtin, and Christa Hudson
Proposal:	A Conditional Use Permit to build and operate a 20 megawatt utility scale photovoltaic facility on approximately 233 acres of the 324-acre site.

Vicinity Map -



Effective date of Mitigated Negative Declaration: TBD (After 10-day appeal period)

Plans and specifications for the referenced project are available for public inspection in the San Bernardino County Land Use Services Department, Planning Division.

Pursuant to provisions of the California Environmental Quality Act and the San Bernardino County Environmental Review Guidelines, the above referenced project has been determined not to have a significant effect upon the environment. An Environmental Impact Report will not be required.

Reasons to support this finding are included in the written Initial Study prepared by the San Bernardino County Land Use Services Department, Planning Division.

The decision may be appealed by any aggrieved person, organization or agency to the County Board of Supervisors. Appeals shall be filed before the effective date of the Mitigated Negative Declaration listed above. The Notice of Appeal shall be in writing and shall be filed with the appropriate fee at the San Bernardino County Government Center Public Information Counter during normal business hours.

Signature and Title: John Oquendo, Senior Planner
Land Use Services Dept, Planning Division

TBD
Date of Determination

Mitigation measures included in this project to reduce and/or avoid potentially significant effects include the following:

AQ-1: Mitigation for NOx. During construction and decommissioning of the Project, all off-road diesel-powered pieces of equipment used by the construction contractors shall comply with the California Air Resources Board Tier 3 standard for off-road engines.

BIO-1: Worker Environmental Awareness Program. All construction and operations staff working on the Site will be required to attend a Worker Environmental Awareness Program (WEAP) as prepared and presented by a qualified biologist. This program will emphasize the conservation of sensitive biological resources during Project construction and operations and will include, at a minimum:

- The purpose of resource protection and relevant mitigation requirements;
- A description of the existing habitats and special status species including identification tips;
- The conservation measures that will be implemented in conjunction with Project construction and operation;
- A protocol for documenting and reporting dead or injured wildlife encountered during construction and at least one year of operation;
- Contact information for Project biologists and monitors; and
- fire protection measures;
- measures to minimize the spread of weeds;
- hazardous substance spill prevention and containment measures; and
- Penalties for violation

A copy of the worker education training materials shall be provided to San Bernardino County prior to the issuance of a grading or construction permit.

The names of all personnel who attend the training shall be recorded and workers shall be issued hardhat decals denoting they have received **the workshop training as well as informational fliers for quick reference**. **No personnel shall be permitted** to operate equipment within construction zones unless they have completed the WEAP and are displaying hardhat decals denoting this attendance.

BIO-2: Pre-Construction Surveys and Daily Sweeps. Before initiating any ground-disturbing task (e.g., mechanized clearing, trenching, grading, etc.) associated with Project-related construction activities, pre-construction surveys will be conducted by a qualified biologist, in all Project areas slated for vegetation clearing or ground disturbing Project activities and the appropriately sized buffer. The surveys will be conducted no more than 30 days before disturbance activities are scheduled to begin within suitable Project habitat. Should sensitive resources be observed, biologists will establish Environmental Sensitive Area (ESA) buffers and no construction activities will be allowed within said ESA until the sensitive resource has left on its own accord or until otherwise authorized by the responsible trustee agency. Biological monitors will conduct daily sweeps prior to construction activity to verify no new sensitive resource occurs within that day's construction activity site.

(a) *Desert tortoise*. Focused desert tortoise surveys, as described in Preparing for Any Action that May Occur within the Range of the Mojave Desert Tortoise (USFWS, 2010) will be conducted in areas of potentially suitable habitat within 30 days of initial ground-disturbing activities. All tortoise sign will be mapped and all scat collected during the first clearance survey. If fresh scat is found during the second clearance survey, the surrounding area will be searched.

If encountered, tortoise burrow locations will be georeferenced in the field using Global Positioning System (GPS), and the size and approximate age of the burrow identified. Where possible, tortoise burrows would also be flagged only if the flagging would not attract poaching.

No more than 24 hours prior to fence installation and vegetation removal, all disturbance areas would be surveyed to ensure no desert tortoise individuals or burrows are present. Should desert tortoise be observed on the Project site, all potential activities with the possibility to impact an observed desert tortoise shall cease until the individual has left the area on its own accord. A report shall be sent to the California Department of Fish and Wildlife and U.S. Fish and Wildlife Service within five calendar days of the sighting and will include:

- Name and contact information of the biologist who observed the species;
- Date, time and location of the observation;
- Measures taken to avoid impacts following the observation;
- Monitoring methods used to ensure no impacts to desert tortoise have occurred; and
- Recommendations for ongoing activity at the Site that avoid impacts to desert tortoise.

If a dead desert tortoise is encountered, all work shall stop in the immediate vicinity of the encounter and the California Department of Fish and Wildlife and U.S. Fish and Wildlife Service shall be contacted immediately to determine the appropriate course of action under the respective statutory and regulatory endangered species regimes administered by each agency.

(b) *Mohave fringe-toed lizard*. Focused Mohave fringe-toed lizard (MFTL) surveys will be conducted in areas of potentially suitable habitat. These surveys shall occur within 30 days of initial ground-disturbing activities and during the seasonal activity period (typically, March to September). A qualified MFTL biologist will prepare a Mohave Fringe-toed Lizard Management Plan. This Plan shall be submitted to San Bernardino County and the CDFW for approval prior to the issuance of a grading or construction permit. This Plan will include, at a minimum:

- A discussion on the species' biology including known distribution maps;
- Minimum qualifications for biologists to work with the species;
- Measures to avoid impacts to MFTL during Project construction including, but not limited to survey requirements, MFTL exclusionary fencing, speed limit enforcements, WEAP requirements, and avoidance of dune habitats.
- MFTL relocation requirements in the event an MFTL is observed within the Project disturbance area. These relocation requirements will include, at a minimum: handler requirements and qualifications, means of relocation and necessary equipment, clear microhabitat description and map of an approved receptor site, and relevant restrictions. All MFTL will be relocated to a County- and CDFW-approved receptor site.
- Reporting requirements. All MFTL encountered during surveys shall be reported to the County and CDFW in monthly monitoring reports. Should an individual require relocation, additional information shall be included including: date and time of capture, date and time of release, name and qualifications of the MFTL biologist, GPS coordinates and photo-documentation of capture and receptor microhabitat, and additional relevant information.

All observations will be mapped and all observed MFTL will be relocated to a County- and CDFW-approved receptor site.

(c) *Burrowing Owl*. Pre-construction burrowing owl surveys will be conducted by a qualified biologist, in conformance with the Staff Report on Burrowing Owl Mitigation (CDFW 2012) within 500 feet of all Project areas slated for vegetation clearing or ground disturbing Project activities. The surveys will be conducted no more than 30 days before disturbance activities are scheduled to begin within suitable Project habitat and 500-foot buffer zones. If burrowing owls are observed using burrows during the non-breeding season (September 1 – January 31) or breeding season (February 1 – August 31), an Environmental Sensitive Area (ESA) buffer shall be established around each burrow, and no activities will be allowed within the buffer until the nest is complete (young have fledged or the nest fails). Nest buffer distance will be a minimum of 300 feet. All ESAs will be clearly identified using visible markers such as orange snow fencing, flagging, signage or other visual cues. This protected area will remain in effect until August 31 or until the young owls are foraging independently. If disturbance of owls and their burrows is unavoidable, owls will be excluded from all active burrows as described in a Burrowing Owl Relocation Plan. All relocation will be passive in nature using burrow exclusion methods and all relocation will be performed in conformance with the Staff Report on Burrowing Owl Mitigation (CDFW 2012) after conferring with the CDFW and County of San Bernardino.

(d) *Nesting Birds and raptors*. Pre-construction surveys for nesting birds will be conducted if construction, ground disturbance, and/or vegetation trimming/removal activities are scheduled to occur during the breeding season (February 1 to August 31). A qualified avian biologist shall conduct the surveys no more than 30 days before disturbance activities are scheduled to begin within suitable Project habitat and 500-foot buffer zones. If active nests are found, a qualified biologist will determine appropriate buffer distances around each nest as specified in the Nesting Bird

Management Plan, to minimize disturbance to the nest and prevent potential take of the nest. The buffer distance will be based on the species behavior characteristics and conservation status, nest location, and nature of anticipated project activities nearby. The buffer area will be conspicuously demarcated on the ground and the Permittee will ensure that all project activities in the vicinity of the site are monitored to prevent incursion into the buffer area. The buffer will remain in place until the nest is vacated and juveniles have fledged, or the nest is no longer active, as determined by a qualified biologist. An inactive nest is characterized by no longer containing viable eggs and/or living young and is not being used by a bird as part of the reproductive cycle (eggs, young, fledging young still dependent upon nest). All fledglings must leave the nest on their own accord (e.g., without take) to be considered inactive. In some cases, a nest can be abandoned by the bird constructing it and become inactive prior to egg laying. In such cases, determination that the nest is inactive is made on a case-by-case basis based on consistent observations and the determination of an avian biologist.

A qualified biologist will prepare a Nesting Bird Management Plan describing the measures to avoid nests in the event they are observed. This Plan is applicable to all nesting birds protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code. This Plan shall be submitted to San Bernardino County and the CDFW for approval prior to the issuance of a grading or construction permit. This Plan will include, at a minimum:

- Minimum qualifications for biologists to work with the species;
- Measures to avoid impacts to nesting birds during Project construction including, but not limited to survey requirements, monitoring requirements, WEAP requirements, and avoidance of dune habitats.
- Communications protocol in the event of a nest discovery;
- A list of potentially occurring avian species (or guild) and minimum no disturbance buffer for each. Buffer sizes will be site-specific and based on the sensitivity of specific species or guilds and not based on generalized assumptions regarding all nesting birds;
- Contingency and emergency activity measures; and
- Reporting requirements. All nests and their status (active versus inactive), species descriptions, date of inactivity, location (including GPS coordinates), and other information will be provided in monthly construction monitoring reports.

If for any reason a bird nest must be removed during the nesting season, the Project proponent(s) shall provide written documentation of concurrence from the United States Fish and Wildlife Service and the California Department of Fish and Wildlife authorizing the nest relocation to the County of San Bernardino. This documentation will include what actions were taken to avoid moving the nest, the location of the nest, what species is being relocated, the number and condition of the eggs taken from the nest, the location of where the eggs are incubated, the survival rate, the location of the nests where the chicks are relocated, and outcome (whether or not the chicks survived and fledged).

(e) *Mohave ground squirrel*. Presence/absence pre-construction surveys for Mohave ground squirrel will be conducted no more than one (1) year before disturbance activities are scheduled to begin within suitable Project habitat. If a Mohave ground squirrel is observed during pre-construction surveys or at any point, work shall be halted and redirected to other areas of the Project Site that would not affect the individual observed. A report shall be sent to the California Department of Fish and Wildlife within five calendar days of the sighting and will include:

- Name and contact information of the biologist who observed the species;
- Date, time and location of the observation;
- Measures taken to avoid impacts following the observation;
- Monitoring methods used to ensure no impacts to Mohave ground squirrel have occurred; and
- Recommendations for ongoing activity at the Site that avoid impacts to Mohave ground squirrel.

If a dead Mohave ground squirrel is encountered, all work shall stop in the immediate vicinity of the encounter and the California Department of Fish and Wildlife shall be contacted immediately to determine the appropriate course of action under the California Endangered Species Act.

(f) *Desert Kit Fox and American badger*. Focused surveys for American badger and desert kit fox will be conducted by a qualified biologist within 500 feet of all Project areas slated for vegetation clearing

or ground disturbing Project activities. The surveys will be conducted no more than 30 days before disturbance activities are scheduled. The survey shall be performed by walking parallel transects spaced no more than 20 meters apart within areas of suitable habitat, and shall be focused on detecting dens that are occupied, or are suitable for occupation, by either species. Potential burrows will be monitored for 72 hours using motion detecting infrared cameras or similar trackers to determine activity.

Inactive dens are burrows that have largely collapsed or the end of the burrow is clearly visible. Inactive dens that will be directly impacted by construction activities shall be excavated and backfilled by hand to prevent reuse by American badger or desert kit fox.

If occupied burrows are observed outside of the pupping season, the occupants may be passively excluded from their burrow using natural materials over a period of five consecutive days. Once the den is confirmed vacated, it shall be excavated to ensure no wildlife are trapped within the den and then backfilled by hand to prevent reuse by American badger or desert kit fox.

If an occupied den is observed during the pupping season (typically, February to July), then the burrow will be clearly flagged and a minimum 200-foot no disturbance area surrounding the den shall be established. This buffer shall remain in place until the end of the pup-rearing season or the den is determined inactive or abandoned by a qualified biologist. At this point, passive exclusion methods (see above) shall be used.

If an American badger or desert kit fox is observed, a report shall be sent to the California Department of Fish and Wildlife within 30 calendar days of the sighting and will include:

- Name and contact information of the biologist who observed the species;
- Date, time and location of the observation;
- Measures taken to avoid impacts following the observation;
- Monitoring methods used to ensure no impacts to American badger or desert kit fox have occurred; and
- Recommendations for ongoing activity at the Site that avoid impacts to American badger or desert kit fox.

If a dead or injured American badger is encountered, all work shall stop in the immediate vicinity of the encounter and the California Department of Fish and Wildlife shall be contacted within eight hours to determine the appropriate course of action.

To minimize the likelihood of the transmission of canine distemper, no pets shall be allowed on the site. If a dead, sick, or injured desert kit fox is encountered, all work shall stop in the immediate vicinity of the encounter and the California Department of Fish and Wildlife shall be contacted within eight hours to determine the appropriate course of action.

(g) *Bats*. Focused surveys for bats, including Townsend's big-eared bat, will be conducted by a qualified biologist within 300 feet of all Project areas slated for vegetation clearing or ground disturbing Project activities where roosting habitat occurs. The surveys will be conducted no more than 30 days before disturbance activities are scheduled to begin within suitable Project habitat and 300-foot buffer zones surrounding rocky outcrops, buildings, bridges, large trees, or any other habitat capable of supporting roosts or hibernacula.

If active maternity roosts or hibernacula are found on site, the roost shall be avoided (i.e., not removed) by the project, if feasible. If avoidance of the roost is not feasible, the bat biologist shall notify the California Department of Fish and Wildlife in writing and additional surveys (via Anabat telemetry or other approved methods) for nearby alternative roosting sites will be conducted. If the bat biologist identifies, in consultation with and with the approval of the California Department of Fish and Wildlife, that there are alternative roost sites used by the maternity colony and young are not present, then no further action is required.

If no active alternative roosts are found, substitutive roosting habitat for the colony shall be provided on, or in close proximity to, the Project Site. Following establishment of the substitutive roosting site for a period of no less three months, then exclusion of the bats from the original roost may occur.

Following the exclusionary period, the demolition of the roost site must commence before maternity colonies form (typically, March) or after young are flying (Typically, August).

If accidental take should occur, the California Department of Fish and Wildlife and/or the United States Fish and Wildlife Service shall be notified within 30 days.

BIO-3 Biological Monitoring. The Project proponent will retain a qualified Biological Monitor for all activities associated with ground disturbance, grading, construction, decommissioning, and restoration throughout the Project lifetime. The Biological Monitor must be knowledgeable of general and focused species issues on the Project, qualified by the County of San Bernardino to conduct such work, and must be competent to monitor all biological mitigation measures. The Biological Monitor will have the authority to ensure compliance with mitigation measures set forth in this report including the authority to halt work as necessary to ensure full compliance.

Duties of the Biological Monitor will include, but will not be limited to the following:

- The Biological Monitor will ensure that all established buffers surrounding identified Environmentally Sensitive Areas are maintained.
- Conduct daily pre-construction clearance sweeps for plants and wildlife (including nests) to determine the need for any new no disturbance buffers.
- All dead wildlife will be immediately removed and disposed of properly as to not attract dogs, ravens, raptors, and other opportunistic scavengers and predators.
- To prevent entrapment, all potential wildlife pitfalls (i.e., steep trenches, bores, and other excavations) will be inspected daily (i.e., morning and/or evening) and immediately before backfilling to monitor for wildlife entrapment. Large/steep excavations will be covered and/or fenced nightly to prevent wildlife entrapment. If the excavation cannot practicably be covered or fenced, excavations will be sloped at a 3:1 ratio at the ends, or an earthen ramp will be provided to allow wildlife to escape. If any wildlife species become entrapped, construction will not continue until the animal has left the trench voluntarily or the Biological Monitor has removed the animal.
- No listed species will be handled without the appropriate permits; and
- The Biological Monitor will inspect the site to ensure trash and food-related waste is placed in closed-lid containers and that workers do not feed wildlife.

BIO-4 Weed Abatement Plan. Prior to the initiation of vegetation removal within the Project, the Applicant will submit to the County of San Bernardino a copy of the final Weed Abatement Plan and letter of approval from the appropriate fire authority. This plan will describe all requirements pertaining to weed abatement, fire protection, and fuel modification including periodic clearance of the site of all non-complying vegetation under San Bernardino County Desert Area Fire Hazard Abatement regulations [County Code 23.031-23.043]. These measures may include, but will not be limited to, the removal of brush and dead plant materials, removal of non-native plant species, and other periodic management measures including mowing, particularly beneath PV arrays. The location of fuel modification zones and/or fire breaks to minimize impacts to sensitive biological resources will be identified within the Plan. To the degree practicable, mowing or any other vegetation maintenance will occur between August 15 and February 15 to minimize impacts to nesting birds.

BIO-5 Trash Abatement Program. A Trash Abatement Program will be initiated during pre-construction phases of the Project, and would continue through the lifetime of the Project. Trash and food items would be contained in closed containers and removed regularly (at least once per week) to avoid attracting opportunistic predators such as ravens, coyotes, and feral dogs.

BIO-6 Other Biological Resource Protection Measures. The following additional measures will be implemented during Project construction:

- All equipment maintenance, staging, and the dispensing of fuel, oil, coolant, or any other such activities will be restricted to designated areas within the Project impact limits. These designated areas will be located in previously compacted and disturbed areas to the maximum extent possible in such a manner as to prevent runoff from entering existing native vegetation areas. These areas will be clearly designated in the construction plans and SWPPP (See HWQ-1
- Twenty miles per hour speed limits will be enforced for all vehicles traveling on the Project site.
- Trash will be stored properly (i.e., in a manner that is inaccessible to scavengers including condors, ravens, crows, and raccoons), in accordance with the Construction General Permit, and removed from the construction site on a regular basis.

- Pets will not be permitted on the Site during construction.
- Entry to all areas flagged, staked, or otherwise marked as special status by the Environmental Monitor will be prohibited.

BIO-7 Raven Management Plan. The Project proponent adhere to the following measures to ensure that the construction, operation, maintenance, and decommissioning of the Project does not adversely impact regional desert tortoise populations by attracting common ravens to the Project area and increasing the probability of tortoise predation. The following measures shall be implemented to mitigate potential project-specific impacts that could result in a local increase in common ravens:

- All trash and food-related waste will be disposed of in secure, self-closing receptacles to prevent the introduction of subsidized food resources for common ravens.
- Use water for construction, operation and maintenance in a manner that does not result in pooling or puddling.
- The biological monitor identified in BIO-3 shall implement the following at the project site:
 - Remove and dispose of road kills of common wildlife species from the project site and access road. No species protected by federal or state law would be removed.
 - Document common raven use of the project site and access road on a daily basis, during vegetation clearing and ground disturbance [BIO-2]. If frequently used perching locations are identified, use physical, auditory or visual bird deterrents to discourage use by common ravens.
 - Remove any inactive raven nests in the project site or along the access road.
- Implement Avian Power Line Interaction Committee (APLIC) guidelines [BIO-10].
- Implement the following measure to mitigate indirect and cumulative impacts: Contribute to the Regional Raven Management Plan fund managed by the National Fish & Wildlife Fund. The contribution shall consist of a one-time total payment of \$105 per acre of disturbance, including the project site and gen-tie improvement corridor.

BIO-8 Exclusionary Fencing Plan. The Project proponent will submit an Exclusionary Fencing Plan, describing permanent desert tortoise and Mohave fringe-toed lizard exclusionary fencing to be used at the Project, to the County of San Bernardino prior to the issuance of a building or grading permit. This plan will describe fencing materials, locations, access areas, monitoring requirements, and other information pertaining to the erection and maintenance of these fences.

BIO-9: Avian Mortality and Injury Monitoring. The Project proponent shall perform operations-phase avian mortality and injury monitoring at the Project site. The program shall be initiated upon commencement of commercial operation and continue for one year following commercial operation. Prior to issuance of a grading permit for the project, the Project proponent shall submit an Avian Mortality and Injury Monitoring Plan to the County of San Bernardino and USFWS that, at a minimum, includes the following elements:

1. Monitoring Protocol
 - a. A description and summary of the baseline survey methods, raw data, and results.
 - b. Full survey methodology and field documentation, identification of appropriate survey locations, control sites, and seasonal considerations.
 - c. Avian mortality and injury monitoring that includes:
 - i. Onsite monitoring that will periodically survey representative locations within the facility, and, in combination with an integrated carcass detection trial, will produce accurate project-wide impact estimates.
 - ii. Statistical methods used to generate facility estimates of potential avian impacts based on the observed number of detections during standardized searches and adjusted by integrated detection trials.
 - iii. Field detection and mortality or injury identification, cause attribution, handling and reporting requirements.
 - iv. Detailed specifications on data and carcass collection protocols and a rationale justifying the proposed schedule of carcass searches.

- d. All monitoring studies included in the program shall be conducted by a third party contractor for one year following commencement of commercial operation. At the end of the one year period, USFWS shall determine whether the survey program must be continued.
- e. Monitor the death and injury of birds and bats from collisions with facility features.

2. Adaptive Management Program. The Project shall be subject to additional, adaptive management mitigation in the event mortality and injury survey results indicate the Project fails to meet applicable 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. For impacts to all other special-status avian species, mitigation 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 local population of the species in question, as estimated through the results of implementation of the monitoring protocol required in by this mitigation measure.

The Plan shall include an adaptive management program that identifies and implements reasonable and feasible measures to reduce levels of avian mortality or injury attributable to the Project (whether project-specific or cumulatively considerable) to levels that accomplish the performance standards referenced above. To that end, the adaptive management program shall include (i) reasonable measures for characterizing the extent and importance of detected mortality and injuries clearly attributable to the Project; and (ii) potential measures that the Project owner could implement to adaptively respond to detected mortality and injuries attributable to the Project. Undertaken adaptive actions will be discussed and evaluated in survey reports.

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 mortality or injury that is specifically and clearly attributable to the Project facilities in excess of the performance standards referenced above, consistent with the proportionality requirements of California statutory and constitutional law and of U.S. constitutional law. Such measures may include, but not be limited to:

- a. The Project owner shall initiate consultation with USFWS and CDFW if there is project-attributed injury or mortality to any species regulated by BGEPA, ESA or CESA.
- b. Passive avian diverter installations along the perimeter or at other locations within the Project to reduce or minimize bird use of the site.
- c. The use of sound, light or other means to discourage site use consistent with applicable legal requirements.
- d. Onsite habitat management or prey control measures consistent with applicable legal requirements.
- e. Modifications to support structures or other facilities to exclude nesting birds (e.g., netting or shielding around framework; capping open pipes or tubing).
- f. Incorporation of visual cues to panels, such as UV-reflective or solid contrasting bands if proven to be effective and economically and technically feasible.
- g. Additional mortality monitoring to assess impact reductions achieved through adaptive management.
- h. Such other reasonable, feasible measures required by USFWS under its regulatory authority that are applicable to special-status avian species.

BIO-10 APLIC Guidelines. The Project will implement Avian Power Line Interaction Committee (APLIC) guidelines to reduce avian collisions with power lines and poles installed as part of the Right-of-Way Improvement Area.

CR-1: Tribal Monitoring. There will be one comprehensive training session to present needed information about coordinating with San Manuel for cultural resources and related issues about this project as part of the Project's WEAP training prior to any ground disturbing activities. The meeting shall be recorded for use in future orientation sessions relating to the project. Tribal monitoring shall be conducted during all ground-disturbing activities, which includes but is not limited to, archaeological studies, auguring, excavation, geotechnical investigations, vegetation clearing, ground surface leveling,

trenching, and conventional mass grading. Tribal monitors will be from the San Manuel Band of Mission Indians and the Morongo Band of Mission Indians with San Manuel taking the lead. One tribal monitor from each Tribe shall be present on the project site during ground-disturbing activities. A single tribal monitor shall be assigned to each simultaneous ground-disturbing activity on site. Additional tribal monitors shall be assigned if more than two simultaneous ground-disturbing activities occur on site. If simultaneous ground-disturbing activities require an odd number of more than two tribal monitors, the Tribes shall bring in additional monitors representing each tribe according to the number needed. The tribal monitors will represent the Tribes' interests and will follow the Native American Heritage Commission Guidelines for Monitors, which shall include daily completion of the Native American Monitoring Daily Activity Report/Log.

CR-2: Discovery of Archaeological Resources. On-site workers will be informed of the potential for discovery of archaeological resources or human remains during excavation or trenching as part of the Project's WEAP training.

If an archaeological or cultural resource is encountered during ground-disturbing activities for the Project, tribal monitors and/or the Applicant are empowered to stop excavation activities within 50 feet of the discovery until a qualified archaeologist can evaluate whether the resource is a unique archaeological resource or historical resource as defined in Public Resources Code Section 21083.2 and/or 14 C.C.R. Section 15064.5 or a tribal cultural resource as defined in Public Resources Code Section 21074 in consultation with the tribes. Work may continue in other areas. The project archaeologist in consultation with the tribal representatives shall determine importance and significance of the resource as tribal cultural resources, historical resources or unique archaeological resources, defined above. Tribal monitors will cooperate with the qualified archaeologist to locate all cultural materials exposed during ground disturbing activities. Recovery of artifacts or excavation for resource evaluations will be the responsibility of the qualified archaeologist.

CR-3: Treatment of Archaeological Resources. If the qualified archaeologist determines that the discovery is a historic resource (as defined in MM CR-2) of an archaeological nature, then the mitigation standards of 14 C.C.R. 15126.4(b) specifying preservation in place shall be the preferred manner of mitigation. Preservation in place may be accomplished by, but is not limited to, the following:

1. Planning construction to avoid archaeological sites;
2. Incorporation of sites within open space;
3. Covering the archaeological sites with a layer of chemically stable soil; or
4. Deeding the site into a permanent conservation easement.

If preservation in place is not feasible, a cultural resources treatment plan shall be prepared pursuant to 14 C.C.R. 15126.4(b) and The Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation. The treatment plan shall include (i) provisions for assessment and treatment of the resources identified; (ii) reporting of results in a timely manner; and (iii) the opportunity for Tribes to engage in the recovery of material and provide comments on the draft report. The plan must be submitted to the County Land Use Services Department prior to excavation of the historical or unique archaeological resource. The Final Cultural Resources Mitigation report(s) shall be provided to the Lead Agency and disseminated to the regional CHRIS system Information Center and interested professionals and tribes upon request.

Each landowner or their assigned representative will confer with the Tribes on the disposition of all non-human burial related tribal cultural resources, historical resources and unique archaeological resources, including ceremonial items, which may be found at the portion of the Project located on the subject property. The property owner is entitled to keep all artifacts not covered and defined above. If the landowner wishes to keep and curate the materials in an institution meeting Federal and State curation guidelines, the Landowner agrees to do so at the San Bernardino County Museum.

If human remains are encountered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur in the vicinity of the find(s) until the San Bernardino County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the San Bernardino County Coroner determines the

remains to be Native American, the Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then identify the “most likely descendant(s)”. The landowner shall confer with the most likely descendant (MLD). The MLD will make recommendations concerning the treatment of the remains within 48 hours as provided in Public Resources Code 5097.98. If the landowner cannot come to an agreement with the MLD, Public Resources Code Section 5097.98(e) requires the landowner to reinter the human remains and items associated with Native American remains with appropriate dignity on the property in a location not subject to further surface disturbance.”

The assessment of resources collected shall be conducted in a timely manner, which will not exceed three months from the date of discovery of the materials and/or the completion of all fieldwork and monitoring. Possession of all cultural materials by the qualified archeologist, if necessary, shall not exceed 90 calendar days after the final report has been submitted. No photography of human remains and associated artifacts is permitted.

A preliminary draft report shall be submitted within three months of the end of the Project fieldwork, and that two copies of the draft archaeological report shall be provided to Tribes by the Lead Agency. Should the qualified archaeologist need an extension of time, approval of a justified time extension shall be permitted at the discretion of the San Manuel Band of Mission Indians and the Morongo Band of Mission Indians. The Tribes shall be given an opportunity to provide comments for inclusion in the final report. All surface and subsurface artifacts and features are to be mapped and described in a final report prepared by the qualified archaeologist following the Secretary of the Interior's Standards and Guidelines for archaeological documentation.

Data recovery shall not be required for an historical resource if the County Land Use Services Department determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the archaeological or historical resource, provided that the studies are deposited with the California Historical Resources Regional Information Center.

If the qualified archaeologist determines that the excavated sediments were previously disturbed or are unlikely to contain significant cultural materials, the qualified archaeologist can specify that construction activities are no longer limited and may resume.

All cultural resources recovered will be documented on California Department of Parks and Recreation Site Forms to be filed with the California Historic Resources Information System (CHRIS) South Central Coastal Information Center (SCCIC) at California State University Fullerton. The qualified archaeologist will prepare a final report about the find to be filed with the Applicant/landowner and the CHRIS-SCCIC. The report will include documentation and interpretation of resources recovered. Interpretation will include full evaluation of the eligibility with respect to the National Register of Historic Places and California Register of Historical Resources and CEQA. At that time, the Applicant, in consultation with the Lead Agency and qualified archaeologist, will designate repositories in the event that resources are recovered.

HMM-1: Prepare Project Health and Safety Plan. A Health and Safety Plan, which complies with applicable OSHA and Cal-OSHA guidelines for the types of activities being performed, shall be prepared for Project construction and operation. The Health and Safety Plan shall include the following:

- General material safety data sheets for all hazardous materials stored on site will be retained on site during Project construction and operation.
- On-site fueling of equipment and vehicles shall be completed in areas at least 100 feet away from drainages, or in designated fueling areas. Fuel and other hazardous materials stored on site will be located in areas with secondary containment, unless secondary containment is built into the tank.
- Transformers shall be inspected for oil leakage on a regular basis and diversionary structures shall be provided for all oil-containing equipment, including transformers, at the Project site.
- Employees shall attend a health and safety training and shall be trained in the proper protocol for notification and cleanup of hazardous materials.
- A spill prevention and countermeasure control plan (SPCC) will be prepared and available on-site for the duration of project construction, operation, and decommissioning. The SPCC will also provide protocols and procedures for the discovery of undocumented hazardous materials during construction and decommissioning of the Project.

HWQ-1: Erosion Control and Stormwater Pollution Prevention Plan. The Project was sited to avoid direct impacts to riparian habitat, however indirect impacts may occur via stormwater or non-stormwater runoff. As such, a SWPPP, created by a Qualified SWPPP Developer (QSD) and implemented by a Qualified SWPPP Practitioner (QSP), will be prepared and implemented for the Project. This SWPPP will list all measures to eliminate the discharge of pollutants other than stormwater) and non-storm water discharges authorized by the California Construction General Permit Order 2009-0009-DWQ or another National Pollutant Discharge Elimination System (NPDES) permit. The SWPPP will contain programs to monitor visual pollutants, chemical pollutants, and potential sediments. Specific and Best Management Practices, Numeric Action Levels, Numeric Effluent Levels, and Rain Event Action Plans will be implemented as required to ensure non-permitted discharges are eliminated. The SWPPP will be prepared prior to commencement of Project construction.

HWQ-2: Prepare Drainage Plan for Structural Facilities. The project proponent shall prepare a site specific Drainage Plan for all facilities constructed in conjunction with the Project that meets San Bernardino County Land Use Services, Land Development Division – Drainage Section requirements, as applicable. The Drainage Plan shall incorporate measures to maintain off-site runoff during peak conditions to pre-construction discharge levels. Design specifications shall accommodate the 100-year, 24-hour storm event to pre-project conditions.

N-1: Construction Noise Mitigation. Prior to issuance of a grading permit, the project operator will require all construction contractor/subcontractor employees to attend the WEAP training prior initiating their activities. All contract and subcontract employees will be required to implement the following noise attenuation measures during all phases of construction:

- a) Noise levels of any Project use or activity will be maintained at or below adopted County noise standards (San Bernardino County Code 83.01.080). The use of noise-producing signals, including horns, whistles, alarms, and bells, will be for safety warning purposes only.
- b) Exterior construction activities will be limited between 7 a.m and 7 p.m. There will be no exterior construction activities on Sundays or National Holidays.
- c) Construction equipment will be muffled per manufacturer's specifications.
- d) All stationary construction equipment will be placed in a manner so that emitted noise is directed away or blocked from sensitive receptors nearest the Project site.

TR-1: Traffic Control Plan. Prepare and submit a Construction Traffic Control Plan in accordance with both the California Department of Transportation Manual on Uniform Traffic Control Devices and Work Area Traffic Control Handbook that will include:

- i. Timing the delivery of heavy equipment and building materials under the contractor's control during non-peak commute hours, to the extent feasible;
- ii. Directing construction traffic with a flag person;
- iii. Placing temporary signing, 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;
- iv. Ensuring access for emergency vehicles to the project site;
- v. Temporarily closing travel lanes or delaying traffic during materials delivery, transmission line stringing activities, or any other utility connections;
- vi. Bicycle and pedestrian detour plans if/where applicable;
- vii. Maintaining access to adjacent property;
- viii. Specifying both construction-related vehicle travel and oversize load haul routes, minimizing construction traffic during the a.m. and p.m. peak hour, distributing construction traffic flow across alternative routes to access the Project site in a way that maintains LOS conditions at the time of construction, and avoiding residential neighborhoods to the maximum extent feasible;
- ix. Traffic control plan coordination with the County, and potential traffic control plan adjustments, in the event of concurrent projects generating potentially overlapping traffic effects; and
- x. Additional traffic control plan coordination with Caltrans regarding the SR-58 Hinkley Expressway Project if construction of the proposed Project occurs concurrently with construction of the expressway project.

Copies of the approved Construction Traffic Control Plan and all issued permits that may be necessary for construction such as (without limitation) work within roadway right-of-ways, the operation of oversized/overweight vehicles on San Bernardino County-maintained roads, and the use of a California Highway Patrol or pilot car escort shall be submitted to the San Bernardino County Public Works, Traffic Division; San Bernardino County Land Use Services, Land Development Division; San Bernardino County Land Use Services, Planning Division; and Caltrans.

SAN BERNARDINO COUNTY

INITIAL STUDY ENVIRONMENTAL CHECKLIST FORM

This form and descriptive information in the application package constitute the contents of the Initial Study pursuant to County Guidelines under ordinance 3040 and Section 15063 of the State CEQA Guidelines.

PROJECT LABEL:

APN: 0497-071-40, 0497-121-28, 0497-101-05, and 0497-101-14	USGS Quad: Barstow
APPLICANT: EDF RENEWABLE ENERGY (DBA LONGBOAT SOLAR, LLC)	T, R, Section: T10N R2W Sec. 33 T9N R2W Sec. 4&5
COMMUNITY: BARSTOW/1 ST SUPERVISORIAL DISTRICT	Planning Area: Desert Region
LOCATION: WEST OF STATE ROUTE 58, EAST OF LENWOOD ROAD, AND NORTH AND SOUTH OF COMMUNITY BOULEVARD	Land Use Zoning District: Agriculture (AG), Floodway (FW), and Rural Living 5-acre Minimum (RL-5)
PROJECT NO.: P201400516/CUP	Overlays: BIO (Biological Resources, Desert Tortoise – Medium Population, Burrowing Owl, Mojave Ground Squirrel) - 0497-121-28, 0497-101-05, and 0497-101-14; Dam Inundation
STAFF: JOHN OQUENDO, SENIOR PLANNER	
REP(S): JAVIER DE LA GARZA, PHIL HAWTIN, AND CHRISTA HUDSON	
PROPOSAL: A CONDITIONAL USE PERMIT TO BUILD AND OPERATE A 20 MEGAWATT UTILITY SCALE PHOTOVOLTAIC FACILITY ON APPROXIMATELY 233 ACRES OF THE 324-ACRE SITE.	

PROJECT CONTACT INFORMATION:

Lead Agency: County of San Bernardino
Land Use Services Department
385 N. Arrowhead Avenue
San Bernardino, CA 92415-0182

Contact Person: John Oquendo, Senior Planner
Phone No.: (760) 995-8153 **Fax No.:** (760) 995-8167
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Project Sponsor: Longboat Solar, LLC
Attn: Phil Hawtin
505 14th Street, Suite 1150
Oakland, CA 94612

APNs: 0497-071-40, 0497-121-28, 0497-101-05, and 0497-101-14
Applicant: EDF Renewable Energy – Longboat Solar, LLC
Project #: P201400516
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PROJECT DESCRIPTION:

Project Overview

The Longboat Solar, LLC Project (Project) is a proposed solar energy facility that would generate up to 20 megawatts (MW) of alternating current electricity using single axis tracker solar photovoltaic (PV) technology within an approximately 233.47-acre Project site located on four subject properties totaling 324.94 acres and consisting of previously disturbed agricultural lands. The Project is located on unincorporated lands located to the immediate northwest of the City of Barstow, and north of the community of Lenwood, in San Bernardino County, California. State Route 58 (SR-58) bounds the site to the east and north.

The Project would connect to the electrical grid by way of a line tap on an existing Southern California Edison (SCE) 33 kilovolt (kV) transmission line located adjacent to the site along Community Boulevard, at which point the power generated from the Project changes ownership from the Project developer to SCE. SCE will undertake distribution line upgrades, repairs and modifications along the 33kV lines to SCE's Barstow Substation located in the City of Barstow approximately 4.5 miles east of the Project site. SCE upgrade work will consist of up to eleven pole replacements, re-conductoring of up to 2,900 feet of electrical line, and several minor substation upgrades at existing substation facilities. These off-site interconnection improvements will be constructed by SCE, and will support the project's connection to the electrical grid. These improvements are analyzed in this initial study.

The proposed Project would generate electricity during daylight hours when electricity demand is at its peak. When fully developed, the Project would produce enough electricity to supply the energy needs of over 4,300 California residences.

Community Boulevard transects the north and south portions of the Project site. The north and south sites will be electrically connected by underground conduit beneath Community Boulevard. The Project will also receive its data service from the existing Verizon telecom lines that are currently in the public right of way adjacent to the Project.

Purpose and Need

The purpose of the Project is to develop a PV solar energy facility. Solar energy provides benefits on a national, state, and local level. Solar energy is a clean source of electricity and an inexhaustible, domestic resource that helps reduce our dependence on imports of natural gas, oil, and other fuels.

The California Renewable Portfolio Standard (RPS) legislation enacted in 2002 (Senate Bill 1078) and accelerated in 2006 required retail sellers of electricity to obtain 20 percent of their supply of electricity from renewable energy sources, such as solar, by 2010. Subsequent recommendations advocated a goal of 33 percent by 2020, which Governor Arnold Schwarzenegger set as a statewide goal when he signed Executive Order S-14-08. The following year, Executive Order S-21-09 directed the California Air Resources Board, under its Assembly Bill 32 authority, to enact regulations to achieve the goal of 33 percent renewables by 2020 (CEC, 2014). The 33 percent goal was enacted into law by Governor Brown on April 13, 2011 with his signing of Senate Bill 2X. On March 1, 2012, the state's investor owned utilities (including Pacific Gas & Electric, Southern California Edison, and

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San Diego Gas & Electric) reported that they served 20.6 percent of their power demand with renewable energy sources (California Public Utilities Commission (CPUC), 2012). In September 2015, SB 350, the Clean Energy and Pollution Reduction Act which calls for a 50 percent RPS by 2030, passed the California legislature and was sent to Governor Brown for signature.

The proposed Project supports adopted plans, policies, and regulations of the State of California intended to reduce greenhouse gas emissions because it generates renewable electricity. SCE has selected this Project over several others by issuing a twenty (20) year PPA in order to help meet this goal.

The Project site is an optimal location for the proposed PV facility. The siting of solar energy facilities is dependent upon adequate solar resources, proximity to existing transmission electrical facilities, and a flat, consistent grade. The proposed site consists of previously disturbed former agricultural lands that are adequate in size and grade to site a 20 MW solar facility.

Project Location and Setting

The Project is located in unincorporated San Bernardino County, approximately 1.6 miles north of the community of Lenwood and immediately northwest of the City of Barstow (Figure 1). The Project site includes portions of County Assessor's Parcel Numbers (APNs) 0497-071-40, 0497-121-28, 0497-101-05, and 0497-101-14 (Table 1 and Figure 2). The Project site is located within the U.S. Geological Survey (USGS) 7.5-minute Barstow quadrangle (Township 10 North, Range 2 West, Section 33 and Township 9 North, Range 2 West, Sections 4 and 5). The site is mostly flat with the elevation only increasing slightly from 2,167 feet above mean sea level (MSL) in the eastern portion of the site to 2,185 feet above MSL in the western portion. The Project site is bounded to the north and east by SR-58, Community Boulevard bounds much of the northern boundary and the south is bounded by undeveloped land adjacent to the Mojave River.

Vegetation on the site is generally disturbed and consists of fallow agriculture fields with disturbed saltbush scrub, partially stabilized dunes, tamarisk/ornamental windrows, and abandoned agriculture. Three agricultural residences are located adjacent to the Project site, south of Community Boulevard. Adjacent land uses include scattered rural properties and undeveloped land, light industrial use including a Green Valley Foods Product Inc. cheese factory to the north, and active agriculture to the northwest.

Table 1. Project Site APNs

Assessor's Parcel Number	Gross Acreage	Owner	Address (Barstow, CA 92311)
0497-071-40	40.34	Hill's Ranch, Inc.	25749 Community Blvd.
0497-101-05	77.51	Hill's Ranch, Inc.	25749 Community Blvd.
0497-101-14	99.77	Soppeland Revocable Trust	25409 Community Blvd.
0497-121-28	107.32	Hill's Ranch, Inc.	25749 Community Blvd.
0497-101-09*	9.85 (3.83 acres leased to Project)	Max Eddy	25499 Community Blvd.

* Temporary construction laydown and lease area proposed on up to 3.83 acres. No permanent use is proposed.

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Figure 2 depicts the proposed limits of construction, which includes construction work areas that extend beyond the Project site (e.g., staging areas, access, interconnections).

Land Use Regulatory Environment

The Project would require a conditional use permit (CUP) and an encroachment permit. The current General Plan land use element and zoning designations of the parcels in which the Project site is located are Agriculture (AG), Floodway (FW), and Rural Living 5-acre minimum (RL-5). No development is proposed within the FW designation. The AG and RL-5 designations allow for the development of renewable energy generation facilities with the processing and conditional approval of a CUP. The CUP would authorize the solar facility use. The Project's Site Plan (Figure 3) depicts a solar energy project that encompasses multiple parcels. In all cases, the required setback from property lines to Project facilities is maintained; thus, a Lot Merger is not required for the Project. A reciprocal access agreement will be required between the respective property owners within the Project and applicant as a condition of project approval.

The encroachment permit would authorize electrical conduits under Community Boulevard to link the northern and southern segments of the Project. Micro-siting of solar panels and inverters would be determined by constraints including, but not limited to, environmental, cultural, topographic, site-specific engineering, and construction best management practices.

Project Components

Solar Modules

The proposed solar energy generating facility will be a ground mounted tracking photovoltaic system, with a nominal capacity of up to 20 MW AC. The PV panels would be mounted on tracker technology, which tilts the panels to follow the course of the sun in order to optimize the incident angle of sunlight on their surface. Figure 4 provides a representative example of a ground mounted tracking photovoltaic system on a similar 20MW solar facility on approximately 123 acres in San Bernardino County, near Helendale, California. The modules are mounted on steel support posts that are driven into the native soils. The top of the arrays would be up to 12 feet above grade at the tallest point and approximately 20 inches above the grade at the lowest point. Depending on the ultimate PV design selected, the facility may consist of up to twenty separate one (1) MW ground-mounted PV system blocks.

Inverters

The wiring from each solar module delivers direct current (DC) power along a proposed underground trench or aboveground conduit to the inverters located on electrical equipment pads. The inverters convert the DC power to alternating current (AC) where the power is stepped up in voltage. Concrete supports will be used for the footings, foundations, and pads for the inverters. Underground cables would be installed in conjunction with internal access roads and panel arrays in order to connect each inverter to a feeder circuit, with the exception that the Project may use overhead collector and communication lines where it crosses two natural gas pipelines on the southern portion of APN 0497-101-14. The different solar panel circuits would gather at the switchyard and would then be sent by overhead electrical lines to a grid interconnection point.

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Control and Storage Containers

The Project will have a prefab modular air conditioned container for control system and sensitive electronics measuring approximately 10' wide x 40' long x 9' high, and a metal storage container measuring approximately 10' wide x 40' long x 9' high for spare parts and maintenance materials. Both containers will be unmanned and non-habitable. These features would be located in the laydown and parking area proposed near the central portion of the Project site; immediately south of Community Boulevard.

Control System

The site would have a Supervisory Control and Data Acquisition (SCADA) system that would allow for remote monitoring and control of inverters and other Project components. The SCADA system would be housed within the prefab modular air conditioned container and be able to monitor Project output and availability as well as run diagnostics on the equipment.

Onsite Meteorological Station

The site would contain two or more on-site solar meteorological stations (SMS), up to 12 feet in height, which would consist of solar energy (irradiance) meters as well as air temperature and wind meters. Power for each SMS would be provided by the plant auxiliary power system or a dedicated PV module with a small battery.

Interconnection

Collector lines from each inverter would gather at the Project's switchgear, from which electricity would then be sent by overhead line to the electrical grid via a line tap on the existing 33kV transmission line located adjacent to the Project site along Community Boulevard. To safely facilitate the transition from the underground collection system and the Project switchgear, SCE will place up to three additional 40-foot wooden poles south of the existing pole on Community Boulevard through APN 0497-101-05 to accommodate various switching and control mechanisms. At this point, the power generated from the Project changes ownership from the Project developer to SCE. SCE will undertake distribution line upgrades, repairs and modifications along the 33kV lines to SCE's Barstow Substation located in the City of Barstow approximately 4.5 miles east of the Project site. SCE upgrade work as part of the Project will consist of up to eleven pole replacements, re-conductoring of up to 2,900 feet of electrical line and several minor substation upgrades. These off-site interconnection improvements will be constructed by SCE, and will support the project's connection to the electrical grid. These improvements are analyzed in this initial study.

Access

Access to the Project site would be directly from Community Boulevard by two main driveways, one for the portion of the Project south of Community Boulevard and one for the portion of the Project site north of Community Boulevard. In addition, a secondary access driveway and a temporary access driveway into the temporary storage and laydown area are also located on the south side of Community Boulevard along the parcel frontages. These additional access points would also be used for emergency access. Typical site access will consist of a 30-foot-wide driveway to accommodate wide turning radii in both directions. The proposed site access will include a 60-foot-long drive apron off of Community Boulevard. Internal roads for access around the perimeter and within the solar field will be built of compacted native soil roads per the geotechnical report recommendations. Both the perimeter access road and the internal access roads would be constructed in conformance with County Fire Department standards required for fire prevention. In accordance with County standards,

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a 26-foot-wide perimeter road and 20-foot-wide internal roads have been incorporated into the site design. These access roads would remain in place for ongoing operations and maintenance activities after construction is completed. Final service road alignments would depend on the final placement of the solar panels and on the results of the environmental report documenting the results of field investigations, including topography and any other site-specific details to be incorporated into the final design. A reciprocal access agreement will be required between the respective property owners within the Project and the applicant as a condition of project approval.

Lighting, Fencing and Signage

The proposed Project will provide external safety lighting for both normal and emergency conditions at the primary access points. Lighting will be designed to provide the minimum illumination needed to achieve safety and security and will be downward facing and shielded to focus illumination in the immediate area. The Project perimeter will be secured with 8-foot-tall security fencing. All Project fencing will be set back 15 feet from the property line or public right-of-way. Additional setbacks incorporated into the site plan for APN 0497-101-09 include 74 feet on the east, 34 feet on the south, and 55 feet on the western property line, which will allow for retaining existing wind rows and other existing natural screening. Additional fencing requirements by local ordinance, rule or Project-specific Condition of Approval will be incorporated as applicable, including fencing slats where necessary to minimize wind-blown dust at adjacent residences. All Project signage requirements would be evaluated, and the best-fit scenario would be incorporated into the Project based on the final Project design.

Water Use

Water will be required during construction to support concrete manufacturing, dust control, module washing, and sanitary use. The Project will use the majority of water during construction for dust mitigation, estimated to require approximately 40 acre feet (AF) of water for construction activities and dust suppression. The Project will also require up to three AF of water per year for module washings, and up to 40 AF of water would be used during Project decommissioning. The Project will source its water from an on-site private well located in the southwest corner of APN 0497-071-04. This well is rated for approximately 920 gallons per minute (gpm). According to the Mojave Water Agency, Hill's Ranch, Inc. produced 40 AF of water during the 2013-2014 Water Year in the Centro Subarea. The Hill's Ranch, Inc. has a 1,868 AF stipulated water right within the adjudicated Mojave basin as well as a 1,868 AF of Carryover Right available for the 2014-2015 Water Year, resulting in an available water right of 3,736 AF in 2015, more than 90 times the amount of water required for construction of the Project. This water source would be used over the lifecycle of the Project for construction, panel washing, maintenance, and decommissioning.

Construction

Phasing

Construction of the project is expected to begin in the fourth quarter of 2015 and last up to 10 months, with a peak workforce of 181 construction workers on the site. Construction would be comparable to other renewable energy projects and is anticipated to be divided into the following sequence: (1) roads, grading, and fencing (2) electrical infrastructure, (3) PV assembly and installation, (4) substation interconnection, (5) electrical system upgrades, (6) PV commissioning, and (7) project finalization. Table 2 provides a summary of the Project's construction phases, anticipated construction equipment and maximum vehicle daily trips. Various elements of the Project would be

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constructed concurrently on the property. The total duration of construction is not expected to exceed 10 months.

Table 2. Construction Phases and Anticipated Construction Equipment

Phase Name/Duration	Equipment Quantity	Trips/Day
1: Site Preparation (1 month/22 working days) Staging areas established; set access points; runoff controls, barriers, and fencing installed; minimal grading and scraping.	1 Bore/Drill Rig	Worker: 16 (78.2-mile round trip) Vendor: 0 Total: 16
	1 Cement/Mortar Mixer	
	2 Excavators	
	3 Graders	
	2 Rollers	
	1 Skid-Steer Loader	
	5 Generator Sets	
	3 Off-Highway Trucks (Pick-up)	
	1 Off-Highway Truck (Water)	
	2 Tractor/Loader/Backhoes	
	2 Rubber-Tired Dozers	
2: Underground Work (6.5 months/141 working days) Set manholes, excavate, concrete backfill, surface restoration, pulling cable, splicing, temporary preparation work on existing utility circuit, structure installation, transfer other utilities and conductor installation, wire clipping.	2 Dumper/Tender	Worker: 50 (78.2-mile round trip) Vendor: 4 (62.0-mile round trip) Total: 54
	5 Generator Sets	
	1 Roller	
	3 Off-Highway Trucks (Pick-up)	
	1 Off-Highway Truck (Water)	
	3 Trenchers	
	4 Compactors	
3 Tractors/Loaders/Backhoes		
3: System Installation (5.5 months/120 working days) Installation of support beams, module rail assemblies, PV modules, inverters, transformers, and buried electrical cables. Concrete for footings, foundations, and pads for the transformers and inverters.	4 Forklifts	Worker: 115 (78.2-mile round trip) Vendor: 7 (62.0-mile round trip) PV-Panel Delivery: 50* (120-mile round trip) Total: 172
	5 Generator Sets	
	6 Off-Highway Trucks (Pick-up)	
	3 Off-Highway Truck (Other)	
	7 Off-Highway Trucks (Concrete)	
	1 Off-Highway Truck (Flatbed)	
	1 Off-Highway Truck (Water)	
	4 Augers	
	3 Pile Drivers	
	1 Other General Industrial Equipment	
4: Testing (1 month/21 working days) Test facility generation and connection to grid.	2 Generator Sets	Worker: 30 (78.2-mile round trip) Vendor: 0 Total: 30
	3 Off-Highway Trucks (Pick-up)	
	5 Off-Highway Trucks (Other)	
5: Clean-up/Restoration (1 month/23 working days) Removal/recycling of construction waste and debris; re-seeding as needed.	1 Grader	Worker: 20 (78.2-mile round trip) Vendor: 0 Total: 20
	1 Off-Highway Truck (Water)	
	3 Off-Highway Trucks (Pick-up)	

* Approximate maximum daily rate. Approximately 180 truck trips for PV solar panel delivery are anticipated over a 20- to 30-day period. Day-to-day trip amounts will vary widely from as much as 50 to as little as one.

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The Project construction sequence is expected to begin with land preparation for installation of the PV module structures. Any large vegetation and brush that currently exists on the site will be removed and the surface graded flat where necessary for safe construction practices. In areas of the Project site where feasible, existing low-lying vegetation will be mowed and rolled where possible to provide ground cover and minimize dust generation. A stabilized entrance/exit will be provided to clean vehicle wheels prior to exiting the construction area.

Site Grading

Minimal site grading is proposed for the majority of the site with finished topographical grades being similar to existing conditions. Minor cuts may be required at the locations of inverters and other equipment to provide level foundations. Grubbing would occur on all access roads, and in any areas where the roots would impede a project structure. The installation of the solar panels also requires trenching for the installation of multiple cable systems. Within the Project site there are two earthen irrigation impoundments that will be demolished and the soil from these impoundments will be rebroadcast through the Project site. Initial grading work will include the use of excavators, graders, dump trucks, and end loaders, in addition to support pickups, and water trucks.

Construction Access and Staging Areas

It is anticipated that construction workers would utilize Community Boulevard as points of ingress/egress to the Project site and, once on the Project site, these workers would access various sections via the existing and improved network of gravel roads. As shown in Figure 2, Community Boulevard would be used to facilitate construction access to and from the north, south, east, and west portions of the Project site.

Staging areas may be required for material handling, temporary storage, and staging activities. Figure 2 depicts the proposed limits of construction, which includes construction work areas that extend beyond the proposed solar field (e.g., staging areas, access, interconnections). One staging yard, proposed on the south side of Community Boulevard (APN 0497-101-09), is under a short-term lease with the applicant and would be used for parking and construction staging. Upon the completion of construction, this temporary staging yard would no longer be a part of the Project. All other construction staging will occur within the proposed solar field site. Temporary containers with equipment will be placed in the staging and lay-down areas. There may be a temporary modular construction office onsite during construction. Disturbed areas, temporary roadways, and equipment laydown sites that are not required as part of the ongoing operation of the facility would be restored to pre-project conditions. Temporary access roads would be restored following completion of construction. Permanent disturbance is related to operational facilities and would include the permanent roadways, parking areas, access roads, and equipment that would remain in place for the life of the Project.

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Water Quality

A stormwater pollution prevention plan (SWPPP) incorporating best management practices (BMPs) for erosion control will be prepared by a qualified practitioner prior to the start of construction. During site preparation, the SWPPP will be implemented and preliminary erosion and sediment control features will be installed and maintained. The Project would also comply with applicable post-construction water quality requirements adopted by the Regional Water Quality Control Board (RWQCB), Region 6.

Hazardous Materials

No hazardous wastes will be generated during the construction of the Project. The following wastes are anticipated to be generated: common household trash, cardboard, wood pallets, copper wire, scrap metal, paper, glass, plastics from packing material, waste lumber, insulation, concrete, empty non-hazardous containers, and vegetation wastes and wood wire spools. The Project applicant will prepare a Construction Demolition Waste Management Plan (CDWMP) to facilitate the recycling of as much of the generated waste as feasible. Although construction is not expected to generate hazardous waste, field equipment used during construction will contain limited amounts of hazardous materials such as diesel fuel, hydraulic oil, grease, solvents, adhesives, paints, and other petroleum-based products contained in construction vehicles. Standard best management practices will be utilized to contain and dispose of these materials in accordance with applicable regulations. Any hazardous materials would be stored in appropriate storage locations and containers. For example, flammable materials, such as paints and solvents, would be stored in nonflammable material storage cabinets with proper secondary containment.

The Project would be constructed by several contractors specializing in renewable energy projects. Construction employees are expected to arrive from respective population centers such as Barstow and Victorville, California, and report to the designated construction staging yards prior to the beginning of each work day. Employees will be encouraged to carpool to the project site, when feasible. As stated previously, it is anticipated that the employees would utilize Community Boulevard as points of ingress/egress to the property and that, once on site, they would access various sections via the existing and improved network of gravel roads.

The Project is designed so that all stationary equipment and machines with the potential to generate a significant increase in noise or vibration levels such as inverter/transformer would be located away from noise receptors to the extent practicable. The contractor shall, to the extent practicable, conduct construction activities in such a manner that the maximum noise levels at the affected buildings would not exceed established noise standards. (§83.01.080).

Operation and Maintenance

The Project would be operated on an autonomous, unstaffed basis and monitored remotely from an existing off-site facility. It is anticipated that maintenance requirements will be minimal as the proposed Project's PV arrays will operate with limited moving parts. No full-time staffing would be required to operate the facility; however one or two employees are expected to visit the site five days per week for routine maintenance and check-ups. Operational activities are limited to monitoring plant performance and responding to utility needs for plant adjustment along with preventative and

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unscheduled maintenance. The Project will operate during daylight hours only. Periodic module cleanings and quarterly maintenance activities might utilize six to eight full-time workers for one to two weeks per quarter, or up to 40 days per year. No heavy equipment will be used during routine Project operation. Operation and maintenance vehicles will include trucks (pickup, flatbed), forklifts, and loaders for routine and unscheduled maintenance, and water trucks for solar module washing. Large heavy-haul transport equipment may be brought to the site infrequently for equipment repair or replacement.

Any required maintenance will be scheduled so as to avoid peak electric load periods, with unplanned maintenance activity as needed depending on the event. Preventative maintenance kits and certain critical spare components will be stored at the Project site, while all other necessary maintenance components will be available at an offsite location. On an as-needed basis, SCE will make necessary inspections, maintenance and improvements to their facilities that are on-site connecting the project to the distribution grid.

Vegetation is sparse with little potential for vegetative fuel buildup. The applicant will prepare a weed abatement plan for the Project in compliance with applicable County regulations. The Project would produce a small amount of waste associated with maintenance activities. PV solar farm wastes typically include broken and rusted metal, defective or malfunctioning modules, electrical materials, empty containers, and other miscellaneous solid materials including typical household type refuse generated by workers. These materials will be collected and recycled to the extent possible.

Decommissioning

At the end of the Project site's operational term, the applicant may determine that the site should be decommissioned and deconstructed, or it may seek an extension of its PPA and/or revision to its CUP, as applicable. When the solar arrays, panels, fencing, etc. are removed after the Project's lifetime, the land will be largely restored to its pre-project condition. The Project would utilize BMPs to ensure the collection and recycling of the solar arrays, panels, fencing, etc. to the extent feasible. As noted above, up to 40 acre feet of water would be used for Project decommissioning.

All decommissioning and restoration activities would adhere to the requirements of the appropriate governing authorities and in accordance with all applicable federal, State, and County regulations. Following the implementation of a decommissioning plan, all equipment, foundations, and fencing would be removed and the Project site would be re-vegetated so that the end use and site condition are consistent with the surrounding agricultural landscape. End uses would be consistent with the existing zoning. The funding requirements for the implementation of the decommissioning plan will be provided in the form of a bond estimate by the project proponent prior to construction of the Project.

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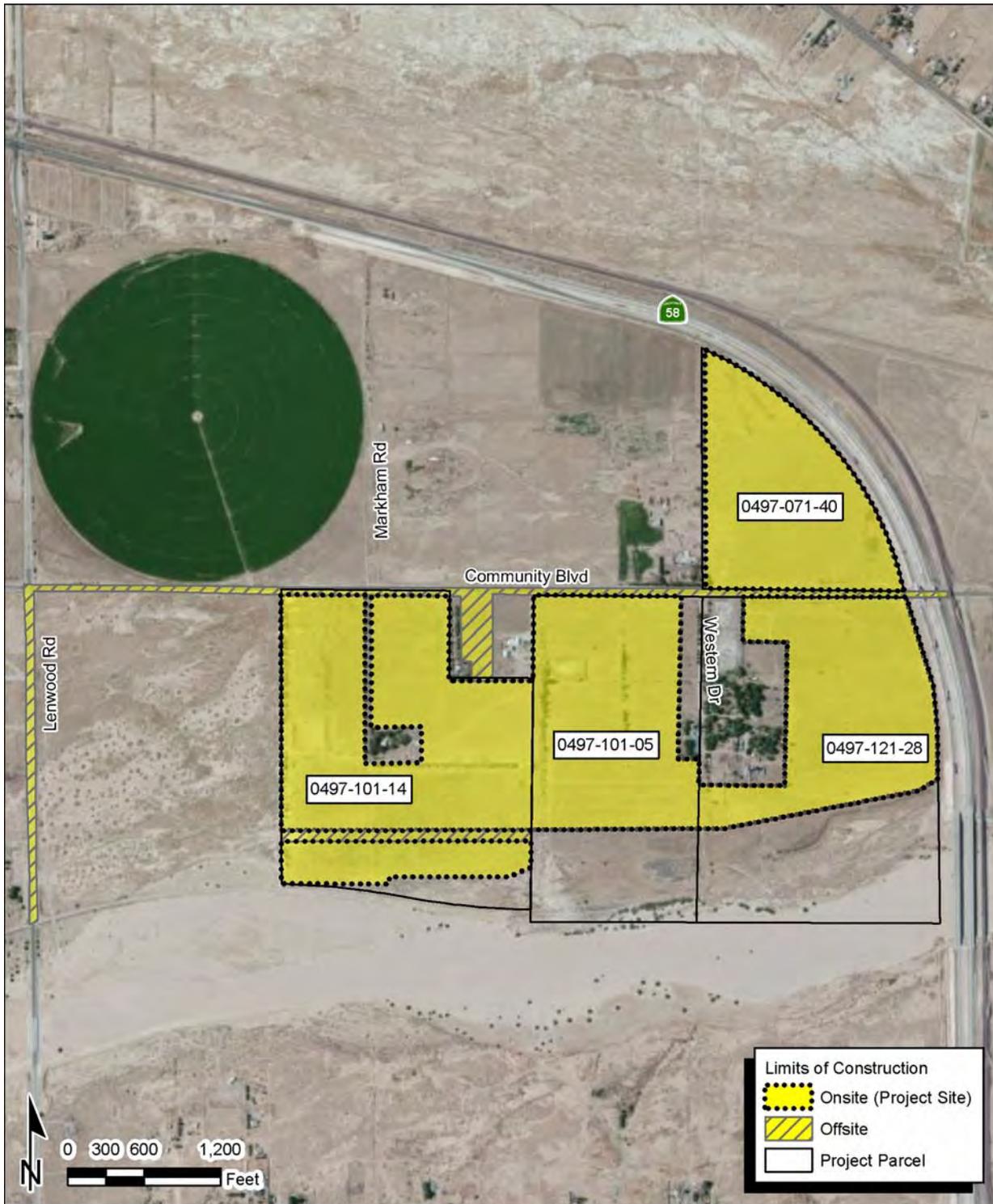
Figure 1 Regional Location



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Figure 2 Site Location Map



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Figure 4
Representative Example of Ground Mounted Tracking Photovoltaic System



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ENVIRONMENTAL/EXISTING SITE CONDITIONS:

Environmental Setting and Surrounding Uses

The Mojave Desert is a subsection of the Basin and Range Physiographic Province, which is characterized by long, north-south-trending mountain ranges separated by broad valleys. The site is mostly level with minimal changes in elevation (approximately 18 feet). Elevations on the east portion of the site are situated at 2,167 feet above mean sea level (MSL) and grade upward to 2,185 feet above MSL on the western portion of the site. The site is bounded to the north and east by SR-58. Community Boulevard bisects the Project site and defines much of the northern boundary west of Assessor's Parcel Numbers (APN) 0497-121-28. The site is bounded on the south by undeveloped land and the Mojave River.

The Project site consists of fallow agricultural lands. Vegetation on-site is generally disturbed and consists of disturbed saltbush scrub, partially stabilized dunes, tamarisk/ornamental windrows, and ruderal vegetation. The site is associated with portions of County APNs 0497-071-40, 0497-121-28, 0497-101-05, and 0497-101-14.

Existing Land Uses

There are three existing agricultural residences located on APNs 0497-121-28 and 0497-101-14 immediately adjacent to the Project site. The Project site includes leased portions of these properties, but excludes the existing residences. The Project parcels are zoned Agriculture (AG), Floodway (FW), and Rural Living 5-acre Minimum (RL-5). The Project site excludes portions of the project parcels containing the FW zoning overlay and is restricted to the AG and RL-5 zones, which allow development of renewable energy generation facilities with the processing and conditional approval of a conditional use permit (CUP). The CUP would authorize the solar facility use subject to compliance with the conditions of approval. Other adjacent land uses include scattered rural residential properties and undeveloped land, light industrial use, including the Green Valley Foods Product Inc. cheese factory to the north, SR-58 and railroad to the east, and active agriculture to the northwest.

Area	Existing Land Use	Official Land Use District
Project parcels	Three agricultural residences	Agriculture (AG), Floodway (FW), and Rural Living (RL-5)
Project site	Vacant	Agriculture (AG) and Rural Living (RL-5)
North	Largely vacant, scattered rural properties, highway, light industrial, Green Valley Foods Product Inc. cheese factory	Agriculture (AG), Regional Industrial (IR)
South	Vacant, residences south of Community Boulevard, Mojave River	Rural Living (RL-5) and Floodway (FW)
East	Highway, Railroad, single family residences	Rural Living (RL), Rural Living (RL-5)
West	Largely vacant, scattered single family residences	Rural Living (RL)

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Figure 5 Site Photos

Photo 1: Facing southeast from south side of Community Boulevard near the point of interconnection to SCE lines



Photo 2: Facing southwest from eastbound SR-58 bridge



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Photo 3: Facing north from Community Boulevard near the SR-58 bridge toward APN 0497-071-40



Photo 4: Facing north from the southern perimeter of the Project site



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Other public agencies whose review and/or approval is required (e.g., regulatory review, permits, financing approval, or participation agreement):

Federal Government: None

State of California: Lahontan Regional Water Quality Control Board (RWQCB), Mojave Desert Air Quality Management District (MDAQMD), California Department of Fish and Wildlife (CDFW)

County of San Bernardino: Land Use Services – Planning, Code Enforcement, Building and Safety, Land Development; Public Health-Environmental Health Services; Public Works – Surveyor, Traffic; County Fire – Community Safety, Hazardous Materials

EVALUATION FORMAT

This initial study is prepared in compliance with the California Environmental Quality Act (CEQA) pursuant to Public Resources Code Section 21000, et seq. and the State CEQA Guidelines (California Code of Regulations Section 15000, et seq.). Specifically, the preparation of an Initial Study is guided by Section 15063 of the State CEQA Guidelines. This format of the study is presented as follows. The project is evaluated based upon its effect on eighteen (18) major categories of environmental factors. Each factor is reviewed by responding to a series of questions regarding the impact of the project on each element of the overall factor. The Initial Study Checklist provides a format for determining the effect of the project on each factor and its elements. The effect of the project is categorized into one of the following four categories of possible determinations:

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
--------------------------------	--	-----------------------	-----------

Substantiation is provided to justify each determination. One of the four following conclusions is then provided as a summary of the analysis for each of the major environmental factors.

1. **No Impact**: No impacts are identified or anticipated and no mitigation measures are required.
2. **Less than Significant Impact**: No significant adverse impacts are identified or anticipated and no mitigation measures are required.
3. **Less than Significant Impact with Mitigation Incorporated**: Possible significant adverse impacts have been identified or anticipated and the following mitigation measures are required as a condition of project approval to reduce these impacts to a level below significant. The required mitigation measures are: (List of mitigation measures)
4. **Potentially Significant Impact**: Significant adverse impacts have been identified or anticipated. An Environmental Impact Report (EIR) is required to evaluate these impacts, which are (List of the impacts requiring analysis within the EIR).

At the end of the analysis the required mitigation measures are restated and categorized as being either self-monitoring or as requiring a Mitigation Monitoring and Reporting Program.

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ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

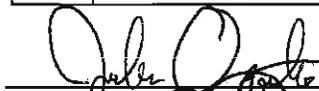
The environmental factors checked below would be potentially affected by the project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- | | | |
|---|--|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agricultural Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology / Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology / Water Quality |
| <input type="checkbox"/> Land Use / Planning | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise |
| <input type="checkbox"/> Population / Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Transportation / Traffic | <input type="checkbox"/> Utilities / Service Systems | <input type="checkbox"/> Mandatory Findings of Significance |

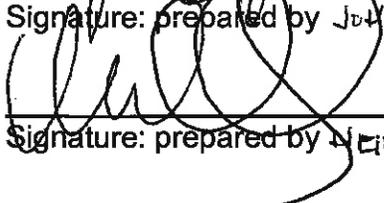
DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation, the following finding is made:

<input type="checkbox"/>	The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
<input checked="" type="checkbox"/>	Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
<input type="checkbox"/>	The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
<input type="checkbox"/>	The proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
<input type="checkbox"/>	Although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.


 Signature: prepared by JOHN OQUENDO

10/1/2015
 Date


 Signature: prepared by NEDI DURON

10/1/2015
 Date

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Issues	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
I. AESTHETICS – Would the project				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION: (Check if project is located within the view-shed of any Scenic Route listed in the General Plan):

- a) **No impact.** No designated scenic vistas as identified by San Bernardino County are located within visible distance of the Project site. The County General Plan Open Space Element, Policy OS 5.1 states that a feature or vista can be considered scenic if it:
- Provides a vista of undisturbed natural areas;
 - Includes a unique or unusual feature that comprises an important or dominant portion of the viewshed; or
 - Offers a distant vista that provides relief from less attractive views of nearby features such as views of mountain backdrops from urban areas.

The background view of the mountains from the Project site contain visible mining scars from existing and abandoned mining operations. These mining scars decrease the visual quality of the background mountain view in the area. The Project site itself as viewed from multiple vantages is already developed for agricultural uses with other existing agricultural, rural residential, transportation (SR-58 and railroad) and industrial uses surrounding the Project site. Additionally, given that SR-58 and the railroad are raised approximately 15 to 20 feet above the prevailing ground surface, views of the Project site from the north and east are generally obstructed. The solar arrays developed on site would consist of PV modules mounted on single axis tracker units up to 12 feet in height and enclosed by an 8-foot chain link perimeter fence. The off-site interconnection improvements would generally be limited to the in-kind replacement of existing utility poles using similar wooden poles and re-conductoring existing 33 kV lines. Substation improvements would be contained within SCE’s existing substation facilities. Based on these considerations, including the low profile of the Project facilities combined with the existing degraded visual conditions on-site and presence of existing development in surrounding areas, the Project would not result in a substantial adverse effect on a scenic vista and no impact would result.

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- b) **Less than Significant Impact.** The analysis of Project-related effects to visual resources is based on the Visual Impact Analysis (VIA) for the Longboat Solar Project prepared by HDR (2015). The complete assessment is provided as Appendix A of this Initial Study. Discussion of the Project's potential visual changes to views from SR-58 and SR-66 is provided below. Historic Route 66, aka National Trails Highway and Main Street, is the nearest County-designated scenic route.

State Route 58 (SR-58) bounds the Project site to the east and north. Based on a review of the California Department of Transportation (Caltrans) California Scenic Highway Mapping System, SR-58 is not an officially designated scenic highway; however, it is identified as an eligible state scenic highway (Caltrans, 2011). The Project is located in a relatively flat area and does not contain scenic resources such as significant trees, rock outcroppings, or historic buildings. Community Boulevard defines much of the northern boundary. The Project site would be visible from drivers traveling both northbound and southbound on SR-58. Figures 6 and 7 illustrate the location of the key observation points (KOPs) and the pre- and post-Project views from SR-58 (KOP3) with the visual changes discussed below.

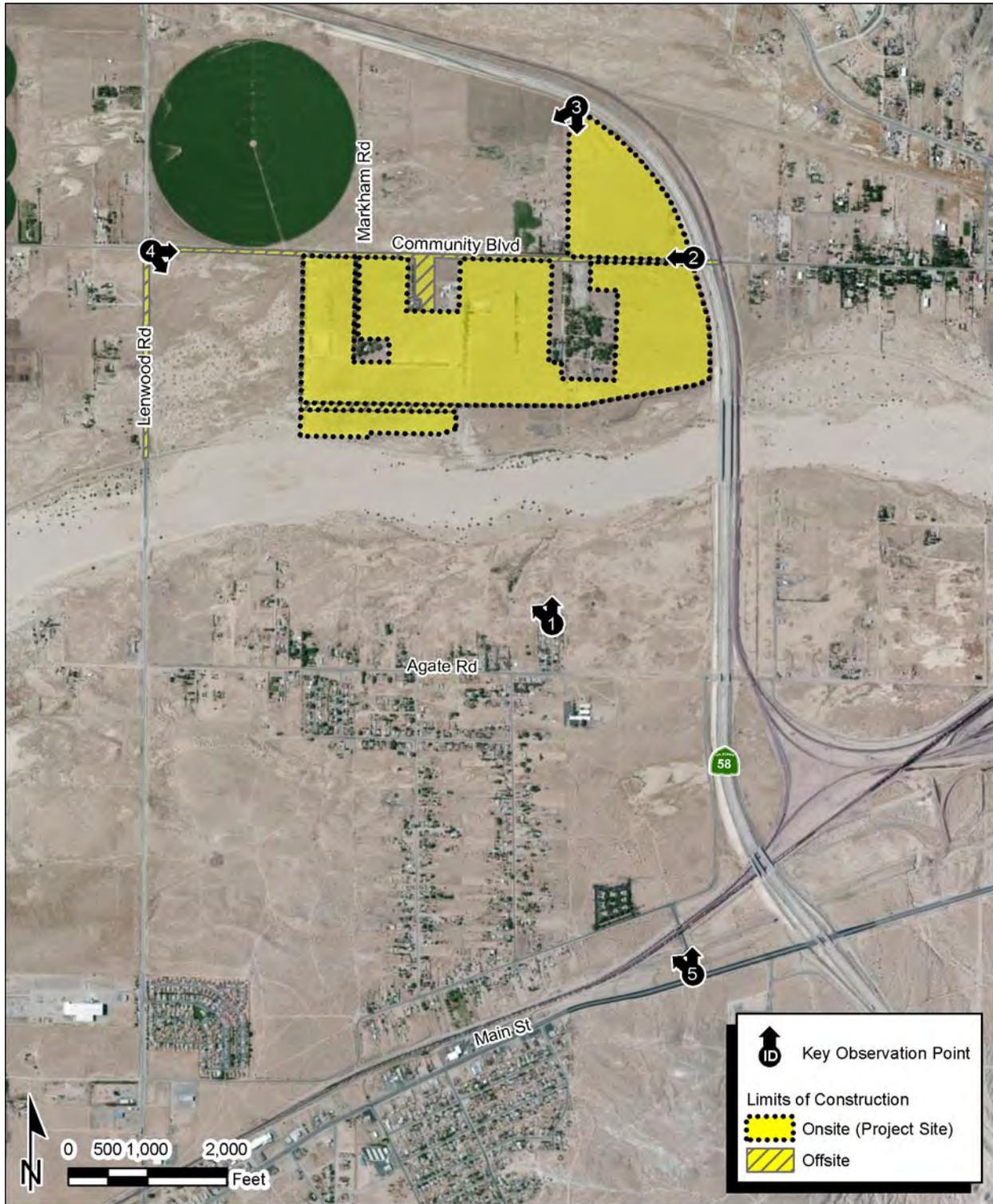
Existing views from SR-58 as depicted in Figure 7 for KOP 3 illustrate the following visual characteristics:

- *Scenic Attractiveness – (Class B – Typical).* This area has a typical landform that includes vacant land consisting of previously cultivated agricultural land, a cheese factory that is presumed to include a residence, two SR-58 bridge structures and several agriculture-related structures.
- *Scenic Integrity – (Low).* The views from this KOP include vacant land, agricultural structures, including a residence, and undulating hill features. The vegetation in the area consists of non-native disturbed habitat and a few windrows containing non-native trees. This view contains background¹ views of the hills (barren) and mountains; however, no distinctive landforms exist in the middle- or foreground views; with the exception of the SR-58 western embankment. The vegetation patterns are consistent with a disturbed desert landscape and are intact across the Project site and south to the Mojave River. Multiple visual encroachments currently exist and include fencing, utility poles, SR-58, and scattered residential structures in the background.
- *Landscape Visibility - (Foreground).* The Project site is contained in the foreground and middleground of KOP 3 and is readily visible from SR-58. This view contains some background views of the mountains to the south.

¹ For this analysis, the following four viewing distances were used, as described and defined by the U.S. Department of Agriculture Forest Service (USDA Forest Service 1995): (1) Immediate Foreground (from the viewer to 300 feet away); (2) Foreground (300 feet to 0.5 mile away); (3) Middleground (between 0.5 and 4 miles away); and Background (4 miles to the horizon). Additional detail is provided in Appendix A.

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Figure 6 Key Observation Points



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Figure 7 Key Observation Point 3 – SR-58



BEFORE - Original Photo



AFTER - Photo Simulation



CONTEXT - Original Photo (above left) within Original Panoramic Context

Image Data
Camera Model: Nikon D90
Camera Height: 60 inches
Direction of View: South-Southeast
Distance to Project: None

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- *Constituent Analysis – (Low)* This KOP provides a typical view for a motorist traveling southbound on SR-58, likely traveling at a high rate of speed based on the posted speed limit. Considering the short duration of viewing, viewers would have a low constituent concern level to the visual changes in the area; partially obstructed by the existing windrows.

As shown in Figure 7, the visual simulation for KOP 3 indicates that the solar arrays would be visible in the foreground view with the solar panels partially blending into the vegetation at this distance. Although the solar arrays are visible from SR-58, they do not obstruct the views of the hill slopes and mountains to the south. In addition, the vehicles traveling on this southbound portion of SR-58 are traveling at a high rate of speed and would only have a brief view of the Project site. The three new utility poles constructed south of Community Boulevard would be masked by the existing windrows. Given the typical attractiveness, low scenic integrity based on the numerous existing visual encroachments, and low constituent concern level, no significant landscape change is identified for KOP 3.

The Project site may also be visible, albeit to a limited degree, from drivers traveling on historic SR-66 (also referred to as National Trails Highway), which traverses through Lenwood as Main Street. Figure 8 (KOP 5) illustrates the pre- and post-Project views from SR-66 with the visual changes discussed below. Existing views from SR-66 (Main Street) as depicted in Figure 8 for KOP 3 reflect the following visual characteristics:

- *Scenic Attractiveness – (Class C - Indistinctive)*. This KOP is situated adjacent and to the south of SR-66 and contains an active railway in the middleground. The viewshed lacks variety, unity, and uniqueness in the landscape, with no water characteristics or cultural landscape features in view. The vegetation in the area consists of native, non-native disturbed habitat, and some non-native trees to the north of the railroad. The existing ridgelines in the background are partially obstructed by the existing roadway embankment and overcrossing.
- *Scenic Integrity – (Very Low)*. The views from this KOP include vacant land, and previously cultivated agricultural lands. The landscape character appears to have been moderately altered over time from agricultural uses, although, the native vegetation is reestablishing itself with sage scrub in the immediate foreground. This view contains background views of the hills and mountains; however, no distinctive landforms are contained in the middle- or foreground views. Multiple visual encroachments exist and are generally associated with the existing railroad lines, over-crossing, and signaling equipment.
- *Landscape Visibility – (background)* – The southern boundary of the Project site is located approximately 1.5 miles north of KOP 5. The Project site is contained within the background of this KOP and barely visible due to the presence of the existing railroad embankment and the dominance of Mount General and the Waterman Mountains to the north.

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Figure 8 Key Observation Point 5 – Pettit Road at Main Street



BEFORE - Original Photo



AFTER - Photo Simulation



CONTEXT - Original Photo (above left) within Original Panoramic Context

Image Data
Camera Model: Nikon D90
Camera Height: 60 inches
Direction of View: North-Northwest
Distance to Project: 1.3 miles

APNs: 0497-071-40, 0497-121-28, 0497-101-05, and 0497-101-14

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- *Constituent Analysis – (Low)*. This KOP provides a view from a typical motorist on SR-66. Considering the short duration of viewing combined with the presence of existing development, viewers would have a low constituent concern level to the visual changes in the area.

As shown in Figure 8, KOP 5, the solar arrays are not visible in this background view. The vehicles traveling on Main Street do not have a direct line of sight due to the visual encroachment from the elevated railroad embankment and overcrossings. Given the indistinctive scenic attractiveness, the very low scenic integrity as a result of multiple visual encroachments, lack of visibility of the Project site, and low constituent concern level, no significant landscape change is identified for KOP 5.

Based on these considerations, the Project would not damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state-designated scenic highway. Therefore, the Project would result in a less than significant impact.

- c) **Less than Significant Impact.** The Project site is rural in character with a wide variety of visual encroachments, including scattered ranch structures, electrical distribution lines, well structures, roadways, and vegetated and non-vegetated berms. The Project site is located in an area that has been subjected to significant alteration due to prior agricultural uses along with urbanization originating from Barstow and Lenwood to the east and south, respectively. Figure 9 (KOP 1) illustrates the pre- and post-Project views of the Project site from a vantage to the south. Existing views from KOP 1 as depicted in Figure 9 reflect the following visual characteristics:

- *Scenic Attractiveness – (Class B – Typical)*. Views from KOP 1 are characterized by a typical landform that includes large rural residential lots previously utilized for agricultural uses, open space associated with the Mojave River, and ridgelines associated with Mount General and the Waterman Mountains in the background. Although the Mojave River is located between this KOP and the Project site, most of the year the river is dry and provides minimal scenic attractiveness beyond its contribution as undeveloped space.
- *Scenic Integrity – (Low)*. There are no distinctive land forms in the surrounding area with the exception of the mountains in the background. The mountains in the background contain heavy scarring from mining activities and are not considered to have high scenic integrity as they have been altered over time. The viewshed illustrated in KOP 1 depicts a relatively uniform desert landscape with altered vegetation in the foreground; transitioning to desert sage scrub in the middleground. The power lines in the immediate foreground represent a visual encroachment that partly detracts from the views in the middle and background.
- *Landscape Visibility (Middleground)*. This KOP is located approximately 0.65 mile from the southernmost boundary of the Project site. The Project site is contained within the middleground; just in front of a row of trees that partially block the ridgelines in the background.
- *Constituent Analysis – (Medium)*. This KOP provides a view from a residential viewer. Considering a resident would have a prolonged view of the project components, they would have a medium concern level as to changes to the open space of the area.

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Figure 9 Key Observation Point 1 – Terminus of Western Drive



BEFORE - Original Photo



AFTER - Photo Simulation



CONTEXT - Original Photo (above left) within Original Panoramic Context

Image Data
Camera Model: Nikon D90
Camera Height: 60 inches
Direction of View: North
Distance to Project: 0.4 miles

APNs: 0497-071-40, 0497-121-28, 0497-101-05, and 0497-101-14

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As shown in Figure 9, KOP 1, the solar arrays on the Project site are barely visible at this distance and blend with the existing embankment of SR-58 and row of trees in the middle; both the perimeter and internal fencing are not discernable. The solar arrays do not obstruct any background views of the mountains or degrade any views of the undeveloped land within the middleground. Although a few residents have a prolonged view of the area, the view does not have any high scenic attractiveness and integrity. Considering the typical scenic attractiveness, the low scenic integrity of the area, the distance from the residences to the Project site, the Project's low profile, and the intervening features shown in Figure 9, the resulting landscape change is considered less than significant.

Figure 10 (KOP 2) illustrates the pre- and post-Project views from the eastern edge of the Project site. Existing views from KOP 2 as depicted in Figure 10 reflect the following visual characteristics:

- *Scenic Attractiveness – (Class C – Indistinctive)*. This KOP depicts a typical landform that includes vacant land that has been used for agricultural uses with some residences intermixed. This view does not contain background views of the mountains. The view contains several existing visual encroachments including fencing, power poles and lines, Community Boulevard, and disturbed habitat in the foreground view. The landform and vegetation patterns have a low visual quality.
- *Scenic Integrity – (Low)*. The views from this KOP include vacant land, agricultural uses, and a few residences. The vegetation in the area consists of disturbed agricultural land with direct roadways and several rows of non-native trees. The existing tree rows obstruct any views of the ridgelines in the background. There are no distinctive land forms in the surrounding area.
- *Landscape Visibility - (Immediate Foreground)*. This KOP contains the Project site in the immediate foreground to the north and south of Community Boulevard.
- *Constituent Analysis – (Medium)* This KOP provides a view from a vehicle driver on a local road and a resident. Considering a local resident would have a prolonged view of the project components, they would have a medium concern level as to changes in the vacant land of the area. In addition, the vehicle driver on a local road would be similar to a resident because they would most likely live in the surrounding area.

As shown in Figure 10, KOP 2, the solar arrays are visible on both sides of Community Boulevard. Although the solar arrays are visible, the existing power lines continue to dominate the foreground thereby contributing to the low level of scenic attractiveness of the area. Additionally, there are no background views of the mountains from this KOP that would be obstructed. The solar arrays and associated perimeter fencing would be set back from Community Boulevard such that a vehicle driver's view of the Project will be short-term and attenuated in the foreground by the required setbacks (e.g., fencing 15 feet from property line).

The solar arrays to the south of Community Boulevard would be punctuated by treetop views in the middleground; thereby retaining these landscape features in the post-Project condition. Additionally, no new utility poles would be required along Community Boulevard. The three new utility poles constructed south of Community Boulevard would be masked by the existing windrows in addition to blending with the existing overhead lines due to their close placement, adjacent to existing utility poles.

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Figure 10 Key Observation Point 2 – SR-58 at Community Boulevard



BEFORE - Original Photo



AFTER - Photo Simulation



CONTEXT - Original Photo (above left) within Original Panoramic Context

Image Data
Camera Model: Nikon D90
Camera Height: 60 inches
Direction of View: West
Distance to Project: 100 feet

APNs: 0497-071-40, 0497-121-28, 0497-101-05, and 0497-101-14

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Although a few residents would have a prolonged view of the Project site, the existing view has an indistinctive scenic attractiveness with low scenic integrity, and the broad vegetated setback and intervening vegetation obscure viewing of the Project site. For example, the closest property with a potential residence, the Green Valley Foods Product Inc. cheese factory located to the north of Community Boulevard, is separated from the road by a thick windrow that prevents viewing of the Project. One of the residences who have leased their lands to the project proponent for the duration of the project along with the proposed internal fencing is not visible due to the presence of the existing windrows. A second residence in the vicinity of the proposed off-site laydown area is visible just south of Community Boulevard and is setback from the proposed construction area. However, Project-related improvements, including internal fencing would not be visible. With regard to local residences east of SR-58, the existing embankment substantially obstructs views of the Project site from the rural residential neighborhood located to the east with the exception of a small viewing area at the Community Boulevard overcrossing. The landscape change is, therefore, considered less than significant.

Figure 11 (KOP 4) illustrates the pre- and post-Project views from the intersection of Community Boulevard and Lenwood Road to the west of the Project site. Existing views from KOP 4 as depicted in Figure 11 reflect the following visual characteristics:

- *Scenic Attractiveness – (Class C - Indistinctive)*. This KOP depicts a typical landform that includes vacant land that has been previously used for agricultural uses within a desert landscape. The area lacks variety, unity, and uniqueness in the landscape, with no water characteristics or cultural land attributes. The vegetation in the area consists of native and non-native disturbed habitat. No residences or agricultural structures are visible within the immediate surrounding. Shallow, barren hill slopes are visible in the background in the vicinity of Barstow, but lack any distinctive characteristics.
- *Scenic Integrity – (Very Low)*. The views from this KOP include vacant land, previously used for agricultural uses, with some areas containing disturbed native habitat in the middleground in the vicinity of the Mojave River. Windrows are visible on the western edge of the Project site in the middleground, but lack any uniformity or visually distinctive characteristics. The landscape character appears to have been moderately altered over time from agricultural uses, although, vegetation appears to be reestablishing in the immediate foreground. This vantage contains background views of the shallow undulating hills and mountains; however, no distinctive land forms exist in middle- or foreground views.
- *Landscape Visibility - (Middleground)*. The western boundary of the Project site is located approximately 0.75 mile from this KOP 4. The Project site would be considered in the middleground view. This view contains some background views of undulating hill slopes.
- *Constituent Analysis – (Low)* This KOP provides a view from a vehicle driver on a local roadway. Although there are no residences directly located at this vantage, there are several residential structures to the south and west of this KOP. Based on the distance of the Project from these locations, the Project's low profile, and the long duration of viewing, this vantage would have a low constituent concern level to the visual changes in the area.

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Figure 11 Key Observation Point 4 – Community Boulevard and Lenwood Road



BEFORE - Original Photo



AFTER - Photo Simulation



CONTEXT - Original Photo (above left) within Original Panoramic Context

Image Data
Camera Model: Nikon D90
Camera Height: 60 inches
Direction of View: Southeast
Distance to Project: 0.4 miles

APNs: 0497-071-40, 0497-121-28, 0497-101-05, and 0497-101-14

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As shown in Figure 11, KOP 4, the solar arrays are barely visible in this middleground view and blend in with the tree windrows in the background. Project-related perimeter and internal fencing would be indiscernible from KOP 4. The vehicles traveling on Lenwood Road and Community Boulevard would barely notice the solar arrays from this distance, if at all. Residences would be subjected to a longer duration of viewing. The three new utility poles constructed south of Community Boulevard and adjacent to the existing pole would blend in with the existing overheads lines and would not be visible. The off-site utility poles, where replaced, would be replaced in kind with similar wooden pole structures. Given the indistinctive scenic attractiveness, the very low scenic integrity, low constituent concern level, and minimal level of visual change as depicted in Figure 11, a less than significant landscape change would result from the Project.

Given that the Project is relatively low in height (less than 12 feet) and largely blends with the existing vegetation and developments in the surrounding area, visual changes attributable to the Project would be minimal. Therefore, the proposed Project will have a less than significant impact to existing visual character or quality of the site and its surroundings.

- d) **Less than Significant Impact.** The Project is not expected to create a substantial new source of nighttime lighting or daytime glare that would adversely affect day or nighttime views in the area. The Project will provide external safety lighting for both normal and emergency conditions at the primary access points. Lighting will be designed to provide the minimum illumination needed to achieve safety and security and will be downward facing and shielded to focus illumination in the immediate area. Additionally, the Project will comply with San Bernardino County Code section 84.29.040 which regulates glare, outdoor lighting, and night sky protection. All lighting associated with the proposed Project will be subject to County approval and compliance with San Bernardino County requirements. Therefore, the Project will have a less than significant impact associated with nighttime lighting.

The Project would generally avoid the use of materials such as fiberglass, aluminum or vinyl/plastic siding, and brightly painted steel roofs, which have the potential to create on- and off-site glare impacts. Unlike solar thermal facilities, which rely on large fields of mirrors to reflect light, the potential reflection from solar PV modules used on a tracker mounting system is inherently low due to the materials of its construction and its mode of operation. PV cells are designed to capture (rather than reflect) nearly all sunlight. Reflected light from the surface of standard PV modules is between 10 to 20 percent of the incident radiation (lower than free water and glass surfaces), while steel (used in industrial roofs) is between 40 to 90 percent (Aztec 2014). In addition, because tracker systems follow the sun, the underside of the PV panels and most of the structure supporting them are shadowed throughout the day.

Moreover, light reflected from the PV panels would travel above the line of sight of most, if not all, viewers. PV tracking systems position the array so that the sun's rays are always perpendicular to the face of the panel. What light is reflected from the panels is reflected back towards the sun. During midday conditions, when the sun is high in the sky, the rays of the sun are reflected directly upwards. When the sun is low on the horizon (near dawn or dusk), the sun's angle in the sky is low; however, reflected rays would still be directed away from ground-level receptors because the maximum downward angle of the arrays would not be below 30 degrees. Similarly,

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and also due to their low reflectivity, the panels are not expected to cause visual impairment for motorists on area roadways or engineers for passing freight trains because reflected rays would not be below 30 degrees and would pass well above the line of sight of drivers and engineers. In addition, because both SR-58 and the railroad are oriented in a south-easterly direction north of the Project site, southeast-bound motorists and train operators would not directly view light reflected westwards from the Project because they would pass the project site at an oblique angle.

The Project will comply with San Bernardino County Code section 84.29.040 which states that solar energy facilities shall be designed to preclude daytime glare on any abutting residential land use zoning district, residential parcel, or public right-of-way (County of San Bernardino, 2007a). Compliance with San Bernardino County Code section 84.29.040 will minimize any potential impacts associated with glare to roadway travelers and the adjacent railway. Viewers are not expected to experience substantially increased glare or glint as a result of the Project. Therefore, the proposed Project will have a less than significant impact in terms of light and glare.

No significant adverse impacts are identified or anticipated and no mitigation measures are required.

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Issues	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
II. AGRICULTURE AND FORESTRY RESOURCES – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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SUBSTANTIATION: (Check if project is located in the Important Farmlands Overlay)

- a) **No Impact.** The State of California Department of Conservation, Division of Land Resources, California Important Farmland Finder designates the Project site as “Grazing Land” (California Department of Conservation, 2014). The interconnection upgrades will occur within the existing public roadway right-of-way and at existing pole locations. Therefore, the proposed Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use. No impact is identified for this issue area.
- b) **No Impact.** The Project site is currently vacant and is not used for agricultural uses. The Project site is not under the provisions of a Williamson Act contract (California Department of Conservation, 2013). The interconnection upgrades will occur within the existing public roadway right-of-way and not on lands under the provisions of an active Williamson Contract. Therefore, the Project’s implementation will not conflict with an existing Williamson Act contract. The property is zoned Agriculture (AG), Floodway (FW), and Rural Living 5-acre Minimum (RL-5). Under County Code Section 82.03 and 82.04, renewable energy generation facilities are allowed in the AG and RL-5 zone upon approval of a CUP. No development is proposed within the subject property containing the FW zoning. The proposed Project therefore does not conflict with existing zoning for agricultural use. No impact is identified for this issue area.
- c) **No Impact.** The proposed Project is not located on forest lands as defined in Public Resources Code section 12220(g). There are no existing forest lands, timberlands, or timberland zoned Timberland Production either on-site or in the immediate vicinity. Therefore, the proposed Project would not conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)). No impact is identified for this issue area.
- d) **No Impact.** There are no existing forest lands either on-site or in the immediate vicinity of the Project site. Therefore, the proposed Project would not result in the loss of forest land or conversion of forest land to non-forest use. No impact is identified for this issue area.
- e) **No Impact.** The proposed Project will not involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Important Farmland to a non-agricultural use because the Project is limited to the existing site. The off-site improvements are within an existing public right-of-way and will not result in the conversion of Farmland (as defined in the questionnaire above) to non-agricultural uses. There are no existing forest lands either on-site or in the immediate vicinity of the Project site. Because the Project is limited to the existing site and off-site improvements are within an existing public right-of-way, it will not induce other changes in the existing environment which, due to their nature, could result in conversion of forestland to non-forest use. No impact is identified for this issue area.

No significant adverse impacts are identified or anticipated and no mitigation measures are required.

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Issues	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
III. AIR QUALITY - Where available, the significance criteria established by the applicable air quality management or air pollution control district might be relied upon to make the following determinations.				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION: *(Discuss conformity with the Mojave Desert Air Quality Management Plan, if applicable):*

a) **Less than Significant Impact.** CEQA requires that certain proposed projects be analyzed for consistency with all applicable air quality plans. The Mojave Desert Air Quality Management District (MDAQMD) Guidelines provide that, “A project is conforming if it complies with all applicable District rules and regulations, complies with all proposed control measures that are not yet adopted from the applicable plan(s), and is consistent with the growth forecasts in the applicable plan(s) (or is directly included in the applicable plan). Conformity with growth forecasts can be established by demonstrating that the project is consistent with the land use plan that was used to generate the growth forecast (MDAQMD, 2011).”

The Project site and off-site interconnection is located within the Mojave Desert Air Basin (MDAB) and is within the jurisdiction of the MDAQMD. MDAQMD’s Air Quality Management Plan (AQMP) provides a program for obtaining attainment status for key monitored air pollution standards, based on existing and future air pollution emissions resulting from employment and residential growth projections. The AQMP is developed using input from

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various agencies' General Plans and other projections for population and employment growth. The Project is consistent with the existing Land Use Zoning District on the Project site, does not require a General Plan Amendment, and will not generate the demand to construct additional housing or substantial employment opportunities that will change the County's growth projections. Further, the proposed Project would meet the State's definition of an "eligible renewable energy resource" in Section 399.12 of the California Public Utilities Code and the definition of "in-state renewable electricity generation facility" in Section 25741 of the California Public Resources Code. Because the Project is consistent with the planning assumptions on which the AQMP is based, and considering the Project's negligible emissions once operational, the proposed Project would not conflict with or obstruct implementation of MDAQMD's AQMP and, therefore, the impact will be less than significant.

- b) **Less than Significant with Mitigation Incorporated.** The analysis of Project-related air quality emissions is based on the *Air Quality/Greenhouse Gas Assessment for the Longboat Solar Project* prepared by GC Environmental, Inc. (2015a). The complete assessment is provided as Appendix B1 of this Initial Study. Discussion of the Project's potential impacts to air quality is provided below in the context of short-term construction, long-term operation, and future decommissioning.

Construction (Short-Term)

Construction of the proposed Project, including the off-site interconnection, would generate air quality emissions through the use of heavy-duty construction equipment and vehicle trips generated from construction workers traveling to and from the Project site. Fugitive dust emissions would primarily result from demolition and earthwork activities. Limited paving operations associated with the proposed access driveways and the application of coatings and other building materials would emit VOCs. Construction activities will involve the use of diesel- and gasoline-powered equipment that will generate emissions of criteria pollutants such as carbon monoxide (CO), nitrogen oxides (NO_x), reactive organic gases (ROGs) or volatile organic compounds (VOCs), sulfur oxides (SO_x), particulate matter less than 10 microns (PM₁₀), and particulate matter less than 2.5 microns (PM_{2.5}).

The Project is expected to begin construction in the fourth quarter of 2015 and last up to 10 months. The proposed Project's construction phases would overlap with the cumulative duration of construction not expected to exceed 10 months and would include the following phases:

- Site Preparation (1 month)
- Underground Work (6.5 months)
- System Installation (5.5 months)
- Testing (1 month)
- Clean-up/Restoration (1 month)

Estimated construction emissions were modeled using CalEEMod to identify maximum daily emissions for each pollutant during each project construction activity, including off-site construction. Construction emissions include all emissions associated with the construction equipment, worker trips, and on-road diesel truck traffic including deliveries and equipment

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transport based on the assumptions provided in Table 2 (see Appendix B1). Table 3 provides the maximum daily emission rate (lbs/day) of construction-related criteria pollutants generated by the proposed Project. As shown in Table 3, construction emissions would exceed the daily MDAQMD thresholds for NO_x. Table 4 provides the total annual construction emissions (tons/year) generated by the proposed Project. As provided in Table 4, construction emissions would not exceed MDAQMDs annual threshold for any criteria air pollutants. In the absence of mitigation, the exceedance of MDAQMD's daily thresholds for NO_x would be a significant impact. Mitigation Measure AQ-1 reduces this impact to less than significant by requiring the Project's off-road diesel construction equipment to comply with the Tier 3 emission standards of the California Air Resources Board. By requiring equipment to be designed to meet certain maximum NO_x emission standards, the Tier 3 requirements more than halve the Project's NO_x emissions during construction to a level below the MDAQMD threshold of significance.

The proposed Project will include dust abatement measures that will limit the generation of pollutants, including PM₁₀, consistent with Rule 403.2 Fugitive Dust Control for the Mojave Desert Planning Area. The proposed Project will be required to comply with MDAQMD Rules 402 and 403 to control fugitive dust, including preparation of a dust control plan pursuant to MDAQMD Rule 403.2(c)(3). This includes using water trucks to apply water and/or palliatives to minimize the production of visible dust emissions to 20 percent opacity in areas where grading occurs, within the staging areas, and on any unpaved roads used during project construction. In areas of the Project site where feasible, mowing and rolling techniques would be used to maintain plant root systems for soils stabilization. Temporary wind fencing would be erected to minimize wind blown dust at adjacent residences. With the implementation of these measures in conjunction with Mitigation Measure AQ-1, emissions of criteria air pollutants during construction would be less than significant (see Tables 3 and 4).

Table 3. Project-related Daily Unmitigated/Mitigated Construction Emissions by Construction Phase (lbs/day)

Construction Activity	VOCs		NO _x		CO		SO _x		PM _{2.5}		PM ₁₀	
	UM	M	UM	M	UM	M	UM	M	UM	M	UM	M
Site Preparation	12	3	123	46	63	60	<1	<1	14	6	31	13
Underground Work	11	3	108	42	73	68	<1	<1	7	3	9	5
System Installation	17	6	161	84	111	126	<1	<1	9	5	15	11
Testing	6	2	62	34	37	46	<1	<1	3	2	4	3
Clean-Up Restoration	3	1	34	15	20	22	<1	<1	2	1	6	3
Maximum Daily Emission Rate	28	8	259	126	180	192	1	<1	21	8	40	18
Significance Threshold	137	137	137	137	548	548	137	137	82	82	82	82
Significant?	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO

Note: Unmitigated emissions (UM); Mitigated emissions (M)

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Table 4. Project-related Annual Unmitigated/Mitigated Construction Emissions by Construction Phase (tons/year)

Construction Activity	VOCs		NO _x		CO		SO _x		PM _{2.5}		PM ₁₀	
	UM	M	UM	M	UM	M	UM	M	UM	M	UM	M
Site Preparation	0.13	0.03	1.35	0.51	0.70	0.66	<0.01	<0.01	0.15	0.08	0.34	0.19
Underground Work	0.74	0.19	7.22	2.93	5.13	4.84	0.01	0.01	0.44	0.12	0.64	0.28
System Installation	1.04	0.33	9.58	5.03	6.79	7.71	0.01	0.01	0.53	0.20	0.87	0.51
Testing	0.06	0.02	0.68	0.37	0.41	0.52	<0.01	<0.01	0.03	0.01	0.05	0.05
Clean-Up Restoration	0.04	0.01	0.36	0.16	0.22	0.24	<0.01	<0.01	0.02	0.01	0.06	0.03
Total Annual Emissions	2.01	0.58	19.19	9.00	13.25	13.97	0.01	0.03	1.17	0.41	1.96	1.03
Significance Threshold	25	25	25	25	100	100	25	25	15	15	15	15
Significant?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

Note: Unmitigated emissions (UM); Mitigated emissions (M)

Operation (Long-Term)

Long-term operational emissions would be generated from mobile sources associated with scheduled maintenance, semi-annual solar panel washing, and any necessary repairs throughout the lifecycle of the Project. The operational-related maximum daily and annual emissions, as calculated by CalEEMod, are shown on Tables 5 and 6, respectively. As shown in Tables 5 and 6, the Project's operations emissions are below the daily and annual MDAQMD thresholds of significance for criteria pollutants.

Table 5. Project-related Unmitigated Operational Emissions (lbs/day)

	VOCs	NO _x	CO	SO _x	PM _{2.5}	PM ₁₀
Operational On-road	<1	<1	2	<1	<1	<1
Operational Off-road	2	21	11	<1	1	1
Maximum Daily Emission Rate	2	22	13	<1	1	2
MDAQMD Significance Threshold	137	137	548	137	82	82
Significant?	NO	NO	NO	NO	NO	NO

Table 6. Project-related Unmitigated Operational Emissions (tons/year)

	VOCs	NO _x	CO	SO _x	PM _{2.5}	PM ₁₀
Operational On-road	0.01	0.08	0.23	<0.01	0.01	0.04
Operational Off-road	0.09	0.86	0.44	<0.01	0.05	0.05
Total Annual Emissions	0.10	0.94	0.67	<0.01	0.05	0.09
MDAQMD Significance Threshold	25	25	100	25	15	15
Significant?	NO	NO	NO	NO	NO	NO

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Decommissioning

When the arrays are removed after the Project's lifetime, the land will be returned to pre-project conditions. Following the implementation of a decommissioning plan, all equipment, foundations, and fencing would be removed and the site would be restored so that the end use and site condition are consistent with the surrounding landscape. The project would utilize BMPs to ensure the collection and recycling of solar arrays, panels, fencing, etc. to the extent feasible. All decommissioning activities would adhere to the requirements of the appropriate governing authorities and in accordance with all applicable federal, State, and County regulations. Although emission standards are likely to be more stringent by the time the Project would be decommissioned, the emissions generated from the decommissioning of the Project have been conservatively assumed to be similar to those generated during the construction phase. As a result, the conclusions regarding the emissions of the project's construction phase and decommissioning phase are the same. Similar to construction, mowing and rolling techniques would be used in areas of the site where feasible to maintain plant root systems for soils stabilization. Therefore, with implementation of Mitigation Measure AQ-1, emissions generated during the decommissioning of the Project are anticipated to be less than the daily and annual MDAQMD thresholds of significance for criteria pollutants.

- c) **Less than Significant with Mitigation Incorporated.** The air basin in which the Project site is located is classified as "nonattainment" for PM₁₀, PM_{2.5}, and O₃. Construction of the Project would generate criteria air pollutants that would contribute to the existing nonattainment status. Therefore, the proposed Project would exacerbate nonattainment of air quality standards within the air basin and contribute to adverse cumulative air quality impacts. However, as shown in Tables 3 through 6, the Project's construction and operations emissions would be less than the MDAQMD significance thresholds with the exception of daily emissions of NO_x during construction and, with the implementation of the Mitigation Measure AQ-1, these emissions would be mitigated to levels that are less than significant.

The proposed Project does not contain a residential or commercial component; therefore, the Project would not result in an increase in regional population that exceeds the forecasts in the AQMP. Furthermore, the project is consistent (conditionally) with the planned land use for the project site under San Bernardino County's General Plan (e.g., Agriculture) and during operation would generate far less daily emissions as compared to a typical agricultural use (e.g. farm equipment use), because only periodic maintenance will be required for project operation. Additionally, the Project would meet the State's definition of an "eligible renewable energy resource" in Section 399.12 of the California Public Utilities Code and the definition of "in-state renewable electricity generation facility" in Section 25741 of the California Public Resources Code. The proposed Project would result in desirable air quality benefits once operational. Once constructed, the Project would produce negligible operational emissions and would assist the State in achieving its renewable energy goals thereby providing a cumulative benefit to the region.

Of all the projects considered in the cumulative analysis (see Appendix B1), a proposed project at Green Valley Foods facility (the cheese-making facility) and the SR-58 Hinkley Expressway Project are the most likely to generate air quality pollutants concurrently with

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Project construction and within a 6-mile radius for regionally-based impacts and a 1-mile radius for sensitive-receptor cumulative impacts. However, the Green Valley Foods project is unlikely to be constructed due to its ability to haul wastewater off-site. If constructed concurrently, the SR-58 Hinkley Expressway Project would carry the greatest potential for cumulative effects; however, the timing for construction remains uncertain. The Martinsville specific plan is within the 6-mile radius for regionally-based impacts, but is outside the one-mile cumulative range for assessment of potential cumulative impacts to sensitive receptors. The duration of overlap with these cumulative projects would be limited to a period equal to or less than 10 months; corresponding to the Project's construction schedule.

Based on the above analysis, the Project would not conflict with the land use assumptions in the current AQMP and its approach for meeting federal and state air quality standards. Additionally, the Project would be in conformance with all applicable MDAQMD rules and regulations. Through the implementation of Mitigation Measure AQ-1, measures to reduce NOx during construction and decommissioning would effectively reduce daily and annual emissions such that the Project would not exceed MDAQMD thresholds. As indicated in Tables 5 and 6, above, emissions would be negligible during the Project's operational time frame.

Based on regional modeling analyses performed for MDAQMD's Ozone Attainment Plan (2008), with the implementation of control measures contained in the Ozone Attainment Plan (as proposed in Mitigation Measure AQ-1), the Project would conform with the Attainment Plan's projections for attainment by the year 2020. Therefore, cumulative air quality impacts from the proposed Project and other local, reasonably foreseeable projects are not anticipated to be significant because the implementation of required control measures is expected to result in net emission reductions and overall air quality improvement. As a result, the Project would not result in a cumulatively considerable net increase in NOx during construction. Additionally, the Project would result in negligible emissions of criteria pollutants over its operational life. For these reasons, the Project's contribution to significant cumulative air quality impacts within the MDAB would not be considerable in conjunction with other known existing, planned, or reasonably-foreseeable projects (see Appendix B1) within the cumulative-impact study area.

- d) **Less than Significant Impact.** The MDAQMD defines sensitive receptors as residences, schools, daycare centers, playgrounds and medical facilities (MDAQMD, 2011). Sensitive receptors considered in this analysis are depicted in Figure 12. Residences in the Project area may be exposed to short-term construction air quality emissions associated with construction exhaust emissions generated from construction equipment, vegetation clearing, construction workers' commute, and construction material hauling during the construction period. To assess the Project's potential impact to these receptors associated with substantial pollutant concentrations during construction, a health risk assessment (HRA) was completed in accordance with MDAQMD's Criterion Number 4 (industrial projects located within 1,000 feet of a sensitive receptor), as referenced in the August 2011 CEQA and Federal Conformity Guidelines (Environmental Intelligence, LLC 2015; see Appendix B2).

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Construction activities would result in emissions of diesel particulate matter from heavy construction equipment used on site and truck traffic to and from the site, as well as minor amounts of toxic air containment (TAC) emissions from motor vehicles (such as benzene, 1,3-butadiene, toluene, and xylenes). Health effects attributable to exposure to diesel particulate matter are long-term effects based on chronic (i.e., long-term) exposure to emissions and are generally evaluated based on a lifetime (70 years) of exposure. Based on the results of the HRA, the maximum cancer risks at Sensitive Receptors 1 through 5 are less than the MDAQMD CEQA significance threshold of 10 in one million and the corresponding chronic hazard index (HIC) values are less than the significance threshold of 1.0 (see Appendix B2). These results would also apply to the off-site interconnection, which would have a shorter duration of construction, and would involve substantially less equipment. Based on these results, no long-term adverse health effects would be anticipated from short-term diesel particulate emissions.

Once operational, the solar generating facility would not generate any emissions with the exception of those associated with periodic motor vehicle traffic. However, motor vehicle emissions would not be concentrated in any one area, would be dispersed along travel routes and therefore would not pose a significant health risk to receptors. Electricity generation via the use of photovoltaic systems does not generate chemical emissions that will negatively contribute to air quality. Wind fencing would be installed, where appropriate, along the western and southern perimeters of adjacent residences to minimize windblown dust. Therefore, a less than significant impact is identified for this issue area.

- e) **Less than Significant Impact.** The proposed Project would not create objectionable odors that will affect a substantial number of people. Land uses commonly considered to be potential sources of odorous emissions include wastewater treatment plants, sanitary landfills, food processing facilities, chemical manufacturing plants, rendering plants, paint/coating operations, and concentrated agricultural feeding operations and dairies. Electricity generation via the use of photovoltaic systems does not generate chemical emissions that will negatively affect air quality or produce objectionable odors. Potential odor generation associated with the proposed Project would be limited to construction sources such as diesel exhaust and dust. However, any odor generation would be intermittent and would terminate upon completion of the construction activities. No significant odor impacts related to Project implementation are anticipated due to the nature of the Project and short-term duration of construction. Therefore, the proposed Project would have a less than significant impact associated with the creation of objectionable odors affecting a substantial number of people.

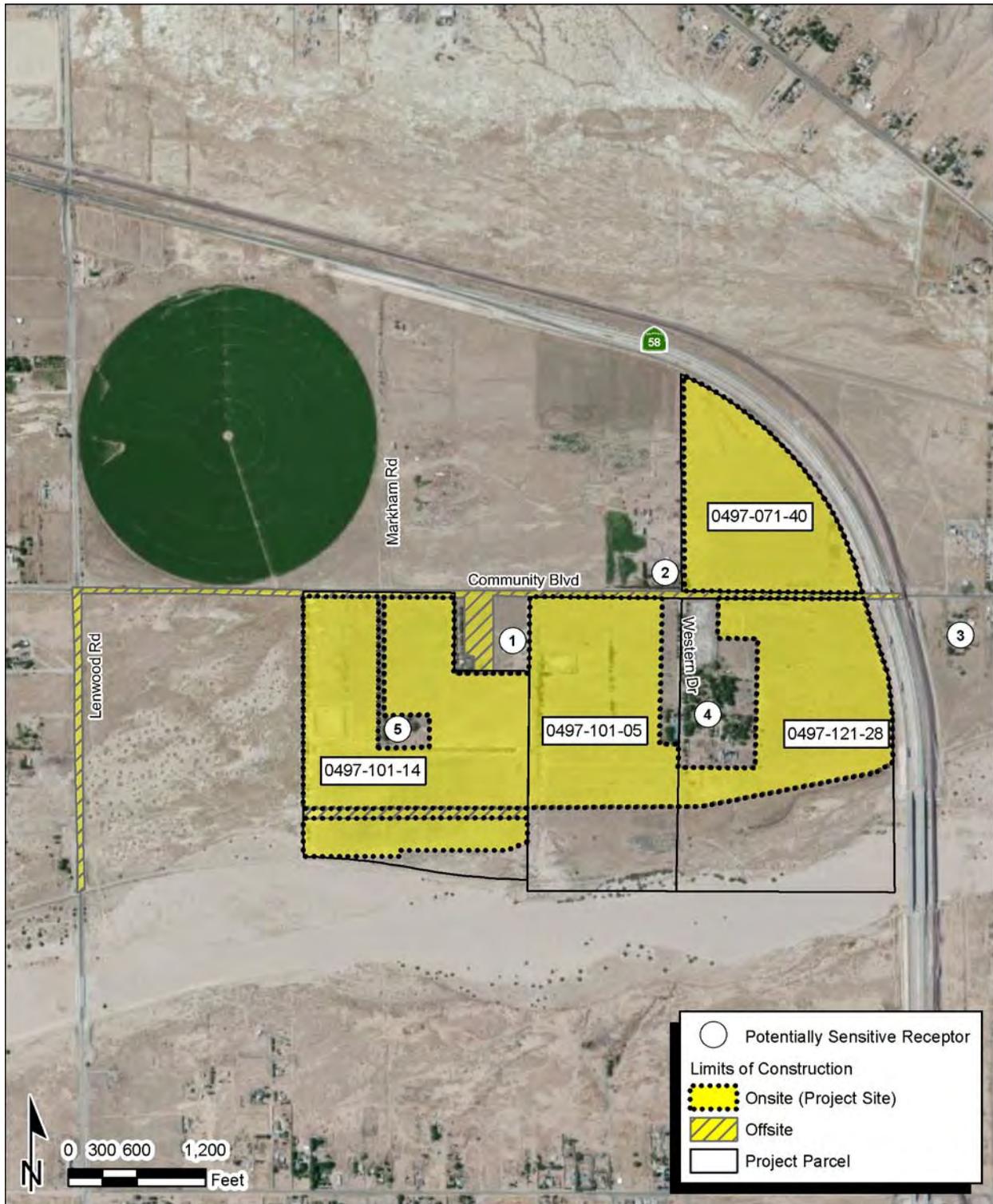
Possible significant adverse impacts have been identified or anticipated and the following mitigation measures are required as conditions of Project approval to reduce these impacts to a level below significant.

MM# Mitigation Measures

AQ-1: Mitigation for NOx. During construction and decommissioning of the Project, all off-road diesel-powered pieces of equipment used by the construction contractors shall comply with the California Air Resources Board Tier 3 standard for off-road engines.

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Figure 12 Sensitive Receptor Locations



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Issues	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
IV. BIOLOGICAL RESOURCES – Would the project:				
a) Have substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc...) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Interfere 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION: (Check if project is located in the Biological Resources Overlay or contains habitat for any species listed in the California Natural Diversity Database): Category «CAT»

a) **Less Than Significant with Mitigation Incorporated.** The following information is summarized from the *Biological Resources Technical Report for the Proposed Longboat Solar Project* prepared by Environmental Intelligence (2015b). This report is provided as Appendix C of this Initial Study.

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Biologists with Environmental Intelligence visited the Project site on multiple occasions starting in August 2014 through July 2015 to assess current habitat conditions and evaluate the potential for the Project site (and limits of proposed construction) to support special-status biological resources. The Survey area included the Project site and a 150-foot buffer, as well as the areas subject to the off-site improvements, where accessible or could be viewed from on-site or public locations. The survey involved driving along accessible roads within the Project site and walking where not accessible by vehicle to ensure that all habitat types and features within the study area were identified. Appendix C provides a complete listing of the plant and wildlife species considered as part of this analysis.

Sensitive Plant Species

Construction and Decommissioning

Vegetation on the Project site is generally disturbed and consists of fallow agricultural fields in various stages of succession to more natural habitats (see Figure 13). Four vegetation alliance-based groups were identified on the site including disturbed saltbush scrub/ruderal, partially stabilized dunes, tamarisk/ornamental windrows, and abandoned agriculture. California joint fir scrub was observed within the off-site improvement area (Appendix C). Approximately 230.7 acres of disturbed saltbush scrub were documented; 194.2 acres on the Project site and 36.6 acres off-site. Approximately 4.4 acres of desert panic grass patches and 6.4 acres of ornamental windrows were observed on partially stabilized dunes on the Project site. Areas north of Community Boulevard on the Project Site include an additional 28.3 acres mapped as abandoned agriculture (see Figure 13).

All desert panic grass patches (California Native Plant Society [CPNS] Ranking G3 S3) occur on the Project site along the southernmost boundary and adjacent to the Mojave River. The Project site plan, as presented in Figure 4, purposely avoids all desert panic grass areas. A small stand of California joint fir scrub (*Ephedra californica* Shrubland Alliance) totaling 1.9 acres is found off-site and within the off-site ROW immediately west of the Project site and may be subject to disturbance during construction (Appendix C).

Due to the degraded nature of the Project site and off-site improvement areas combined with the avoidance of sensitive plant communities, the Project would have minimal affect to special status plants. Additionally, given the widespread distribution of high quality, non-disturbed saltbush scrub and other common vegetation in the surrounding region, the combined impacts of the Project would be less than significant following the implementation of Mitigation Measure BIO-1, BIO-2, BIO-3, BIO-4, and HWQ-1. These measures will provide for pre-construction surveys and species monitoring during Project-related construction and decommissioning in addition to erosion control BMPs. Based on this circumstance, construction of the Project is unlikely to result in disturbance of candidate, sensitive, or special status species and the impact to sensitive plant species is considered less than significant.

Operations

Vegetation management and fuel modification will be conducted using mechanical mowers or trimmers, and/or hand removal within these areas, rather than from the application of herbicides. Additional requirements pertaining to the removal of brush and dead plant

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materials, removal of non-native plant species, and periodic maintenance of vegetation management zones would be included in a Weed Abatement Plan.

Throughout the developed portions of the Project site, mowing is anticipated, particularly directly beneath PV arrays and within fuel modification areas. Mowing these areas in the late spring would ensure that most annuals would have sufficient time to flower and set seed. However, many late season annuals and perennial plants might not. Because mowing would occur during the growth period of late season annuals and many perennials, these species would not have the time or resources to set out new shoots, flower, and set seed. For those individuals that are able to mature and set seed, colonization rates are expected to lessen due to competition from non-native annual grasses. These annual grasses can quickly and efficiently grow, set seed, and die, often leaving a thick layer of litter on the soil surface. The shallow and vast root systems of annual grasses rapidly absorb shallow soil moisture preventing the germination of other seeds during this time (Appendix C). This recruitment limitation has been observed in numerous California plant species, particularly native perennial grasses (Appendix C). As such, it is expected that this mowing would select for spring annuals, particularly non-native annual grasses (e.g. bromes (*Bromus* spp.), oats (*Avena* spp.), foxtail barley (*Hordeum murinum*)) as well as native and non-native forbs adapted to disturbed environments (e.g. fiddlenecks (*Amsinckia* spp.), filaree (*Erodium* spp.), hedgemustard (*Sisymbrium altissimum*)). Coincidentally, it is anticipated that the dominance of late season annuals and perennials would lessen. However, given the pre-existing disturbance regime across the Project area, this impact is considered less than significant.

Sensitive Wildlife Species

Construction and Decommissioning

A combination of database search, literature review, and field reconnaissance was conducted to determine the potential for special status wildlife species to occur on the Project site and areas subject to the off-site improvements (Appendix C). No federally threatened, endangered, or candidate species were observed within the Project site during extensive field surveys conducted from August 2014 through July 2015 (Appendix C). One State-listed species, Swainson's Hawk, was observed flying off-site during a series of bird surveys. A complete list of observed wildlife species and survey methods is presented in Appendix C.

A total of three listed species are known to occur in the Project vicinity. Potential Project-related impacts to listed species, including desert tortoise (*Gopherus agassizii*), Mohave ground squirrel (*Xerospermophilus mohavensis*), and Swainson's Hawk (*Bufo swainsoni*), are discussed in detail below.

- **Desert Tortoise.** No desert tortoise sign or desert tortoise burrows were observed within the Project site or areas containing the off-site improvements during focused protocol surveys. The Project site is located within the County's Desert Tortoise – Medium Population Overlay, but has been used historically for agriculture and has since been left fallow. The historic agricultural use has reduced the area's ability to support desert tortoise by eliminating habitat and introducing hazards. Hazards to desert tortoise associated with agricultural use include increased vehicular traffic, soil

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manipulation (disking, plowing, etc.), harvesting (mowing, baling etc.) and predator attraction (to agricultural water and food sources) (Appendix C). For these reasons, desert tortoise is presumed absent from the Project site and areas containing the off-site improvements.

Implementation of the Project would result in the removal of 175.2 acres of substantially degraded habitat, previously used for agricultural cultivation. An additional 0.3 acre of marginal habitat is located in the off-site improvement areas. Potential desert tortoise movement to the Project site to access this habitat is restricted by surrounding roads, including Community Boulevard, Highway 58, and Lenwood Road. A tortoise depression zone generally exists along highway edges and extends away from the road 0.4 km or further due to frequent vehicle strikes (Appendix C). It is unlikely that a transient tortoise would encroach onto the Project site or off-site improvement areas from adjacent areas due to these road hazards.

Notwithstanding these circumstances, there remains a remote possibility for desert tortoise to traverse the Project site or off-site improvement areas. With the implementation of Mitigation Measures BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6, BIO-7, and BIO-8, Project-related impacts to desert tortoise would be less than significant by conducting pre-construction surveys, training workers, erecting exclusionary fencing, where appropriate, construction monitoring and raven management.

- **Mohave Ground Squirrel.** The Mohave ground squirrel (MGS) is a state threatened species. The habitat within the Project site and off-site interconnection area is considered low quality/marginal quality habitat for MGS due to the lack of shrub cover and forage plants. Additionally, protocol level surveys for MGS on the Project site and off-site interconnection area were negative (Appendix C). However, there is a CNDDDB occurrence of this species within one-half mile of the study area and the project site is included the County's MGS Overlay and, therefore, there remains a possibility, albeit low, that MGS may utilize the proposed Project site or area subject to the off-site interconnection improvements (Appendix C). As a result, Project-related construction has the potential to impact this species thereby requiring mitigation. Mitigation Measures BIO-1, BIO-2, and BIO-3 are proposed to avoid and minimize potential effects to this species through a combination of worker education, biological monitoring, and implementation of pre-construction surveys. With mitigation, project-related impacts to the Mohave Ground Squirrel would be less than significant.
- **Swainson's Hawk.** Swainson's Hawk is a State-listed threatened species and USFWS-designated bird of conservation concern. Swainson's Hawk forages in grasslands and agricultural lands and prefers to nest in riparian and isolated trees. During the spring and fall, this species uses the Pacific Flyway migration route between breeding grounds in North America and wintering grounds in South America. Birds rest and feed in grasslands and harvested fields, especially where grasshoppers are numerous, often perching on fence posts, telephone poles, and power poles, and roosting at night in trees (Appendix C). The closest breeding areas to the Project site

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are the Antelope Valley (approximately 50 miles west), the Central Valley (approximately 100 miles northwest), and southern Nevada (approximately 100 miles northeast). One adult was observed soaring over the Project site on April 9, 2015. This individual was likely a migrant returning to nesting grounds in the Antelope/Central Valley, Nevada, or farther north. It is also possible that this individual may be nesting in a nearby alfalfa field. Given these factors, there is a potential for Swainson's Hawk to forage or nest in the vicinity of the Project site. The implementation of Mitigation Measures BIO-1, BIO-2, BIO-3, BIO-9, and BIO-10 would be required to ensure that Project-related impacts to this species are less than significant by requiring pre-construction surveys and monitoring and implementing an adaptive management plan.

An additional 11 special status wildlife species, designated as either species of special concern (SSC) by CDFW or a bird of conservation concern (BCC) by USFWS, were observed during one or more field surveys or are known to exist in the vicinity of the proposed Project site: Mojave fringe-toed lizard (*Uma scoparia*), Le Conte's thrasher (*Toxostoma lecontei*), Burrowing owl (*Athene cunicularia*), Sharp-shinned Hawk (*Accipiter striatus*), Cooper's Hawk (*Accipiter cooperii*), Vaux's Swift (*Chaetura vauxi*), Merlin (*Falco columbarius*), Prairie Falcon (*Falco mexicanus*), Loggerhead Shrike (*Lanius ludovicianus*), Ferruginous Hawk (*Buteo regalis*), American badger (*Taxidea taxus*), and Desert kit fox (*Vulpes macrotis arsipus*). The potential Project-related impacts to each of these special status wildlife species are discussed in detail below.

- **Mojave Fringe-Toed Lizard.** The Mojave fringe-toed lizard is a California Species of Special Concern (SSC). Mojave fringe-toed lizard is restricted to areas with fine, aeolian sands such as dunes, riverbeds, washes, and hummocks, with creosote bush scrub habitat. A 2010 CNDDDB occurrence of this species was recorded approximately 2.5 miles southwest of the Project site within the Mojave River. A small amount of suitable dune habitat occurs for this species at the western and southern boundaries of the Project site near the Mojave River. Three Mojave fringe-toed lizards were identified in this dune habitat on the Project site or on neighboring parcels during 2015 surveys. All observations were made in partially stabilized dune habitat, all of which is avoided in the Project design and will not be impacted as part of the construction of the Project. However, due to the proximity of the known occurrences to the Project site, there is a potential for the species to encroach into the development area, particularly from the avoided dune or desert wash habitats south and west of the Project site. Project-related construction therefore has the potential to impact this species thereby requiring mitigation. Mitigation Measures BIO-1, BIO-2, BIO-3, BIO-5, BIO-6, and BIO-8 are proposed to avoid and minimize potential effects to this species through a combination of worker education, exclusion fencing, and biological monitoring. With mitigation, project-related impacts to the Mojave fringe-toed lizard would be less than significant.
- **Burrowing Owl.** Two individual Burrowing owls, likely residents that possibly nest between February and August (Appendix C), were observed at active burrows outside, but in the vicinity of, the Project site. No burrowing owls or definitive burrowing owl

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burrows or sign were identified within the Project area during the reconnaissance-level survey. Due to the species' wide range of habitats and occurrence within adjacent properties, there is a moderate likelihood that burrowing owls could occur within the study area.

Burrowing owl may be present at any time during the year; therefore, construction-related or decommissioning activities have a potential to impact this species if potential breeding habitat is removed during the breeding season; suitable burrows are present within the construction footprint; or construction activities occur within 300 feet of an active burrow during the breeding season. Direct and indirect impacts to burrowing owl would be considered significant. Mitigation Measures BIO-1, BIO-2, BIO-3, BIO-7, and BIO-8 will reduce impacts to burrowing owl burrows through pre-construction surveys and daily clearance sweeps, avoidance using established buffer areas, and with the use of exclusion methods pursuant to CDFW guidelines if necessary. Further, burrowing owl will be monitored as part of an Avian Mortality and Injury Monitoring Plan with adaptive management provisions. The Project will also implement APLIC guidelines to reduce avian collisions with power lines and poles and a trash management program to avoid attracting opportunistic predators such as ravens, coyotes, and feral dogs. With mitigation, project-related impacts to the burrowing owl would be less than significant.

- **American Badger and Desert Kit Fox.** The American badger and desert kit fox, both SSC, are common in a wide range of habitats with friable soils suitable for burrowing. While no desert kit fox, American badger, or definitive signs (e.g., burrows, scat, tracks, etc.) were observed during protocol surveys, these species have been observed in the vicinity of the proposed Project. Further, three burrows of sufficient size for American badger or desert kit fox were observed during the surveys, but none of these burrows were active (Appendix C).

Implementation of the Project would result in the removal of 208.3 acres of degraded but potentially suitable habitat for desert kit fox and American badger (Appendix C). While approximately 208.3 acres of degraded habitat would be permanently eliminated, Project implementation could result in substantial modification to the suitability of the remaining habitat. Construction activities may result in fugitive dust, increased run-off, soil compaction, the introduction and spread of invasive species, as well as general disturbance-type impacts such as those due to noise, vibration from equipment, and human presence on the Project site. Longer term impacts may result from the presence of PV arrays. Solar panels would permanently and substantially reduce the amount of sunlight reaching the ground beneath the panels.

Once in construction, there is the potential for desert kit fox to encroach within the Project site and risk impacts, including injury or mortality due to pitfall traps and habitat loss/degradation. The threat of pitfall traps to individuals of these species would be eliminated at the completion of the construction phase. Additionally, the mechanical crushing of individuals or burrows by vehicles and construction equipment, entombment within burrows, and disturbance-type impacts such as noise, dust, or increased human presence are others threats. If construction occurs during the

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pup-rearing season (February 15 – July 1), disturbance near active maternity dens may cause adults to flush and young to be exposed to injury or mortality through abandonment or predation. Risk of vehicle collision on access roads by operation and maintenance personnel would continue during the operational phase. Fragmentation of the habitat by Project facilities would exacerbate the risk of collision as individuals are forced to cross access roads as they move about the Site. Implementation of mitigation measures, particularly during the construction phase, would serve to off-set these impacts.

Due to the degraded nature of the habitat, lack of observations of American badger or desert kit fox, as well as an abundance of similar habitats in the surrounding landscape, impacts of this species due to habitat loss resulting from implementation of the PV Site are minimal. Impacts are further avoided following implementation of several mitigation measures BIO-1, BIO-2, and BIO-3. Pre-construction surveys and daily clearance sweeps will be used to ensure no active burrows occur within the development footprint. If occupied burrows are observed outside of the pupping season, the occupants may be passively excluded from their burrow using natural materials over a period of five consecutive days. If an occupied den is observed during the pupping season (typically, February to July), then the burrow will be clearly flagged and a minimum 200-foot no disturbance area surrounding the den shall be established. This buffer shall remain in place until the end of the pup rearing season or the den is determined inactive or abandoned by a qualified biologist. With mitigation, project-related impacts to the American badger and desert kit fox would be less than significant.

- **Townsend's big-eared bat.** Townsend's big-eared bat is a California SSC (CDFG 2015) that roosts in caves, mines, or abandoned buildings (Appendix C). As such, while not observed to date, potential roosting habitat for these bats occurs adjacent to the Site at nearby buildings, bridges, and other infrastructure. There is potential for this species to forage over the Project site, concentrating seasonally over intermittent streams and irrigated cropland.

Because Townsend's big-eared bats are primarily nocturnal and volant, direct injury or mortality during construction and operation of the Project is expected to be minimal. Potential impacts include the destruction of a roost or construction activities occurring near a roost resulting in disturbance-type impacts such as noise, vibrations from heavy equipment, or increased human activity. Bats that forage near the ground, such as Townsend's big-eared bat, may be subject to crushing or disturbance by vehicles driving at dusk, dawn, or during the night. During the operational phase potential impacts to bats could include disturbance by vehicles, dust, nighttime illumination of Project facilities, or increased human presence that could result in bats abandoning their roosts or maternity colonies.

Currently, direct impacts to Townsend's big-eared bats from solar energy development are largely unknown; however, they are generally assumed to be minimal. Solar PV is not a source of thermal solar electricity, there is no risk of bats encountering extreme heat sources during the day. Moreover, Townsend's big-eared bat forages at night.

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The main risk to foraging bats would be collision with solar facility structures, but unlike most birds, which use vision as the primary sense while foraging, bats are unlikely to strike structures because they also use echolocation to navigate, which should allow them to detect and avoid fixed structures related to the solar facility.

While some impacts to habitat suitability are possible, the presence of suitable foraging habitat within the surrounding landscape suggests these impacts would be minimal. Therefore, increased mortality or injury rates to this bat species or loss of habitat resulting from implementation of the Project would be less than significant.

- **Nesting Birds.** Nests of all native birds, regardless of their regulatory status, are protected by the Migratory Bird Treaty Act (MBTA) and provisions of the California Fish and Game Code. Suitable nesting habitat is present on and adjacent to the property for native bird species including numerous perching areas and windrows. The BRTR prepared for the proposed Project identifies the following bird species as having been directly observed or could potentially use the Project site or off-site improvement areas for foraging or nesting habitat:
 - One Sharp-shinned Hawk, likely a migrant returning north to breeding grounds, was observed on the Project Site.
 - Cooper's Hawks were observed throughout the Project vicinity on multiple occasions. These birds were likely resident birds foraging and nesting in the trees surrounding the rural residences.
 - One Swainson's Hawk (previously discussed).
 - Two Ferruginous Hawks, likely a migrant pair heading north to breeding grounds, were observed on the Project Site during the Spring migration period.
 - Two individual Burrowing Owls (previously discussed).
 - Prairie Falcons were observed foraging on the Project Site on several occasions. Although there is the potential to nest in the trees or power line structures on the Project site, it is likely they nest in the mountains surrounding the Project, using the Project site as foraging habitat.
 - The Short-eared Owl was not observed during Project-related surveys, but has the potential to winter on the Project Site.
 - The American Peregrine Falcon was not observed during Project-related surveys, but has the potential to winter on the Project site.
 - One Merlin, likely a roosting migrant heading north to breeding grounds in the northern United States and Canada, was observed on the Project site during the spring migration period.
 - One adult Vaux's Swift was observed flying north through the Project Site, likely a migrant returning to breeding grounds in the northwest. It has the potential to use the Project site as foraging habitat during migration stopovers, or to simply pass over the Project site during spring or fall migration.

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- The loggerhead shrike and Le Conte's thrasher are members of the medium perching bird guild. Neither of these bird species were observed during Project-related surveys, but have the potential to occur based on the presence of marginally suitable habitat (11.9 acres) and observations in the region.

Within the Project site, a total of 220.2 acres of potentially suitable foraging habitat for these raptor species would be disturbed during construction (including permanent removal of habitat within the footprint of proposed facilities and temporary disturbance in construction zones). The sensitive migratory and wintering raptor species (i.e., Sharp-shinned Hawk, Swainson's Hawk, Ferruginous Hawk, Merlin, Short-eared Owl, and American Peregrine Falcon) that use the Project site for foraging occur in low numbers, range over fairly wide areas, and should easily be able to avoid coming into direct contact with construction equipment onsite.

Of the sensitive breeding raptor species present in the Project area (i.e., Cooper's Hawk, Burrowing Owl, and Prairie Falcon), only the Cooper's Hawk and Burrowing Owl are likely to nest on or immediately adjacent to the Project site. Cooper's Hawks likely nest in the trees associated with the rural residences, and Burrowing Owls likely nest in burrows in the area. No suitable nesting habitat for prairie falcon occurs on the Project site. Construction activities such as noise, dust, invasive species, increased traffic, and human presence could negatively impact nesting. Additionally, these nesting species would lose adjacent foraging habitat, possibly resulting in decreased nest success.

Impacts associated with pole replacement and wire stringing activities along paved roads will include minor disturbances to roadside ruderal habitats. Loss of habitat will be negligible. Direct impacts during ROW activities include mortality or injury due to collision with construction-related equipment and/or overhead transmission lines. Where feasible, the Project will follow Avian Power Line Interaction Committee (APLIC) guidelines (e.g., passive nest deterrents, increased visibility of power lines via line marking or other means, etc.) along new or upgraded power lines, poles, or other appurtenant features to reduce the likelihood of avian collisions with these features.

Based on these circumstances, Project-related construction and decommissioning have the potential to significantly impact nesting birds thereby requiring mitigation. Mitigation Measures BIO-1, BIO-2, and BIO-3 are proposed to avoid and minimize potential effects to these species through a combination of worker education, biological monitoring, and implementation of pre-construction surveys. Specifically, BIO-2 would require pre-construction surveys and daily sweeps to identify migratory birds and their nests. If active nests are found, a qualified biologist will determine appropriate Environmentally Sensitive Area (ESA) buffers around each nest as specified in a Nesting Bird Management Plan, to minimize disturbance and prevent potential take of the nest. The buffer will remain in place until the nest is vacated and juveniles have fledged, or the nest is no longer active, as determined by a qualified biologist. BIO-1 will require all personnel to attend a Worker Environmental Awareness Program (WEAP). This WEAP will include a discussion on migratory birds, the MBTA and Fish and Game Code, the identification of ESAs, and communications protocol in the event

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a new nest is discovered. With mitigation, project-related impacts to nesting birds during construction and decommissioning activities would be less than significant.

Operations

Although avian mortalities and other adverse effects may result from the Project, they are highly unlikely to have substantial adverse direct or indirect effects on bird species identified in the Project area, because the Project's relatively small scale is unlikely to result in mortalities that would have a species- or population-level effect. Pre-construction surveys and daily sweeps will occur to identify migratory birds and their nests. If active nests are found, a qualified biologist will determine appropriate ESA buffers around each nest as specified in a Nesting Bird Management Plan (Mitigation Measure BIO-2), to minimize disturbance and prevent potential take of the nest. The buffer will remain in place until the nest is vacated and juveniles have fledged, or the nest is no longer active, as determined by a qualified biologist.

Additionally, because the effects of solar installations on avian species are still unknown, an Avian Mortality and Injury Monitoring Plan will be prepared and implemented (Mitigation Measure BIO-9). This Plan would use standardized monitoring methods and shall include an adaptive management program that identifies and implements reasonable and feasible measures to reduce levels of avian mortality or injury attributable to the Project to sustainable levels in the event such population-level effects are observed. Accordingly, impacts to avian species under the regulation of the MBTA and Fish and Game Code are less than significant with mitigation implemented.

- b) **Less Than Significant with Mitigation Incorporated.** Vegetation on the Project site is generally disturbed and consists of fallow agricultural fields in various stages of succession to more natural habitats. Approximately 175.2 acres of disturbed saltbush scrub are expected to be permanently impacted following Project construction with an additional 11.8 acres temporarily lost; these vegetation communities are not sensitive natural communities. Approximately 4.7 acres of ornamental windrows would be permanently impacted and 0.1 acre will be temporarily impacted; but these vegetation communities are not sensitive, either. While providing limited habitat for native plant and wildlife species, these windrows are of lesser ecological value within the Project site and the surrounding region.

A single sensitive vegetation type, desert panic grass patches was observed on the Project site (See Appendix C) and is present along the western and southern boundary of the Project site. Desert sand dune vegetation is considered sensitive by the CDFW and is located within the southern portion of the Project site adjacent to the Mojave River. However, as depicted in Figure 4, the Project's limits of construction would avoid these areas. Off-site, a 0.3 acre area of California joint fir scrub would be impacted. Through implementation of Mitigation Measures BIO-2 and BIO-3, these areas would be surveyed for any special status species prior to construction and decommissioning. With the prescribed mitigation, project-related impacts to sensitive natural communities would be less than significant.

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- c) **Less Than Significant Impact.** No wetlands or non-wetlands of the U. S., including depression features such as vernal pools, were observed within the Project site or off-site locations (Appendix C). All lakes and streambeds under the jurisdiction of the CDFW occur along the southernmost boundary of the Project site and are associated with the Mojave River. Neither wetland or non-wetlands waters nor riparian habitat occur within the limits of proposed construction within the Project site or the off-site–improvement areas. The implementation of Best Management Practices (BMPs) during construction as part of the project’s SWPPP would prevent runoff from the Project site from indirectly affecting the Mojave River and the resulting impacts are less than significant.

Two abandoned retention basins on the Project site (located near western boundary of APN 0497-101-14 and northern portion of APN 0497-101-05) were mapped by the USDA Natural Resource Conservation Service and USFWS National Wetland Inventory (NWI). Based on the findings of the jurisdictional wetland delineation (see Technical Report A1 in Appendix C), these features were concluded to not meet the definition of waters of the State or the United States. Based on this consideration, Project-related impacts to jurisdictional features would be less than significant.

- d) **Less Than Significant with Mitigation Incorporated.** The Project site and off-site improvement areas are located in close proximity to the Mojave River, a regionally important feature that provides stopover habitat and drinking water for a wide variety of wildlife species that traverse the desert during migration.

Construction and Decommissioning

Movement of small wildlife (e.g. all reptiles and small mammals) would be impeded by construction activities such as vegetation clearing, grading, excavation, and the movement of heavy construction equipment and vehicles. Impacts include the crushing of individuals, disturbance by lighting, noise or vibration caused by heavy equipment, and increased exposure to predators following grading or vegetation alterations. Following construction, movement may be adversely affected by continued use of access roads which pose a small risk of crushing these small animals which tend to sun in these areas. Alterations of habitat associated with shading and vegetation management under PV arrays and within Fuel Modification Zones, and increased exposure in disturbed and unvegetated areas are also expected to impact movement. Additionally, due to the combined use of a desert tortoise and MFTL exclusionary fence, many small terrestrial wildlife would be restricted from entering the Project site. However, most wildlife movement is anticipated to occur along the Mojave River and is already restricted by Hwy 58, Community Boulevard, and Lenwood Road. Further, because the Site is currently disturbed with low vegetative cover relative to surrounding areas, it is unlikely that the Project site is a significant contributor to wildlife movement in the region. As such, Project-wide, impacts to the movement or dispersal of small terrestrial wildlife would be less than significant.

Movement of medium-sized wildlife, such as coyotes or American badger, may be impeded by construction activities such as vegetation clearing, grading, excavation, and the movement of heavy construction equipment and vehicles. Impacts include vehicular collisions, disturbance from artificial lighting, noise or vibration caused by heavy equipment, and

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increased exposure to predators following grading or vegetation alterations. Following construction, movement may be adversely effected by continued use of access roads and alterations to habitat within the Site. Additionally, due to the combined use of a desert tortoise and MFTL exclusionary fence, many medium sized terrestrial wildlife would be restricted from entering the Project site. However, most wildlife movement is anticipated to occur along the Mojave River and is already restricted by Hwy 58, Community Boulevard, and Lenwood Road. Further, because the Project site and off-site areas are currently disturbed with low vegetative cover relative to surrounding areas, it is unlikely that these areas are a significant contributor to wildlife movement in the region. As such, Project-wide, impacts to the movement or dispersal of medium-sized terrestrial wildlife will be less than significant.

Larger mammals, such as mule deer, also have a potential to occur on the Project site and off-site improvement areas. These species are particularly sensitive to human disturbance, including noise and artificial lighting and tend to avoid paved roads (Appendix C). These animals have very large home ranges and dispersal distances at the landscape scale and could easily, under appropriate conditions, traverse an area the size of the Project site in a single night. However use and movement across the site and surrounding region by large terrestrial wildlife is not anticipated. This avoidance is anticipated due to the lack of optimal habitat with good escape cover including oak woodlands and savannahs and grassland edges, within the valley floor and general avoidance of open habitats by these species (Appendix C). This lack of cover is exacerbated by the high human activity, including the presence of SR-58 which poses a serious obstacle for large wildlife trying to cross. Movement of large wildlife may be impeded by construction activities such as vegetation clearing, excavation, and the movement of construction equipment and vehicles. Because the likelihood of large mammals actually using the Project site as linkages is very low impacts to the movement or dispersal of large terrestrial wildlife will be less than significant.

Operations

Impacts to birds and bats are described by species in Checklist Issue a). The Project site is located within the Pacific Flyway, which stretches along the Pacific Coast from South America to the arctic tundra. Migratory birds use this major migratory route in the spring and fall because of stopover areas where species rest, feed, and regain their strength before continuing their migration to breeding or wintering grounds. The Project site lies between two significant stopover areas: the Salton Sea (100 miles southeast) and Mono Lake (200 miles northwest). Numerous smaller, but equally important, areas located in the Project vicinity include: local agricultural fields, when flooded (1 mile west), Barstow ponds (7 miles east), North Mojave Dry Lakes (e.g., Harper Dry Lake) (11 miles northwest), Daggett Evaporation Ponds (16 miles east), Silver Lakes (17 miles southwest), Kramer Junction Evaporation Ponds (26 miles west-northwest), Mojave Narrows (30 miles south-southwest), and Baldwin Lake (50 miles southeast). These stopover areas, some identified as California Important Bird Areas by the National Audubon Society, guide birds over the Project area. The Project is proposed on lands that are low quality, disturbed habitats surrounded by open, undisturbed lands as well as similarly disturbed rural residential lands. Based on spring and summer observations, the Project site and off-site areas do not act as a significant linkage area. However, avian movement/migration through the Project area may be impacted if the “lake effect” hypothesis, attracting birds to the Project site, is valid. Impacts would be minimized

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through the implementation of Mitigation Measures BIO-9 and BIO-10 to a less than significant level following implementation of an Avian Mortality and Injury Monitoring Program. This Program will include adaptive management measures to avoid population-level effects should such “lake effect” impacts be observed.

- e) **Less Than Significant with Mitigation Incorporated.** The California Desert Native Plants Act (CDNPA; See Div. 23 § 80071-80075 of the California Food and Agriculture Code) protects certain native plant species within specified Counties within California including: Counties of Imperial, Inyo, Kern, Los Angeles, Mono, Riverside, San Bernardino, and San Diego. Section 80073(d) states that all native species of the genus *Prosopis* (mesquites) are protected under the CDNPA. Twenty (20) mesquite trees were observed on the Project site and off-site improvement areas including eighteen (18) honey mesquite (*Prosopis cf. glandulosa*), one (1) Black carob tree (*Prosopis cf. nigra*), and one (1) screwbean mesquite (*Prosopis pubescens*) (Appendix C). All twenty individuals were planted from unknown sources as a windrow and, as such, are not considered native to the Project site. Further, all individuals fall outside of the proposed Project footprint and will not be impacted as part of the proposed Project. As such, no impacts to native mesquite would occur as part of the Project and a Desert Native Plants Harvesting Permit is not required under the CDNPA.

The Conservation Element of the County’s General Plan includes goals and polices for the County’s Desert Region with the intent of preserving the unique environmental features and natural resources of the Desert Region, including vegetation, water and scenic vistas (Goal D/CO 1). The Project would comply with Policy D/CO 1.2, which requires future land development practices to protect the natural vegetation by avoiding the sensitive desert panic grass patches and minimizing impacts to stands of California joint fir scrub. Mitigation Measures BIO-1, BIO-2, and BIO-3, would ensure that the Project complies with Policy D/CO 1.5, which requires that mechanical removal of vegetation be minimized to areas adjacent to permitted uses. These measures minimize the hazards to wildlife that are associated with mowing through a combination of pre-construction surveys, worker education, and on-site monitoring.

The Project Applicant has completed a desert tortoise protocol survey per USFWS requirements in accordance with Policy D/CO 1.12. Although no desert tortoises were observed, Mitigation Measures BIO-1, BIO-2, BIO-3, BIO-5, BIO-6, BIO-7, and HWQ-1 would support the County’s goal of protecting this listed species through worker education, pre-construction surveys and monitoring, and the erection of exclusion fencing. With the implementation of these measures, the Project would not conflict with any local policies or ordinances protecting biological resources and the impact is less than significant.

- f) **No Impact.** The Project site is not located within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. The Project area is within the boundaries of the West Mojave Plan (BLM, 2005). The West Mojave Plan is a federal land use plan amendment to the Bureau of Land Management’s California Desert Conservation Area (CDCA) Plan that presents a comprehensive strategy to conserve and protect sensitive plants and animals and the natural communities of which they are a part. The West Mojave Plan is applicable only to

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BLM-administered public lands within the West Mojave Plan area. Although the study area is within the West Mojave Plan area, it is not encompassed within BLM lands; therefore, future development would not be subject to the requirements of the West Mojave Plan. The Project site is within the planning area of the Desert Renewable Energy Conservation Plan (DRECP); however, this Habitat Conservation Plan and Natural Community Conservation Plan is still in development and has not been adopted. It is important to note that because the plan has not yet been formally approved it is without regulatory weight, and may be subject to significant change prior to approval. On March 10, 2015, the state and federal agencies preparing the DRECP decided to phase its development, with the BLM lands component of the plan being processed first, followed by processing of the private lands portion of the plan at such time as each County decides to subscribe to the DRECP. This approach was adopted to ensure better alignment with county planning priorities and goals. The expected date of a final, effective DRECP is not known but the effective date of any private lands component within San Bernardino County is likely to be substantially beyond the approval and construction timeline of the Longboat Solar project, due to the large-scale, complex nature of the plan and the degree of coordination required to align the plan with County priorities. Therefore, the proposed Project will have no impact relating to Habitat Conservation Plans, Natural Community Conservation Plans, and Recovery Plans.

Possible significant adverse impacts have been identified or anticipated and the following mitigation measures are required as conditions of Project approval to reduce these impacts to a level below significant.

MM# Mitigation Measures

BIO-1: Worker Environmental Awareness Program. All construction and operations staff working on the Site will be required to attend a Worker Environmental Awareness Program (WEAP) as prepared and presented by a qualified biologist. This program will emphasize the conservation of sensitive biological resources during Project construction and operations and will include, at a minimum:

- The purpose of resource protection and relevant mitigation requirements;
- A description of the existing habitats and special status species including identification tips;
- The conservation measures that will be implemented in conjunction with Project construction and operation;
- A protocol for documenting and reporting dead or injured wildlife encountered during construction and at least one year of operation;
- Contact information for Project biologists and monitors; and
- fire protection measures;
- measures to minimize the spread of weeds;
- hazardous substance spill prevention and containment measures; and
- Penalties for violation

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A copy of the worker education training materials shall be provided to San Bernardino County prior to the issuance of a grading or construction permit.

The names of all personnel who attend the training shall be recorded and workers shall be issued hardhat decals denoting they have received the workshop training as well as informational fliers for quick reference. No personnel shall be permitted to operate equipment within construction zones unless they have completed the WEAP and are displaying hardhat decals denoting this attendance.

BIO-2: Pre-Construction Surveys and Daily Sweeps. Before initiating any ground-disturbing task (e.g., mechanized clearing, trenching, grading, etc.) associated with Project-related construction activities, pre-construction surveys will be conducted by a qualified biologist, in all Project areas slated for vegetation clearing or ground disturbing Project activities and the appropriately sized buffer. The surveys will be conducted no more than 30 days before disturbance activities are scheduled to begin within suitable Project habitat. Should sensitive resources be observed, biologists will establish Environmentally Sensitive Area (ESA) buffers and no construction activities will be allowed within said ESA until the sensitive resource has left on its own accord or until otherwise authorized by the responsible trustee agency. Biological monitors will conduct daily sweeps prior to construction activity to verify no new sensitive resource occurs within that day's construction activity site.

(a) *Desert tortoise.* Focused desert tortoise surveys, as described in Preparing for Any Action that May Occur within the Range of the Mojave Desert Tortoise (USFWS, 2010) will be conducted in areas of potentially suitable habitat within 30 days of initial ground-disturbing activities. All tortoise sign will be mapped and all scat collected during the first clearance survey. If fresh scat is found during the second clearance survey, the surrounding area will be searched.

If encountered, tortoise burrow locations will be georeferenced in the field using Global Positioning System (GPS), and the size and approximate age of the burrow identified. Where possible, tortoise burrows would also be flagged only if the flagging would not attract poaching.

No more than 24 hours prior to fence installation and vegetation removal, all disturbance areas would be surveyed to ensure no desert tortoise individuals or burrows are present. Should desert tortoise be observed on the Project site, all potential activities with the possibility to impact an observed desert tortoise shall cease until the individual has left the area on its own accord. A report shall be sent to the California Department of Fish and Wildlife and U.S. Fish and Wildlife Service within five calendar days of the sighting and will include:

- Name and contact information of the biologist who observed the species;
- Date, time and location of the observation;
- Measures taken to avoid impacts following the observation;
- Monitoring methods used to ensure no impacts to desert tortoise have occurred; and
- Recommendations for ongoing activity at the Site that avoid impacts to desert tortoise.

If a dead desert tortoise is encountered, all work shall stop in the immediate vicinity of the encounter and the California Department of Fish and Wildlife and U.S. Fish and Wildlife Service shall be contacted immediately to determine the appropriate course of action under the respective statutory and regulatory endangered species regimes administered by each agency.

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(b) *Mohave fringe-toed lizard*. Focused Mohave fringe-toed lizard (MFTL) surveys will be conducted in areas of potentially suitable habitat. These surveys shall occur within 30 days of initial ground-disturbing activities and during the seasonal activity period (typically, March to September). A qualified MFTL biologist will prepare a Mohave Fringe-toed Lizard Management Plan. This Plan shall be submitted to San Bernardino County and the CDFW for approval prior to the issuance of a grading or construction permit. This Plan will include, at a minimum:

- A discussion on the species' biology including known distribution maps;
- Minimum qualifications for biologists to work with the species;
- Measures to avoid impacts to MFTL during Project construction including, but not limited to survey requirements, MFTL exclusionary fencing, speed limit enforcements, WEAP requirements, and avoidance of dune habitats.
- MFTL relocation requirements in the event an MFTL is observed within the Project disturbance area. These relocation requirements will include, at a minimum: handler requirements and qualifications, means of relocation and necessary equipment, clear microhabitat description and map of an approved receptor site, and relevant restrictions. All MFTL will be relocated to a County- and CDFW-approved receptor site.
- Reporting requirements. All MFTL encountered during surveys shall be reported to the County and CDFW in monthly monitoring reports. Should an individual require relocation, additional information shall be included including: date and time of capture, date and time of release, name and qualifications of the MFTL biologist, GPS coordinates and photo-documentation of capture and receptor microhabitat, and additional relevant information.

All observations will be mapped and all observed MFTL will be relocated to a County- and CDFW-approved receptor site.

(c) *Burrowing Owl*. Pre-construction burrowing owl surveys will be conducted by a qualified biologist, in conformance with the Staff Report on Burrowing Owl Mitigation (CDFW 2012) within 500 feet of all Project areas slated for vegetation clearing or ground disturbing Project activities. The surveys will be conducted no more than 30 days before disturbance activities are scheduled to begin within suitable Project habitat and 500-foot buffer zones. If burrowing owls are observed using burrows during the non-breeding season (September 1 – January 31) or breeding season (February 1 – August 31), an ESA buffer shall be established around each burrow, and no activities will be allowed within the buffer until the nest is complete (young have fledged or the nest fails). Nest buffer distance will be a minimum of 300 feet. All ESAs will be clearly identified using visible markers such as orange snow fencing, flagging, signage or other visual cues. This protected area will remain in effect until August 31 or until the young owls are foraging independently. If disturbance of owls and their burrows is unavoidable, owls will be excluded from all active burrows as described in a Burrowing Owl Relocation Plan. All relocation will be passive in nature using burrow exclusion methods and all relocation will be performed in conformance with the Staff Report on Burrowing Owl Mitigation (CDFW 2012) after conferring with the CDFW and County of San Bernardino.

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(d) *Nesting Birds and raptors.* Pre-construction surveys for nesting birds will be conducted if construction, ground disturbance, and/or vegetation trimming/removal activities are scheduled to occur during the breeding season (February 1 to August 31). A qualified avian biologist shall conduct the surveys no more than 30 days before disturbance activities are scheduled to begin within suitable Project habitat and 500-foot buffer zones. If active nests are found, a qualified biologist will determine appropriate buffer distances around each nest as specified in the Nesting Bird Management Plan, to minimize disturbance to the nest and prevent potential take of the nest. The buffer distance will be based on the species behavior characteristics and conservation status, nest location, and nature of anticipated project activities nearby. The buffer area will be conspicuously demarcated on the ground and the Permittee will ensure that all project activities in the vicinity of the site are monitored to prevent incursion into the buffer area. The buffer will remain in place until the nest is vacated and juveniles have fledged, or the nest is no longer active, as determined by a qualified biologist. An inactive nest is characterized by no longer containing viable eggs and/or living young and is not being used by a bird as part of the reproductive cycle (eggs, young, fledging young still dependent upon nest). All fledglings must leave the nest on their own accord (e.g., without take) to be considered inactive. In some cases, a nest can be abandoned by the bird constructing it and become inactive prior to egg laying. In such cases, determination that the nest is inactive is made on a case-by-case basis based on consistent observations and the determination of an avian biologist.

A qualified biologist will prepare a Nesting Bird Management Plan describing the measures to avoid nests in the event they are observed. This Plan is applicable to all nesting birds protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code. This Plan shall be submitted to San Bernardino County and the CDFW for approval prior to the issuance of a grading or construction permit. This Plan will include, at a minimum:

- Minimum qualifications for biologists to work with the species;
- Measures to avoid impacts to nesting birds during Project construction including, but not limited to survey requirements, monitoring requirements, WEAP requirements, and avoidance of dune habitats.
- Communications protocol in the event of a nest discovery;
- A list of potentially occurring avian species (or guild) and minimum no disturbance buffer for each. Buffer sizes will be site-specific and based on the sensitivity of specific species or guilds and not based on generalized assumptions regarding all nesting birds;
- Contingency and emergency activity measures; and
- Reporting requirements. All nests and their status (active versus inactive), species descriptions, date of inactivity, location (including GPS coordinates), and other information will be provided in monthly construction monitoring reports.

If for any reason a bird nest must be removed during the nesting season, the Project proponent(s) shall provide written documentation of concurrence from the United States Fish and Wildlife Service and the California Department of Fish and Wildlife authorizing the nest relocation to the County of San Bernardino. This documentation will include what actions were taken to avoid moving the nest, the location of the nest, what species is being relocated, the number and

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condition of the eggs taken from the nest, the location of where the eggs are incubated, the survival rate, the location of the nests where the chicks are relocated, and outcome (whether or not the chicks survived and fledged).

(e) *Mohave ground squirrel*. Presence/absence pre-construction surveys for Mohave ground squirrel will be conducted no more than one (1) year before disturbance activities are scheduled to begin within suitable Project habitat. If a Mohave ground squirrel is observed during pre-construction surveys or at any point, work shall be halted and redirected to other areas of the Project Site that would not affect the individual observed. A report shall be sent to the California Department of Fish and Wildlife within five calendar days of the sighting and will include:

- Name and contact information of the biologist who observed the species;
- Date, time and location of the observation;
- Measures taken to avoid impacts following the observation;
- Monitoring methods used to ensure no impacts to Mohave ground squirrel have occurred; and
- Recommendations for ongoing activity at the Site that avoid impacts to Mohave ground squirrel.

If a dead Mohave ground squirrel is encountered, all work shall stop in the immediate vicinity of the encounter and the California Department of Fish and Wildlife shall be contacted immediately to determine the appropriate course of action under the California Endangered Species Act.

(f) *Desert Kit Fox and American badger*. Focused surveys for American badger and desert kit fox will be conducted by a qualified biologist within 500 feet of all Project areas slated for vegetation clearing or ground disturbing Project activities. The surveys will be conducted no more than 30 days before disturbance activities are scheduled. The surveys shall be performed by walking parallel transects spaced no more than 20 meters apart within areas of suitable habitat, and shall be focused on detecting dens that are occupied, or are suitable for occupation, by either species. Potential burrows will be monitored for 72 hours using motion detecting infrared cameras or similar trackers to determine activity.

Inactive dens are burrows that have largely collapsed or the end of the burrow is clearly visible. Inactive dens that will be directly impacted by construction activities shall be excavated and backfilled by hand to prevent reuse by American badger or desert kit fox.

If occupied burrows are observed outside of the pupping season, the occupants may be passively excluded from their burrow using natural materials over a period of five consecutive days. Once the den is confirmed vacated, it shall be excavated to ensure no wildlife are trapped within the den and then backfilled by hand to prevent reuse by American badger or desert kit fox.

If an occupied den is observed during the pupping season (typically, February to July), then the burrow will be clearly flagged and a minimum 200-foot no disturbance area surrounding the den shall be established. This buffer shall remain in place until the end of the pup-rearing season or

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the den is determined inactive or abandoned by a qualified biologist. At this point, passive exclusion methods (see above) shall be used.

If an American badger or desert kit fox is observed, a report shall be sent to the California Department of Fish and Wildlife within 30 calendar days of the sighting and will include:

- Name and contact information of the biologist who observed the species;
- Date, time and location of the observation;
- Measures taken to avoid impacts following the observation;
- Monitoring methods used to ensure no impacts to American badger or desert kit fox have occurred; and
- Recommendations for ongoing activity at the Site that avoid impacts to American badger or desert kit fox.

If a dead or injured American badger is encountered, all work shall stop in the immediate vicinity of the encounter and the California Department of Fish and Wildlife shall be contacted within eight hours to determine the appropriate course of action.

To minimize the likelihood of the transmission of canine distemper, no pets shall be allowed on the site. If a dead, sick, or injured desert kit fox is encountered, all work shall stop in the immediate vicinity of the encounter and the California Department of Fish and Wildlife shall be contacted within eight hours to determine the appropriate course of action.

(g) Bats. Focused surveys for bats, including Townsend's big-eared bat, will be conducted by a qualified biologist within 300 feet of all Project areas slated for vegetation clearing or ground disturbing Project activities where roosting habitat occurs. The surveys will be conducted no more than 30 days before disturbance activities are scheduled to begin within suitable Project habitat and 300-foot buffer zones surrounding rocky outcrops, buildings, bridges, large trees, or any other habitat capable of supporting roosts or hibernacula.

If active maternity roosts or hibernacula are found on site, the roost shall be avoided (i.e., not removed) by the project, if feasible. If avoidance of the roost is not feasible, the bat biologist shall notify the California Department of Fish and Wildlife in writing and additional surveys (via Anabat telemetry or other -approved methods) for nearby alternative roosting sites will be conducted. If the bat biologist identifies, in consultation with and with the approval of the California Department of Fish and Wildlife, that there are alternative roost sites used by the maternity colony and young are not present, then no further action is required.

If no active alternative roosts are found, substitutive roosting habitat for the colony shall be provided on, or in close proximity to, the Project Site. Following establishment of the substitutive roosting site for a period of no less three months, then exclusion of the bats from the original roost may occur. Following the exclusionary period, the demolition of the roost site must commence before maternity colonies form (typically, March) or after young are flying (typically, August).

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If accidental take should occur, the California Department of Fish and Wildlife and/or the United States Fish and Wildlife Service shall be notified within 30 days.

BIO-3 Biological Monitoring. The Project proponent will retain a qualified Biological Monitor for all activities associated with ground disturbance, grading, construction, decommissioning, and restoration throughout the Project lifetime. The Biological Monitor must be knowledgeable of general and focused species issues on the Project, qualified by the County of San Bernardino to conduct such work, and must be competent to monitor all biological mitigation measures. The Biological Monitor will have the authority to ensure compliance with mitigation measures set forth in this report including the authority to halt work as necessary to ensure full compliance.

Duties of the Biological Monitor will include, but will not be limited to the following:

- The Biological Monitor will ensure that all established buffers surrounding identified ESAs are maintained.
- Conduct daily pre-construction clearance sweeps for plants and wildlife (including nests) to determine the need for any new no disturbance buffers.
- All dead wildlife will be immediately removed and disposed of properly as to not attract dogs, ravens, raptors, and other opportunistic scavengers and predators.
- To prevent entrapment, all potential wildlife pitfalls (i.e., steep trenches, bores, and other excavations) will be inspected daily (i.e., morning and/or evening) and immediately before backfilling to monitor for wildlife entrapment. Large/steep excavations will be covered and/or fenced nightly to prevent wildlife entrapment. If the excavation cannot practicably be covered or fenced, excavations will be sloped at a 3:1 ratio at the ends, or an earthen ramp will be provided to allow wildlife to escape. If any wildlife species become entrapped, construction will not continue until the animal has left the trench voluntarily or the Biological Monitor has removed the animal.
- No listed species will be handled without the appropriate permits.
- The Biological Monitor will inspect the site to ensure trash and food-related waste is placed in closed-lid containers and that workers do not feed wildlife.

BIO-4 Weed Abatement Plan. Prior to the initiation of vegetation removal within the Project, the Applicant will submit to the County of San Bernardino a copy of the final Weed Abatement Plan and letter of approval from the appropriate fire authority. This plan will describe all requirements pertaining to weed abatement, fire protection, and fuel modification including periodic clearance of the site of all non-complying vegetation under San Bernardino County Desert Area Fire Hazard Abatement regulations [County Code 23.031-23.043]. These measures may include, but will not be limited to, the removal of brush and dead plant materials, removal of non-native plant species, and other periodic management measures including mowing, particularly beneath PV arrays. The location of fuel modification zones and/or fire breaks to minimize impacts to sensitive biological resources will be identified within the Plan. To the degree practicable, mowing or any other vegetation maintenance will occur between August 15 and February 15 to minimize impacts to nesting birds.

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BIO-5 Trash Abatement Program. A Trash Abatement Program will be initiated during pre-construction phases of the Project, and would continue through the lifetime of the Project. Trash and food items would be contained in closed containers and removed regularly (at least once per week) to avoid attracting opportunistic predators such as ravens, coyotes, and feral dogs.

BIO-6 Other Biological Resource Protection Measures. The following additional measures will be implemented during Project construction:

- All equipment maintenance, staging, and the dispensing of fuel, oil, coolant, or any other such activities will be restricted to designated areas within the Project impact limits. These designated areas will be located in previously compacted and disturbed areas to the maximum extent possible in such a manner as to prevent runoff from entering existing native vegetation areas. These areas will be clearly designated in the construction plans and SWPPP (See HWQ-1)
- Twenty miles per hour speed limits will be enforced for all vehicles traveling on the Project site.
- Trash will be stored properly (i.e., in a manner that is inaccessible to scavengers including condors, ravens, crows, and raccoons), in accordance with the Construction General Permit, and removed from the construction site on a regular basis.
- Pets will not be permitted on the Site during construction.
- Entry to all areas flagged, staked, or otherwise marked as special status by the Environmental Monitor will be prohibited.

BIO-7 Raven Management Plan. The Project proponent adhere to the following measures to ensure that the construction, operation, maintenance, and decommissioning of the Project does not adversely impact regional desert tortoise populations by attracting common ravens to the Project area and increasing the probability of tortoise predation. The following measures shall be implemented to mitigate project-specific impacts that could result in a local increase in common ravens:

- All trash and food-related waste will be disposed of in secure, self-closing receptacles to prevent the introduction of subsidized food resources for common ravens.
- Use water for construction, operation and maintenance in a manner that does not result in pooling or puddling.
- The biological monitor identified in BIO-3 shall implement the following at the project site:
 - Remove and dispose of road kills of common wildlife species from the project site and access road. No species protected by federal or state endangered species laws would be removed.
 - Document common raven use of the project site and access road on a daily basis, during vegetation clearing and ground disturbance [BIO-2]. If frequently used perching locations are identified, use physical, auditory or visual bird deterrents to discourage use by common ravens.
 - Remove any inactive raven nests in the project site or along the access road.
- Implement Avian Power Line Interaction Committee (APLIC) guidelines [BIO-10].

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- Implement the following measure to mitigate indirect and cumulative impacts: Contribute to the Regional Raven Management Plan fund managed by the National Fish & Wildlife Fund. The contribution shall consist of a one-time total payment of \$105 per acre of disturbance, including the project site and gen-tie improvement corridor.

BIO-8 Exclusionary Fencing Plan. The Project proponent will submit an Exclusionary Fencing Plan, describing permanent desert tortoise and Mohave fringe-toed lizard exclusionary fencing to be used at the Project, to the County of San Bernardino prior to the issuance of a building or grading permit. This plan will describe fencing materials, locations, access areas, monitoring requirements, and other information pertaining to the erection and maintenance of these fences.

BIO-9: Avian Mortality and Injury Monitoring. The Project proponent shall perform operations-phase avian mortality and injury monitoring at the Project site. The program shall be initiated upon commencement of commercial operation and continue for one year following commercial operation. Prior to issuance of a grading permit for the project, the Project proponent shall submit an Avian Mortality and Injury Monitoring Plan to the County of San Bernardino and USFWS that, at a minimum, includes the following elements:

1. Monitoring Protocol

- a. A description and summary of the baseline survey methods, raw data, and results.
- b. Full survey methodology and field documentation, identification of appropriate survey locations, control sites, and seasonal considerations.
- c. Avian mortality and injury monitoring that includes:
 - i. Onsite monitoring that will periodically survey representative locations within the facility, and, in combination with an integrated carcass detection trial, will produce accurate project-wide impact estimates.
 - ii. Statistical methods used to generate facility estimates of potential avian impacts based on the observed number of detections during standardized searches and adjusted by integrated detection trials.
 - iii. Field detection and mortality or injury identification, cause attribution, handling and reporting requirements.
 - iv. Detailed specifications on data and carcass collection protocols and a rationale justifying the proposed schedule of carcass searches.
- d. All monitoring studies included in the program shall be conducted by a third party contractor for one year following commencement of commercial operation. At the end of the one year period, USFWS shall determine whether the survey program must be continued.
- e. Monitor the death and injury of birds and bats from collisions with facility features.

2. Adaptive Management Program. The Project shall be subject to additional, adaptive management mitigation in the event mortality and injury survey results indicate the Project fails to meet applicable performance standards. Appropriate performance standards for mitigation of impacts to any species regulated by BGEPA, ESA, and CESA exist through required

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consultation with USFWS and CDFW under their respective regulatory and permitting frameworks. For impacts to all other special-status avian species, mitigation 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 local population of the species in question, as estimated through the results of implementation of the monitoring protocol required in by this mitigation measure.

The Plan shall include an adaptive management program that identifies and implements reasonable and feasible measures to reduce levels of avian mortality or injury attributable to the Project (whether project-specific or cumulatively considerable) to levels that accomplish the performance standards referenced above. To that end, the adaptive management program shall include (i) reasonable measures for characterizing the extent and importance of detected mortality and injuries clearly attributable to the Project; and (ii) potential measures that the Project owner could implement to adaptively respond to detected mortality and injuries attributable to the Project. Undertaken adaptive actions will be discussed and evaluated in survey reports.

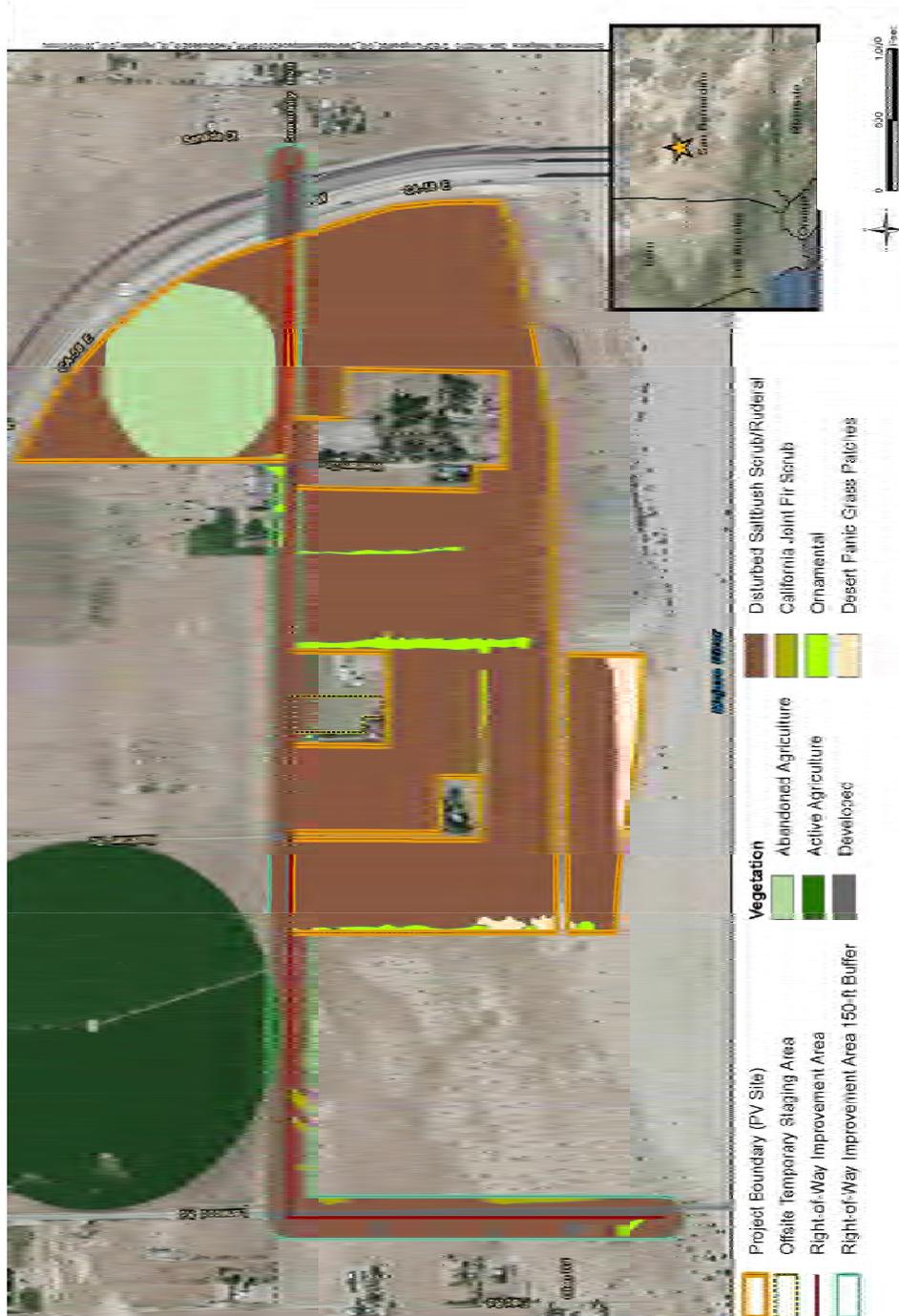
Any impact reduction measures must be commensurate (in terms of factors that include geographic scope, costs, and scale of effort) with the level of avian mortality or injury that is specifically and clearly attributable to the Project facilities in excess of the performance standards referenced above, consistent with the proportionality requirements of California statutory and constitutional law and of U.S. constitutional law. Such measures may include, but not be limited to:

- a. The Project owner shall initiate consultation with USFWS and CDFW if there is project-attributed injury or mortality to any species regulated by BGEPA, ESA or CESA.
- b. Passive avian diverter installations along the perimeter or at other locations within the Project to reduce or minimize bird use of the site.
- c. The use of sound, light or other means to discourage site use consistent with applicable legal requirements.
- d. Onsite habitat management or prey control measures consistent with applicable legal requirements.
- e. Modifications to support structures or other facilities to exclude nesting birds (e.g., netting or shielding around framework; capping open pipes or tubing).
- f. Incorporation of visual cues to panels, such as UV-reflective or solid contrasting bands if proven to be effective and economically and technically feasible.
- g. Additional mortality monitoring to assess impact reductions achieved through adaptive management.
- h. Such other reasonable, feasible measures required by USFWS under its regulatory authority that are applicable to special-status avian species.

BIO-10 APLIC Guidelines. The Project will implement Avian Power Line Interaction Committee (APLIC) guidelines to reduce avian collisions with power lines and poles installed as part of the Right-of-Way Improvement Area.

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Figure 13 Vegetation Map



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Issues	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
V. CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION: (Check if the project is located in the Cultural or Paleontologic Resources overlays or cite results of cultural resource review):

a) **Less than Significant Impact.** The Project, including the off-site interconnection, will not cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the CEQA Guidelines. Cogstone prepared a Cultural and Paleontological Resources Assessment for the Project site in December 2014 (Appendix D1). The purpose was to identify potential adverse impacts to cultural and paleontological resources resulting from construction of the proposed Project. A Supplemental Cultural and Paleontological Resources Assessment (May 2015) was also prepared by Cogstone to assess the off-site interconnection (Appendix D2). The following information is summarized from the *Cultural and Paleontological Resources Assessments for the Longboat Solar Project* (Appendices D1 and D2 of this Initial Study).

A search for archaeological and historical records, including Sacred Lands file maintained by the Native American Heritage Commission (NAHC), was completed by Cogstone on August 7, 2014 at the South Central Coastal Information Center (SCCIC). The record search covered a one-mile radius around the Project boundary. Eight additional sources, including the National Register of Historic Places and California Register of Historical Resources, were consulted to obtain additional cultural resource data regarding the Project.

Additional research completed by Cogstone revealed that none of the eight additional sources displayed any areas of concern or historical significance to the Project area.

The records search indicated a total of 22 cultural resources investigations have been completed previously within a one-mile radius of the Project and no survey reports are on file for the Project. The results of these studies indicate that 17 cultural resources were previously identified and documented within a one-mile radius of the Project. These

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resources include five prehistoric sites, seven prehistoric isolates, a multicomponent site, and four historical built environmental resources. One built environment resource, the historic Atchison Topeka and Santa Fe Railroad, has been previously determined eligible for listing in the National Register of Historic Places.

The records search completed by Cogstone indicated that one historical property (P-36-002294) had been previously identified and documented within the Project's area of potential affect (APE). This site was originally recorded in 1949 and subsequently updated in 2003 and 2007. The 1949 and 2003 site boundaries are mapped as covering approximately 119 acres of the Project. However, a 2007 survey determined that the 1949/2003 site boundaries were no longer correct due to extensive disturbance from agricultural activities and that only a remnant of the site located along flood control property south of the Project still remains. P-36-002294 was field verified by Cogstone staff and determined not to be within the Project's development area. Following a field survey of the APE, no new historically-significant resources, including architectural features, were identified. This includes the on-site water retention/containment structures. Also, the adjacent rural residences are located outside the APE. Based on the intensive pedestrian survey and subsurface exploration conducted within the APE, the Project would not cause a substantial adverse change in the significance of a historical resource as defined in §15064.5. Therefore, a less than significant impact would occur.

- b) **Less than Significant with Mitigation Incorporated.** Based on the results of the Cultural and Paleontological Resources Assessment (2014; Appendix D1), one of the identified resources, P-36-002294, was previously recorded within the Project boundary. This prehistoric site was originally recorded in 1949 and subsequently updated in 2003 and 2007. The 1949 and 2003 site boundaries are mapped as covering approximately 119 acres of the Project. However, a 2007 survey determined that the 1949/2003 site boundaries were no longer correct due to extensive disturbance from agricultural activities and that only a remnant of the site located along flood control property south of the Project still remains. P-36-002294 was field verified by Cogstone staff and determined not to be within the Project's development area. Based on the results of the Supplemental Cultural and Paleontological Resources Assessment (Cogstone 2015; Appendix D2), no archaeological resources were encountered in the off-site improvement area.

A sacred lands record search was requested by Cogstone staff from the Native American Heritage Commission (NAHC) on August 1, 2014 to identify all California Native American tribes (as defined in Section 21073 of the Public Resources Code) that are traditionally and culturally affiliated with the geographic area of the Project site. The NAHC responded on September 4, 2014 that there were no known cultural resources within a half-mile of the Project. The NAHC recommended contacting seven Native American individuals and or tribes indigenous to the surrounding area. Cogstone mailed a letter to each of the seven contacts with tribes on September 9, 2014 requesting any information on heritage resources and followed up by phone and by email on several occasions over a nine-month period thereafter. A response letter was received by the Morongo Band of Mission Indians on June 18, 2015, indicating that the Project site is within an area considered to a traditional use area or one in which the tribe has cultural ties (Appendix D3). In its response letter, the tribe also requested a formal records search be performed and a comprehensive cultural resources survey be

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conducted for the APE. In addition, the tribe requested that the County impose specific conditions on the Project in the event that native American cultural resources are discovered during Project-related construction.

Archaeological fieldwork on the Project site occurred from October 20 through October 23, 2014. Fieldwork consisted of an intensive pedestrian survey and subsurface exploration. A majority of the Project site contained no prehistoric artifacts at the surface. One surface assemblage (150 by 120 meters in extent) was documented in the northwest quadrant of the Project and consisted of a sparse scatter of approximately 20 artifacts, including cryptocrystalline (ccs), quartzite, and other primary and secondary flakes, one small core fragment, fire-cracked cobbles, one complete brown ccs projectile point, and a possible brownware ceramic body sherd (Cogstone 2014).

According to the *Cultural and Paleontological Resources Assessment for the Longboat Solar Project* (Appendix D1), a projectile point documented in this area is similar to a Humboldt concave base point but the characteristics were not definitive and, therefore, it is not possible to assign this feature to a cultural period. Subsurface testing revealed modern refuse materials in one of the trenches (Trench 9) with the remaining trenches determined to be negative for subsurface materials. Based on the findings of the assessment, no intact cultural deposits were determined to be present and those materials present were determined to have no potential to contribute new information to prehistory (CRHR criterion 4). No resources were encountered with the areas defined for the off-site interconnection (Appendix D2) Therefore, the proposed Project would not cause a substantial adverse change in the significance of a known archaeological resource pursuant to §15064.5.

Assembly Bill No. 52 (AB 52) took effect on July 1, 2015. AB 52 requires a lead agency to make best efforts to avoid, preserve, and protect tribal cultural resources. The bill states that tribal cultural resources are:

- 1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either (i) included or determined to be eligible for inclusion in the California Register of Historical Resources; or included in a local register of historical resources;
- 2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in PRC Section 5024.1(c);
- 3) A cultural landscape that meets one of the criteria of 1), above, and is geographically defined in terms of the size and scope of the landscape; and/or
- 4) A historical resource described in PRC 21084.1, a unique archaeological resource described in PRC 21083.2(g), or a non-unique archaeological resource as defined in PRC 21083(h) if it conforms with the criteria of 1), above.

Based on Cogstone's analysis as documented in the Cultural and Paleontological Resources Assessment for the Longboat Solar Project, Cogstone did not identify any tribal cultural resources fitting the definition above. Further, Cogstone also contacted the NAHC and four

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tribes, including seven individual representatives, to identify potential tribal cultural resources. The NAHC “failed to indicate the presence” of Native American resources in the immediate Project area and no tribal cultural resources have been identified within the Project area by the representatives contacted. As such, the proposed Project is not expected to result in a significant effect to a tribal cultural resource.

Prior to the release of the CEQA document for a project, AB 52 requires the lead agency to initiate consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if: (1) the California Native American tribe requested to the lead agency, in writing, to be informed by the lead agency through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe, and (2) the California Native American tribe responds, in writing, within 30 days of receipt of the formal notification, and requests the consultation.

As of the date of this document, two California Native Tribes identified by the NAHC as potentially having knowledge of the Project area have requested that the County inform them of projects in the geographic area of the Project. These tribes include the San Manuel Band of Mission Indians and the Morongo Band of Mission Indians. Letters notifying the tribes of the Project were sent by the County to the San Manuel Band of Mission Indians and the Morongo Band of Mission Indians on July 29, 2015. Letters were also sent by Cogstone to the Soboba Band of Luiseño Indians on July 23, 2015 and the Gabrieleno Band of Mission Indians – Kizh Nation on July 24, 2015. These letters are provided in Appendix D3. The San Manuel Band of Mission Indians, the Morongo Band of Mission Indians and the Soboba Band of Luiseno Indians each requested consultation under AB 52, which consultation the County has since initiated.

Although, the proposed Project would not cause a substantial adverse change in the significance of a known archaeological resource pursuant to CEQA Guidelines §15064.5 or an identified tribal cultural resource pursuant to PRC §21082.3, there is a potential for Project-related construction to impact unknown or previously unrecorded archaeological resources. Mitigation Measure CR-1 requires tribal monitoring of all ground-disturbing Project activities and a stop-work provision to ensure protection of any inadvertently discovered archaeological and/or tribal cultural resources during construction of the Project. Mitigation Measure CR-2 requires worker training and, in the event of a discovery, the on-site presence of a qualified archaeologist to monitor ground-disturbing activities and excavations in the vicinity of the find and temporarily redirect activities in order to evaluate the significance of the resource, with tribal notification of any significant finds. Mitigation Measure CR-3 specifies provisions for the treatment of discovered archaeological resource in the event a find is made. The implementation of Mitigation Measures CR-1 through CR-3 would reduce the potential for impacting archaeological and tribal cultural resources to a less than significant level by including provisions for the monitoring, discovery and treatment of such resources.

- c) **Less than Significant Impact.** Paleontological resources are considered to be significant if they provide new data on fossil animals, distribution, evolution or other scientifically important information. Best current professional practice to characterize paleontological sensitivity utilizes the federal Potential Yield Classified (PYC) system which has a multi-level scale based on demonstrated yield of fossils. Knowledge of the geological formations gleaned from

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geological maps and records of previous fossils recovered from the area were the basis for determining the paleontological sensitivity of the sediments found within the Project site (Cogstone 2014).

The Project site is underlain with Holocene alluvium, active wash sediments of the Mojave River, and wind-blown sand deposits. These deposits may be underlain by older, Pleistocene sediments at depth. According to the *Cultural and Paleontological Resources Assessment for the Longboat Solar Project* prepared by Cogstone, the Holocene alluvium, active wash, and wind-blown sand deposits of the Project site are assigned a low potential on the PYC system as they are too young to contain fossils although they likely cover Pleistocene sediments that may contain fossils (Appendix D). These Pleistocene sediments have a moderate and patchy potential based on fossils known from the area (Cogstone, 2014). The Project site is relatively flat, and will only require minimal site grading for the majority of the site. Surface grading or shallow excavations in the uppermost few feet of the Holocene alluvium, active wash sediments, and wind-blown sand deposits are unlikely to uncover significant vertebrate fossils. Given that Project-related excavation would not extend below five feet, there is a low likelihood for encountering paleontological resources. Therefore, the proposed Project is unlikely to directly and indirectly destroy paleontological resources and the corresponding impact is considered less than significant.

- d) **Less than Significant Impact.** It is unlikely that any human remains would be found or disturbed on the Project site. However, California law recognizes the need to protect historic-era and Native American human burials, skeletal remains, and items associated with Native American interments from vandalism and inadvertent destruction. The procedures for consulting with Native American tribes are outlined in AB 52, as described in checklist question (b), with the treatment of Native American human remains contained in California Health and Safety Code Section 7050.5 and 7052 and California Public Resources Code Section 5097. In accordance with the California Health and Safety Code, if human remains are uncovered during ground-disturbing activities, the contractor and/or the Project proponent are required to immediately halt potentially damaging excavation in the area of the burial and notify the San Bernardino County Coroner and a professional archaeologist to determine the nature of the remains. Further, pursuant to California Public Resources Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. The coroner is required to examine all discoveries of human remains with 48 hours of receiving notice of a discovery on private or state lands (Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (Health and Safety Code Section 7050[c]). Following the coroner's findings, the property owner, contractor or Project proponent, an archaeologist, and the NAHC-designated Most Likely Descendant (MLD) shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed. The MLD will make recommendations concerning the treatment of the remains within 48 hours as provided in Public Resources Code 5097.98. If the landowner cannot come to an agreement with the MLD, Public Resources Code Section 5097.98(e) requires the landowner to reinter the human remains and items associated with Native American remains with appropriate

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dignity on the property in a location not subject to further and future surface disturbance. The responsibilities for acting on notification of a discovery of Native American human remains are identified in California PRC Section 5097.9. Compliance with the above-referenced requirements will ensure a less than significant impact is identified for this issue area.

Possible significant adverse impacts have been identified or anticipated and the following mitigation measures are required as conditions of Project approval to reduce these impacts to a level below significant.

MM# Mitigation Measures

CR-1: Tribal Monitoring. There will be one comprehensive training session to present needed information about coordinating with San Manuel for cultural resources and related issues about this project as part of the Project's WEAP training prior to any ground disturbing activities. The meeting shall be recorded for use in future orientation sessions relating to the project. Tribal monitoring shall be conducted during all ground-disturbing activities, which includes but is not limited to, archaeological studies, auguring, excavation, geotechnical investigations, vegetation clearing, ground surface leveling, trenching, and conventional mass grading. Tribal monitors will be from the San Manuel Band of Mission Indians and the Morongo Band of Mission Indians with San Manuel taking the lead. One tribal monitor from each Tribe shall be present on the project site during ground-disturbing activities. A single tribal monitor shall be assigned to each simultaneous ground-disturbing activity on site. Additional tribal monitors shall be assigned if more than two simultaneous ground-disturbing activities occur on site. If simultaneous ground-disturbing activities require an odd number of more than two tribal monitors, the Tribes shall bring in additional monitors representing each tribe according to the number needed. The tribal monitors will represent the Tribes' interests and will follow the Native American Heritage Commission Guidelines for Monitors, which shall include daily completion of the Native American Monitoring Daily Activity Report/Log.

CR-2: Discovery of Archaeological Resources. On-site workers will be informed of the potential for discovery of archaeological resources or human remains during excavation or trenching as part of the Project's WEAP training.

If an archaeological or cultural resource is encountered during ground-disturbing activities for the Project, tribal monitors and/or the Applicant are empowered to stop excavation activities within 50 feet of the discovery until a qualified archaeologist can evaluate whether the resource is a unique archaeological resource or historical resource as defined in Public Resources Code Section 21083.2 and/or 14 C.C.R. Section 15064.5 or a tribal cultural resource as defined in Public Resources Code Section 21074 in consultation with the tribes. Work may continue in other areas. The project archaeologist in consultation with the tribal representatives shall determine importance and significance of the resource as tribal cultural resources, historical resources or unique archaeological resources, defined above. Tribal monitors will cooperate with the qualified archaeologist to locate all cultural materials exposed during ground disturbing activities. Recovery of artifacts or excavation for resource evaluations will be the responsibility of the qualified archaeologist.

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CR-3: Treatment of Archaeological Resources. If the qualified archaeologist determines that the discovery is a historic resource (as defined in MM CR-2) of an archaeological nature, then the mitigation standards of 14 C.C.R. 15126.4(b) specifying preservation in place shall be the preferred manner of mitigation. Preservation in place may be accomplished by, but is not limited to, the following:

1. Planning construction to avoid archaeological sites;
2. Incorporation of sites within open space;
3. Covering the archaeological sites with a layer of chemically stable soil; or
4. Deeding the site into a permanent conservation easement.

If preservation in place is not feasible, a cultural resources treatment plan shall be prepared pursuant to 14 C.C.R. 15126.4(b) and The Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation. The treatment plan shall include (i) provisions for assessment and treatment of the resources identified; (ii) reporting of results in a timely manner; and (iii) the opportunity for Tribes to engage in the recovery of material and provide comments on the draft report. The plan must be submitted to the County Land Use Services Department prior to excavation of the historical or unique archaeological resource. The Final Cultural Resources Mitigation report(s) shall be provided to the Lead Agency and disseminated to the regional CHRIS system Information Center and interested professionals and tribes upon request.

Each landowner or their assigned representative will confer with the Tribes on the disposition of all non-human burial related tribal cultural resources, historical resources and unique archaeological resources, including ceremonial items, which may be found at the portion of the Project located on the subject property. The property owner is entitled to keep all artifacts not covered and defined above. If the landowner wishes to keep and curate the materials in an institution meeting Federal and State curation guidelines, the Landowner agrees to do so at the San Bernardino County Museum.

If human remains are encountered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur in the vicinity of the find(s) until the San Bernardino County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the San Bernardino County Coroner determines the remains to be Native American, the Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then identify the "most likely descendant(s)". The landowner shall confer with the most likely descendant (MLD). The MLD will make recommendations concerning the treatment of the remains within 48 hours as provided in Public Resources Code 5097.98. If the landowner cannot come to an agreement with the MLD, Public Resources Code Section 5097.98(e) requires the landowner to reinter the human remains and items associated with Native American remains with appropriate dignity on the property in a location not subject to further surface disturbance."

The assessment of resources collected shall be conducted in a timely manner, which will not exceed three months from the date of discovery of the materials and/or the completion of all fieldwork and monitoring. Possession of all cultural materials by the qualified archeologist, if necessary, shall not exceed 90 calendar days after the final report has been submitted. No photography of human remains and associated artifacts is permitted.

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A preliminary draft report shall be submitted within three months of the end of the Project fieldwork, and that two copies of the draft archaeological report shall be provided to Tribes by the Lead Agency. Should the qualified archaeologist need an extension of time, approval of a justified time extension shall be permitted at the discretion of the San Manuel Band of Mission Indians and the Morongo Band of Mission Indians. The Tribes shall be given an opportunity to provide comments for inclusion in the final report. All surface and subsurface artifacts and features are to be mapped and described in a final report prepared by the qualified archaeologist following the Secretary of the Interior’s Standards and Guidelines for archaeological documentation.

Data recovery shall not be required for an historical resource if the County Land Use Services Department determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the archaeological or historical resource, provided that the studies are deposited with the California Historical Resources Regional Information Center.

If the qualified archaeologist determines that the excavated sediments were previously disturbed or are unlikely to contain significant cultural materials, the qualified archaeologist can specify that construction activities are no longer limited and may resume.

All cultural resources recovered will be documented on California Department of Parks and Recreation Site Forms to be filed with the California Historic Resources Information System (CHRIS) South Central Coastal Information Center (SCCIC) at California State University Fullerton. The qualified archaeologist will prepare a final report about the find to be filed with the Applicant/landowner and the CHRIS-SCCIC. The report will include documentation and interpretation of resources recovered. Interpretation will include full evaluation of the eligibility with respect to the National Register of Historic Places and California Register of Historical Resources and CEQA. At that time, the Applicant, in consultation with the Lead Agency and qualified archaeologist, will designate repositories in the event that resources are recovered.

Issues	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
VI. GEOLOGY AND SOILS – Would the project:				

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

- i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map Issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| ii. Strong seismic ground shaking? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iii. Seismic-related ground failure, including liquefaction? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iv. Landslides? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Result in substantial soil erosion or the loss of topsoil? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off site landslide, lateral spreading, subsidence, liquefaction or collapse? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Be located on expansive soil, as defined in Table 18-1-B of the California Building Code (2001) creating substantial risks to life or property? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

SUBSTANTIATION: (Check if project is located in the Geologic Hazards Overlay District):

- a) i) **Less than Significant Impact.** San Bernardino County is a seismically active region of California and susceptible to strong ground shaking and related geologic hazards from multiple earthquake fault zones, including the San Andreas Fault (see Figure 14). As shown in Figure 15, according to the California Geological Survey’s Alquist-Priolo Earthquake Fault Zones Maps for the Barstow Quadrangle (California Geological Survey, 2012), the proposed Project is located in the vicinity of an Alquist-Priolo Earthquake Fault Zone for the Mt. General fault, which parallels SR-58 0.5 miles northeast of the Project site. While the potential for onsite ground rupture cannot be totally discounted (e.g., unmapped faults could conceivably underlie the Project site), the likelihood of such an occurrence is considered low due to the absence of known faults within the site.

The proposed Project will not include any habitable structures and because no full-time staffing would be required to operate the facility, the Project does not pose a substantial risk of injury or death as a result of earthquake rupture. Additionally, the design of any structures onsite will incorporate measures to accommodate seismic loading and reduce the risk of loss, pursuant to existing California Building Code (CBC) and local building regulations. The CBC requires extensive geotechnical analysis and engineering for grading, foundations, retaining walls, and other structures, including criteria for seismic design, and the San Bernardino County Code requires submission of soil and geologic reports before building permit approval. A Geotechnical Engineering Report (September 2014) prepared by BARR Engineering Company (Appendix E) includes specific seismic design parameters for use in constructing the project. With the incorporation of these

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geotechnical recommendations into Project design and construction, impacts are considered less than significant.

- ii) **Less than Significant Impact.** The Project site is within a seismically active region and is potentially subject to strong ground acceleration from earthquake events along major regional faults. For an earthquake return period of approximately 2,500 years (equivalent to a probability of exceedance of 2 percent in 50 years), the peak ground acceleration (PGA) is 0.552 g for the general project site (Appendix E). Given that the proposed Project will not include any habitable structures and because no full-time staffing would be required to operate the facility, the Project does not pose a substantial risk of injury or death as a result of strong seismic ground shaking. With the incorporation of applicable recommendations from the Geotechnical Engineering Report into Project design and construction, potential Project impacts associated with strong seismic ground shaking are considered less than significant.
 - iii) **Less than Significant Impact.** Liquefaction is a seismic phenomenon in which loose, saturated, fine-grained granular soils behave similarly to a fluid when subjected to high-intensity ground shaking. Liquefaction occurs when three general conditions exist: (1) shallow groundwater; (2) low density, fine, clean sandy soils; and (3) high-intensity ground motion. Geologic hazard maps produced by the County of San Bernardino identify a low liquefaction potential for the project site (Geologic Hazards Map EHFH C- Victorville/San Bernardino). According to the project Geotechnical Engineering Report (Appendix E), there is an absence of saturated conditions at shallow depth and the potential for liquefaction of soils supporting the proposed structures is very low (Appendix E). For this reason, the impact of liquefaction to the project is less than significant.
 - iv) **No Impact.** The proposed Project will not include any habitable structures and because no full-time staffing would be required to operate the facility, the Project does not pose a substantial risk of injury or death as a result of landslide. Landslides are the downslope movement of geologic materials. The stability of slopes is related to a variety of factors, including the slope's steepness, the strength of geologic materials, and the characteristics of bedding planes, joints, faults, vegetation, surface water, and groundwater conditions. The Project site is located within the Hinkley Valley and characterized by flat terrain where landslides have not historically been an issue; therefore, no significant impacts are anticipated with respect to seismic-related (or other) landslide hazards.
- b) **Less than Significant Impact.** Construction activities could result in substantial soil erosion if the site is not properly designed or phased correctly over the duration of construction and decommissioning. Although mowing and rolling techniques would be employed in areas of the site where feasible to maintain existing root systems, Project construction would require the removal of the existing vegetative cover across portions of the Project site. In the absence of erosion control best management practices (BMPs), the erosion of soil materials from either rainfall or wind could result in the off-site migration of soil materials. This could result in impacts to adjacent uses (e.g., nuisances from excessive dust) and effects to the Mojave River from sedimentation.

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The potential impacts of soil erosion from rainfall would be minimized through implementation of the County's Development Code requirements (§ 88.02 – Soil and Water Conservation). Specifically, the Project would be conditioned to include erosion control practices that would be implemented throughout construction. The Project will also be required to comply with the National Pollutant Discharge Elimination System (NPDES) General Construction Permit requirements, including preparation of a Stormwater Pollution Prevention Plan (SWPPP), which would include erosion control BMPs to address soil erosion. The implementation and maintenance of erosion control BMPs consistent with the County's Code and Project SWPPP would minimize the areas of topsoil subject to erosion from water during construction activities associated with the proposed Project such that the impact would be less than significant.

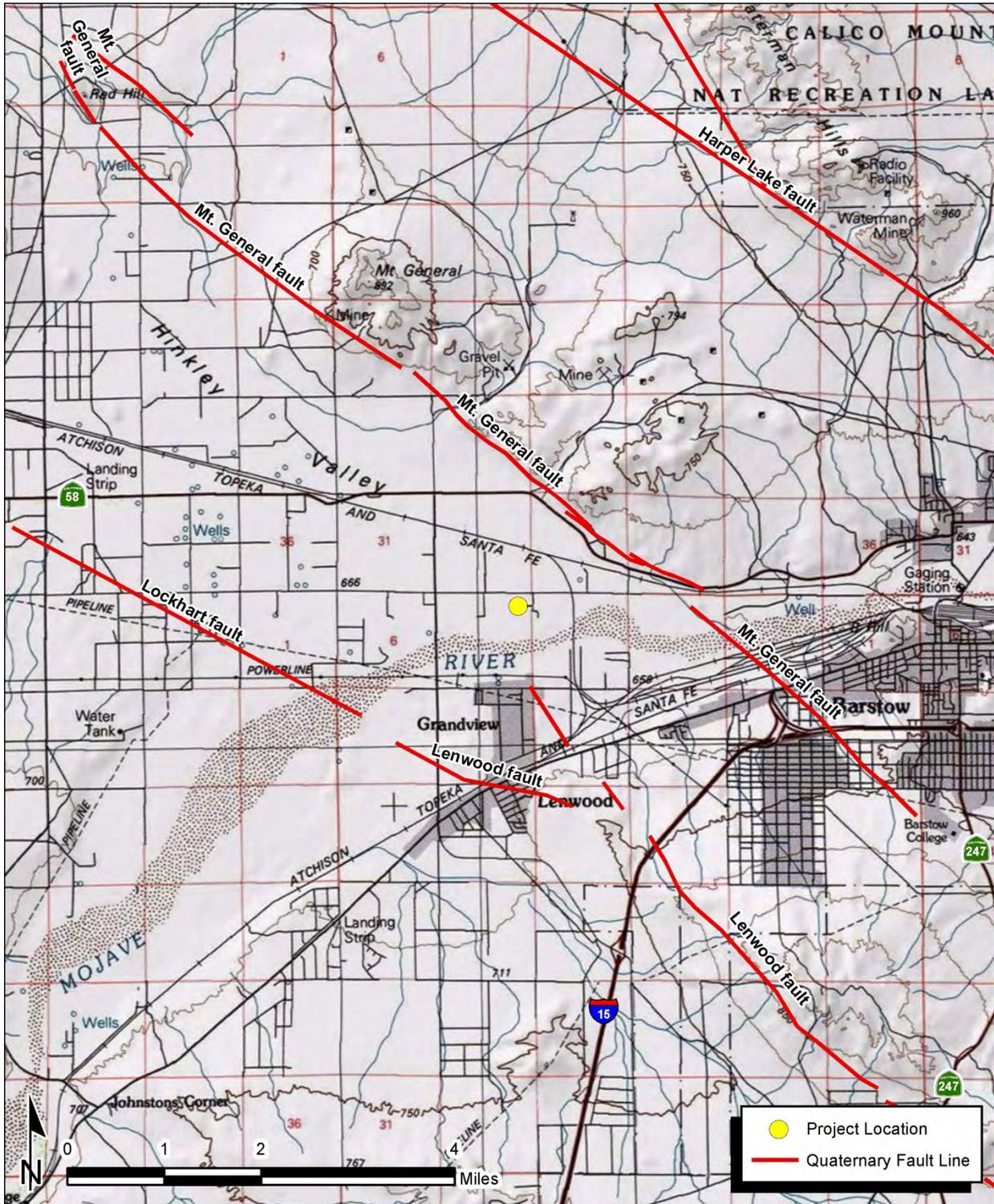
Wind erosion is also a concern for the Project given the site's exposure to high winds during the summer and fall months. To address potential impacts resulting from wind erosion, the Project Applicant will be required to comply with Rule 403.2 Fugitive Dust Control for the Mojave Desert Planning Area. Compliance with Rule 403.2(c)(3) will require the preparation of a dust control plan. Preparation of a dust control plan would include BMPs, including wind fencing for adjacent residences, and associated performance standards to minimize the loss of topsoil from wind such that the resulting impact would be less than significant.

- c) **Less than Significant Impact.** Young alluvium underlies the Project site, which is composed primarily of sand and gravel with some local finer and coarser deposits. In general, poorly consolidated alluvium is especially susceptible to settlement. Because poorly consolidated alluvium underlies the Project site, there is a potential for settlement to occur on the Project site with the placement of the project facilities. Hazards related to settlement and/or differential settlement are typically addressed through adhering to standard engineering practices and would be addressed through compliance with the recommendations in the Geotechnical Engineering Report (Appendix E). Additionally, the hazard of hydroconsolidation (or subsidence) resulting from oil/gas extraction, groundwater pumping, or unique geologic conditions is considered to be low (Appendix E). For these reasons, risks related to geologic instability would be less than significant.
- d) **No Impact.** Based on the results of the Geotechnical Investigation prepared by BARR Engineering (2014), soils within the Project site are generally comprised of sandy materials intermixed with thin layers of gravels, silts, and lean sands (see Appendix E). These soils are mapped as Victorville Sandy Loam and Villa Sandy Loam in the Soil Survey for San Bernardino County, California, Mojave River Area (CA671). These soil types are composed primarily of sandy materials within the upper 60 inches of the profile with a low fraction of clay materials by weight. These soils are unlikely to contain expansive clays and, therefore, no impact would result.
- e) **No Impact.** The proposed Project will be an unmanned facility. No septic or other wastewater disposal systems will be utilized as part of this Project. Portable toilets would be used for the duration of construction and removed upon completion. No impact is identified for this issue area.

No significant adverse impacts are identified or anticipated and no mitigation measures are required.

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Figure 14 Regional Fault Map



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Issues	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
VII. GREENHOUSE GAS EMISSIONS – Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION:

- a) **Less than Significant Impact.** The following information is summarized from the *Air Quality/Greenhouse Gas Assessment for the Longboat Solar Project* prepared by GC Environmental, Inc., dated May, 2015. This assessment is provided as Appendix B of this Initial Study.

The threshold used to evaluate GHG emissions from the Project was the Project’s compliance with the County’s Greenhouse Gas Emissions Reduction Plan, adopted on 6 December 2011 and effective 6 January 2012 (GHG Plan). The GHG Plan establishes a GHG emissions reduction target for the year 2020 that is 15 percent below 2007 emissions. The GHG Plan is consistent with AB 32 and sets the County on a path to achieve more substantial long-term reduction in the post-2020 period. Implementation of the County’s GHG Plan is achieved through the Development Review Process by applying appropriate reduction requirements to projects, which reduce GHG emissions. All new development is required to quantify the project’s GHG emissions and adopt feasible mitigation to reduce project emissions below a level of significance. A review standard of 3,000 metric tons (MT) of carbon dioxide equivalents (CO_{2e}) per year is used to identify and mitigate project emissions. For projects exceeding 3,000 MT CO_{2e} per year of GHG emissions, the developer may use the GHG Plan Screening Tables as a tool to assist with calculating GHG reduction measures and the determination of a significance finding. According to the GHG Plan, small projects that do not exceed 3,000 MTCO_{2e} per year are considered to be consistent with the GHG Plan and have a less than significant individual and cumulative impact for GHG emissions.

To be consistent with the MDAQMD thresholds of significance, greenhouse gas emissions for the project are expressed in short tons (tons, 1 ton = 2,000 pounds). Using a conversion factor of 1 metric ton = 1.102 tons, the GHG Plan threshold of 3,000 MT CO_{2e} per year is equivalent to 3,306 tons per year. The equivalent daily threshold is 18,115 pounds CO_{2e}.

Greenhouse gas emissions resulting from the construction and operation of the project are quantified and reported in the CalEEMod output (see Appendix B of this Initial Study). Table 7 presents a summary of the CO_{2e} project emissions reported in Table 7 by amortizing the construction CO_{2e} over the anticipated 30-year project life. This allows a direct comparison of

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the construction and operational emissions. Also included in the operational emissions is an accounting of sulfur hexafluoride (SF₆). This greenhouse gas can slowly leak from electrical components such as switch gears. It is conservatively estimated that the amount of SF₆ emitted annually over the project's lifetime will have the same global warming potential as 1.10 tons of CO₂.

Table 7. Project-related Greenhouse Gas Emissions (tons/year)

	Bio-CO ₂ ¹	NBio-CO ₂ ¹	Total CO ₂	CH ₄	N ₂ O	CO _{2e} ²
Construction Emissions	0	2,515.73	2,515.73	0.56	0	2,527.59
Construction Emissions/30 years ³	0	83.86	83.86	0.02	0	84.25
Operational Emissions	0	131.22	131.22	0.03	0	131.79
Operational SF ₆ gas ⁴						1.10
Combined Lifetime Annual Average						217.14
Significance Threshold						3306*
Significant?						NO

Notes: *This is the GHG Plan annual threshold for CO_{2(e)} of 3,000 metric tons expressed as short tons. 1 metric ton = 1.102 short tons.

¹ Bio-CO₂ = Biologically-derived; NBio-CO₂ = Human-generated (e.g., construction equipment).

² CO₂ equivalent; the sum of CO₂ plus the amount of CO₂ that has the equivalent global warming potential as the stated amount of CH₄.

³ Estimated construction emissions divided by a 30-year project life.

⁴ Assumed based on scaling of other solar projects and standard leakage rate.

As shown in Table 7, construction and operation emissions over the 30-year life of the project will be approximately 217.14 tons (197.04 metric tons) of CO_{2e} per year. This is far below the San Bernardino GHG Plan threshold of 3,306 tons (3,000 metric tons) CO_{2e} per year. These project GHG emissions are consistent with the County of San Bernardino's September 2011 Greenhouse Gas Emissions Reduction Plan.

Moreover, construction of the solar facility will generate "green" electric power that would otherwise be produced with fossil fuels with much higher GHG emissions. The project would produce an average of 16,059 megawatt-hours (MWh) of electricity per year. Using an emission factor of 0.61 tons CO_{2e} per MWh, generating the same amount of electricity using natural gas would produce approximately 9,796 tons (8,889 metric tons) CO_{2e} per year. When taking into account the annual emissions of approximately 217 tons CO_{2e} that would be produced in the construction and maintenance of the project, the project would prevent the emission of approximately 9,579 tons (8,692 metric tons) of CO_{2e} per year over electricity produced with natural gas. Therefore, the project would entail a net greenhouse gas benefit and, therefore, the impact is considered less than significant.

- b) **No impact.** See VII. a), above. The proposed Project would not exceed the San Bernardino GHG Plan threshold of 3,306 tons (3,000 metric tons) CO_{2e} per year. Therefore, the Project is consistent with the County of San Bernardino's September 2011 Greenhouse Gas Emissions Reduction Plan. Furthermore, construction of the solar facility will generate "green" electric power that would otherwise be produced with fossil fuels with much higher GHG emissions. The Project therefore would result in a net environmental benefit regarding GHG emissions.

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VIII. HAZARDS AND HAZARDOUS MATERIALS - Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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- a) **Less than Significant with Mitigation Incorporated.** Due to the limited quantities required for use in the construction; operation and decommissioning of the Project, the Project will not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. The quantities and concentrations of these hazardous substances are not expected to reach regulated levels. Further discussion is provided for construction, operation, and decommissioning of the Project.

Construction

Construction of the proposed Project, including the off-site interconnection, would involve the use of hazardous materials. The following non-hazardous wastes are anticipated to be generated during construction of the Project: common household trash, cardboard, wood pallets, copper wire, scrap metal, paper, glass, plastics from packing material, waste lumber, insulation, concrete, empty non-hazardous containers, and vegetation wastes and wood wire spools. The Project applicant will recycle as much of the generated waste as feasible in accordance with the approved Construction Demolition Waste Management Plan (CDWMP), required as a condition of approval by County Public Works, Solid Waste Management Division (or similar). Field equipment used during construction will contain limited amounts of hazardous materials such as diesel fuel, hydraulic oil, grease, solvents, adhesives, paints, and other petroleum-based products contained in construction vehicles.

The quantity of hazardous wastes generated during construction of the proposed Project would include an estimated 1 cubic yard per week of empty hazardous materials containers and approximately 100 gallons of used oil, spent solvents, and oily rags every 2 to 3 months. This activity will require a hazardous materials permit from the County Fire Department, Hazardous Materials Division. Fuel tanks and hazardous materials would be stored at staging areas, and wastes, such as empty hazardous materials containers and used oil, spent solvents, and oily rags, would also be gathered prior to disposal and stored in metal, wind-proof and wildlife-proof containers per County Fire Department standards. On-site fueling of vehicles and/or equipment would occur within the staging areas, and fuels would be stored within secondary containment areas. These procedures would be outlined in a Project-specific Health and Safety Plan as required by Mitigation Measure HHM-1.

The use, storage, and disposal of hazardous materials and wastes associated with the Project could result in potential adverse health and environmental impacts if these materials were used, stored, or disposed of improperly, causing accidents and spills. Potential direct and indirect impacts of such releases could degrade soil and water quality or expose humans and wildlife to the harmful effects of hazardous materials. For this reason, Mitigation Measure HHM-1 would require the preparation of a Health and Safety Plan that outlines procedures for the storage of all hazardous materials, including flammable materials, such as paints and solvents.

To reduce the risk of spills to the environment, a spill prevention and counter control (SPCC) Plan will be developed and implemented prior to Project construction. The preparation of an

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SPCC is required per Mitigation Measure HHM-1. In addition to the implementation of a SPCC Plan, the Applicant will also be required to prepare and implement a Stormwater Pollution Prevent Plan (SWPPP) that will describe methods to reduce the potential for spills and establish procedures to minimize the effect of accidental releases on water quality. Best management practices (BMPs) established in the SWPPP and SCPP would include protection measures for the temporary on-site storage of diesel fuels, hydraulic fluid, lubricants, and other hazardous materials used during construction, including requirements for secondary containment and berming to contain a potential release and to prevent any such release from reaching a nearby waterway. All employees would receive training in the proper use, storage, and handling of hazardous materials; equipment and materials storage would be routinely inspected for leaks and records maintained documenting compliance with regulations for the storage and handling of hazardous materials, as required by the SWPPP or SPCC and hazardous materials permit.

The implementation of the SPCC, SWPPP, and Health and Safety Plan as required by Mitigation Measure HHM-1 would ensure that the risk of hazards associated with accidents and spills would be minimized. Although these hazards could still occur, the likelihood of this is considered low and procedures would be in place to address any incident. For these reasons, impacts associated with the routine transport, use, or disposal of hazardous materials during Project construction is considered less than significant after mitigation.

Operation and Maintenance

No permanent on-site operations and maintenance facilities would be required to support the proposed Project. Facility transformers would contain dielectric fluid that does not include polychlorinated biphenyls (PCBs). It is anticipated that maintenance requirements will be minimal. Module cleaning will require additional personnel for short periods of time. No heavy equipment is anticipated to be used during normal Project operation. O&M vehicles will include trucks (pickup, flatbed), forklifts, and loaders for routine and unscheduled maintenance, and water trucks for solar module washing. Large heavy-haul transport equipment may be brought to the site infrequently for equipment repair or replacement, as needed. As with the construction activities, any fuels, lubricants, adhesives and solvents would be disposed of in accordance with all applicable regulations and the Health and Safety Plan as required by Mitigation Measure HHM-1.

Pesticide use, if needed, would be limited to non-persistent, immobile pesticides applied only in accordance with manufacturer directions and all regulations for pesticide use. Any pesticide applications would be covered in the Project's Health and Safety Plan. The Health and Safety Plan would document worker safety practices and address health and safety issues associated with normal and unusual (emergency) conditions associated with the high-voltage systems, mechanical systems, and other solar plant operations. Personnel would be properly trained in the handling of relevant chemicals and wastes and instructed in the procedures to follow in case of a chemical spill or accidental release.

Routine transportation of hazardous materials to the site could create a hazard to the public or the environment if materials were improperly handled, or accidentally released. Caltrans and

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the California Highway Patrol (CHP) regulate the transportation of hazardous materials and wastes, with stringent packaging requirements, licensing and training for hazardous materials truck operators, chemical handlers, and hazardous waste haulers.

The implementation of the Health and Safety Plan, as required by Mitigation Measure HHM-1, and compliance with Caltrans and CHP requirements would ensure that the risk of hazards associated with the routine use, storage, transportation, and disposal of hazardous materials would be minimized. Although these hazards could still occur, the likelihood of this is considered low and procures would be in place to address any incident. Therefore, a less than significant impact is identified for this issue area following the application of Mitigation Measure HHM-1.

Decommissioning

Project decommissioning would require the use of fuel and lubricants for construction vehicles and equipment, as well as the transport and disposal of hazardous materials used at the Project facility. Solar panels would be returned to the vendor for appropriate recycling. Inadvertent release of hazardous materials from spills or leaks could occur. Compliance with existing laws and regulations in conjunction with Mitigation Measure HHM-1 would ensure that the risk of hazards associated with the routine use, storage, transport, and disposal of hazardous materials during decommissioning would be minimized to a less than significant level.

- b) **Less than Significant Impact with Mitigation Incorporated.** The proposed Project will not 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. Further discussion is provided for construction, operation, and decommissioning of the Project.

Construction and Decommissioning

A *Phase II Environmental Site Assessment* (February 2015) was prepared by GC Environmental, Inc. and included a subsurface investigation, soil sampling, and groundwater sampling to determine if an on-site contamination exists. According to the Phase II, trace concentrations of pesticides, polycyclic aromatic hydrocarbons (PAH) in the form of Acenaphthene, and Total Recoverable Petroleum Hydrocarbons (TRPH) were detected at isolated locations on the Project site (GC Environmental 2015b). Each of these constituents were detected at levels well below the U.S Environmental Protection Agency (USEPA) or California Office of Environmental Health Hazard Assessment (OEHHA) standards. Therefore, no special handling or remediation is recommended and construction activities across the Project site are unlikely to result in the reasonably foreseeable or accidental release of hazardous materials into the environment.

During Project construction and decommissioning activities, the potential exists that undocumented subsurface utilities (e.g., a natural gas line) or structures (e.g., an underground storage tank [UST]) might be encountered and damaged, resulting in a release of a hazardous material. The potential for such incidents would be reduced by thoroughly screening for subsurface structures in areas prior to commencement of any subsurface work.

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Screening activities would include use of DigAlert (Underground Services Alert of Southern California), visual observations, hand digging, and use of buried line locating equipment.

To reduce the risk of spills, an SPCC Plan would be developed and implemented prior to Project construction in conjunction with Mitigation Measure HHM-1. The BMPs established in the SPCC will be for the storage and use of hydraulic fluid, lubricants, gasoline, or diesel fuel at the site. The plan will also detail procedures to contain and mitigate the potential effects of an accidental release from reaching a nearby waterway. All employees would receive training in the proper use, storage, and handling of hazardous materials; equipment and materials storage would be routinely inspected for leaks and records maintained documenting compliance with regulations for the storage and handling of hazardous materials, as required by Mitigation Measure HHM-1. These procedures combined with the implementation of Mitigation Measure HHM-1 and preparation of the SPCC would ensure that procedures and protocols are in place in the event of the discovery of undocumented hazardous materials during construction or decommissioning and the impact would be less than significant.

Operation and Maintenance

The applicant has not yet selected the type of solar PV panel to be used for the Project. One type of solar PV panel contains cadmium telluride (CdTe). In its elemental form, cadmium is a carcinogen. However, in solar panels, the cadmium is combined in a chemical compound with tellurium in the form of CdTe, and then sealed between two plates of glass. CdTe has a low vapor pressure and water solubility, which result in low mobility if released into the environment. CdTe also has high boiling and melting points, which limit the potential for release as a result of a fire. Particulate emissions could only occur if the materials were ground to a fine dust, but there is no realistic scenario for this. Panels exposed to extremely high heat could emit vapors and particulates from PV panel components to the air. However, researchers have concluded that the potential for emissions derived from PV components during typical fires is limited given the relatively short-duration of most fires and the high melting point (>1000 degrees Celsius) of PV materials. In the rare instance where a solar panel might be subject to higher temperatures, the silicon and other chemicals that comprise the solar panel would likely bind to the glass that covers the PV cells and be retained there. Additionally, given that solar panels are constructed of resilient materials such that they are able to withstand most sources of damage (e.g. hail, winds, tree fall), any potential release of CdTe would be minor, likely limited to no more than a few panels, and cleaned upon discovery. Therefore, releases to the ground from leaching, to the air from volatilization during use, or from panel breakage, are not a concern (Massachusetts Department of Energy Resources and Department of Environmental Protection 2012).

None of the chemicals proposed for use or storage at the solar plant site are on the list of regulated substances in 40 CFR Section 68.130; thus, the Project facility would not be covered by the security standards for chemical facilities. The consequences of release of all the hazardous materials used at the facility (diesel fuel, mineral oil, and hydraulic fluid) would not cause a threat to the health and safety of the surrounding community due to the limited quantity and toxicity of the substances, and the distance to the nearest receptors.

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The Applicant's proposed security measures, described in Section 2 would minimize the potential for power disruptions or hazardous materials release caused by outside parties. The risk to workers or the public from damage to the Project as a result of intentionally destructive acts would be low because public access would be controlled by security and fencing. Eight foot security fencing would be installed around the solar plant site perimeter and around the switchgear. Based on these considerations, the Project will not 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 and, with implementation of Mitigation Measure HHM-1, the impact would be less than significant.

- c) **No Impact.** Lenwood Elementary School is located approximately 1.7 miles to the south of the Project site. As a result, there are no existing or proposed schools within one-quarter mile of the proposed Project site. Therefore, the Project would not emit hazardous emissions or handle hazardous materials near an existing school and no impact is identified for this issue area.
- d) **Less than Significant Impact.** A *Phase I* (August 2014) and *Phase II Environmental Site Assessment* (February 2015) were prepared by GC Environmental, Inc. to determine if one or more hazardous materials occur on the Project site. These assessments are provided as Appendix F of this Initial Study. Following the completion of the Phase I assessment, it was determined that the Project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. In addition, the results of the Phase II investigation indicate that no environmental conditions were detected at the Project site which would warrant a recommendation of subsequent testing or remediation and no further action is recommended. Therefore, the proposed Project would not create a significant hazard to the public or the environment. A less than significant impact is identified for this issue area.
- e) **No Impact.** The Project site is located approximately 19 miles to the west of the Barstow--Daggett Airport and is not located within an airport land use plan or within two miles of a public use airport. Therefore, the proposed Project would not result in a safety hazard for people residing or working in the project area. No impact is identified for this issue area.
- f) **No Impact.** The Project site is not located within two miles of a private airstrip. The nearest private airstrip is the Depue Airport, located approximately 3.75 miles southwest of the Project site. Therefore, the Project would not result in a safety hazard for people residing or working in the Project area. No impact is identified for this issue area.
- g) **Less than Significant Impact.** The proposed Project will not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The Project site is not located within a Fire Safety Overlay District, avoids the 100-year flood zone, and is not located with a Geologic Hazard Overlay. Therefore, the Project would not increase demands for emergency response and would not conflict with the County's Multi-Jurisdictional Hazard Mitigation Plan Update (2011).

Access to the Project site would be directly from Community Boulevard by two main driveways designed to conform with County standards, one for the portion of the Project south of Community Boulevard and one for the portion north of Community Boulevard. In addition, a

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secondary access driveway and a temporary access driveway into the temporary storage and laydown area are also located on the south side of Community Boulevard along the parcel frontages. These additional access points can be used for emergency access. Both the perimeter access road and the internal access roads would be constructed in conformance with the County Fire Department standards required for fire prevention. In accordance with County standards, a 26-foot-wide perimeter road and 20-foot-wide internal roads have been incorporated into the site design. These access roads would remain in place for ongoing operations and maintenance activities after construction is completed. The interconnection and distribution system upgrades will not change any access plans nor require any additional emergency response plan or emergency evacuation plan. Therefore, implementation of the Project would not physically interfere with an adopted emergency response plan or emergency evacuation plan, and a less than significant impact is identified for this issue area.

- h) **Less than Significant Impact.** The County of San Bernardino General Plan includes a series of over 90 published Hazard Overlay Maps for the County. The hazards included on these maps include airport safety, dam inundation, fire, flood, and noise. According to the Hazard Overlay prepared for the Lenwood area (Sheet EH08B), the Project site is not located within a Fire Safety Overlay District (County of San Bernardino, 2007b). Therefore, the Project would not 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. However, any development, along with the associated human activity, in previously undeveloped areas increases the potential of the occurrence of wildfires in the region. To address this concern, the applicant will conform to the requirements of the Safety Element of the General Plan and applicable portions of the San Bernardino County Code (primarily Title 2, Division 3, “Fire Protection and Explosives and Hazardous Materials”). This will include the provision of appropriate setbacks and clear zones adjacent to the solar panels and ancillary facilities, including inverters. In addition, the applicant will prepare and have a fire prevention plan for the Project in compliance with applicable County regulations. Compliance with these regulations will reduce the risks associated with wildfires on the Project site. Therefore, less than significant impacts are anticipated.

Possible significant adverse impacts have been identified or anticipated and the following mitigation measures are required as conditions of Project approval to reduce these impacts to a level below significant.

MM# Mitigation Measures

HMM-1: Prepare Project Health and Safety Plan. A Health and Safety Plan, which complies with applicable OSHA and Cal-OSHA guidelines for the types of activities being performed, shall be prepared for Project construction and operation. The Health and Safety Plan shall include the following:

- General material safety data sheets for all hazardous materials stored on site will be retained on site during Project construction and operation.
- On-site fueling of equipment and vehicles shall be completed in areas at least 100 feet away from drainages, or in designated fueling areas. Fuel and other hazardous materials stored on

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site will be located in areas with secondary containment, unless secondary containment is built into the tank.

- Transformers shall be inspected for oil leakage on a regular basis and diversionary structures shall be provided for all oil-containing equipment, including transformers, at the Project site.
- Employees shall attend a health and safety training and shall be trained in the proper protocol for notification and cleanup of hazardous materials.
- A spill prevention and countermeasure control plan (SPCC) will be prepared and available on-site for the duration of project construction, operation, and decommissioning. The SPCC will also provide protocols and procedures for the discovery of undocumented hazardous materials during construction and decommissioning of the Project.

Issues	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
IX. HYDROLOGY AND WATER QUALITY – Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) 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 that would result in substantial erosion or siltation on- or offsite?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) 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 which would result in flooding on- or offsite?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| f) Otherwise substantially degrade water quality? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| g) Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h) Place within a 100-year flood hazard area structure which would impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| j) Inundation by seiche, tsunami, or mudflow? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

SUBSTANTIATION:

- a) **Less than Significant with Mitigation Incorporated.** Potential water quality impacts from the proposed Project could be associated with short-term (construction-related) erosion/sedimentation and hazardous material use/discharge and long-term, minor operational discharges. Each of these possible discharges are discussed under the headings below.

Construction and Decommissioning

Project construction, including the off-site interconnection, would require the use of heavy machinery for vegetation grubbing, grading, and installation of roads, solar generation facilities, distribution facilities, buildings, the solar field, and other facilities. Construction of these facilities would involve the use of bulldozers, graders, semi-trucks, and other heavy machinery, and would involve changes to on-site topography. Although plant root systems would be retained where feasible (e.g. mowing and rolling), these activities could potentially loosen existing surface soils and sediments, increasing the potential for erosion during storm events and discharging sediment or other pollutants into waterways. Additionally, the use of construction equipment may involve the accidental release of fuel, oils, lubricants, antifreeze, and other potentially hazardous substances at the construction site. The water quality effects of Project decommissioning would be very similar to Project construction. These water quality pollutants could become entrained in surface water during storm events, and/or be infiltrated into groundwater and the underlying aquifer, resulting in the degradation of water quality. The implementation of Mitigation Measure HHM-1 would require the preparation and compliance with an SPCC thereby minimizing the threat of a hazardous materials release to a less than significant level.

Water used during construction, operations and decommissioning would be obtained from an existing onsite well. Any use of the existing onsite well would be conducted according to requirements of the County of San Bernardino Division of Environmental Health Services, California Department of Water Resources and the Lahontan Regional Water Quality Control Board (LRWQCB) Water Quality Control Plan (Basin Plan), as amended.

To obtain authorization for stormwater discharges to groundwater and/or surface water associated with land disturbing activities pursuant to the permit, the Project proponent would

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be required to prepare and file a Notice of Intent (NOI) and stormwater pollution prevention plan (SWPPP) with the State Water Resources Control Board (SWRCB) to comply with the General NPDES Construction Permit to minimize and avoid impacts to water quality. The SWPPP must include a description of specific temporary and permanent BMPs to be implemented to prevent or minimize the discharge of water quality pollutants from the Project site during and after construction. The range of BMPs will be required to minimize and control construction and post-construction runoff to the “maximum extent practicable.” Implementation of the SWPPP as required by the General Construction Permit would minimize or avoid the degradation of water quality or the violation of water quality standards, especially during major storm events. Based on these considerations, with the implementation of Mitigation Measure HWQ-1 the Project would result in less than significant impacts related to the violation of any water quality standards.

Operations and Maintenance

Maintenance of the solar facility will primarily involve panel washing and repairs or replacement of panels or other electrical equipment. Panel washing would be conducted as needed but is expected to occur up to two times annually. Panels would be power-washed with clean water that will contain no cleaning agents or other additives. Long term non-point discharges from the Project would be minimal, but could result in infrequent discharges associated with landscape irrigation, uncontaminated pumped ground water, and discharges of potable water during water tank cleaning [as defined in 40 CFR 35.2005(21)]. In this context, water quality impacts resulting from long-term discharges associated with the Project would be less than significant.

During operation and maintenance, the on-site use of trucks, maintenance equipment, automobiles, and other equipment could result in the accidental release of water quality pollutants. For example, water quality impacts could occur if contaminated or hazardous materials (e.g., oils, greases, fuels) used during operation and maintenance were to contact stormwater and drain off-site, or infiltrate into the underlying aquifer, especially during storm events. Implementation and compliance with the Health and Safety Plan and SPCC required by Mitigation Measure HHM-1 would reduce the risk of any accidental spill during routine operations and maintenance of the Project.

- b) **Less than Significant Impact.** The Mojave Groundwater basin is one of the 19 adjudicated groundwater basins within California and as such, the water extracted from that basin is closely accounted for by the Mojave Water Agency Watermaster. The Project will source its water through an on-site private well of a Project property owner for water needed for construction, routine maintenance during operations, and decommissioning. The Project is estimated to have an annual operational water demand of 3 acre feet per year (AFY) or 977,700 gallons for semi-annual panel washing. One AF of water is equivalent to 325,900 gallons. Up to 40 acre-foot (AF) or 13,036,000 gallons would be required, for construction, and up to 40 AF or 13,036,000 gallons for decommissioning activities and related dust suppression.

The proposed Project will use an existing well in the southwest corner of APN 0497-071-040 that is rated for approximately 920 gallons per minute. The owner of the on-site private well owns a base annual production right of 2,335 AF of water in the Centro Subarea of the Mojave basin, which results in a free production allowance to pump up to 1,868 AF of water

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per year as well as a 1,868 AF Carryover Right for the 2014-2015 Water Year, resulting in an available water right of 3,736 AF in 2015, more than 90 times the amount of water required for construction of the Project. The Applicant has entered into an agreement with this landowner to purchase all water needed to supply construction, operation, and decommissioning of the Project, with rights superior to all subsequent water sales or water right transfers or leases. This supply notwithstanding any additions from Carryover Right and/or Replacement and Makeup Water is sufficient to cover the Project's water demands for construction, operations, and decommissioning activities. A Water Supply Assessment is not required for the Project because it is a photovoltaic solar facility that would demand less than 75 acre-feet annually (Calif. Water Code Section 10912(a)(5)).

Notwithstanding the pre-existing water rights of the proposed water supply, several factors were considered as part of verifying the supply's availability; especially, during dry periods, such the current 2011-2015 drought. The current drought situation has resulted in the State issuing mandatory 25 percent reductions for municipal suppliers; however, these mandatory reductions have not been applied to agricultural supplies, such as the proposed water supply. Correspondence with the Mojave Water Agency indicates that no mandatory reductions are required for groundwater supplies within the Centro Subarea; however, staff has indicated that supplies used in excess of the allocated amount will require a 2:1 replacement (Personal Comm. David Seielstad 2015). However, given the project's minimal water supply needs in relation to the supply available; the potential for Project to exceed the allocated supply is unlikely. Additionally, given the Project is located within an adjudicated groundwater basin, the recent approval of the 2014 Sustainable Groundwater Management Act (SGMA) is unlikely to substantially change the way in which the basin is currently managed.

The operation of the Project well could also result in the drawdown of groundwater levels at adjacent, existing well locations within the immediate vicinity. There are multiple domestic and irrigation wells documented within the vicinity of the proposed Project groundwater production well. Based on available information, existing domestic and agricultural wells range in depth from 100 to 200 feet (estimated) below ground surface (bgs) (DWR 2003). Based on water levels reported by Mojave Water Agency for the nearest, publically available monitoring well (CASGEM 2015), water levels in the vicinity of the Project site range from 50 to 80 feet bgs.

Based on multiple factors, the operation of the Project well is expected to have minimal to no impact on adjacent wells. First, the proposed Project includes a reduced rate of pumping of 920 gpm, which is lower than the level of historical pumping (1,500 gpm) that has occurred in conjunction with agricultural operations. Additionally, well operations would be incremental (e.g. 5 to 10 minutes at a time) rather than continuous, thereby allowing water levels to recover following each incremental drawdown. Further, the specific capacity of the proposed well is 245.3 gpm per foot thereby resulting in only a minor draw down of 3.75 feet before water levels are allowed to recover (TeraWatt Construction 2015). Lastly, given that the average well depths in the area are generally greater than 100 feet bgs, Project-related drawdown effects would be unlikely to extend below the screening depths in adjacent wells. For these combined reasons, the Project would not adversely affect the production rate of nearby wells.

Given the small amount of water required for the Project in conjunction with the large amount of permeable surface that would remain across the solar site, and the fact that the water

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required for the Project is a very small portion of the landowner's base annual production right within the adjudicated Mojave basin, negligible changes to groundwater recharge would result. Based on these considerations, the Project would not deplete groundwater supplies or interfere substantially with groundwater recharge (the very kinds of effects that the stipulated water rights of the Mojave basin adjudication are designed to avoid) such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. Therefore, a less than significant impact is identified for this issue area.

- c) **Less than Significant with Mitigation Incorporated.** The proposed Project will have a less than significant impact on the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that will result in substantial erosion or siltation on- or off-site. The placement of solar array grids, access roads, and inverter pads would increase impervious surfaces, which would alter the infiltration characteristics of the ground surface on the Project site and have the potential to result in increases in peak runoff. Soils across the Project site are classified as Soil Hydrologic Group B, which are characterized by moderate rates of infiltration and consist of moderately deep to deep, moderately well to well drained soils. This means that rainfall readily percolates into soil column rather than generating runoff.

To estimate projected changes in runoff within the Project site, existing site conditions were assumed to have 5 percent or less impervious surface cover. Under the Project condition, the impervious surface cover would increase up to 11.6 percent, including soil compaction from access roads, to provide a worst-case estimate of peak runoff. The increase in compacted and impervious surface cover would change the Project site's ability to accept and infiltrate rainfall, thereby potentially increasing runoff.

Potential hydromodification impacts resulting from new impervious and compacted surfaces associated the Project were assessed by considering the factors that contribute to runoff and identified in the Rational Method ($Q=CiA$). Using these factors, which in basic terms the quantity of discharge (Q) is calculated based on a site's cover (C), estimated rainfall intensity (i), and land area (A). With the implementation of the Project, changes in pre- and post-construction runoff would result as a consequence of the increase in the Project site's cover (or C factor), from 0.05 up to 0.12 (rounded); all other variables would remain constant. This would result in a net increase of 27.03 acres of impervious surface across the Project site.

Changes in the Project site's cover would result in corresponding changes in the timing and quantity of runoff generated from the Project site under a specified rainfall event. These changes would likely be partially attenuated by landscaped areas, setbacks/clear zones, and crushed rock roadways included as part of the Project's design. Additionally, given the rural nature of the Project area and the total site area in relation to the total watershed area, which is minor, it is unlikely that the Project would contribute substantially to hydromodification. However, based on the anticipated increases in the Project site's impervious and compacted surfaces, it is reasonable to conclude that the Project facilities could result in a net increase in drainage discharge. This increase in peak flows could impact existing drainage infrastructure and/or increase bank scour in receiving waters (e.g. Mojave River). These potential drainage impacts could be significant in the absence of mitigation. Implementation of Mitigation Measures HWQ-1 and HWQ-2 would reduce potential drainage impacts by requiring post-Project peak runoff conditions to be maintained at pre-Project levels.

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- d) **Less than Significant with Mitigation Incorporated.** Conservative estimates indicate that the Project will create up to 27 acres of new impervious and/or compacted surface. As a result, the amount of additional runoff expected to be generated by the Project will be minimal within the larger watershed. Additionally, with the Project's site location adjacent to the Mojave River, much of the site's drainage will continue to be directed towards the river channel in a controlled manner consistent with the Drainage Plan developed in Mitigation Measure HWQ-2 and away from any roadway drainage facilities. Implementation of Mitigation Measure HWQ-2 would reduce potential drainage impacts by requiring post-Project peak runoff conditions to be maintained at pre-Project levels. In addition, the existing drainage pattern would not be substantially changed because minimal site grading is proposed for the majority of the site, with finished topographical grades being similar to existing conditions. The vast majority of the Project site would remain permeable once constructed. The Project consequently would not require the placement of any new facilities or structures within the Mojave River or the delineated 100-year floodplain which could otherwise change or re-direct existing flood conveyance facilities. As a result, the proposed Project would not substantially alter the existing drainage pattern of the site or surrounding project area in a manner that could result in increased on- or off-site flooding. The impact is therefore less than significant.
- e) **Less than Significant with Mitigation Incorporated.** The Project site is in a rural area with no developed storm drainage system. Most of the Project site would remain pervious and existing soils are predominantly well drained. The Project site is relatively flat, although there are existing isolated depressions that collect storm runoff within the Project boundary. The minimal quantity of discharged water generated by solar panel washing (less than three acre-foot of water per year) would drain into the isolated depressions, continue to percolate through the ground, or evaporate. Therefore, the proposed Project would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems. Additionally, the Project would not involve the use of substantial quantities of pollutants (e.g., fertilizers, pesticides, etc.) that could come into contact with runoff, and any such release and its effects would be managed through compliance with the Project's SWPPP and SPCC as required by Mitigation Measures HHM-1 and HWQ-1. Therefore, a less than significant impact is identified for this issue area.
- f) **Less than Significant Impact.** The proposed Project would not otherwise substantially degrade water quality because appropriate measures relating to water quality protection, including erosion control measures, are required. Potential erosion/sedimentation and hazardous materials impacts will be avoided or reduced below a level of significance through conformance with applicable elements of the Construction General Permit. As part of the permit requirements, a SWPPP will be prepared for the Project. Therefore, a less than significant impact is identified for this issue area.
- g) **No Impact.** The proposed project is a solar energy generation facility, and would not include any housing. Therefore, there would be no impact related to the placement of housing within a FEMA-delineated 100-year flood zone. Nor will construction alter any existing FEMA-delineated 100-year flood zone such that the 100-year flood boundary would change to include a home previously outside the boundary.
- h) **No Impact.** The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) identifies flood zones and areas that are susceptible to 100-year and 500-year

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floods. Based on a review of FIRM Panel No. 06071C3915H (see Figure 16), the Project site is located in Zone X, which is defined as areas determined to be outside the 0.2% annual chance floodplain (FEMA, 2008). Additional hydrologic modeling completed for the Project confirms that the Project would not be subject to inundation during the 100-year flood event (Westwood 2014; see Appendix G). Because the Project is not located within a 100-year flood hazard area, it will not place structures within a 100-year flood hazard area which would impede or redirect flood flows. Therefore, no impact is identified for this issue area.

- i) **Less than Significant Impact.** According to the Hazard Overlay prepared for the Lenwood area (Sheet EH08B), the Project site is located in area that could be subject to dam inundation (County of San Bernardino, 2007b). Solar panels, fencing and other equipment could be affected by inundation. However, the Project will be unmanned and would not expose people to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam. Therefore, a less than significant impact is identified for this issue area.
- j) **Less than Significant Impact.** In recognition of the Project's inland location and the lack of proximity to the ocean, a large lake or other body of water, the risk related to exposing people or structures to a tsunami or seiche is negligible. Also, the Project site is located on relatively flat ground; therefore, the hazard of mudflows adversely affecting the Project facilities is very low. A less than significant impact is identified for this issue area.

Possible significant adverse impacts have been identified or anticipated and the following mitigation measures are required as conditions of Project approval to reduce these impacts to a level below significant.

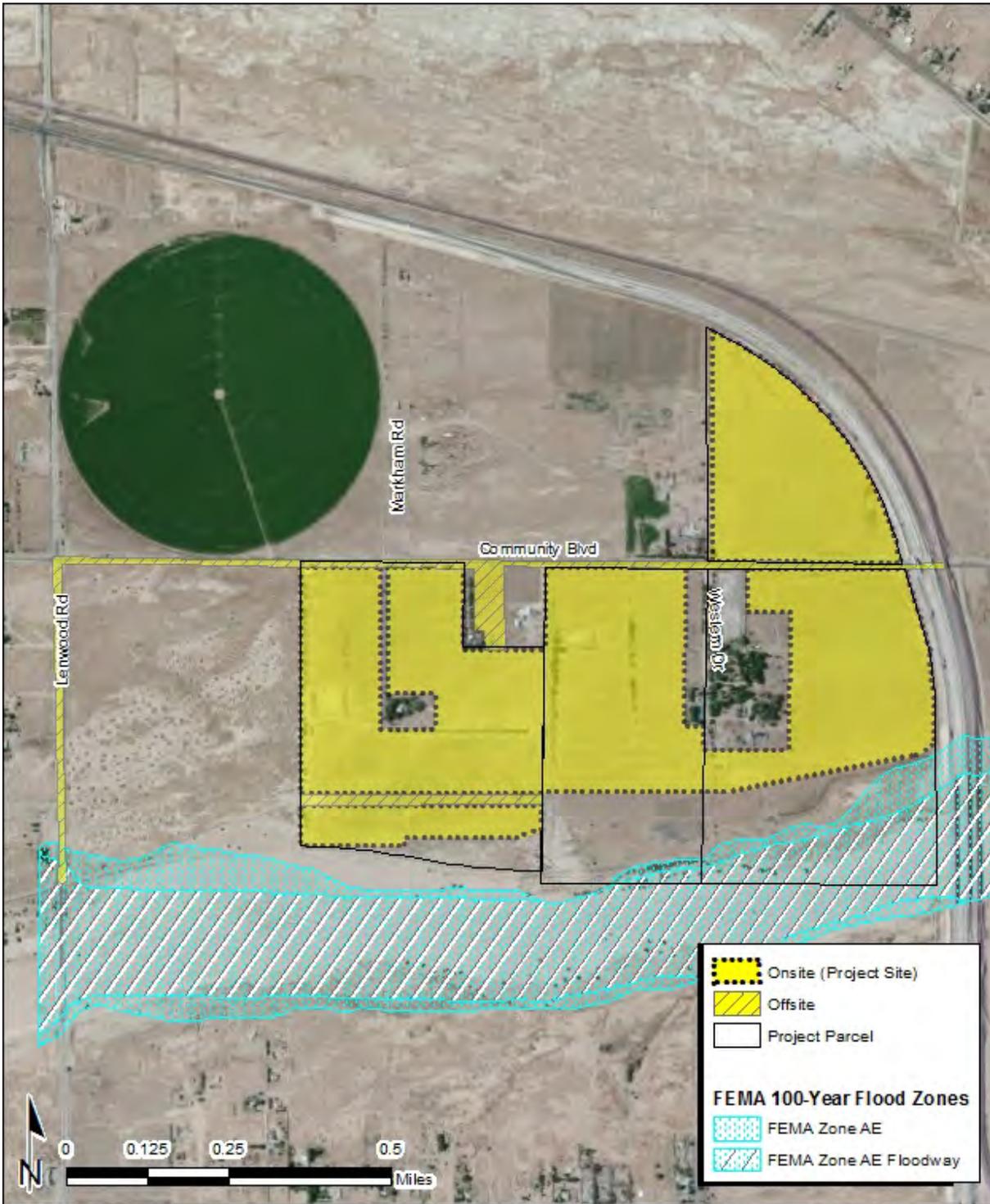
MM# Mitigation Measures

HWQ-1: Erosion Control and Stormwater Pollution Prevention Plan. The Project was sited to avoid direct impacts to riparian habitat, however indirect impacts may occur via stormwater or non-stormwater runoff. As such, a SWPPP, created by a Qualified SWPPP Developer (QSD) and implemented by a Qualified SWPPP Practitioner (QSP), will be prepared and implemented for the Project. This SWPPP will list all measures to eliminate the discharge of pollutants other than stormwater) and non-storm water discharges authorized by the California Construction General Permit Order 2009-0009-DWQ or another National Pollutant Discharge Elimination System (NPDES) permit. The SWPPP will contain programs to monitor visual pollutants, chemical pollutants, and potential sediments. Specific and Best Management Practices, Numeric Action Levels, Numeric Effluent Levels, and Rain Event Action Plans will be implemented as required to ensure non-permitted discharges are eliminated. The SWPPP will be prepared prior to commencement of Project construction.

HWQ-2: Prepare Drainage Plan for Structural Facilities. The project proponent shall prepare a site specific Drainage Plan for all facilities constructed in conjunction with the Project that meets San Bernardino County Land Use Services, Land Development Division – Drainage Section requirements, as applicable. The Drainage Plan shall incorporate measures to maintain off-site runoff during peak conditions to pre-construction discharge levels. Design specifications shall accommodate the 100-year, 24-hour storm event to pre-project conditions.

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Figure 16
Limits of FEMA 100-Year Flood Zone



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Issues	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
X. LAND USE AND PLANNING – Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION:

- a) **No Impact.** The Project would not physically divide an established community. The proposed Project site is located in an unincorporated part of the County that has sparse residential development separated by existing and former agricultural fields. The Project site is comprised of several former agricultural fields. The nearest communities are already separated from the project site. Forming a natural barrier to any rural developments to the east is the elevated portion of Hwy 58 and the Santa Fe railroad tracks. To the south of the project and separated by the Mojave River is vacant land followed by scattered rural residential parcels along Agate Road. The Project site would occupy an area that is currently vacant. Therefore, the proposed Project would not divide an established community and no impact would occur.
- b) **No Impact.** The proposed Project will not conflict with any applicable adopted land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. The Project site includes the following land use zoning districts: Agriculture (AG), Floodway (FW), and Rural Living 5-acre Minimum (RL-5). No solar development is proposed within the FW land use zoning district. Under County Code Section 82.03 and 82.04, renewable energy generation facilities are allowed in the AG and RL-5 land use zoning districts upon approval of a CUP. The development standards for solar energy facilities are identified in County Code Chapter 84.29.040. The standards require setbacks from property lines either as identified in the Land Use Zoning District or 130 percent of the mounted structure height, whichever is greater. The facility is designed with substantial setbacks, far greater than the required setbacks to minimize impacts to adjacent properties. The development standards also require that solar facilities be designed to preclude daytime glare on any abutting residential land use zoning district, residential parcel or public right-of-way. The design of the solar arrays includes low-reflective PV solar module arrays. Therefore, the Project will be consistent with all applicable land use policies, including the County's Development Code Section 84.29.035, as

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demonstrated by the analysis presented in this initial study. No impact is identified for this issue area.

- c) **No Impact.** The Project will not conflict with any applicable habitat conservation plan (HCP) or natural community conservation plan (NCCP). The Project site is located within the boundaries of the West Mojave Plan. The West Mojave Plan is a federal land use plan amendment to the Bureau of Land Management's California Desert Conservation Area (CDCA) Plan that presents a comprehensive strategy to conserve and protect sensitive plants and animals and the natural communities of which they are a part. The adopted portion of the West Mojave Plan (2007) is applicable only to BLM-administered public lands within the West Mojave Plan area. Although the Project site is within the West Mojave Plan area, it is not encompassed within BLM lands; therefore, future development of the Project site would not be subject to the requirements of the West Mojave Plan.

The Project site is within the planning area of the Desert Renewable Energy Conservation Plan (DRECP); however, this HCP/NCCP is still in development and has not been adopted. It is important to note that because the DRECP has not yet been formally approved it is without regulatory weight, and may be subject to significant change prior to approval. On March 10, 2015, the state and federal agencies preparing the DRECP decided to phase its development, with the BLM lands component of the plan being processed first, followed by processing of the private lands portion of the plan at such time as each County decides to subscribe to the DRECP. This approach was adopted to ensure better alignment with County planning priorities and goals. The expected date of a final effective DRECP is not known but the effective date of any private lands component within San Bernardino County is likely to be substantially beyond the approval and construction timeline of the Project, due to the large-scale, complex nature of the DRECP and the degree of coordination required to align the plan with County priorities.

No significant adverse impacts are identified or anticipated and no mitigation measures are required.

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Issues	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
XI. MINERAL RESOURCES – Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION: (Check if project is located within the Mineral Resource Zone Overlay)

- a) **No Impact.** The Project will not result in the loss of availability of a known mineral resource that will be of value to the region and the residents of the state. There are no identified important mineral resources on the Project site and the site is not located within a Mineral Resource Zone Overlay.
- b) **No Impact.** The Project will not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan because no such delineations apply to the Project site. There are no identified important mineral resources on the Project site and the site is not within a Mineral Resource Zone Overlay.

No significant adverse impacts are identified or anticipated and no mitigation measures are required.

Issues	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
XII. NOISE – Would the project:				
a) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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- d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?
- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?
- f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

SUBSTANTIATION: (Check if the project is located in the Noise Hazard Overlay District or is subject to severe noise levels according to the General Plan Noise Element):

a) **Less than Significant Impact.** Sensitive noise receptors in the vicinity of the Project site include scattered agricultural residences (see Figure 12). There are residences located south of Community Boulevard, in between Project site APNs 0497-101-05 and 0497-121-28 and in the central portion of APN 0497-101-14. Some of the residences depicted in Figure 12 are leasing portions of their land for the proposed Project. To analyze potential noise impacts to these receptor locations, an *Acoustic and Vibration Technical Memo* (July 2015) was prepared by HDR Engineering, Inc. (Appendix H). The memorandum included the collection of ambient noise data and noise level modeling of construction and operational noise sources. Further discussion is provided below in the context of Project-related construction, decommissioning, and operations.

Construction and Decommissioning

Section 83.01.080(g)(3) of the County Code specifically exempts “temporary construction, maintenance, repair, or demolition activities” from County noise standards, when such activities occur between 7 a.m. and 7 p.m., excluding Sundays and federal holidays. Because Project construction would comply with the County’s noise ordinance, this impact would be less than significant.

Operations and Maintenance

Operation of the Project would result in some acoustic emissions but would not result in vibration emissions. Operational noise from the Project would occur at the inverters, switchgear, and from the periodic use of the existing water well pump. The site would be unmanned and operated remotely. Periodic noise would result from maintenance activities at the Project such as washing the PV panels. These maintenance activities would result in negligible noise levels other than that of noise from the periodic use of the existing water well pump.

The Project would only operate during daytime hours; therefore, to be conservative in the operational predictions it was assumed that the Project would be operational approximately

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16-hours per day, roughly the equivalent of the longest day of the year in the Project area. For the 16-hour scenario it is assumed that the Project would operate from 5:00 a.m. to 9:00 p.m. This operational time frame was used to calculate Project operational Community Noise Equivalent Levels (CNEL).

Operational noise levels were predicted using the International Standards Organization (ISO) 9613-2 standard Acoustics -- Attenuation of sound during propagation outdoors -- Part 2: General method of calculation (Appendix H). The sound levels for the 1.4 MW inverters and 10 MW switchgear are both 62 decibels (dBA) at 1 meter (Appendix H). The existing water well pump is assumed to be capable of pumping 920 gallons per minute. A literature review was conducted of 920 gallons per minute well pumps and the sound source level identified for this analysis is 82 dBA at 1 meter (Appendix H). Using these sound source levels, operational sound levels were predicted at each of the residences in the vicinity of the Project and would be similar to existing baseline sound levels (Appendix H). With the addition of the Project, maximum operational noise levels are predicted at 51 dBA Leq at NSR 2 (Appendix H). As a result, no exceedances of the County's guidelines for residential uses (55 dBA Leq – 7 a.m. to 10 p.m.) are predicted to occur from operating the Project. Therefore, Project operational noise impacts are less than significant.

Traffic associated with the Project's operation would not result in a doubling of traffic on area roadways; therefore, increases in traffic noise would be less than 3 dBA and not significant.

- b) **Less than Significant Impact.** Construction and site decommissioning activities associated with the proposed Project and off-site interconnection would result in groundborne vibration, with the primary sources including solar array installation, grading activities, and other construction vehicle movements. In addressing the range of potential issues associated with ground vibration, there are generally two forms of impacts that should be addressed: (1) annoyance to individuals or the community; and (2) damage to buildings. Vibration from typical construction activities is generally below the threshold of perception when the activity is more than about 50 feet from the receiver. Given that construction activities would not encroach within 50 feet of existing residential structures, it is unlikely that any vibration-related annoyance would be perceived by nearby sensitive receptors.

In relation to the potential for structural damage at adjacent structures, peak particle velocity (PPV) is the maximum instantaneous positive or negative peak of the vibration signal, measured as a distance per time (such as millimeters or inches per second). The PPV measurement has been used historically to evaluate shock-wave type vibrations from actions like blasting, pile driving, and mining activities, and their relationship to building damage.

Installation of the PV solar module foundations requires pile driving and has the potential to result in temporary vibration impacts to structures and humans. The Project would utilize an impact pile driver to install each PV tracker mount. For this analysis it is assumed that pile driving activities would not occur closer than 180 feet from the nearest sensitive land use. Other construction activities are less intensive than pile driving and would have lower PPV than pile driving (Appendix H). Therefore, vibration levels from pile driving are considered worst case for the solar facility construction.

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The calculated PPV at the nearest residence (180 feet) would be 0.002 PPV, which would not damage buildings and would be less than barely perceptible (Appendix H). Vibration from pile driving would be substantially less than the County's 0.2 PPV standard (which, in any event, does not apply to construction from 7 am to 7 pm, except Sundays and federal holidays). Therefore, vibration impacts associated with construction of the Project would be less than significant.

Additionally, the Project is required to comply with the vibration standards of the County Development Code (§ 83.01.090). Once constructed, Project operations will not generate substantial groundborne vibration because of the passive nature of solar PV facility operations and the infrequent use of heavy equipment (if any) for unscheduled maintenance. Therefore, a less than significant impact is identified for this issue area.

- c) **Less than Significant Impact.** As demonstrated in the "Operations and Maintenance" analysis under the response to Section XII. a), above, the proposed Project would not create a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project. Operational noise levels associated with Project-related stationary sources would not exceed existing ambient noise levels and would be in compliance with the County's noise standards of 55 dBA (7 am to 10 pm) for residential uses. No operational activities would occur during nighttime hours. Therefore, the Project would not create any substantial permanent increase in the ambient noise levels (Appendix H).

Operational-period transportation sources would include the occasional use of vehicles and the use of equipment that produce minimal noise levels at site boundaries and be comparable to existing conditions. The Project would not result in a doubling of traffic on area roadways; therefore, increases in traffic noise would be less than 3 dBA. Given that the Project operations would not exceed existing ambient noise levels, the Project would not have a substantial adverse effect related to a substantial permanent increase in ambient noise levels.

- d) **Less than Significant Impact with Mitigation Incorporated.** Construction noise, although temporary, can be a source of concern for sensitive receptors, such as nearby residences. Construction is anticipated to take place during the fourth quarter of 2015 and last up to 10 months. The Project would be constructed during daytime hours only; specifically between the hours of 7:00 a.m. and 7:00 p.m. Construction of the Project will require the use of heavy equipment that may be periodically audible at offsite locations. Received sound levels will fluctuate, depending on the construction activity, equipment type, and distance between noise source and receiver. Additionally, sound from construction equipment will vary dependent on the construction phase and the number and class of equipment at a location at any given time. There would be five phases of construction for the Project:
- a. Site preparation
 - b. Underground work
 - c. System installation
 - d. Testing
 - e. Clean-up / Restoration

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Each phase identified will require different types of construction equipment. The estimated composite site noise levels for each phase of construction is based on the assumption that all equipment would operate at a given usage load factor, for a given hour (e. g., pile drivers are assumed to be used for up to 20% of one hour, or 12-minutes), to calculate the composite average daytime hourly A-weighted sound levels (Leq). The load factor accounts for the fraction of time that the equipment is in use over the specified time period. The composite noise level from several pieces of equipment operating during the same phase is obtained from decibel (A-weighted) addition of the Leq of each individual unit. Although it is not possible for all the construction equipment to operate at one point simultaneously, the screening level analysis represented in Table 8 conservatively assumes that this is the case (Appendix H).

Two analysis conditions were evaluated for each phase of construction: 1) the highest work-day construction noise level, and 2) the average construction noise level within each phase. These two conditions were compared to a 20 dBA over baseline significance threshold for daily construction noise levels and to a 10 dBA over baseline significance threshold, for average construction noise levels within a phase. Additionally, construction noise was assessed for any exceedances of the 77 dBA CNEL EPA limit beyond which sustained noise exposure could result in hearing loss impacts.

Construction sound will attenuate with increased distance from the sound sources. Composite Leq sound levels as provided in Table 8 for each Noise Sensitive Receptor (NSR) were evaluated assuming spherical free-field spreading. Other factors, such as vegetation, ground effects, terrain and obstacles, such as buildings, will act to limit the impact of construction noise levels, but were not considered in the evaluation. Actual received sound levels will fluctuate, depending on the construction activity, equipment type, and separation distances between source and receiver. Some construction phases will overlap with one another at the Project site; however, multiple phases would not be conducted simultaneously in close proximity of one another. For example, when a construction phase is within 250 feet of a NSR another phase would not be within 1500 feet. Therefore, if two construction phases overlap, noise levels associated with the construction phase closest to a receptor would dominate. As a general construction practice, functional mufflers will be maintained on all equipment to maintain noise levels as low as reasonably achievable.

The predicted construction phase noise levels were used to screen for potential impact conditions at nearby noise sensitive receptors. Table 8 provides the predicted received construction noise levels for each noise sensitive receptor.

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Table 8. Received Construction Noise Levels by Phase

Noise Sensitive Receptor	Distance (feet)	Baseline CNEL	Project Sound Levels (dBA Leq)			
			Maximum Composite Sound Level*	Increase Above Baseline	Average Sound Level	Increase Above Baseline
1	210-2,840	50	69	19	45	0
2	227-3,878	60	69	9	50	0
3	739-5,943	65	56	0	39	0
4	210-3,909	55	70	15	51	0
5	164-4,083	55	73	18	47	0

Notes:

* Maximum for a given work day during Phase 1 construction, representative of when construction is closest to a noise sensitive receptor. Analysis assumes that generator sets would be at least 500 feet from NSR-1 under Phase 1.

Source: Appendix H

Table 8 reflects the results of the composite noise levels for Phase 1, which are higher than Phases 2 through 5.

Because construction noise would comply with the County's noise ordinance and would not exceed the temporary increase over ambient thresholds under any phase; impacts from construction noise would be less than the applied threshold. However, given the close proximity of construction to noise sensitive receptors for the duration of Project construction combined with construction-related noise levels that nearly approach the applied threshold, Project construction noise is considered significant and mitigation is proposed to lessen this impact.

Traffic noise associated with construction of the Project is not anticipated to be a significant source of noise. Traffic noise is not greatly influenced by lower levels of traffic, such as those associated with the Project's construction effort. For example, traffic levels would have to double in order for traffic noise on area roadways to increase by 3 dBA. The Project's traffic report anticipates that construction traffic on area roadways would increase hourly traffic volumes by much less than double; therefore, the increase in construction related traffic noise would be less than 3 dBA and is not significant.

Noise generated during the Project's 10-month construction period would result in temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project. Specifically, construction of the proposed Project would create some elevated short-term construction noise impacts from construction equipment (see Table 8). Mitigation Measure N-1 would ensure that impacts are not substantial and are below a level of significance by limiting noise-generating activities to the hours of 7 a.m. to 7 p.m., requiring the muffling of construction equipment where feasible, and requiring that stationary construction equipment be placed in a manner so that emitted noise is directed away from sensitive receptors.

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The screening level assessment did not identify any exceedances of the temporary threshold criteria employed for this project. Receptor-1 is the closest to an exceedance under Phase 1 and Phase 3, with a predicted 19 dBA increase over ambient and highest Leq of 73 dBA under Phase 1 for approximately 22 days; however, the highest sound levels would only occur when construction is closest to the receptor and on average the received sound levels are not predicted to be above ambient conditions (Appendix H). Furthermore, unlike the assumptions of the screening model applied above, not all equipment would or could operate simultaneously at one location. For example, under Phase 1 the excavators, graders, tractor/loader/backhoe, and roller would operate in unison over one area of the Project site which would then be followed by another series of equipment, such as the skid steer with drill rig and cement/mortar mixer to prepare the site for the next phase. Therefore, sounds from each grouping of equipment, when at its closest to a given receptor, would dominate over other equipment working on another portion of the Project site even though all the Phase's equipment could be in operation simultaneously. The result would be slightly lower received sound levels. For example with excavators, graders, tractor/loader/backhoe, and roller operating under Phase 1 at NSR-1 (e.g., 210 feet) sound levels at worst would result in a composite Leq of 68 dBA, slightly lower than the composite construction noise level for the phase (Appendix H).

During operations, noise from the facility would occur periodically due to occasional maintenance activities and annual washings. These activities would produce short term noise at levels shown in Table 8; such impacts would not be substantial and would be roughly equivalent to noise generated by existing agricultural operations in the area. Additionally, operating vehicles would only be located at any single point on the site for a very limited duration. Maintenance, repair, and washing activities would occur exclusively during daylight hours. As a result, temporary or periodic noise impacts would be less than significant after mitigation.

- e) **No Impact.** The Project site is located approximately 19 miles to the west of the Barstow--Daggett Airport and is not located within an airport land use plan or within two miles of a public use airport. Therefore, the proposed Project would not expose people residing or working in the Project area to excessive aircraft noise levels.
- f) **No Impact.** The Project site is not located within two miles of a private airstrip. The nearest private airstrip is the Depue Airport, located approximately 3.75 miles southwest of the Project site. Due to the distance of the airstrip from the Project site, the proposed Project would not expose people residing or working in the Project area to excessive aircraft noise levels.

Possible significant adverse impacts have been identified or anticipated and the following mitigation measures are required as conditions of Project approval to reduce these impacts to a level below significant.

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MM# Mitigation Measures

N-1: Construction Noise Mitigation. Prior to issuance of a grading permit, the project operator will require all construction contractor/subcontractor employees to attend the WEAP training prior initiating their activities. All contract and subcontract employees will be required to implement the following noise attenuation measures during all phases of construction:

- a) The use of noise-producing signals, including horns, whistles, alarms, and bells, will be for safety warning purposes only.
- b) Although otherwise allowed subject to applicable County noise limits, the project’s exterior construction activities will not occur before 7.a.m. or after 7 p.m. and there will be no exterior construction activities on Sundays or National Holidays.
- c) Construction equipment will be muffled per manufacturer’s specifications.
- d) All stationary construction equipment will be placed in a manner so that emitted noise is directed away or blocked from sensitive receptors nearest the Project site.

Issues	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
XIII. POPULATION AND HOUSING – Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION:

- a) **No Impact.** The proposed Project will not induce substantial population growth in the area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). The power and infrastructure associated with the Project will assist in supplying upgrades to a larger electrical network. Construction is anticipated to take approximately 10 months, with a peak workforce of 181 construction workers on the site. These workers would commute to the site from nearby communities such as Barstow, with some traveling from more distant areas such as Victorville, Hesperia, and San Bernardino. Operation and maintenance activities would consist of an anticipated staff of approximately two to six workers to monitor operations from an off-

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site location and periodic cleaning and on-site maintenance procedures as needed. Accordingly, the proposed Project would not result in any impacts to housing or related infrastructure, nor would it require construction of additional housing. The Project would not result in a significant adverse effect related to substantial population growth in the area. No impact is identified for this issue area.

- b) **No Impact.** The proposed Project will not displace substantial numbers of existing housing necessitating the construction of replacement housing elsewhere. No impact is identified for this issue area.
- c) **No Impact.** The proposed Project will not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere. No impact is identified for this issue area.

No significant adverse impacts are identified or anticipated and no mitigation measures are required.

<i>Issues</i>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
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XIV. PUBLIC SERVICES

- a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other Public Facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION:

- a) **Less than Significant Impact.** The proposed Project will not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios,

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response times or other performance objectives for public services, including fire and police protection, schools, parks, or other public facilities. The Project will be subject to the public safety services impact fee of the County's Solar Ordinance (§ 84.29.040(c)) to ensure that the Project will not affect fire and police performance objectives. Each of these services providers is addressed in further detail below:

Fire Protection – Less than Significant Impact. The proposed Project will not result in the need for additional fire protection services that would require construction of new facilities. The nearest fire station is San Bernardino County Fire Station 56 located on 37284 Flower Road, Hinkley, CA 92347. Fire Station 56 is located approximately six miles northwest of the Project site. Although the fire threat is considered low at the Project site, any development, along with the associated human activity, in previously undeveloped areas increases the potential of the occurrence of wildfires in the region. The San Bernardino County Fire Department has identified fire protection measures that will be required as conditions of approval for this Project in order to comply with applicable ordinances, codes, and/or recognized fire protection standards. These include Fire Department review and approval of all final on-site and off-site improvements; inspection, approval and signing a Building and Safety job card for "fire final"; vegetation clearance around buildings and structures; and road designs required to ensure adequate Fire Department access. During construction, some public services including fire protection may be required but this would be short-term and would not result in a decrease in the level of service offered or substantially affect these agencies' response times. Based on the low probability and short-term nature of potential fire protection needs during construction, payment of the public safety services impact fee to ensure that the Project will not affect fire and police performance objectives during operations, and conditions of approval required by the County Fire Department, the proposed Project would not result in associated significant impacts to fire protection.

Police Protection – Less than Significant Impact. The proposed Project would not result in the need for additional police protection services that would require construction of new facilities. The proposed Project area is served by the San Bernardino County Sheriff's Department. The Barstow Station is located approximately four miles southeast of the Project site. The Barstow Station patrols the communities of Baker, Daggett, Hinkley, Lenwood, Ludlow, Newberry Springs, Sandy Valley, Yermo, Red Mountain, and Trona. Due to the large expanse that the deputies cover, they regularly assist and are assisted by the California Highway Patrol, Barstow Police Department, and the Bureau of Land Management Rangers. Payment of the public safety services impact fee would ensure that the proposed Project not impact service ratios, response times, or other performance objectives related to County police protection. During construction, some public services including police protection may be required but this would be short-term and would not result in a decrease in the level of service offered or substantially affect these agencies' response times. Lighting will be designed to provide the illumination needed to achieve safety and security and will be downward facing and shielded to focus illumination in the immediate area. The Project perimeter will be secured with 8-foot-tall chain-link security fencing. These features will achieve the Project's security objectives.

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Schools – No Impact. Long-term operations of the proposed unmanned solar facility would place no substantial demand on school services because it does not include the construction of residences and requires no full-time staffing during operations. The Project would not introduce a new population into the area. Therefore, no impact to schools would result.

Parks – No Impact. Long-term operations of the proposed solar facility would place no substantial demand on parks because the Project requires no full time staffing and does not include construction of any new residential units or infrastructure extensions that would induce population growth. Therefore, no impact to parks would result.

Other Public Facilities – No Impact. For the reason stated above, the Project would not result in the introduction and/or an increase in new residential homes or otherwise induce population growth that could require new public facilities.

No significant adverse impacts are identified or anticipated and no mitigation measures are required.

Issues	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
XV. RECREATION				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION:

- a) **No Impact.** The proposed Project will not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. The proposed Project will be unmanned and does not include construction of any new residential units or infrastructure extensions that would induce population growth, in turn creating a demand on parks. No impact is identified for this issue area.
- b) **No Impact.** The proposed Project does not include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment. No new residences or recreational facilities would be constructed as part of the proposed Project. The proposed Project would not induce population growth in

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adjacent areas and would not increase the use of recreational facilities in surrounding neighborhoods. No impact on recreation would result from implementation of the Project.

No significant adverse impacts are identified or anticipated and no mitigation measures are required.

Issues	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
XVI. TRANSPORTATION/TRAFFIC – Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and greenways, pedestrian and bicycle paths, and mass transit.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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SUBSTANTIATION:

a) Less than Significant with Mitigation Incorporated.

The following information is summarized from the *Transportation and Traffic Assessment* prepared by GC Environmental, Inc., dated April 2015. This assessment is provided as Appendix I of this Initial Study.

Existing Conditions

The main roadways within the traffic study area include Community Boulevard, Lenwood Road, Dixie Road, and SR-58. The major roadway within the traffic study area is Community Boulevard. This roadway extends east to west within the traffic study area and connects to Dixie Road and Lenwood Road. SR-58 provides regional access to and from the Project site.

Detailed intersection capacity and operation analyses were conducted at the following three intersections for a weekday morning (7:00 to 9:00 a.m.) and evening (4:00 to 6:00 p.m.), and the following four roadway segments:

Intersections

1. Lenwood Road & Community Boulevard
2. Lenwood Road & SR-58
3. Dixie Road & Community Boulevard

Roadway Segments

1. Lenwood Road (SR-58 to Community Boulevard)
2. Community Boulevard (SR-58 to Lenwood Road)
3. SR-58 (west of Lenwood Road)
4. SR-58 (east of Lenwood Road)

Under existing conditions, all three study intersections operate at LOS A and all four roadway segments operate at LOS D or better.

Thresholds of Significance

Intersections

According to the San Bernardino County Road Planning and Design Standards, a project would be considered to cause a significant impact if it adds the number of peak-hour trips to intersections with the LOS ratings provided in Table 9.

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Table 9. Intersection Thresholds of Significance for Traffic Impact Studies

Level of Service	Total Project Peak Hour Trip Generation
A	500
B	250
C	150
D	50
E	30
F	15

Roadway Segments

Caltrans provides general guidelines for assessing roadway segments under its jurisdiction in the “Guide for the Preparation of Traffic Impact Studies”.² While Caltrans does not explicitly provide significant thresholds, it does state that Caltrans “endeavors to maintain a target LOS at the transition between LOS “C” and LOS “D”” it goes on to state that...“if an existing State highway facility is operating at less than the appropriate target LOS, the existing [measure of effectiveness] should be maintained”.³ As such, for State roadway segments with existing LOS of D or worse, it is reasonable to assume that a project is less than significant if it does not cause deterioration in the existing LOS. For roadway segments with existing LOS of C or better, the level of significance is that the project does not cause a decrease in the LOS to less than LOS C.

Impact Analysis

There will be a temporary increase in traffic volumes on SR-58, Community Blvd, and Lenwood Road during the 10-month Project construction as a result of construction vehicles and workers traveling to and from the Project site. All construction-related trips would arrive at the Project site via SR-58 westbound by turning left at the intersection of SR-58 and Lenwood Road, driving south on Lenwood Road, turning left at the intersection of Lenwood Road and Community Boulevard, and traveling east on Community Boulevard to the project site. Trips leaving the project site would reverse the arrival procedure. Operational trips would travel to and from the project site in the same manner as for construction.

During construction, the Project (including the off-site interconnection) will generate a maximum of 226 additional round trips per day. During operation, the project will generate a maximum of 12 additional round trips per day. Anticipated Project impacts are presented for intersections in Table 10 and roadway segments in Table 11. Note that the intersection at Dixie Road and Community Boulevard is included in Table 10 because it was analyzed in the baseline traffic study. No Project-related traffic increases are shown for that intersection because project-related traffic is not anticipated to use the intersection (GC Environmental, Inc. 2015c).

² <http://www.dot.ca.gov/hq/traffops>

³ See footnote 1.

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Table 10. Project Impacts to Intersections

		Lenwood Road and SR-58	Lenwood Road and Community Boulevard	Dixie Road and Community Boulevard
AM Peak Hour	Time	08:00-09:00	07:45-08:45	07:45-08:45
	Existing Volume	456 vehicles	81 vehicles	41 vehicles
	Volume During Project Construction/Volume Increase	682 vehicles; 226 veh. increase	307 vehicles; 226 veh. increase	41 vehicles; 0 veh. increase
	Volume During Project Operation/Volume Increase	458 vehicles; 2 veh. increase. 468 vehicles on 40 days per year during facility maintenance; 12 veh. increase	83 vehicles; 2 veh. increase. 93 vehicles on 40 days per year during facility maintenance; 12 veh. increase	41 vehicles; 0 veh. increase
	Current LOS and Threshold of Significance Volume (increase over current volume)	A; 500 vehicles	A; 500 vehicles	A; 500 vehicles
	Significant?	No (construction and operation)	No (construction and operation)	No (construction and operation)
PM Peak Hour	Time	16:00-17:00	16:00-17:00	16:00-17:00
	Existing Volume	675 vehicles	85 vehicles	53 vehicles
	Volume During Project Construction/Volume Increase	901 vehicles; 226 veh. increase	311 vehicles; 226 veh. increase	53 vehicles; 0 veh. increase
	Volume During Project Operation/Volume Increase	677 vehicles; 2 veh. increase. 687 vehicles on 40 days per year during facility maintenance; 12 veh. increase	87 vehicles; 2 veh. increase. 97 vehicles on 40 days per year during facility maintenance; 12 veh. increase	53 vehicles; 0 veh. increase
	Current LOS and Threshold of Significance Volume (increase over current volume)	A; 500 vehicles	A; 500 vehicles	A; 500 vehicles
	Significant?	No (construction and operation)	No (construction and operation)	No (construction and operation)

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Table 11. Project Impacts to Roadway Segments

Roadway Segment	Existing Conditions		Conditions during Project Construction		Conditions during Project Operation	
	Daily Volume	LOS	Daily Volume	LOS	Daily Volume	LOS
Lenwood Rd. (SR-58 to Community Blvd.)	779 veh.	A	1,231 veh.	A	783 veh.; 803 veh. 40 days per year during facility maintenance	A
Community Blvd. (Lenwood Road to SR-58)	539 veh.	A	991 veh.	A	543 veh; 563 veh. 40 days per year during facility maintenance	A
SR-58 (West of Lenwood Road)	13,749 veh.	D	13,749 veh.	D	13,749 veh.	D
SR-58 (East of Lenwood Road)	15,942 veh.	D	16,394 veh.	E	15,946 veh.; 15,966 veh. 40 days per year during facility maintenance	D
Threshold of Significance	For roadway segments with LOS \geq C: project reduces LOS to < C For roadway segments with LOS < C: project reduces LOS.					
Significant?	Yes. The LOS of SR-58 east of Lenwood Road is reduced from D to E during project construction. No other significant LOS impacts would occur to roadway segments during project construction and operation.					

As shown in Table 11, the Project is anticipated to reduce the LOS of SR-58 east of Lenwood Road from D to E during project construction. Because Project construction would result in a deterioration of existing LOS, this impact is considered significant. However, Mitigation Measure (MM) TR-1 will reduce this temporary construction-related impact to a less than significant level through the preparation of a traffic control plan that would require deliveries to be scheduled during non-peak commute hours, provide appropriate signage and lighting for detours or temporary closures, require that access for adjacent properties be maintained, and coordination with the County and Caltrans regarding other concurrent roadway improvement projects. Specifically, the traffic control plan will preserve the existing LOS D status of SR-58 east of Lenwood road during project construction by minimizing employee vehicle trips and truck deliveries during peak commute hours. The Project will not reach or exceed any thresholds-of-significance for the other road segments and intersections near the project site that are anticipated to be used by project-related traffic (GC Environmental, Inc. 2015c).

Because Project decommissioning will involve similar traffic levels as project construction, the conclusions reached for project construction can be applied to project decommissioning if baseline traffic conditions were to remain the same. However, traffic conditions are likely to change over the life of the project; traffic conditions at the time of decommissioning are therefore unknown and estimating these conditions would be speculative. Nonetheless, traffic increases during project decommissioning activities would be subject to the same

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requirements as construction and, because of their temporary nature, would not result in permanent LOS degradation if any degradation were in fact to occur.

- b) **Less than Significant with Mitigation Incorporated.** Because project operations will not increase traffic in the area beyond minimal maintenance activities, the Project land use type is not one typically associated with producing congestion on major thoroughfares in the area. Additionally, no roadways within the project vicinity are identified in the County's Congestion Management Program (CMP) system of roadways, which operate at LOS E or F. Through adherence to all required County standards, specifications, and regulations, and implementation of a traffic management plan during the construction and decommissioning phases of the Project as required by Mitigation Measure TR-1, conflicts with the County's CMP is less than significant.
- c) **No Impact.** The closest public airport to the Project site is the Barstow-Daggett Airport located 19 miles to the west of the Project site. The proposed Project will not result in a change in air traffic patterns because it is not dependent on air transport related material, labor force, or service.
- d) **Less than Significant with Mitigation Incorporated.** The proposed Project involves the construction of four access locations along Community Boulevard. These access points would be used for general and emergency access. Typical site access will be provided via 30-foot wide driveways to accommodate wide turning radii in both directions. The proposed site access will include a 60-foot-long drive apron off of Community Boulevard. Additional access points may be required for the off-site interconnection. All applicable County standards, specifications, and regulations will be complied with in the design and construction of these access points. In accordance with County standards, a 26-foot-wide perimeter road and 20-foot-wide internal roads have been incorporated into the site design. All access roads constructed within the site will be designed according to County standards and sized to allow vehicle access, including emergency access, throughout the facility. Design parameters include road width and turning radii.

Traffic safety hazards could occur due to conflicts where construction or decommissioning vehicles access a public right-of-way from the Project area or due to increased truck traffic in general. Construction and decommissioning traffic, if unmitigated, could cause a significant safety hazard impact. However, implementation of Mitigation Measure TR-1, which requires the preparation and implementation of a traffic control plan, would reduce this impact to a less than significant level by providing appropriate signage and lighting for detours or temporary closures, scheduling deliveries under the control of the contractor for non-peak commute hours, maintaining access for adjacent properties, and coordination with the County and Caltrans regarding other concurrent roadway improvement projects.

The proposed Project would be constructed in accordance with County requirements and would not introduce design features such as sharp curves or dangerous intersections or an incompatible use within the vicinity of the Project site. The Project site is located within a rural area and would not generate substantial numbers of vehicle trips as part of Project operations. Per standard development procedures, all site plans are reviewed by the County

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to ensure that proposed roadway improvements and new access roads adequately meet all safety and design requirements. Therefore, the proposed Project would not substantially increase hazards due to a design feature. No impact is identified for this issue area.

- e) Less than Significant Impact.** Access to the Project site would be directly from Community Boulevard by two main driveways, one for the portion of the Project south of Community Boulevard and one for the portion north of Community Boulevard. In addition, a secondary access driveway and a temporary access driveway into the temporary storage and laydown area are also located on the south side of Community Boulevard along the parcel frontages. Access to the off-site interconnection would occur directly from Community Boulevard or Lenwood Road. Each of these access points can be used for emergency access. Both the perimeter access road and the internal access roads would be constructed in conformance with the County Fire Department standards required for fire prevention. In accordance with County standards, a 26-foot-wide perimeter road and 20-foot-wide internal roads have been incorporated into the site design. These access roads would remain in place for ongoing operations and maintenance activities after construction is completed. Per standard development procedures, all site plans are reviewed by the County to ensure that proposed roadway improvements and new access roads adequately meet all safety and design requirements. Therefore, the proposed Project would not result in inadequate emergency access to the Project area, and a less than significant impact would occur.
- F) Less Than Significant with Mitigation Incorporated.** Roadways around the Project site are not on the fixed routes used by Barstow Area Transit System buses, nor are they identified as routes in the Non-motorized Transportation Plan produced by the San Bernardino Associated Governments. Also, the proposed Project will not cause a demand for any such facilities that exist in the greater area because its operational commuting needs are minimal. Potential impacts relate to construction and decommissioning traffic along Lenwood Road and Community Boulevard and its effect on bicyclists or pedestrians using these roads. However, this temporary construction impact would be adequately mitigated through the implementation of Mitigation Measure TR-1 to a less than significant level by maintaining access or detours for pedestrian and bicycle traffic for the duration of construction.

Possible significant adverse impacts have been identified or anticipated and the following mitigation measures are required as conditions of Project approval to reduce these impacts to a level below significant.

MM# Mitigation Measures

TR-1: Traffic Control Plan. Prepare and submit a Construction Traffic Control Plan in accordance with both the California Department of Transportation Manual on Uniform Traffic Control Devices and Work Area Traffic Control Handbook that will include:

- i. Timing the delivery of heavy equipment and building materials under the contractor's control during non-peak commute hours, to the extent feasible;

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- ii. Directing construction traffic with a flag person;
- iii. Placing temporary signing, 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;
- iv. Ensuring access for emergency vehicles to the project site;
- v. Temporarily closing travel lanes or delaying traffic during materials delivery, transmission line stringing activities, or any other utility connections;
- vi. Bicycle and pedestrian detour plans if/where applicable;
- vii. Maintaining access to adjacent property;
- viii. Specifying both construction-related vehicle travel and oversize load haul routes, minimizing construction traffic during the a.m. and p.m. peak hour, distributing construction traffic flow across alternative routes to access the Project site in a way that maintains LOS conditions at the time of construction, and avoiding residential neighborhoods to the maximum extent feasible;
- ix. Traffic control plan coordination with the County, and potential traffic control plan adjustments, in the event of concurrent projects generating potentially overlapping traffic effects; and
- x. Additional traffic control plan coordination with Caltrans regarding the SR-58 Hinkley Expressway Project if construction of the proposed Project occurs concurrently with construction of the expressway project.

Copies of the approved Construction Traffic Control Plan and all issued permits that may be necessary for construction such as (without limitation) work within roadway right-of-ways, the operation of oversized/overweight vehicles on San Bernardino County-maintained roads, and the use of a California Highway Patrol or pilot car escort shall be submitted to the San Bernardino County Public Works, Traffic Division; San Bernardino County Land Use Services, Land Development Division; San Bernardino County Land Use Services, Planning Division; and Caltrans.

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Issues	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
XVII. UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded, entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill(s) with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION:

- a) **No Impact.** The proposed Project does not involve the construction of facilities that would generate wastewater that could otherwise exceed applicable wastewater treatment requirements of the Lahontan RWQCB. Portable toilets would be used during construction and decommissioning of the Project with wastewater being hauled and disposed of off-site by a licensed hauler and at a treatment facility. Based on these considerations, no impact is identified for this issue area.
- b) **No Impact.** The proposed Project will not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities. The Project will use the majority of water during construction for dust mitigation, estimated to require approximately 40 AF of water for construction activities and dust suppression with the same amount of water

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used during Project decommissioning. The Project will also require water for washing the modules; such semi-annual panel washing is estimated to require less than three AF of water per year.

The Project will source its water through an on-site private well of a Project property owner for construction water as well as any water needed for dust control and routine maintenance during operations. Based on the minimal amount of water required during construction and operations as compared to agricultural uses, the Project would not require construction of new water or wastewater treatment facilities or expansion of existing facilities. No impact is identified for this issue area.

- c) **No Impact.** The proposed Project would not require the construction or expansion of storm water drainage facilities. Most of the Project site would remain pervious and existing soils are predominantly well drained. There are existing isolated depressions that collect storm runoff within the Project boundary. The minimal quantity of discharged water generated by solar panel washing (less than three acre-foot of water per year) would drain into the isolated depressions, continue to percolate through the ground, or evaporate. Therefore, no impact is identified for this issue area.
- d) **Less than Significant Impact.** The Project will use the majority of water during construction for dust mitigation, estimated to require approximately 40 AF of water for construction activities and dust suppression with a similar amount of water used during Project decommissioning. Mowing and rolling techniques would be employed on portions of the Project site where feasible to maintain existing root systems to support dust suppression efforts. The Project will also require water for washing the modules; such semi-annual panel washing is estimated to require less than three AF of water per year. The Project will source its water through an on-site private well of a Project property owner for construction water as well as any water needed for dust control and routine maintenance during operations. The proposed Project will use the Hill's Ranch, Inc.'s existing well in the southwest corner of APN 0497-071-040 that is rated for approximately 920 gallons per minute (An acre-foot (AF) of water is equivalent to 325,900 gallons). As provided in Response (b) under Issue IX, the Project's water supply would be sufficient to accommodate the Project's short- and long-term water supply needs. For this reason, no new or expanded water supply entitlements are required for the Project and the corresponding impact is considered less than significant.
- e) **No Impact.** The proposed Project would not require connection to an existing sanitary sewer collection system. As a result, the Project would have no impact on existing wastewater treatment capacity.
- f) **Less than Significant Impact.** The Project would be served by landfills with sufficient capacity to accommodate the minor amount of solid waste that would be generated. The proposed Project is an unmanned solar electricity generating facility that would generate no process waste and only small amounts of solid waste requiring disposal. The proposed Project largely consists of short-term construction activities (with short-term waste generation limited to minor quantities of construction debris) and would not result in long-term solid waste generation. Solid wastes associated with the proposed Project will be disposed of as appropriate in local landfills or at a recycling facility.

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San Bernardino County has adopted the California Green Building Standards Code (CALGreen), which includes mandatory construction and demolition waste recycling (San Bernardino County, 2013). Projects that have the potential to generate construction and demolition waste are required to submit a Construction and Demolition Solid Waste Management Plan (WMP) to identify the estimated quantity and location of recycling for construction and demolition waste resulting from the project. The goal of the WMP is to recycle, reuse, compost, and/or salvage a minimum of 50 percent by weight of the waste generated on site. The WMP must be approved by the Solid Waste Management Division prior to issuance of building permits. An “Actual Material Disposal/Diversion Worksheet” is required upon completion of construction that demonstrates the actual quantity of construction and demolition waste recycled.

The nearest active landfill is the Barstow Landfill, located approximately seven miles southeast of the Project site at 32553 Barstow Road. This Class III landfill accepts agricultural, construction/demolition, industrial, mixed municipal, and biosolid wastes. According to the California Department of Resources Recycling and Recovery (CalRecycle), this landfill has a remaining capacity of 77,304,902 cubic yards⁴ and is not scheduled to cease operations until the year 2071 (CalRecycle, 2015a). The Project’s waste disposal requirements are estimated at 19.32 tons during the course of construction and decommissioning (USEPA 2009) and 2.4 tons/annually during operations (CalRecycle 2015b). Based on these disposal needs, the Project over its lifecycle would have negligible solid waste disposal requirements, estimated at less than 0.00011 percent of the total landfill capacity and, therefore, the Barstow Landfill has sufficient permitted capacity to accommodate the Project’s solid waste disposal requirements.

Decommissioning of the solar arrays would generate limited amounts of solid waste, which would be recycled to the extent feasible at a solid waste disposal or materials recovery facility permitted by the County solid waste services which adheres to County-developed recycling programs. It is anticipated that a small percentage of the solar arrays would be considered solid waste, requiring depositing into a solid waste facility. The Project Applicant (or contractor) will be responsible for contracting with a local franchise hauler for all solid waste disposal and recycling needs. Given the low volume of solid waste expected, the Project would not have a significant impact on area landfills. Therefore, a less than significant impact is identified for this issue area.

- g) **Less than Significant Impact.** The proposed Project would comply with all federal, state, and local statutes and regulations related to solid waste. The Project would consist of short-term construction activities (with short-term waste generation limited to minor quantities of construction debris) and thus would not result in long-term solid waste generation. Solid wastes produced during the construction phase of the Project, or during future decommissioning activities would be disposed of in accordance with all applicable statutes and regulations. Accordingly, anticipated impacts from the proposed Project related to landfill capacity are less than significant.

No significant adverse impacts are identified or anticipated and no mitigation measures are required.

⁴ One ton equals 1.33 cubic yards.

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Issues	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE:				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects, which shall cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION:

- a) **Less Than Significant Impact with Mitigation Incorporated.** The Project would not substantially degrade the quality of the environment, reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory. Any impacts attributable to the Project, as described throughout the various section of this checklist, are considered less than significant or can be mitigated to a less than significant level.
- b) **Less Than Significant Impact with Mitigation Incorporated.** As discussed in the previous sections, impacts that could be caused by the Project would be reduced to a less than significant level by approaches included in the Project design or by mitigation that would be included as part of the Project. The County has concluded that the proposed Project’s incremental effects to aesthetics, agriculture, cultural resources, geology, GHG, land use planning, mineral resources, population/housing, public services, recreation, and utilities and service systems would not be cumulatively considerable. This finding is supported by the conclusions provided in the project-level analysis for each corresponding resource section of

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this initial study. The resources most likely to be cumulatively affected by the Project would be air quality, biology, hazards, water quality, water supply, noise, and traffic; however, mitigation measures conditioned on the Project would reduce the Project's cumulative-level effects to a less than cumulatively considerable level. Each of these project-level impacts of the Project are discussed below in the context of other cumulative projects in the Project vicinity.

Almost all air basins within the state are non-attainment areas for one or more criteria air pollutants. Activities that emit criteria pollutants within those air basins could have a significant cumulative impact on air quality. The MDAQMD has established rules and programs under their air quality plans that limit proposed project-specific contributions to the overall problems. These rules and regulations also apply to other projects in the air basin. As discussed Section III, Air Quality, the contributions of the Project would not be cumulatively considerable because the proposed project would comply with applicable air district rules and plans for construction activities.

When viewed from a plan-based perspective, the geographic scope for potential cumulative impacts to regional air resources is the MDAB. If the project would result in an increase in a criteria pollutant that has an existing adverse cumulative effect (i.e., the MDAB is classified as non-attainment of the criteria pollutant) and the increase would be more than the respective federal de minimis level or MDAQMD threshold, when combined with the emissions associated with other past, present or reasonably foreseeable future actions, the project would be considered to contribute to a significant cumulative effect to regional air resources.

When viewed from a project-based perspective, the geographic scope for air quality cumulative impacts is a 6-mile radius for regionally-based impacts and a 1-mile radius for sensitive receptor impacts. These geographic scopes were taken from the California Energy Commission, which typically applies a 6-mile radius for its air quality cumulative analyses for fossil-fuel fired power plant operating emissions; this standard is considered conservative for this much cleaner renewable energy project. These geographic scopes of analysis are appropriate for project-based cumulative air quality analysis because air emissions released from a source are diluted very rapidly. Because of this, projects that are scheduled concurrently in the same area as the Project are the only projects considered capable of contributing to cumulative air quality impacts.

According to MDAQMD's PM10 Attainment Plan (1995), PM10 emissions generated by on-road entrained dust and on-road exhaust and tire wear emissions constitute seven percent of the PM10 emission inventory. As such, on-road mobile sources, including those associated with the Project, are not a significant contributor to PM10 violations in the nonattainment area (MDAQMD 1995). Rather, the MDAQMD's PM10 problem is a localized problem caused by desert soils, not automobile tailpipe emissions. For this reason, compliance with MDAQMD's fugitive dust rule will be required so that the Project incorporates control measures to control on-road and off-road sources of PM10 generated by the Project. These measures will be required for other cumulative projects such as the SR-58 Hinkley Expressway Project and Martinsville Specific Plan and supplemented for projects exceeding MDAQMD's significance thresholds in order to meet MDAQMD's attainment goals for PM10. Based on regional modeling analyses performed for MDAQMD's Ozone Attainment Plan (2008), implementing

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control measures contained in the Ozone Attainment Plan (as proposed in Mitigation Measure AQ-1), in addition to air quality benefits derived from existing rules and future compliance dates, the Project would conform with the Ozone Attainment Plan's projections for attainment by the year 2020. Therefore, cumulative air quality impacts from the proposed Project and other local, reasonably foreseeable projects such as the SR-58 Hinkley Expressway Project are not expected to be significant because the implementation of required control measures is expected to result in net emission reductions and overall air quality improvement. With the implementation of Mitigation Measure AQ-1, Project-related emissions of NO_x would not exceed MDAQMD air quality significance thresholds and, therefore, would not be cumulatively considerable.

With regard to sensitive receptors, for the emissions of any two or more projects to have the potential for significant cumulative downwind concentrations at any given fixed sensitive receptor location, they must both be in close proximity to limit the downwind dispersion from one site to the other; also, typically, one of the projects must be able to cause an air quality standard exceedance on its own. Therefore, only projects within 1 mile of the Project are considered projects that could, together with the Project, cause significant cumulative impacts to fixed sensitive receptor locations. It is important to note that the geographic-scope standard of 1 mile and the sensitive-receptor location standard of 1,000 feet in MDAQMD Criterion 4 are separate concepts. Stated differently, the potential for cumulative significant impacts to sensitive receptors within 1,000 feet of a proposed project is limited to the proposed project and other projects within a 1-mile radius of the proposed project, which is limited to the SR-58 Hinkley Expressway Project. Given that the Project's contribution to significant cumulative air quality impacts on a regional basis is less than cumulatively considerable with mitigation incorporated, the proposed project would not result in a cumulatively considerable contribution to effects on sensitive receptors.

Although the development of the cumulative projects in the area would remove substantial vegetation, this region of California is typified by open and natural space with native vegetation. As such, impacts to common vegetation are not cumulatively significant. The majority of vegetation communities present within the Project site and off-site improvement areas are degraded and higher quality (and occupied) habitat is abundant throughout the region, suggesting that abundant habitat would persist in the region despite development of past, present, and reasonably foreseeable projects.

Impacts of surrounding development on sensitive plant and wildlife species are cumulatively significant (Appendix C). The combined development has the potential to directly impact sensitive plant and wildlife species as well as indirectly affect these species by impacting metapopulation dynamics including dispersal and habitat connectivity via habitat loss and fragmentation. The majority of vegetation communities present within the Project site and off-site improvement areas are degraded; they are also avoided by the Project. Several mitigation measures, including BIO-1 (WEAP), BIO-2 (pre-construction surveys and daily sweeps), BIO-3 (biological monitoring), and BIO-4 (Weed Abatement) would further avoid direct impacts to sensitive species. As such, the Project would not result in a considerable contribution to cumulative impacts to special status plants or sensitive vegetation communities following the implementation of the proposed mitigation.

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The development of the cumulative projects would reduce the amount of land that is available for wildlife species by developing previously undeveloped areas, removing potential habitat, and by altering corridors and other settings that are critical to the movement and linkage of species. The combined impacts of the projects considered, such as the SR-58 Hinkley Expressway Project and Martinsville Specific Plan could be cumulatively significant. However, given the distance between these projects and the Project site, they are unlikely to interact cumulatively in a significant fashion. Additionally, no desert tortoise or tortoise sign were observed after protocol-level surveys, no burrowing owl or desert kit fox or American badger were identified on the Project site, and no Mohave fringe-toed lizards or their habitat were identified within the development footprint; nonetheless, as described in the project-level analysis, mitigation has been proposed to comprehensively address potential impacts to each of these species notwithstanding the low habitat values of the site (e.g. BIO-3 [Pre-construction surveys], BIO-5 [Exclusionary Fencing], etc.). Further, as discussed in the project-level analysis, the Project site is currently bounded by SR-58 which greatly inhibits wildlife movement by most terrestrial species in the regions. Further, the Project design avoids presumed wildlife corridors such as the Mojave River and connectivity within this region would therefore be maintained. Additionally, other projects considered are physically separated from project such that they would not interact cumulatively in a significant fashion (e.g., Martinsville Specific Plan is on other side of the Mojave River and SR-58) with the Project. As such, the Project's contribution to potential cumulative impacts on terrestrial wildlife and associated movement would not be considerable.

With regard to sensitive avian and bat species, the Project site does provide potential nesting and lower quality foraging habitat, but so too does much of the surrounding vicinity, where only the SR-58 Expressway is the reasonably foreseeable cumulative projects that could change local existing baseline conditions. Moreover, multiple measures to mitigate potential effects on avian species (nest survey and avoidance, avian mortality monitoring and adaptive management, APLIC guidelines, etc.) would ensure cumulative contributions to avian impacts remain inconsiderable. In short, based on the absence of observed sensitive plants and terrestrial species, the low habitat value of the previously disturbed Project site and off-site interconnection for both sensitive plants and sensitive wildlife, and the avoidance and mitigation standards described above, the Project would not result in a considerable contribution to cumulative impacts following mitigation implementation.

As described in the project-level analysis, the "lake effect" resulting from the proposed solar arrays may affect avian species, but more information on this hypothesis is warranted. If the "lake effect" hypothesis, attracting birds to the Project site is valid, the Project would have a considerable contribution to cumulative impacts on avian wildlife movement. This contribution would be less than significant following implementation of an Avian Mortality and Injury Monitoring Program as proposed in Mitigation Measure BIO-9. This Program would include adaptive management measures to reduce project-related affects, including cumulatively considerable efforts, should such "lake effect" impacts be observed.

Decommissioning of the Project is anticipated following thirty (30) years of operation. While difficult to predict along this time frame, the impacts to biological resources during this phase are assumed to be similar to construction impacts and, therefore, the proposed mitigation

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would be required in conjunction with project-related decommissioning activities in the future. As with construction, with the implementation of the proposed mitigation (e.g., pre-construction surveys and resource staking, presence of an environmental resource coordinator, contractor training) combined with compliance with state and federal regulations promulgated at the time of decommissioning, the effects of Project-related decommissioning are rendered less than cumulatively considerable.

Health and safety effects associated with the past or current uses of a project site generally occur on a project-by-project basis, rather than in a cumulative nature. The Project and related projects, such as the Lenwood Road and SR-58 Interchange Project, would all involve the storage, use, disposal, and transport of hazardous materials to varying degrees during construction and to a lesser extent during construction. Project-level effects from these activities are less than significant for the Project following the application of Mitigation Measure HHM-1, which outlines the procedures for hazardous materials compliance during construction, operation, and decommissioning. Similar to the Project, other cumulative projects would be subject to the same federal, state, and local laws, regulations, and policies governing the use, transport, and disposal of hazardous materials. It is foreseeable that the Project and the related projects would implement and comply with these existing hazardous materials laws, regulations, and policies. With the implementation of Mitigation Measure HHM-1, proper procedures for the management of hazardous materials would be in place along with an SPCC in the event of an incident such that no cumulatively considerable impact would result from the Project.

Cumulative impacts to water quality from construction activities would be mitigated to a less than significant level by implementing BMPs during project construction in conjunction with Mitigation Measure HWQ-1. Potential cumulative impacts to groundwater and surface water quality would be expected to be less than significant following mitigation, assuming adherence to the terms and conditions of the NPDES General Construction Permit. Impacts to existing drainage patterns would be minimized through the implementation of Mitigation Measure HWQ-2, which requires the preparation of a drainage plan to attenuate post-Project peak runoff levels to pre-construction conditions. Other projects, including the SR-58 Hinkley Expressway Project and Martinsville Specific Plan will also be subject to the NPDES General Permit and conditioned with site-specific drainage requirements by the County. These permits are established in consideration of cumulative impacts to water quality, and as such are conservative in nature. Additionally, the differing geographic areas for the projects considered will limit synergistic cumulative effects, including cumulative drainage effects to the Mojave River. As such, with the integration of certain project design features in conjunction with the implementation of Mitigation Measures HWQ-1 and HWQ-2, water quality and drainage impacts would cumulatively be inconsiderable.

As described in the project-level analysis, Project construction and operation could result in potential cumulative water supply effects in light of the ongoing drought and local implementation of groundwater management legislation. These effects could also include cumulative effects to well operations and performance. With the exception of the SR-58 Hinkley Expressway Project, other cumulative projects considered in the analysis are unlikely to cumulatively affect well performance in nearby adjacent wells due to their distance from the

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project area. Similar to the Project, the SR-58 project would require the securing of a reliable water supply to support construction. These supplies could be secured on a temporary basis from multiple agricultural land owners in the project area with existing water rights and pumping facilities and, therefore, cumulative effects to well facilities are unlikely. Given that the Mojave Basin is adjudicated, which in of itself provides a cumulative solution to water supply in the local groundwater basin, the Project's use of supplies allocated to Hills Ranch would render the Project's affect as cumulatively inconsiderable.

Noise associated with the construction of other projects, such as the Lenwood Road and SR-58 Interchange Project, could be greater if constructed concurrently in the general vicinity of the Project. Therefore, adverse noise effects associated with the Project in conjunction with the potential noise effects of other cumulative projects could be cumulatively considerable in the absence of mitigation. With the implementation of Mitigation Measure N-1, construction equipment will be required to be muffled per manufacturer's specifications and all stationary construction equipment will be placed in a manner so that emitted noise is directed away or blocked from sensitive receptors. These measures in conjunction with compliance with County construction noise standards, the short-term duration of Project construction, the distance at which other projects would be constructed (e.g. greater than 1,000 feet) and the associated rate of attenuation, and the required noise abatement measures would minimize temporary noise impact such that they would not be cumulatively considerable and less than significant.

Project construction activities in conjunction with other cumulative projects, including the Lenwood Road and SR-58 Interchange Project, could also result in concurrent construction activities. Concurrent construction activities could contribute incrementally to delay on the local roadway network and could result in multiple temporary roadway closures at the same time if not properly coordinated. These effects could be cumulatively considerable in the absence of mitigation. Implementation of Mitigation Measure TR-1 would require preparation of a Project-specific Traffic Management Plan and traffic control plan coordination with Caltrans regarding the SR-58 Hinkley Expressway Project in the event of concurrent construction. This measure would minimize the adverse effects of concurrent construction along with maintaining the current LOS on SR-58 to the extent that Project-related effects would not be cumulatively considerable.

- c) The Project would not directly or indirectly cause substantial adverse effects on human beings. Of the resource categories involving effects to human beings, only air quality and noise could have a significant impact on human beings as a consequence of the Project. However, all potential effects of the Project on air quality and noise would be mitigated to a less than significant level through compliance with local regulations and would therefore avoid causing substantial adverse effects on human beings. The impact analysis included in this environmental checklist indicates that for all other resource areas, the Project would either have no significant impacts, or for impacts that would not affect human beings, less than significant impacts with mitigation incorporated.

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XIX. MITIGATION MEASURES

(The following mitigation measures, which are also included within the Conditions of Approval and coupled with the required Condition Compliance Release Forms (CCRF) shall serve as the Mitigation Monitoring and Reporting Program for this project.)

AQ-1: Mitigation for NOx. During construction and decommissioning of the Project, all off-road diesel-powered pieces of equipment used by the construction contractors shall comply with the California Air Resources Board Tier 3 standard for off-road engines.

BIO-1: Worker Environmental Awareness Program. All construction and operations staff working on the Site will be required to attend a Worker Environmental Awareness Program (WEAP) as prepared and presented by a qualified biologist. This program will emphasize the conservation of sensitive biological resources during Project construction and operations and will include, at a minimum:

- The purpose of resource protection and relevant mitigation requirements;
- A description of the existing habitats and special status species including identification tips;
- The conservation measures that will be implemented in conjunction with Project construction and operation;
- A protocol for documenting and reporting dead or injured wildlife encountered during construction and at least one year of operation;
- Contact information for Project biologists and monitors;
- Fire protection measures;
- Measures to minimize the spread of weeds;
- Hazardous substance spill prevention and containment measures; and
- Penalties for violation

A copy of the worker education training materials shall be provided to San Bernardino County prior to the issuance of a grading or construction permit.

The names of all personnel who attend the training shall be recorded and workers shall be issued hardhat decals denoting they have received the workshop training as well as informational fliers for quick reference. No personnel shall be permitted to operate equipment within construction zones unless they have completed the WEAP and are displaying hardhat decals denoting this attendance.

BIO-2: Pre-Construction Surveys and Daily Sweeps. Before initiating any ground-disturbing task (e.g., mechanized clearing, trenching, grading, etc.) associated with Project-related construction activities, pre-construction surveys will be conducted by a qualified biologist, in all Project areas slated for vegetation clearing or ground disturbing Project activities and the appropriately sized buffer. The surveys will be conducted no more than 30 days before disturbance activities are scheduled to begin within suitable Project habitat. Should sensitive resources be observed, biologists will establish

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Environmental Sensitive Area (ESA) buffers and no construction activities will be allowed within said ESA until the sensitive resource has left on its own accord or until otherwise authorized by the responsible trustee agency. Biological monitors will conduct daily sweeps prior to construction activity to verify no new sensitive resource occurs within that day's construction activity site.

(a) *Desert tortoise*. Focused desert tortoise surveys, as described in Preparing for Any Action that May Occur within the Range of the Mojave Desert Tortoise (USFWS, 2010) will be conducted in areas of potentially suitable habitat within 30 days of initial ground-disturbing activities. All tortoise sign will be mapped and all scat collected during the first clearance survey. If fresh scat is found during the second clearance survey, the surrounding area will be searched.

If encountered, tortoise burrow locations will be georeferenced in the field using Global Positioning System (GPS), and the size and approximate age of the burrow identified. Where possible, tortoise burrows would also be flagged only if the flagging would not attract poaching.

No more than 24 hours prior to fence installation and vegetation removal, all disturbance areas would be surveyed to ensure no desert tortoise individuals or burrows are present. Should desert tortoise be observed on the Project site, all potential activities with the possibility to impact an observed desert tortoise shall cease until the individual has left the area on its own accord. A report shall be sent to the California Department of Fish and Wildlife and U.S. Fish and Wildlife Service within five calendar days of the sighting and will include:

- Name and contact information of the biologist who observed the species;
- Date, time and location of the observation;
- Measures taken to avoid impacts following the observation;
- Monitoring methods used to ensure no impacts to desert tortoise have occurred; and
- Recommendations for ongoing activity at the Site that avoid impacts to desert tortoise.

If a dead desert tortoise is encountered, all work shall stop in the immediate vicinity of the encounter and the California Department of Fish and Wildlife and U.S. Fish and Wildlife Service shall be contacted immediately to determine the appropriate course of action under the respective statutory and regulatory endangered species regimes administered by each agency.

(b) *Mohave fringe-toed lizard*. Focused Mohave fringe-toed lizard (MFTL) surveys will be conducted in areas of potentially suitable habitat. These surveys shall occur within 30 days of initial ground-disturbing activities and during the seasonal activity period (typically, March to September). A qualified MFTL biologist will prepare a Mohave Fringe-toed Lizard Management Plan. This Plan shall be submitted to San Bernardino County and the CDFW for approval prior to the issuance of a grading or construction permit. This Plan will include, at a minimum:

- A discussion on the species' biology including known distribution maps;
- Minimum qualifications for biologists to work with the species;

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- Measures to avoid impacts to MFTL during Project construction including, but not limited to survey requirements, MFTL exclusionary fencing, speed limit enforcements, WEAP requirements, and avoidance of dune habitats.
- MFTL relocation requirements in the event an MFTL is observed within the Project disturbance area. These relocation requirements will include, at a minimum: handler requirements and qualifications, means of relocation and necessary equipment, clear microhabitat description and map of an approved receptor site, and relevant restrictions. All MFTL will be relocated to a County- and CDFW-approved receptor site.
- Reporting requirements. All MFTL encountered during surveys shall be reported to the County and CDFW in monthly monitoring reports. Should an individual require relocation, additional information shall be included including: date and time of capture, date and time of release, name and qualifications of the MFTL biologist, GPS coordinates and photo-documentation of capture and receptor microhabitat, and additional relevant information.

All observations will be mapped and all observed MFTL will be relocated to a County- and CDFW-approved receptor site.

(c) Burrowing Owl. Pre-construction burrowing owl surveys will be conducted by a qualified biologist, in conformance with the Staff Report on Burrowing Owl Mitigation (CDFW 2012) within 500 feet of all Project areas slated for vegetation clearing or ground disturbing Project activities. The surveys will be conducted no more than 30 days before disturbance activities are scheduled to begin within suitable Project habitat and 500-foot buffer zones. If burrowing owls are observed using burrows during the non-breeding season (September 1 – January 31) or breeding season (February 1 – August 31), an Environmental Sensitive Area (ESA) buffer shall be established around each burrow, and no activities will be allowed within the buffer until the nest is complete (young have fledged or the nest fails). Nest buffer distance will be a minimum of 300 feet. All ESAs will be clearly identified using visible markers such as orange snow fencing, flagging, signage or other visual cues. This protected area will remain in effect until August 31 or until the young owls are foraging independently. If disturbance of owls and their burrows is unavoidable, owls will be excluded from all active burrows as described in a Burrowing Owl Relocation Plan. All relocation will be passive in nature using burrow exclusion methods and all relocation will be performed in conformance with the Staff Report on Burrowing Owl Mitigation (CDFW 2012) after conferring with the CDFW and County of San Bernardino.

(d) Nesting Birds and raptors. Pre-construction surveys for nesting birds will be conducted if construction, ground disturbance, and/or vegetation trimming/removal activities are scheduled to occur during the breeding season (February 1 to August 31). A qualified avian biologist shall conduct the surveys no more than 30 days before disturbance activities are scheduled to begin within suitable Project habitat and 500-foot buffer zones. If active nests are found, a qualified biologist will determine appropriate buffer distances around each nest as specified in the Nesting Bird Management Plan, to minimize disturbance to the nest and prevent potential take of the nest. The buffer distance will be based on the species behavior characteristics and conservation status, nest location, and nature of anticipated project activities nearby. The buffer area will be conspicuously demarcated on the ground and the Permittee will ensure that all project activities in the vicinity of the site are monitored to prevent incursion into the buffer area. The buffer will

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remain in place until the nest is vacated and juveniles have fledged, or the nest is no longer active, as determined by a qualified biologist. An inactive nest is characterized by no longer containing viable eggs and/or living young and is not being used by a bird as part of the reproductive cycle (eggs, young, fledging young still dependent upon nest). All fledglings must leave the nest on their own accord (e.g., without take) to be considered inactive. In some cases, a nest can be abandoned by the bird constructing it and become inactive prior to egg laying. In such cases, determination that the nest is inactive is made on a case-by-case basis based on consistent observations and the determination of an avian biologist.

A qualified biologist will prepare a Nesting Bird Management Plan describing the measures to avoid nests in the event they are observed. This Plan is applicable to all nesting birds protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code. This Plan shall be submitted to San Bernardino County and the CDFW for approval prior to the issuance of a grading or construction permit. This Plan will include, at a minimum:

- Minimum qualifications for biologists to work with the species;
- Measures to avoid impacts to nesting birds during Project construction including, but not limited to survey requirements, monitoring requirements, WEAP requirements, and avoidance of dune habitats.
- Communications protocol in the event of a nest discovery;
- A list of potentially occurring avian species (or guild) and minimum no disturbance buffer for each. Buffer sizes will be site-specific and based on the sensitivity of specific species or guilds and not based on generalized assumptions regarding all nesting birds;
- Contingency and emergency activity measures; and
- Reporting requirements. All nests and their status (active versus inactive), species descriptions, date of inactivity, location (including GPS coordinates), and other information will be provided in monthly construction monitoring reports.

If for any reason a bird nest must be removed during the nesting season, the Project proponent(s) shall provide written documentation of concurrence from the United States Fish and Wildlife Service and the California Department of Fish and Wildlife authorizing the nest relocation to the County of San Bernardino. This documentation will include what actions were taken to avoid moving the nest, the location of the nest, what species is being relocated, the number and condition of the eggs taken from the nest, the location of where the eggs are incubated, the survival rate, the location of the nests where the chicks are relocated, and outcome (whether or not the chicks survived and fledged).

(e) *Mohave ground squirrel*. Presence/absence pre-construction surveys for Mohave ground squirrel will be conducted no more than one (1) year before disturbance activities are scheduled to begin within suitable Project habitat. If a Mohave ground squirrel is observed during pre-construction surveys or at any point, work shall be halted and redirected to other areas of the Project Site that would not affect the individual observed. A report shall be sent to the California Department of Fish and Wildlife within five calendar days of the sighting and will include:

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- Name and contact information of the biologist who observed the species;
- Date, time and location of the observation;
- Measures taken to avoid impacts following the observation;
- Monitoring methods used to ensure no impacts to Mohave ground squirrel have occurred; and
- Recommendations for ongoing activity at the Site that avoid impacts to Mohave ground squirrel.

If a dead Mohave ground squirrel is encountered, all work shall stop in the immediate vicinity of the encounter and the California Department of Fish and Wildlife shall be contacted immediately to determine the appropriate course of action under the California Endangered Species Act.

(f) Desert Kit Fox and American badger. Focused surveys for American badger and desert kit fox will be conducted by a qualified biologist within 500 feet of all Project areas slated for vegetation clearing or ground disturbing Project activities. The surveys will be conducted no more than 30 days before disturbance activities are scheduled. The survey shall be performed by walking parallel transects spaced no more than 20 meters apart within areas of suitable habitat, and shall be focused on detecting dens that are occupied, or are suitable for occupation, by either species. Potential burrows will be monitored for 72 hours using motion detecting infrared cameras or similar trackers to determine activity.

Inactive dens are burrows that have largely collapsed or the end of the burrow is clearly visible. Inactive dens that will be directly impacted by construction activities shall be excavated and backfilled by hand to prevent reuse by American badger or desert kit fox.

If occupied burrows are observed outside of the pupping season, the occupants may be passively excluded from their burrow using natural materials over a period of five consecutive days. Once the den is confirmed vacated, it shall be excavated to ensure no wildlife are trapped within the den and then backfilled by hand to prevent reuse by American badger or desert kit fox.

If an occupied den is observed during the pupping season (typically, February to July), then the burrow will be clearly flagged and a minimum 200-foot no disturbance area surrounding the den shall be established. This buffer shall remain in place until the end of the pup-rearing season or the den is determined inactive or abandoned by a qualified biologist. At this point, passive exclusion methods (see above) shall be used.

If an American badger or desert kit fox is observed, a report shall be sent to the California Department of Fish and Wildlife within 30 calendar days of the sighting and will include:

- Name and contact information of the biologist who observed the species;
- Date, time and location of the observation;
- Measures taken to avoid impacts following the observation;

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- Monitoring methods used to ensure no impacts to American badger or desert kit fox have occurred; and
- Recommendations for ongoing activity at the Site that avoid impacts to American badger or desert kit fox.

If a dead or injured American badger is encountered, all work shall stop in the immediate vicinity of the encounter and the California Department of Fish and Wildlife shall be contacted within eight hours to determine the appropriate course of action.

To minimize the likelihood of the transmission of canine distemper, no pets shall be allowed on the site. If a dead, sick, or injured desert kit fox is encountered, all work shall stop in the immediate vicinity of the encounter and the California Department of Fish and Wildlife shall be contacted within eight hours to determine the appropriate course of action.

(g) *Bats*. Focused surveys for bats, including Townsend's big-eared bat, will be conducted by a qualified biologist within 300 feet of all Project areas slated for vegetation clearing or ground disturbing Project activities where roosting habitat occurs. The surveys will be conducted no more than 30 days before disturbance activities are scheduled to begin within suitable Project habitat and 300-foot buffer zones surrounding rocky outcrops, buildings, bridges, large trees, or any other habitat capable of supporting roosts or hibernacula.

If active maternity roosts or hibernacula are found on site, the roost shall be avoided (i.e., not removed) by the project, if feasible. If avoidance of the roost is not feasible, the bat biologist shall notify the California Department of Fish and Wildlife in writing and additional surveys (via Anabat telemetry or other -approved methods) for nearby alternative roosting sites will be conducted. If the bat biologist identifies, in consultation with and with the approval of the California Department of Fish and Wildlife, that there are alternative roost sites used by the maternity colony and young are not present, then no further action is required.

If no active alternative roosts are found, substitutive roosting habitat for the colony shall be provided on, or in close proximity to, the Project Site. Following establishment of the substitutive roosting site for a period of no less three months, then exclusion of the bats from the original roost may occur. Following the exclusionary period, the demolition of the roost site must commence before maternity colonies form (typically, March) or after young are flying (typically, August).

If accidental take should occur, the California Department of Fish and Wildlife and/or the United States Fish and Wildlife Service shall be notified within 30 days.

BIO-3 Biological Monitoring. The Project proponent will retain a qualified Biological Monitor for all activities associated with ground disturbance, grading, construction, decommissioning, and restoration throughout the Project lifetime. The Biological Monitor must be knowledgeable of general and focused species issues on the Project, qualified by the County of San Bernardino to conduct such work, and must be competent to monitor all biological mitigation measures. The Biological Monitor will have the authority to ensure compliance with mitigation measures set forth in this report including the authority to halt work as necessary to ensure full compliance.

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Duties of the Biological Monitor will include, but will not be limited to the following:

- The Biological Monitor will ensure that all established buffers surrounding identified Environmentally Sensitive Areas are maintained.
- Conduct daily pre-construction clearance sweeps for plants and wildlife (including nests) to determine the need for any new no disturbance buffers.
- All dead wildlife will be immediately removed and disposed of properly as to not attract dogs, ravens, raptors, and other opportunistic scavengers and predators.
- To prevent entrapment, all potential wildlife pitfalls (i.e., steep trenches, bores, and other excavations) will be inspected daily (i.e., morning and/or evening) and immediately before backfilling to monitor for wildlife entrapment. Large/steep excavations will be covered and/or fenced nightly to prevent wildlife entrapment. If the excavation cannot practicably be covered or fenced, excavations will be sloped at a 3:1 ratio at the ends, or an earthen ramp will be provided to allow wildlife to escape. If any wildlife species become entrapped, construction will not continue until the animal has left the trench voluntarily or the Biological Monitor has removed the animal.
- No listed species will be handled without the appropriate permits; and
- The Biological Monitor will inspect the site to ensure trash and food-related waste is placed in closed-lid containers and that workers do not feed wildlife.

BIO-4 Weed Abatement Plan. Prior to the initiation of vegetation removal within the Project, the Applicant will submit to the County of San Bernardino a copy of the final Weed Abatement Plan and letter of approval from the appropriate fire authority. This plan will describe all requirements pertaining to weed abatement, fire protection, and fuel modification including periodic clearance of the site of all non-complying vegetation under San Bernardino County Desert Area Fire Hazard Abatement regulations [County Code 23.031-23.043]. These measures may include, but will not be limited to, the removal of brush and dead plant materials, removal of non-native plant species, and other periodic management measures including mowing, particularly beneath PV arrays. The location of fuel modification zones and/or fire breaks to minimize impacts to sensitive biological resources will be identified within the Plan. To the degree practicable, mowing or any other vegetation maintenance will occur between August 15 and February 15 to minimize impacts to nesting birds.

BIO-5 Trash Abatement Program. A Trash Abatement Program will be initiated during pre-construction phases of the Project, and would continue through the lifetime of the Project. Trash and food items would be contained in closed containers and removed regularly (at least once per week) to avoid attracting opportunistic predators such as ravens, coyotes, and feral dogs.

BIO-6 Other Biological Resource Protection Measures. The following additional measures will be implemented during Project construction:

- All equipment maintenance, staging, and the dispensing of fuel, oil, coolant, or any other such activities will be restricted to designated areas within the Project impact limits. These designated areas will be located in previously compacted and disturbed areas to the maximum extent possible in such a manner as to prevent runoff from entering existing native vegetation

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areas. These areas will be clearly designated in the construction plans and SWPPP (see HWQ-1

- Twenty miles per hour speed limits will be enforced for all vehicles traveling on the Project site.
- Trash will be stored properly (i.e., in a manner that is inaccessible to scavengers including condors, ravens, crows, and raccoons), in accordance with the Construction General Permit, and removed from the construction site on a regular basis.
- Pets will not be permitted on the Site during construction.
- Entry to all areas flagged, staked, or otherwise marked as special status by the Environmental Monitor will be prohibited.

BIO-7 Raven Management Plan. The Project proponent adhere to the following measures to ensure that the construction, operation, maintenance, and decommissioning of the Project does not adversely impact regional desert tortoise populations by attracting common ravens to the Project area and increasing the probability of tortoise predation. The following measures shall be implemented to mitigate potential project-specific impacts that could result in a local increase in common ravens:

- All trash and food-related waste will be disposed of in secure, self-closing receptacles to prevent the introduction of subsidized food resources for common ravens.
- Use water for construction, operation and maintenance in a manner that does not result in pooling or puddling.
- The biological monitor identified in BIO-3 shall implement the following at the project site:
 - Remove and dispose of road kills of common wildlife species from the project site and access road. No species protected by federal or state law would be removed.
 - Document common raven use of the project site and access road on a daily basis, during vegetation clearing and ground disturbance [BIO-2]. If frequently used perching locations are identified, use physical, auditory or visual bird deterrents to discourage use by common ravens.
 - Remove any inactive raven nests in the project site or along the access road.
- Implement Avian Power Line Interaction Committee (APLIC) guidelines [BIO-10].
- Implement the following measure to mitigate indirect and cumulative impacts: Contribute to the Regional Raven Management Plan fund managed by the National Fish & Wildlife Fund. The contribution shall consist of a one-time total payment of \$105 per acre of disturbance, including the project site and gen-tie improvement corridor.

BIO-8 Exclusionary Fencing Plan. The Project proponent will submit an Exclusionary Fencing Plan, describing permanent desert tortoise and Mohave fringe-toed lizard exclusionary fencing to be used at the Project, to the County of San Bernardino prior to the issuance of a building or grading permit. This plan will describe fencing materials, locations, access areas, monitoring requirements, and other information pertaining to the erection and maintenance of these fences.

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BIO-9: Avian Mortality and Injury Monitoring. The Project proponent shall perform operations-phase avian mortality and injury monitoring at the Project site. The program shall be initiated upon commencement of commercial operation and continue for one year following commercial operation. Prior to issuance of a grading permit for the project, the Project proponent shall submit an Avian Mortality and Injury Monitoring Plan to the County of San Bernardino and USFWS that, at a minimum, includes the following elements:

1. Monitoring Protocol

- a. A description and summary of the baseline survey methods, raw data, and results.
- b. Full survey methodology and field documentation, identification of appropriate survey locations, control sites, and seasonal considerations.
- c. Avian mortality and injury monitoring that includes:
 - i. Onsite monitoring that will periodically survey representative locations within the facility, and, in combination with an integrated carcass detection trial, will produce accurate project-wide impact estimates.
 - ii. Statistical methods used to generate facility estimates of potential avian impacts based on the observed number of detections during standardized searches and adjusted by integrated detection trials.
 - iii. Field detection and mortality or injury identification, cause attribution, handling and reporting requirements.
 - iv. Detailed specifications on data and carcass collection protocols and a rationale justifying the proposed schedule of carcass searches.
- d. All monitoring studies included in the program shall be conducted by a third party contractor for one year following commencement of commercial operation. At the end of the one year period, USFWS shall determine whether the survey program must be continued.
- e. Monitor the death and injury of birds and bats from collisions with facility features.

2. Adaptive Management Program. The Project shall be subject to additional, adaptive management mitigation in the event mortality and injury survey results indicate the Project fails to meet applicable 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. For impacts to all other special-status avian species, mitigation 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 local population of the species in question, as estimated through the results of implementation of the monitoring protocol required in by this mitigation measure.

The Plan shall include an adaptive management program that identifies and implements reasonable and feasible measures to reduce levels of avian mortality or injury attributable to the Project (whether project-specific or cumulatively considerable) to levels that accomplish the performance standards referenced above. To that end, the adaptive management program shall include (i) reasonable measures for characterizing the extent and importance of detected mortality

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and injuries clearly attributable to the Project; and (ii) potential measures that the Project owner could implement to adaptively respond to detected mortality and injuries attributable to the Project. Undertaken adaptive actions will be discussed and evaluated in survey reports.

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 mortality or injury that is specifically and clearly attributable to the Project facilities in excess of the performance standards referenced above, consistent with the proportionality requirements of California statutory and constitutional law and of U.S. constitutional law. Such measures may include, but not be limited to:

- a. The Project owner shall initiate consultation with USFWS and CDFW if there is project-attributed injury or mortality to any species regulated by BGEPA, ESA or CESA.
- b. Passive avian diverter installations along the perimeter or at other locations within the Project to reduce or minimize bird use of the site.
- c. The use of sound, light or other means to discourage site use consistent with applicable legal requirements.
- d. Onsite habitat management or prey control measures consistent with applicable legal requirements.
- e. Modifications to support structures or other facilities to exclude nesting birds (e.g., netting or shielding around framework; capping open pipes or tubing).
- f. Incorporation of visual cues to panels, such as UV-reflective or solid contrasting bands if proven to be effective and economically and technically feasible.
- g. Additional mortality monitoring to assess impact reductions achieved through adaptive management.
- h. Such other reasonable, feasible measures required by USFWS under its regulatory authority that are applicable to special-status avian species.

BIO-10 APLIC Guidelines. The Project will implement Avian Power Line Interaction Committee (APLIC) guidelines to reduce avian collisions with power lines and poles installed as part of the Right-of-Way Improvement Area.

CR-1: Tribal Monitoring. There will be one comprehensive training session to present needed information about coordinating with San Manuel for cultural resources and related issues about this project as part of the Project's WEAP training prior to any ground disturbing activities. The meeting shall be recorded for use in future orientation sessions relating to the project. Tribal monitoring shall be conducted during all ground-disturbing activities, which includes but is not limited to, archaeological studies, auguring, excavation, geotechnical investigations, vegetation clearing, ground surface leveling, trenching, and conventional mass grading. Tribal monitors will be from the San Manuel Band of Mission Indians and the Morongo Band of Mission Indians with San Manuel taking the lead. One tribal monitor from each Tribe shall be present on the project site during ground-disturbing activities. A single tribal monitor shall be assigned to each simultaneous ground-disturbing activity on site. Additional tribal monitors shall be assigned if more than two simultaneous ground-disturbing activities occur on site. If simultaneous ground-disturbing activities require an odd number

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of more than two tribal monitors, the Tribes shall bring in additional monitors representing each tribe according to the number needed. The tribal monitors will represent the Tribes' interests and will follow the Native American Heritage Commission Guidelines for Monitors, which shall include daily completion of the Native American Monitoring Daily Activity Report/Log.

CR-2: Discovery of Archaeological Resources. On-site workers will be informed of the potential for discovery of archaeological resources or human remains during excavation or trenching as part of the Project's WEAP training.

If an archaeological or cultural resource is encountered during ground-disturbing activities for the Project, tribal monitors and/or the Applicant are empowered to stop excavation activities within 50 feet of the discovery until a qualified archaeologist can evaluate whether the resource is a unique archaeological resource or historical resource as defined in Public Resources Code Section 21083.2 and/or 14 C.C.R. Section 15064.5 or a tribal cultural resource as defined in Public Resources Code Section 21074 in consultation with the tribes. Work may continue in other areas. The project archaeologist in consultation with the tribal representatives shall determine importance and significance of the resource as tribal cultural resources, historical resources or unique archaeological resources, defined above. Tribal monitors will cooperate with the qualified archaeologist to locate all cultural materials exposed during ground disturbing activities. Recovery of artifacts or excavation for resource evaluations will be the responsibility of the qualified archaeologist.

CR-3: Treatment of Archaeological Resources. If the qualified archaeologist determines that the discovery is a historic resource (as defined in MM CR-2) of an archaeological nature, then the mitigation standards of 14 C.C.R. 15126.4(b) specifying preservation in place shall be the preferred manner of mitigation. Preservation in place may be accomplished by, but is not limited to, the following:

1. Planning construction to avoid archaeological sites;
2. Incorporation of sites within open space;
3. Covering the archaeological sites with a layer of chemically stable soil; or
4. Deeding the site into a permanent conservation easement.

If preservation in place is not feasible, a cultural resources treatment plan shall be prepared pursuant to 14 C.C.R. 15126.4(b) and The Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation. The treatment plan shall include (i) provisions for assessment and treatment of the resources identified; (ii) reporting of results in a timely manner; and (iii) the opportunity for Tribes to engage in the recovery of material and provide comments on the draft report. The plan must be submitted to the County Land Use Services Department prior to excavation of the historical or unique archaeological resource. The Final Cultural Resources Mitigation report(s) shall be provided to the Lead Agency and disseminated to the regional CHRIS system Information Center and interested professionals and tribes upon request.

Each landowner or their assigned representative will confer with the Tribes on the disposition of all non-human burial related tribal cultural resources, historical resources and unique archaeological resources, including ceremonial items, which may be found at the portion of the Project located on

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the subject property. The property owner is entitled to keep all artifacts not covered and defined above. If the landowner wishes to keep and curate the materials in an institution meeting Federal and State curation guidelines, the Landowner agrees to do so at the San Bernardino County Museum.

If human remains are encountered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur in the vicinity of the find(s) until the San Bernardino County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the San Bernardino County Coroner determines the remains to be Native American, the Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then identify the “most likely descendant(s)”. The landowner shall confer with the most likely descendant (MLD). The MLD will make recommendations concerning the treatment of the remains within 48 hours as provided in Public Resources Code 5097.98. If the landowner cannot come to an agreement with the MLD, Public Resources Code Section 5097.98(e) requires the landowner to reinter the human remains and items associated with Native American remains with appropriate dignity on the property in a location not subject to further surface disturbance.”

The assessment of resources collected shall be conducted in a timely manner, which will not exceed three months from the date of discovery of the materials and/or the completion of all fieldwork and monitoring. Possession of all cultural materials by the qualified archeologist, if necessary, shall not exceed 90 calendar days after the final report has been submitted. No photography of human remains and associated artifacts is permitted.

A preliminary draft report shall be submitted within three months of the end of the Project fieldwork, and that two copies of the draft archaeological report shall be provided to Tribes by the Lead Agency. Should the qualified archaeologist need an extension of time, approval of a justified time extension shall be permitted at the discretion of the San Manuel Band of Mission Indians and the Morongo Band of Mission Indians. The Tribes shall be given an opportunity to provide comments for inclusion in the final report. All surface and subsurface artifacts and features are to be mapped and described in a final report prepared by the qualified archaeologist following the Secretary of the Interior's Standards and Guidelines for archaeological documentation.

Data recovery shall not be required for an historical resource if the County Land Use Services Department determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the archaeological or historical resource, provided that the studies are deposited with the California Historical Resources Regional Information Center.

If the qualified archaeologist determines that the excavated sediments were previously disturbed or are unlikely to contain significant cultural materials, the qualified archaeologist can specify that construction activities are no longer limited and may resume.

All cultural resources recovered will be documented on California Department of Parks and Recreation Site Forms to be filed with the California Historic Resources Information System (CHRIS) South Central Coastal Information Center (SCCIC) at California State University Fullerton. The

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qualified archaeologist will prepare a final report about the find to be filed with the Applicant/landowner and the CHRIS-SCCIC. The report will include documentation and interpretation of resources recovered. Interpretation will include full evaluation of the eligibility with respect to the National Register of Historic Places and California Register of Historical Resources and CEQA. At that time, the Applicant, in consultation with the Lead Agency and qualified archaeologist, will designate repositories in the event that resources are recovered.

HHM-1: Prepare Project Health and Safety Plan. A Health and Safety Plan, which complies with applicable OSHA and Cal-OSHA guidelines for the types of activities being performed, shall be prepared for Project construction and operation. The Health and Safety Plan shall include the following:

- General material safety data sheets for all hazardous materials stored on site will be retained on site during Project construction and operation.
- On-site fueling of equipment and vehicles shall be completed in areas at least 100 feet away from drainages, or in designated fueling areas. Fuel and other hazardous materials stored on site will be located in areas with secondary containment, unless secondary containment is built into the tank.
- Transformers shall be inspected for oil leakage on a regular basis and diversionary structures shall be provided for all oil-containing equipment, including transformers, at the Project site.
- Employees shall attend a health and safety training and shall be trained in the proper protocol for notification and cleanup of hazardous materials.
- A spill prevention and countermeasure control plan (SPCC) will be prepared and available on-site for the duration of project construction, operation, and decommissioning. The SPCC will also provide protocols and procedures for the discovery of undocumented hazardous materials during construction and decommissioning of the Project.

HWQ-1: Erosion Control and Stormwater Pollution Prevention Plan. The Project was sited to avoid direct impacts to riparian habitat, however indirect impacts may occur via stormwater or non-stormwater runoff. As such, a SWPPP, created by a Qualified SWPPP Developer (QSD) and implemented by a Qualified SWPPP Practitioner (QSP), will be prepared and implemented for the Project. This SWPPP will list all measures to eliminate the discharge of pollutants other than stormwater) and non-storm water discharges authorized by the California Construction General Permit Order 2009-0009-DWQ or another National Pollutant Discharge Elimination System (NPDES) permit. The SWPPP will contain programs to monitor visual pollutants, chemical pollutants, and potential sediments. Specific and Best Management Practices, Numeric Action Levels, Numeric Effluent Levels, and Rain Event Action Plans will be implemented as required to ensure non-permitted discharges are eliminated. The SWPPP will be prepared prior to commencement of Project construction.

HWQ-2: Prepare Drainage Plan for Structural Facilities. The project proponent shall prepare a site specific Drainage Plan for all facilities constructed in conjunction with the Project that meets San Bernardino County Land Use Services, Land Development Division – Drainage Section requirements, as applicable. The Drainage Plan shall incorporate measures to maintain off-site runoff during peak

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conditions to pre-construction discharge levels. Design specifications shall accommodate the 100-year, 24-hour storm event to pre-project conditions.

N-1: Construction Noise Mitigation. Prior to issuance of a grading permit, the project operator will require all construction contractor/subcontractor employees to attend the WEAP training prior initiating their activities. All contract and subcontract employees will be required to implement the following noise attenuation measures during all phases of construction:

- a) Noise levels of any Project use or activity will be maintained at or below adopted County noise standards (San Bernardino County Code 83.01.080). The use of noise-producing signals, including horns, whistles, alarms, and bells, will be for safety warning purposes only.
- b) Exterior construction activities will be limited between 7 a.m. and 7 p.m. There will be no exterior construction activities on Sundays or National Holidays.
- c) Construction equipment will be muffled per manufacturer's specifications.
- d) All stationary construction equipment will be placed in a manner so that emitted noise is directed away or blocked from sensitive receptors nearest the Project site.

TR-1: Traffic Control Plan. Prepare and submit a Construction Traffic Control Plan in accordance with both the California Department of Transportation Manual on Uniform Traffic Control Devices and Work Area Traffic Control Handbook that will include:

- i. Timing the delivery of heavy equipment and building materials under the contractor's control during non-peak commute hours, to the extent feasible;
- ii. Directing construction traffic with a flag person;
- iii. Placing temporary signing, 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;
- iv. Ensuring access for emergency vehicles to the project site;
- v. Temporarily closing travel lanes or delaying traffic during materials delivery, transmission line stringing activities, or any other utility connections;
- vi. Bicycle and pedestrian detour plans if/where applicable;
- vii. Maintaining access to adjacent property;
- viii. Specifying both construction-related vehicle travel and oversize load haul routes, minimizing construction traffic during the a.m. and p.m. peak hour, distributing construction traffic flow across alternative routes to access the Project site in a way that maintains LOS conditions at the time of construction, and avoiding residential neighborhoods to the maximum extent feasible;
- ix. Traffic control plan coordination with the County, and potential traffic control plan adjustments, in the event of concurrent projects generating potentially overlapping traffic effects; and

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- x. Additional traffic control plan coordination with Caltrans regarding the SR-58 Hinkley Expressway Project if construction of the proposed Project occurs concurrently with construction of the expressway project.

Copies of the approved Construction Traffic Control Plan and all issued permits that may be necessary for construction such as (without limitation) work within roadway right-of-ways, the operation of oversized/overweight vehicles on San Bernardino County-maintained roads, and the use of a California Highway Patrol or pilot car escort shall be submitted to the San Bernardino County Public Works, Traffic Division; San Bernardino County Land Use Services, Land Development Division; San Bernardino County Land Use Services, Planning Division; and Caltrans .

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PROJECT-SPECIFIC STUDIES:

Appendix A – Visual Impact Analysis for the Longboat Solar Project. Prepared by HDR, Inc. June 2015

Appendix B1 – Air Quality/Greenhouse Gas Assessment for the Longboat Solar Project. Prepared by GC Environmental, Inc. May 2015

Appendix B2 – Health Risk Assessment Report for the Proposed Longboat Solar Project, County of San Bernardino, California. Prepared by Environmental Intelligence. April 2015

Appendix C – Biological Resources Technical Report for the Proposed Longboat Solar Project. Prepared by Environmental Intelligence. August 2015

Appendix D1 – Cultural and Paleontological Resources Assessment for the Longboat Solar Project. Prepared by Cogstone. December 2014

Appendix D2 – Supplemental Cultural and Paleontological Resources Assessment for the Longboat Solar Project. Prepared by Cogstone. May 2015

Appendix D3 – AB 52 Notification

Appendix E – Geotechnical Engineering Report for the Longboat Solar Project. Prepared by BARR Engineering. September 2014

Appendix F1 – Phase I Environmental Site Assessment. Prepared by GC Environmental, Inc. August 2014

Appendix F2 – Phase II Environmental Site Assessment. Prepared by GC Environmental, Inc. February 2015

Appendix G – Preliminary Hydrology Study Longboat Solar Project, San Bernardino County, California. Prepared by Westwood Professional Services. August 2014

Appendix H – Acoustic and Vibration Technical Memo for Longboat Solar Project. Prepared by HDR Engineering, Inc. July 2015

Appendix I – Transportation and Traffic Assessment. Prepared by GC Environmental, Inc. April 2015

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EXHIBIT D

Comments on the Initial Study & Response to Comments

From: maxdiannaeddy@aol.com
Sent: Tuesday, November 03, 2015 5:47 PM
To: Oquendo, John
Subject: Longboat Solar Project No. P201400516/CUP

To whom it may concern:

My name is Max B. Eddy, I am the Property Owner of APN # 0497-101-09-0-000 which is surrounded on three sides by this project. After reviewing (IS/MND), I have a very unique situation as to this project's impact.

] 1-1

1. Dust control 24hrs a day 7 days a week needs to address my concerns and I must have access to a phone number of whom is in charge and can immediately address any dust control problems as they occur.

] 1-2

2. The IS/MND fails to list my 10 acre Ranch Estate in the middle of this project and makes it seem that all property APN's listed are old abandoned agriculture land which is not the case especially on my 10 acres. I currently farm and raise animals here, along with 4 children and three adults full time in a Ranch Estate. The project will create a negative impact to us as well as strip me from all current and future property values.

] 1-3

] 1-4

3. There is substantial wildlife here on this property and surrounding areas. The wildlife includes Spotted Owls, Desert Ground Squirrels, Badgers, Quail, Dove, **Horned toad lizards, Bobcats and the migration process of white Egrets and Vultures also occupy the immediate surroundings as a stop over during the Migration process here not to mention other species that are not listed in this IS/MND Report.**

] 1-5

] 1-6

In closing, I feel that this IS/MND Report is seriously flawed and I don't approve of this project going forward. The wildlife mentioned above would have serious negative consequences to their habitat if this project continues.

] 1-7

Please acknowledge receipt of this email Dated 11/03/2015.

Thank You,
Max B. Eddy APN # 0497-101-09-0-000 ,25499 Community Blvd. Barstow Ca. 92311

Letter 1
Max B. Eddy
November 3, 2015

Response 1-1

The County notes the commenter's location and proximity to the proposed project.

Response 1-2

As provided in the second paragraph on page 38 of the Initial Study (IS), the project will be subject to the Mojave Desert Air Quality Management District's (MDAQMD) Rule 403.2 (Fugitive Dust Control for the Mojave Desert Planning Area). Rule 403.2 specifically requires the preparation of a dust control plan prior to construction of the project. In addition to the requirements for dust control (e.g., watering), the dust control plan will include the contact information of a representative from the construction management team to facilitate the reporting to the MDAQMD, as well as facilitating responses to any dust related issues. Any complaints related to dust control during construction of the project should be directed to the MDAQMD's complaint line at (800) 635-4617.

Response 1-3

Table 1 of the IS lists the commenters subject property (Assessors Parcel Number [APN] 0497-101-09) as part of the project site APNs (see page 3 of the IS). The commenter's property is not considered as being located within the limits of the project site; and therefore, the characterization of the project site as fallow agricultural land is appropriate as supported by photo-documentation of the project site. Due to the subject property's location adjacent to the project site, this residence is identified as a sensitive receptor as illustrated in Figure 12 (see IS page 43) and considered in that context throughout the environmental analysis provided in the IS.

Response 1-4

Pursuant to CEQA, an economic impact is not an impact on the physical environment that must be addressed in an environmental document (see Public Resources Code § 21082.2.). The County considers the fiscal and economic impacts as part of approval of the project. Conditions of Approval, in terms of financing of services, etc. are also placed on each of these projects based on the findings of the particular fiscal/economic study. An economic, employment, and fiscal analysis has been prepared for the project and this information will be considered as part of the Planning Commission consideration for approval of the project.

Response 1-5

Each of the groups of wildlife species listed in the comment including spotted owls, desert ground squirrels, badgers, quails and doves, horned toad lizards, and bobcats are discussed and evaluated on pages 46 through 51 of the IS. To address potential project-related wildlife impacts, the County has proposed a robust mitigation strategy that would avoid and minimize potential impacts. This mitigation strategy would include a combination of worker awareness training (MM BIO-1), pre-construction surveys and daily sweeps (MM BIO-2), biological monitoring (MM BIO-3), trash abatement (MM BIO-5), and the erection of exclusion fencing (MM BIO-8). These measures combined with MM BIO-9 (Avian Mortality and Injury Monitoring) and BIO-10 (Avian Power Line Interaction Committee Guidelines) for bird species would be effective in avoiding and minimizing any project-related impacts to local wildlife. With mitigation, impacts to wildlife would be less than significant.

Response 1-6

Potential project-related impacts to migratory and nesting bird species are discussed and evaluated on pages 47 through 48 (Swainson's hawk), 48 to 49 (borrowing owl), and 51 through 53 (nesting birds) of the IS. As provided in Response 1-5, the County is proposing a robust mitigation program to avoid and minimize adverse impacts to migratory and nesting bird species such that the residual impact would be less than significant.

Response 1-7

The County notes the commenter's position on the proposed project. Please refer to Response 1-5.

November 4, 2015

John Oquendo, Senior Planner
County of San Bernardino
Land Use Services Department, Planning Division
15900 Smoke Tree Street, Suite 131
Hesperia, CA 92345

Mr. John Oquendo,

Sir, this is a Letter of Concern in regards to the LONGBOAT SOLAR PROJECT, Project No. P201400516/CUP and its NEGATIVE impact it will have on the surrounding ENVIRONMENT, WILDLIFE and more importantly MY FAMILY.

2-1

My name is Bryan A. People; I currently reside at 25499 Community Blvd. Barstow CA 92311, APN# 0497-101-09-0-0000. In accordance with the California Environmental Quality Act (CEQA) and the CEQA Guidelines a Draft Initial Study/ Mitigated Negative Declaration (IS/MND) was prepared by COUNTY STAFF to identify and evaluate the environmental impacts of the LONGBOAT SOLAR PROJECT, Project No. P201400516/CUP. In this IS/MND, it fails to list APN# 0497-101-09-0-0000, a 10 acre Ranch Estate located IN THE MIDDLE of the proposed project. It also states that APN# 0497-071-40, APN# 0497-121-28, APN# 0497-101-05 and APN# 0497-101-14 are old abandoned agriculture land which is not accurate.

2-2
2-3

First, the ENVIRONMENTAL impacts of the LONGBOAT SOLAR PROJECT, Project No. P201400516/CUP would be substantial. HAZARDUS materials produced and used to clean and purify the semiconductor surfaces of photovoltaic cells, such as hydrochloric, sulfuric and nitric acid as well as hydrogen fluoride and acetone if not disposed properly can cause LASTING environmental damages. Also, solar cells are also made of non-recyclable materials and with the absence of an environment-friendly way to dispose of non-functioning solar cells could pose a threat to the environment as well.

2-4
2-5

Furthermore, the WILDLIFE impact of the LONGBOAT SOLAR PROJECT, Project No. P201400516/CUP would be irreversible. Currently the surrounding area consists of Spotted Owls, Desert Ground Squirrels, Badgers, Quails, Doves, Horned Toad Lizards and Bobcats. The LONGBOAT SOLAR PROJECT would interfere with the migration process of the White Egrets and Vultures that also occupy the area along with the disturbing the nesting areas for the Great Horned Owls, Red Tailed Hawks, Barn Owls and Swainson's Hawks just to name a few.

2-6
2-7

Finally, I'd like to address the impact LONGBOAT SOLAR PROJECT, Project No. P201400516/CUP will have on my family. A recent study conducted by Professor Chris Cherry from the Department of Civil and Environmental, Tennessee University explains that projects like the proposed LONGBOAT SOLAR PROJECT, Project No. P201400516/CUP will rely HEAVILY on lead acid batteries to store excess power. It states that excessive amounts of lead in the blood can damage the digestive, nervous and reproductive systems, and cause stomach aches, anemia and convulsions. More importantly growing children, like mine currently residing at 25499 Community Blvd. Barstow CA 92311, APN# 0497-101-09-0-0000, ranging from 16 months to 8 years are

2-8

particularly vulnerable to lead exposure causing BEHAVIOR PROBLEMS and BRAIN DAMAGE.

Additionally, solar systems like the LONGBOAT SOLAR PROJECT use components that radiate high levels of radio frequency electromagnetic radiation which poses an even more health risk in small children. Moreover, the basic component of the solar panel is pure silicon. Exposure to silicon dust can result in lung disease such as silicosis.

Sir, I feel that the Draft Initial Study/ Mitigated Negative Declaration (IS/MND) is flawed and LONGBOAT SOLAR PROJECT, Project No. P201400516/CUP should not be allowed to go forward. The negative impacts on the surrounding ENVIRONMENT, WILDLIFE and more importantly MY FAMILY is too great of a cost for ANY projects like this or others like it, to be approved. Thank you for your time.

Sincerely,

Bryan A. People
APN# 0497-101-09-0-000
25499 Community Blvd
Barstow CA, 92311
(760) 646-6466

2-8
Cont.

2-9

2-10

Letter 2**Bryan A. People****November 4, 2015****Response 2-1**

The County notes the commenter's concerns regarding the Longboat Solar Project. This comment expresses an opinion and does not specifically comment on the content or adequacy of the IS/MND.

Response 2-2

The County notes commenter's residency at 25499 Community Boulevard, Barstow, CA.

Response 2-3

Table 1 of the IS lists the commenters subject property (Assessors Parcel Number [APN] 0497-101-09) as part of the project site APNs (see page 3 of the IS). Due to the subject property's location adjacent to the project site, this residence is identified as a sensitive receptor as illustrated in Figure 12 of the IS.

In terms of the characterization of the adjacent APNs 0497-071-40, 0497-121-28, and 0497-101-05 and 14, no evidence of recent or active agricultural cultivation was observed on these properties. For this reason, the portions of these properties not containing rural residences were identified as fallow agricultural land as provided in the second paragraph of page 15 and supported by photo-documentation of the project site. For the purposes of characterizing existing environmental conditions, this description is deemed accurate.

Response 2-4

Comment identifies the environmental impacts of the project as substantial as a result of the hazardous materials potentially used as part of the project's operations. The comment's concerns related to the use of hazardous materials on-site are discussed and evaluated in the IS on pages 84 through 88. As provided, the types of photovoltaic (PV) solar cells to be employed by the project applicant have yet to be determined and, therefore, the IS considers the range of panel types on the market including cadmium telluride cells. Although the chemicals identified in the comment are used in the manufacturing of PV solar panels, these substances would not be stored or used on the project site. To address potential concerns related to the storage, use, and potential release of hazardous materials, the County is proposing the implementation of Mitigation Measure (MM) HHM-1, which would require the preparation of a Project Health and Safety Plan to address the storage and use of hazardous materials used on-site. Additionally, MM HHM-1 would require the preparation of a spill prevention and countermeasure control plan (SPCC) to address any potential releases (e.g. panel breakage). As a result, MM HHM-1 would be effective in addressing the comment's concerns and ensuring a less than significant impact.

Response 2-5

The County will include a Condition of Approval as part of the Conditional Use Permit for the project that will require the project applicant to prepare a decommissioning plan. The decommissioning plan will address post-operation decommissioning of the project solar facilities. Recyclable materials would be transported to the appropriate County facility for sorting (e.g. materials recovery facility). Non-recyclable materials would be transferred to a permitted disposal facility. These materials would be removed from the site in accordance with the procedures outlined in the project's Health and Safety Plan as required by Mitigation Measure HHM-1.

Response 2-6

This comment states that the project has a potential impact to irreversibly impact wildlife including spotted owls, desert ground squirrels, badgers, quails and doves, horned toad lizards, and bobcats. Each of these groups of wildlife species are discussed and evaluated on pages 46 through 51 of the IS. To address potential project-related wildlife impacts, the County has proposed a robust mitigation strategy that would avoid and minimize potential impacts. This mitigation strategy would include a combination of worker awareness training (MM BIO-1), pre-construction surveys and daily sweeps (MM BIO-2), biological monitoring (MM BIO-3), trash abatement (MM BIO-5), and the erection of exclusion fencing (MM BIO-8). These measures combined with MM BIO-9 (Avian Mortality and Injury Monitoring) and BIO-10 (Avian Power Line Interaction Committee Guidelines) for bird species would be effective in avoiding and minimizing any project-related impacts to local wildlife. With mitigation, impacts to wildlife would be less than significant.

Response 2-7

The comment states that the project would interfere with the migration process for white egrets and vultures along with disturbing nesting areas for great horned owls, red tailed hawks, barn owls, and Swainson's hawk. Potential project-related impacts to migratory and nesting bird species are discussed and evaluated on pages 47 through 48 (Swainson's hawk), 48 to 49 (borrowing owl), and 51 through 53 (nesting birds) of the IS. As provided in Response 1-5, the County is proposing a robust mitigation program to avoid and minimize adverse impacts to migratory and nesting bird species such that the residual impact would be less than significant.

Response 2-8

The County notes the information provided by the commenter regarding the use of lead acid batteries on-site and the number and ages of children residing at the subject property. The project PV system will provide a direct current to the electrical grid, owned and operated by Southern California Edison. No battery storage is proposed on the project site. Additionally, the proposed project will be conditioned to prepare a Health and Safety Plan as proposed in MM HHM-1, which would be effective in addressing the comment's concern such that the impact is less than significant.

Response 2-9

Electric and magnetic fields (EMF) are areas of energy that surround any electrical device. Power lines, electrical wiring, computers, televisions, hair dryers, household appliances and everything else that uses electricity are sources of EMF. The magnetic field is not blocked by buildings so outdoor sources like power lines can add to the EMF inside structures, including residences. However, the field decreases rapidly with distance so that most homes are located too far from high voltage lines to be subject to high EMF levels from external sources.

The California Department of Health Services (DHS), California Electric and Magnetic Fields Program provides information regarding known possible health effects from EMF created by the use of electricity. DHS references the National EMF Research and Public Information Dissemination Program, established by Congress as part the Energy Policy Act of 1992, which has published its findings concluding evidence of the risk of cancer from EMF around power lines is weak. The report recognizes that EMF exposure "cannot be recognized as entirely safe" but "believes that the probability that EMF exposure is truly a health hazard is currently small" with "marginal scientific support that exposure to this agent is causing any degree of harm." Furthermore, in a recent California Public Utilities Commission (CPUC) issued Decision D.06-01-042, the CPUC stated "at this time we are unable to determine whether there is a significant scientifically verifiable relationship between EMF exposure and negative health consequences."

Pursuant to the CEQA Guideline 15145 "If, after thorough investigation, a Lead Agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact." Because there are no conclusive studies on EMF impacts, it is too speculative to evaluate further in this IS/MND.

Response 2-10

The commenter states that the IS/MND prepared for the project is flawed and should not be approved. This comment expresses a personal opinion and does not provide a specific comment on the content or adequacy of the IS/MND.



State of California - Natural Resources Agency
 DEPARTMENT OF FISH AND WILDLIFE
 Inland Deserts Region
 3602 Inland Empire Blvd., Suite C-220
 Ontario, CA 91764
 (909) 484-0459
www.wildlife.ca.gov

EDMUND G. BROWN, Jr., Governor
CHARLTON H. BONHAM, Director



November 2, 2015

Mr. John Oquendo
 San Bernardino County
 Land Use Services Department
 15900 Smoke Tree Street, Suite 131
 Hesperia, CA 92345

Subject: Initial Study/Mitigated Negative Declaration, Longboat Solar Project, State Clearinghouse Number (SCH 2015101006).

Dear Mr. Oquendo:

The California Department of Fish and Wildlife (Department) has reviewed the Initial Study (IS)/Mitigated Negative Declaration (MND) prepared by San Bernardino County (Lead Agency) for the Longboat Solar Project (Project). The Department is providing comments on the IS/MND as the State agency which has the statutory and common law responsibilities with regard to fish and wildlife resources and habitats. California's fish and wildlife resources, including their habitats, are held in trust for the people of the State by the Department (Fish and Game Code (FGC) §711.7). The Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and the habitats necessary for biologically sustainable populations of those species (Fish and Game Code §1802). The Department's fish and wildlife management functions are implemented through its administration and enforcement of the Fish and Game Code (FGC §702). The Department is a trustee agency for fish and wildlife under the California Environmental Quality Act (see CEQA Guidelines, Title 14 California Code of Regulations (CCR) §15386(a)). The Department is providing these comments in furtherance of these statutory responsibilities, as well as its common law role as trustee for the public's fish and wildlife.

3-1

Project Description

The Project is located northwest of the City of Barstow and north of the community of Lenwood, in unincorporated area of San Bernardino County, California. The Project would generate up to 20 megawatts (MW) of alternative current electricity using single axis tracker solar photovoltaic (PV) technology within an approximately 233.47-acre portion of 324.94 acres of previously disturbed agricultural lands. The Project would

3-2

connect to the electrical grid by way of a line tap on an existing Southern California Edison (SCE) 33 kilovolt (kV) transmission line located adjacent to the site along Community Boulevard. The Project will later change ownership from the Project developer to SCE. SCE will undertake distribution line upgrades, repairs and modifications along the 33kV lines to SCE's Barstow Substation located in the City of Barstow, approximately 4.5 miles east of the Project site. SCE upgrade work will consist of up to eleven pole replacements, re-conducting of up to 2,900 feet of electrical line, and several minor substation upgrades at existing substation facilities. These off-site interconnection improvements will be constructed by SCE, and will support the project's connection to the electrical grid. These improvements are analyzed in the MND.

3-2
Cont.

Regulatory Authority

California Endangered Species Act (CESA): The Department is responsible for ensuring appropriate conservation of fish and wildlife resources including threatened, endangered, and/or candidate plant and animal species, pursuant to the CESA. The Department recommends that a CESA Incidental Take Permit (ITP) be obtained if the Project has the potential to result in "take" (California Fish and Game Code Section 86 defines "take" as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill") of State-listed CESA species, either through construction or over the life of the Project. CESA ITPs are issued to conserve, protect, enhance, and restore State-listed CESA species and their habitats. The Department encourages early consultation, as significant modification to the proposed project and mitigation measures may be necessary to obtain a CESA ITP. Revisions to the California Fish and Game Code, effective January 1998, require that the Department issue a separate CEQA document for the issuance of a CESA ITP unless the Project CEQA document addresses all Project impacts to listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of a CESA permit.

3-3

Fully Protect Species: The Department has jurisdiction over fully protected species of birds, mammals, amphibians, reptiles, and fish pursuant to Fish and Game Code sections 3511, 4700, 5050, and 5515. Take of any fully protected species is prohibited and the Department cannot authorize their take for development.

3-4

Bird Protection: Please note that it is the project proponent's responsibility to comply with all applicable laws related to nesting birds and birds of prey. Migratory non-game native bird species are protected by international treaty under the federal Migratory Bird Treaty Act (MBTA) of 1918, as amended (16 U.S.C. 703 et seq.). In addition, sections 3503, 3503.5, and 3513 of the Fish and Game Code (FGC) also afford protective measures as follows: Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by FGC or any regulation made pursuant thereto; Section 3503.5 states that it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by FGC or any regulation adopted pursuant thereto; and Section

3-5

3513 states that it is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

3-5
Cont.

Lake and Streambed Alteration (LSA) Program: The Department has regulatory authority with regard to activities occurring in streams and/or lakes that could adversely affect any fish or wildlife resource. For any activity that will divert or obstruct the natural flow, or change the bed, channel, or bank (which may include associated riparian resources) of a river or stream or use material from a streambed, the project applicant (or "entity") must provide written notification to the Department pursuant to Section 1602 of the Fish and Game Code. Based on this notification and other information, the Department then determines whether a LSA Agreement is required. The Department's issuance of an LSA Agreement is a "project" subject to CEQA (see Pub. Resources Code 21065). To facilitate issuance of an LSA Agreement, if necessary, the environmental document should fully identify the potential impacts to the lake, stream or riparian resources and provide adequate avoidance, mitigation, and monitoring and reporting commitments. Early consultation with the Department is recommended, since modification of the proposed project may be required to avoid or reduce impacts to fish and wildlife resources. To obtain a Lake or Streambed Alteration notification package, please go to <http://www.dfg.ca.gov/habcon/1600/forms.html>.

3-6

General Comment

Based on the information provided in the IS/MND, the Hydrology Report, and the Biological Resources Technical Report for the proposed Longboat Solar Project, CDFW has the following comments:

- The Project is within the range of the desert tortoise (*Gopherus agassizii*, DT), Mohave ground squirrel (*Xerospermophilus mohavensis*, MGS), and Mojave fringe-toed lizard (*Uma scoparia*, MFTL) which are all listed as threatened under CESA; golden eagle (*Aquila chrysaetos*, GE) which is Fully Protected Species under FGC Section 3511; burrowing owl (*Athene cunicularia*, BUOW), which is a Species of Special Concern and protected under FGC Section 3503.5; prairie falcon (*Falco mexicanus*, PF), Le Conte's thrasher (*Toxostoma lecontei*, LCT), American badger (*Taxidea taxus*, AB), Townsend's big-eared bat (*Corynorhinus townsendii*, TBEB), all of which are listed as a State Species of Special Concern; desert kit fox (*Vulpes macrotis arsipus*, DKF), DKF is addressed in Title 14 of the California Code of Regulations: §460. "Fisher, marten, river otter, desert kit fox and red fox may not be taken at any time." DKF is also addressed under the FGC Section: §4000 "Fur-bearing mammals enumerated. The following are fur-bearing mammals: pine marten, fisher, mink, river otter, gray fox, red fox, kit fox, raccoon, beaver, badger, and muskrat."

3-7

- The IS/MND states that there will be temporary impacts on 3.1-acres due to an offsite staging area outside of the array fields on private land used for parking/construction

3-8

personnel. The Department considers impacts to desert habitat to be permanent, therefore the Department recommends that the Lead Agency change the total permanent acres of impact to include the additional 3.1 acres.

3-8
Cont.

Mitigation and Minimization Measures

Desert tortoise

The IS/MND uses the term clearance survey. The term clearance survey implies that if a desert tortoise is found on site it will be moved. The IS/MND also refers to installation of exclusionary fencing around all construction areas prior to the initiation of earth disturbing activities. The Department considers it take of a listed species if a species becomes trapped the exclusionary fence. Exclusionary fence shall be installed after clearing the area by an authorized biologist which requires and Incidental Take Permit. The Department requests that the applicant contact the staff assigned to review of this project to obtain correct information on how the process needs to be written in the CEQA document. No desert tortoises may be moved or handled without an Incidental Take Permit (ITP). The Department has discretionary authority over activities that could result in the "take" of any species listed as candidate, threatened, or endangered, pursuant to the California Endangered Species Act (CESA; Fish and Game Code, § 2050 et seq.). The Department considers adverse impacts to CESA-listed species, for the purposes of CEQA, to be significant without mitigation. Take of any CESA-listed species is prohibited except as authorized by state law (Fish and Game Code, §§ 2080 & 2085). Consequently, if a Project, including Project construction or any Project-related activity during the life of the Project, results in take of CESA-listed species, the Department recommends that the Project proponent seek appropriate authorization prior to Project implementation. This may include an incidental take permit (ITP) or a consistency determination in certain circumstances (Fish and Game Code, §§ 2080.1 & 2081).

3-9

Mohave ground squirrel

According to the IS/MND if an MGS is observed during any part of construction then all work shall be halted and work will be redirected to other areas of the Project Site where the species will not be impacted. The home range of an adult MGS is estimated at 16.63 ac during the mating season and 3.06 ac post-mating for adult male and 1.83 ac and 2.96 ac for adult females¹, the entire project would lie within the MGS's home range. The Department has discretionary authority over activities that could result in the "take" of any species listed as candidate, threatened, or endangered, pursuant to the

3-10

¹ Harris J.H., Leitner P. 2004. Home-range size and use of space by adult Mohave ground squirrels, *Spermophilus Mohavensis*. J Mammalogy, 85:517-523

California Endangered Species Act (CESA; Fish and Game Code, § 2050 et seq.). The Department considers adverse impacts to CESA-listed species, for the purposes of CEQA, to be significant without mitigation. Take of any CESA-listed species is prohibited except as authorized by state law (Fish and Game Code, §§ 2080 & 2085). Consequently, if a Project, including Project construction or any Project-related activity during the life of the Project, results in take of CESA-listed species, the Department recommends that the Project proponent seek appropriate authorization prior to Project implementation. This may include an incidental take permit (ITP) or a consistency determination in certain circumstances (Fish and Game Code, §§ 2080.1 & 2081).

3-10
Cont.

Mohave fringe-toed lizard

The IS/MND references relocation and handling of MFTL. Handling of a listed species without an ITP is not allowed and considers take. The Department has discretionary authority over activities that could result in the “take” of any species listed as candidate, threatened, or endangered, pursuant to the California Endangered Species Act (CESA; Fish and Game Code, § 2050 et seq.). The Department considers adverse impacts to CESA-listed species, for the purposes of CEQA, to be significant without mitigation. Take of any CESA-listed species is prohibited except as authorized by state law (Fish and Game Code, §§ 2080 & 2085). Consequently, if a Project, including Project construction or any Project-related activity during the life of the Project, results in take of CESA-listed species, the Department recommends that the Project proponent seek appropriate authorization prior to Project implementation. This may include an incidental take permit (ITP) or a consistency determination in certain circumstances (Fish and Game Code, §§ 2080.1 & 2081).

3-11

Burrowing Owl

For measures pertaining to burrowing owl minimization and mitigation please refer to the Department’s 2012 Staff Report on Burrowing Owl Mitigation:
<http://www.dfg.ca.gov/wildlife/nongame/docs/BUOWStaffReport.pdf>

3-12

Desert kit fox

The Department recommends that the IS/MND incorporate avoidance and minimization measures for desert kit fox, and that the Lead Agency prepare a DKF Mitigation and Monitoring Plan and submit it to the Department for review and approval a minimum of 30 days prior to the start of any ground disturbance activities. Desert kit fox is a protected species as a fur-bearing mammal pursuant to Tile 14 of the California Code of Regulations Section 460.

3-13

Longboat Solar Project
Initial Study/Mitigated Negative Declaration (SCH 2015101006)
November 2, 2015
Page 6 of 6

Future Coordination

If you should have questions pertaining to this letter or require further coordination, please contact Wendy Campbell at (760) 258-6921 or by email at wendy.campbell@wildlife.ca.gov.

Sincerely,



Leslie MacNair
Regional Manager
Inland Deserts Region

Cc: State Clearinghouse, Sacramento
CORR

Letter 3
California Department of Fish and Wildlife
November 2, 2015

Response 3-1

This comment provides a summary of the California Department of Fish and Wildlife's (Department) role as a Trustee Agency pursuant to CEQA Guideline 15386 and a Responsible Agency pursuant to CEQA Guideline 15381, and provides a general summary of the proposed project. No further response is necessary.

Response 3-2

The comment briefly describes the project and proposed improvements and does not contain any substantive comments or questions about the IS/MND. No further response is necessary.

Response 3-3

The comment provides a summary of the Department's regulatory associated with take of special status species under CEQA and the process for the issuance of an incidental take permit (ITP) in accordance with the California Endangered Species Act (CESA). With the implementation of the proposed mitigation measures identified on pages 57 through 66 of the Initial Study (IS), the project would not result in the take of a State-listed species and, therefore, an ITP is not required to facilitate implementation of the project.

Response 3-4

This comment notes the Department's jurisdiction over fully protected species pursuant to Fish and Game Code Sections 3511, 4700, 5050, and 5515 and that the take of these species is prohibited. No further response is necessary.

Response 3-5

This comment provides a summary of the Department's role in the protection of migratory birds protected under the Migratory Bird Treaty Act (MBTA). No further response is necessary.

Response 3-6

Comment notes the Department's authority pursuant to Section 1602 of the State Fish and Game Code to regulate activities occurring in streams or lakes that could adversely affect any fish or wildlife resource through the issuance of a Lake or Streambed Alteration Agreement (LSA). As provided in the first two paragraphs on page 54 of the IS, the project would avoid impacts to waters of the State and a LSA would not be required.

Response 3-7

The County notes the State-listed species, fully protected species, and species of special concern identified by the Department within the project area. As provided on pages 48 through 53 of the IS, with the implementation of the proposed mitigation measures, the project would not result in the take of State-designated special status species and the resulting impact to any State-listed species potentially occurring on-site would be less than significant.

Response 3-8

The County notes the Department's recommendation to change the characterization of impacts resulting from the proposed staging area located on APN 0497-101-09 from temporary to permanent. This area is mapped as Disturbed Saltbush Scrub/Ruderal and Ornamental in Figure 13 of the IS. The ornamental vegetation type on this property would not be impacted (i.e., it would be avoided) by the temporary construction staging area. Although areas mapped as Disturbed Saltbush Scrub/Ruderal would be impacted by the temporary staging area, following the completion of construction, all vehicles and equipment would be removed from the temporarily-utilized 3.8 acre staging area (no permanent structures are proposed in this area) thereby allowing vegetation to reestablish similar to existing conditions. For this reason, the characterization of this impact as temporary is considered appropriate.

Response 3-9

The Department notes the term "clearance survey" in its comment; however, similar language is not contained within the IS. As provided on pages 46 to 47, following the completion of protocol surveys for the project site and off-site areas, no signs of desert tortoise (or tortoise burrows) were observed. Based on the previous agricultural use of the project site, the habitat suitability for desert tortoise is considered low. For these reasons, desert tortoise is presumed absent from the project site and the proposed project would not result in "take" of this species.

Mitigation Measure BIO-8 in the IS proposes the preparation of an Exclusionary Fencing Plan to restrict desert tortoise movements into the project site. The County disagrees with the Department's conclusion that the erection of the exclusion fencing in of itself would require an ITP for the project; given the findings of the protocol level surveys (no presence of desert tortoise). To address the Department's concerns regarding the erection of the exclusion fencing and potential unintended effects to desert tortoise, Mitigation Measure BIO-8 has been revised to include the Department's review of the Exclusionary Fencing Plan prior to approval and implementation.

MM BIO-8 Exclusionary Fencing Plan. The Project proponent will submit an Exclusionary Fencing Plan, describing permanent desert tortoise and Mohave fringe-toed lizard exclusionary fencing to be used at the Project, to the County of San Bernardino and Department of Fish and Wildlife prior to the issuance of a building or grading permit. This plan will describe fencing materials, locations, access areas, monitoring requirements, and other information pertaining to the erection and maintenance of these fences.

Response 3-10

The County notes the Department's discretionary authority over the Mohave ground squirrel (MGS) and this species' threatened status under the CESA. As provided on page 47 of the IS, protocol level surveys were completed for the project site and off-site areas and determined negative (no MGS presence). This finding in conjunction with the low habitat quality on the project site for this species provides a low probability for their occurrence and low likelihood for impact. As provided on page 47 of the IS, MM BIO-1, BIO-2, and BIO-3 are proposed to confirm absence prior to the start of construction. If encountered during pre-construction surveys, MM BIO-2(e) specifically requires coordination with the Department regarding the appropriate course of action under the CESA.

Response 3-11

As provided on page 48 of the IS, the Mohave fringe-toed lizard (MFTL) was observed in the dune habitat areas just north of the Mohave River (and south of the construction limits for the project). Although the species was not observed within the limits of the project site, the environmental analysis considers the possibility for this species to encroach into the project limits. Based on MFTL's designation as a species of special concern, MM BIO-1, BIO-2, BIO-3, BIO-5, BIO-6, and BIO-8 are proposed to avoid adverse impacts to this species. Additionally, in accordance with MM BIO-3(b), the project applicant will be required to prepare a MFTL Management Plan for the

Department's approval prior to construction. With the implementation of these measures, impacts to MFTL would be less than significant.

Response 3-12

Project-related impacts to burrowing owl are addressed on pages 48 to 49 of the IS. As provided, two individual burrowing owls were observed off-site, but in the general project vicinity. For this reason, there is a moderate likelihood for this species to occur on the project site or off-site areas. In following the Department's Staff Report on Burrowing Owl Mitigation, MM BIO-1, BIO-2, BIO-3, BIO-7, and BIO-8 are proposed to avoid and minimize any project-related effects to this species. Additionally, MM BIO-3(c) includes specific requirements for the project in accordance with the Department's 2012 Staff Report.

Response 3-13

The IS addresses potential project-related effects to desert kit fox (DKF), a species of special concern, on pages 49 through 50. As provided, although the species was not observed during protocol surveys, the project would result in the removal of 208.3 acres of degraded, but potentially suitable habitat. For this reason, MM BIO-1, BIO-2, and BIO-3 are proposed to avoid and minimize potential impacts resulting from construction of the project. Further MM BIO-3(f) includes specific requirements for the timing of pre-construction surveys (e.g. no more than 30 days prior to construction) and implementation measures in the event of a reported observation. These measures would effectively minimize the potential for any adverse impacts to DKF, such that the impact is considered less than significant.



Lahontan Regional Water Quality Control Board

November 5, 2015

File: Environmental Doc Review
San Bernardino County

John Oquendo
San Bernardino County
Land Use Services
15900 Smoke Tree Street, Suite 131
Hesperia, CA 92345
John.Oquendo@lus.sbcounty.gov

COMMENTS ON THE INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION FOR PROPOSED EDF RENEWABLE ENERGY, DBA LONGBOAT SOLAR, LLC, CONDITIONAL USE PERMIT APPLICATION P201411516, SAN BERNARDINO COUNTY

The California Regional Water Quality Control Board, Lahontan Region (Water Board) staff received an Initial Study and Mitigated Negative Declaration (IS/MND) for the above-referenced project (Project) on October 6, 2015. The San Bernardino County Land Use Services Planning Division (County), as the lead agency under the California Environmental Quality Act (CEQA), has requested that this proposed Project be evaluated by the Water Board, acting as a responsible agency under CEQA, for water quality concerns. Based on our review of the IS/MND, we have determined that a combination of sediment and erosion control best management practices (BMPs) must be implemented to effectively treat post-construction storm water runoff during the life of the Project. We encourage the County to continue to support and promote solar development on previously disturbed lands, including former agricultural farm lands and in urban areas. Such reuse benefits environmental resources, including hydrology and water quality, by maintaining relatively undisturbed desert areas and habitats.

4-1

Project Description

The proposed Project is to develop and operate a 20 megawatt (MW) photovoltaic (PV) solar generating facility on 4 parcels totaling 325 acres of land located east of the community of Hinkley and west of the city of Barstow, San Bernardino County. The Project would connect to the electrical grid by way of a line tap on an existing Southern California Edison (SCE) 33 kilovolt (kV) transmission line located adjacent to the site along Community Boulevard. SCE will also conduct activities such as distribution line upgrades, repairs, and modifications along the transmission line. The Mojave River is located immediately south of the site.

4-2

Authority

All groundwater and surface waters are considered waters of the State. All waters of the State are protected under California law. State law assigns responsibility for protection of water quality in the Lahontan Region to the Lahontan Water Board. Some waters of the State are also waters of the U.S. The Federal Clean Water Act (CWA) provides additional protection for those waters of the State that are also waters of the U.S.

The *Water Quality Control Plan for the Lahontan Region* (Basin Plan) contains policies that the Water Board uses with other laws and regulations to protect the quality of waters of the State within the Lahontan Region. The Basin Plan sets forth water quality standards for surface water and groundwater of the Region, which include designated beneficial uses as well as narrative and numerical objectives which must be maintained or attained to protect those uses. The Basin Plan can be accessed via the Water Board's web site at http://www.waterboards.ca.gov/lahontan/water_issues/programs/basin_plan/references.shtml.

4-3

Specific Comments

Our specific comments on the Project are presented below.

1. The Project area may include marked (blue line) and unmarked surface waters that are either waters of the U.S. and/or waters of the State. Surface waters include, but are not limited to, drainages, streams, washes, ponds, pools, or wetlands, and may be permanent or intermittent. Waters of the State may include waters determined to be isolated or otherwise non-jurisdictional by the U.S. Army Corps of Engineers (USACE). It appears the parcels to be developed include portions of the Mojave River. From the large map provided, it is not clear if the Project is proposing to avoid the Mojave River in the southern portion of the site. We request the Project **avoid and/or minimize** impacts to the Mojave River and the floodplain.
2. Appendix F.1., Phase I Environmental Site Assessment (Phase I), indicates there may be suspected groundwater impacts from historic discharges from the nearby Green Valley Foods facility. The Phase I references Board Order No. R6V-2010-0019, and describes sampling conducted by Water Board staff at two supply wells at the Green Valley Foods property in 2007 and 2008; however, the Phase I indicates there are no wells upgradient of Green Valley Foods to determine the quality of upgradient and ostensibly unimpacted groundwater. As described in Board Order R6V-2010-0019, there are five groundwater monitoring wells installed to monitor the discharge area at Green Valley Foods, some of which are upgradient. Table 2 in the Board Order describes concentrations of constituents in the groundwater near the area of discharge activities. Please also be aware there is a plume of hexavalent chromium in the Hinkley area, in addition to the known impacts to water quality from historic discharges associated with Green Valley Foods. Pumping from wells outside of the plume or known areas of impacts but within the area of influence may potentially cause expansion of the

4-4

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4-6

known areas of contamination. Because there are known areas of groundwater impacts in the area, Water Board staff requests the area of drawdown and impact on known areas of contamination be evaluated in order to fully consider environmental impacts of the Project.

4-7

3. The Phase II Environmental Site Assessment discovered areas of soil contamination at the proposed Project location, with elevated concentrations of pesticides, polycyclic aromatic hydrocarbons, and total recoverable petroleum hydrocarbons. If left in place in areas where concentrated flows from panel washing or storms occur, these contaminants may be carried offsite and enter the Mojave River, and could affect water quality. Therefore, if areas of soil contamination are encountered during Project construction, it should be treated as waste and taken to an appropriate facility licensed to receive such waste.
4. In general, the installation of PV grid systems for these types of projects has the potential to hydrologically modify natural drainage systems. The Project is located within the Middle Mojave Hydrologic Area (Mojave Hydrologic Unit 628.30) and the Lower Mojave River Valley Groundwater Basin (6-40) of the Lahontan Region. The beneficial uses of surface waters near the Project site are: municipal supply (MUN); agricultural supply (AGR); groundwater recharge (GWR); hydropower generation (POW); contact and non-contact recreational uses (REC-1, REC-2); warm freshwater habitat (WARM); cold freshwater habitat (COLD); and wildlife habitat (WLD). The beneficial uses of groundwaters at the Project site are: municipal supply (MUN); agricultural supply (AGR); industrial service supply (IND); freshwater replenishment (FRSH); and aquaculture (AQUA). Water quality objectives and standards, both numerical and narrative, for both surface waters and groundwater are outlined in Chapter 3 of the Basin Plan. Implementation of the proposed Project must comply with all applicable water quality standards and prohibitions, including provisions of the Basin Plan. The environmental document should recognize and include these beneficial uses.
5. Post-construction storm water management must be considered a significant Project component. Of particular concern is the collection of onsite storm water runoff and the concentrated discharge of that storm water to natural drainage channels and the Mojave River. The IS/MND needs to specify permanent sediment and erosion control BMPs that will be implemented to mitigate potential water quality impacts related to storm water. Design alternatives that are compatible with low impact development (LID) should be considered. LID components include: maintaining landscape features to slow and filter runoff and maximize groundwater recharge; managing runoff as close to the source as possible; and maintaining vegetated areas for storm water management and onsite infiltration. Please note that temporary BMPs need to be implemented for the Project until such time that vegetation has been restored to pre-Project conditions or permanent BMPs are in-place and functioning.

4-8

4-9

- 6. Vegetation clearing should be kept to a minimum. Where feasible, existing vegetation should be mowed so that after construction the vegetation could reestablish and help mitigate for potential storm water impacts.] 4-10
- 7. We request that construction staging areas be sited in upland areas outside stream channels and other surface waters on or around the Project site. Buffer areas should be identified and exclusion fencing used to protect the water resource and prevent unauthorized vehicles or equipment from entering or otherwise disturbing stream channels. Construction equipment should use existing roadways to the extent feasible.] 4-11
- 8. All temporary impacts should be restored (recontoured and revegetated) to match pre-Project conditions.] 4-12
- 9. We request that the Jurisdictional Delineation Report prepared for the Project be submitted to the USACE for verification.] 4-13
- 10. Compensatory mitigation will be required for all unavoidable permanent impacts to surface water resources. Water Board staff coordinate all mitigation requirements with staff from other federal and state regulatory agencies, including the USACE and the California Department of Fish and Wildlife. Project proponents are encouraged to contact Water Board staff prior to Project implementation to discuss such impacts.] 4-14
- 11. The Worker Environmental Awareness Program should include an element of environmental awareness with respect to water quality, especially as the proposed Project is adjacent to the Mojave River; Water Board staff request this training also address waters of the State, waters of the U.S., and storm water.] 4-15
- 12. Obtaining a permit and conducting monitoring does not constitute adequate mitigation. Development and implementation of acceptable mitigation is required.] 4-16

Permitting Requirements

A number of activities associated with the Project may have the potential to impact waters of the State and, therefore, may require permits issued by either the State Water Resources Control Board (State Water Board) or Lahontan Water Board. The required permits may include:

- 13. Land disturbances of more than 1 acre may require a Clean Water Act (CWA), section 402(p) stormwater permit, including a National Pollution Discharge Elimination System General Construction Storm Water permit obtained from the State Water Board; and] 4-17
- 14. Streambed alteration and/or discharge of fill material to a surface water may require a CWA, section 401 water quality certification for impacts to federal] 4-18

waters (waters of the U.S.), or dredge and fill waste discharge requirements for impacts to non-federal waters, both issued by the Lahontan Water Board.

4-18
Cont.

Please be advised that these permits may be required for the proposed Project, as outlined above. Should Project implementation result in activities that will trigger these permitting actions, the Project proponent is urged to consult with Water Board staff prior to Project implementation. Information regarding these permits, including application forms, can be downloaded from our web site at <https://waterboards.ca.gov/lahontan/>.

4-19

Thank you for the opportunity to comment. If you have any questions regarding this letter, please contact me at (760) 241-7305 (Brianna.St.Pierre@waterboards.ca.gov) or Patrice Copeland at (760) 241-7404 (Patrice.Copeland@waterboards.ca.gov).



Brianna St. Pierre, PG
Engineering Geologist

cc: California Department of Fish and Wildlife, Region 6
askRegion6@wildlife.ca.gov
Shannon Pankratz, USACE
Shannon.L.Pankratz@usace.army.mil

Letter 4

California Regional Water Quality Control Board – Lahontan Region

November 2, 2015

Response 4-1

The County notes the Regional Water Quality Control Board's (RWQCB) role as a responsible agency under CEQA.

Response 4-2

The comment briefly describes the project and proposed improvements and does not contain any substantive comments or questions about the IS/MND. No further response is necessary.

Response 4-3

The County notes the RWQCB's authority to implement the provisions of the Water Quality Control Plan for the Lahontan Basin.

Response 4-4

EI submitted a jurisdictional delineation report (JDR; See Attachment A of Appendix C of the Initial Study [IS]) for initial consideration to Jan Zimmerman, Engineering Geologist with the Lahontan Regional Water Quality Control Board, on October 15, 2014 with additional consultation with the USACE (See Attachment B). As shown in the JDR, the Proposed Project was designed to avoid all waters of the U.S. and/or waters of the State, including the Mojave River. Further, all construction will occur outside a minimum 80 to 100-ft buffer from any jurisdictional feature (See Exhibit: Jurisdictional Delineation Survey Results and Impacts within Attachment B of Appendix C of the IS)).

Response 4-5

The Phase I indicates there are no wells up-gradient of Green Valley foods because, as described on page 7 of Board Order No. R6V-20100019, "additional monitoring wells will need to be installed to adequately characterize the background water quality up-gradient of the proposed Surface Impoundment (see Appendix F1 of the IS)." No such wells have been installed.

Response 4-6

Extracting up to 40 acre feet from the Project well during a 10 month construction period and up to 3 acre-feet per year during operations will not cause expansion of existing contamination. As discussed on page 93 of the Initial Study, the proposed Project would involve a reduced rate of pumping of 920 gpm, which is lower than the level of historical pumping (1,500 gpm) that has occurred in conjunction with agricultural operations. Additionally, well operations would be incremental (e.g. 5 to 10 minutes at a time) rather than continuous, thereby allowing water levels to recover following each incremental drawdown. Further, the specific capacity of the proposed well is 245.3 gpm per foot thereby resulting in only a minor draw down of 3.75 feet before water levels are allowed to recover (TeraWatt Construction 2015).

Given these pumping characteristics, the migration of contaminants is unlikely and not considered significant because the area of drawdown from the existing well as a result of pumping for Project use will be minimal. In addition, the Phase II report prepared for the Project indicates that water quality at the well to be used by the Project and at other wells on the Project site is well within legal limits. The applicant has volunteered to test water samples from the well on a quarterly basis for one year after construction commences and will provide the results to the Lahontan Regional Water Quality Control Board. As stated in the Initial Study, any use of the existing onsite

well would be conducted according to the requirements of the County of San Bernardino Division of Environmental Health Services, California Department of Water Resources and the Lahontan Regional Water Quality Control Board (LRWQCB) Water Quality Control Plan (Basin Plan), as amended.

The Green Valley discharge consisted of non-hazardous waste in the form rinsate from milk truck spigots and water and cleaning solution used for cleaning cheese-making equipment. Organic compounds associated with the discharge have likely degraded since the discharge ceased in 2011. The Green Valley Foods discharge point was approximately 400 feet from the existing well and is unlikely to be influenced because of the relatively low level of pumping required for the Project.

The Hinkley hexavalent chromium plume is located three miles west of the well that would supply water to the Project. Flow of the Hinkley chromium plume is to the north, towards the Harper Dry Lake Valley, located 8 miles north and west (downgradient) of the hexavalent chromium release site (California Water Quality Control Board Lahontan Region Cleanup And Abatement Order No. R6V-2015-0068). The Project well is far outside the area of influence of the Hinkley plume.

Response 4-7

As summarized in Table 6 of Appendix F2 of the IS, Federal and California pesticide soil screening levels for detected compounds at the Site and Table 7 of Appendix F2 of the IS, Site-detected levels and Federal and California soil screening levels for PAHs of the Phase II Environmental Site Assessment, the levels of pesticides and polycyclic aromatic hydrocarbons (PAHs) are well below US Environmental Protection Agency (USEPA) and USEPA Regional Soil Screening Levels and therefore do not require treatment under applicable laws and regulations. Total recoverable petroleum hydrocarbons (TRPH) were observed in areas where surface staining was observed during the field assessment and does not extend deeper than 5 feet below ground surface at any of the four locations encountered. All soils exhibiting surface staining will be assumed to exceed RWQCB Action Levels (AL) and shall be treated as waste and taken to an appropriate facility licensed to receive such waste. Additionally, should any soils be encountered that exceed USEPA and/or USEPA Regional Soil Screening Levels, these soils shall be treated as waste and taken to an appropriate facility licensed to receive such waste.

Response 4-8

The Project will comply with all state and federal water quality standards and prohibitions throughout the Project's lifetime (including construction, operations and maintenance, and decommissioning). The Project Proponent will obtain and comply with the standards within a General Permit for Discharges of Storm Water Associated with Construction Activity Construction (General Permit Order 2009-0009-DWQ) prior to initiating construction. This would include preparation of a stormwater pollution prevention plan (SWPPP) describing all best management practices (BMPs) and monitoring protocol to be used to ensure all numerical and narrative water quality standards are met. BMPs to be utilized are anticipated to include Good Housekeeping BMPs (e.g., employee education, use of proper handling and disposal protocols), Erosion Control BMPs (e.g., stabilization of disturbed soils via soil stabilizers or other materials such as weed-free straw), Runoff Control BMPs (e.g., use of straw wattles or other mechanisms to divert runoff within the site), Sediment Control BMPs (e.g., use of wind barriers, silt fences, and straw wattles to trap sediment), and Post-Construction BMPs (e.g., reseeding disturbed areas with native seeds to stabilize soils and control runoff). The Project will not interfere with beneficial groundwater uses because the small quantity of water required for construction and operation of the project would be subject to and in compliance with the groundwater restrictions of the Mojave Water Agency Watermaster that implement the Mojave basin adjudication. The project will not interfere with beneficial surface water uses because implementation of Mitigation Measures HWQ-1 and HWQ-2 would reduce potential water quality and drainage impacts by requiring a Notice of Intent (NOI) and stormwater pollution prevention plan (SWPPP) and by requiring post Project peak runoff conditions to be maintained at pre-Project levels. In addition, the existing drainage pattern would not be substantially changed because minimal site grading is proposed for the majority of the site, with finished topographical grades being similar to existing conditions. The vast majority of the Project site would remain permeable once constructed.

Response 4-9

The Project will not collect onsite stormwater runoff and concentrate discharge of that stormwater to natural drainages. The existing drainage pattern would not be substantially changed by the project because minimal site grading is proposed for the majority of the site, with finished topographical grades being similar to existing conditions, as well as mowing of existing vegetation where feasible. The vast majority of the Project site would remain permeable once constructed. Further, the project was designed to maintain a broad swath of native vegetation in which no construction activity will occur. This area, positioned between the construction site and the Mojave River, will further aid storm water management and onsite infiltration. Mitigation Measure HWQ-2 would also reduce potential drainage impacts by requiring post Project peak runoff conditions to be maintained at pre-Project level, thereby avoiding the collection of onsite storm water runoff.

As stated in the IS, to obtain authorization for stormwater discharges to groundwater and/or surface water associated with land disturbing activities, the Project proponent would be required to prepare and file a NO) and SWPPP with the State Water Resources Control Board (SWRCB) to comply with the General NPDES Construction Permit to minimize and avoid impacts to water quality. The SWPPP must include a description of specific temporary and permanent BMPs to be implemented to prevent or minimize the discharge of water quality pollutants from the Project site during and after construction. Both temporary (e.g., use of straw wattles, silt fences, wind barriers) and permanent (e.g. revegetation) post-construction BMPs will be required. Temporary impact areas will be reseeded with seed mixes comprised of native plants typical of undisturbed habitats within Project's region under the SWPPP. The range of BMPs will be required to minimize and control construction and post-construction runoff to the "maximum extent practicable." Implementation of the SWPPP as required by the General Construction Permit would minimize or avoid the degradation of water quality or the violation of water quality standards, especially during major storm events.

Response 4-10

As stated in the IS project description, existing low-lying vegetation will be mowed and rolled where possible.

Response 4-11

All staging areas and construction areas have been sited in upland areas with a minimum 80 to 100-ft set back from any stream. No stream or surface water occurs within the development footprint. A permanent 8-foot security fence will be constructed to prevent workers from accessing the surface waters associated with the Mojave River and all personnel, as a part of a Worker Environmental Awareness Program (WEAP), will be further educated to stay within construction areas and avoid surface waters. Further, all construction (including the erection of the exclusionary fencing) will occur under the presence of a biological monitor to ensure no personnel inadvertently cross into jurisdictional features.

The Project was designed to utilize existing dirt roads where feasible. In particular, major access points will utilize existing driveways.

Response 4-12

Because the project is dominated by non-native plants including Russian thistle, Paulsen's Russian thistle, tamarisks, and non-native grasses, restoring temporary impact areas to pre-Project conditions is unwarranted and conflicts with the fire hazard abatement provisions of Section 23 of the San Bernardino County Code. As such, temporary impact areas will be reseeded with seed mixes comprised of native plants typical of undisturbed habitats within Project's region under the SWPPP.

Response 4-13

The JDR was verified by the USACE on July 21, 2015 (See Attachment B of Appendix C if the IS).

Response 4-14

The Project has avoided all temporary and permanent impacts to surface waters under the regulation of the RWQCB, USACE, and/or California Department of Fish and Wildlife (CDFW). As such, no compensatory mitigation is required.

Response 4-15

The Project WEAP includes specific elements pertinent to water quality including, but not limited to:

- Discussion of the Clean Water Act and Porter-Cologne Water Quality Control Act
- Avoidance of aquatic resources and identification of Environmentally Sensitive Area (ESA) flagging and signage
- Solid waste and trash management
- Equipment staging, refueling, and parking
- Secondary containment and spill prevention control and countermeasures
- BMPs
- Communications protocol in the event of a discovered spill, breach, or other event requiring response

Response 4-16

As explained in *Oakland Heritage Alliance v City of Oakland (2011) 195 Cal.App.4th 884, 906*, “a condition requiring compliance with regulations is a common and reasonable mitigation measure and may be proper where it is reasonable to expect compliance. See also, *Citizens Opposing a Dangerous Env’t v County of Kern (2014) 228 Cal.App.4th 360, 383* (compliance with Federal Aviation Administration procedures held to be appropriate mitigation for aviation safety impacts); *Leonoff v Monterey County Bd. of Supervisors (1990) 222 Cal.App.3d 1337, 1355* (upholding mitigated negative declaration that included requirement that project comply with environmental laws on registering hazardous materials and monitoring underground tanks for leaks); *Sundstrom v County of Mendocino (1988) 202 Cal.App.3d 296, 308* (upholding measures in mitigated negative declaration requiring compliance with air and water quality standards); *Perley v Board of Supervisors (1982) 137 Cal.App.3d 424* (upholding mitigated negative declaration that included compliance with requirements of various environmental agencies among its mitigation measures).

Response 4-17

The Project Proponent will obtain and comply with the standards within a General Permit for Discharges of Storm Water Associated with Construction Activity Construction (General Permit Order 2009-0009-DWQ).

Response 4-18

No dredge or fill or other streambed alteration will occur as part of the Project’s avoidance of all waters of the United States and waters of the State under the jurisdiction of the USACE, RWQCB, and/or CDFW.

Response 4-19

Comment noted.

EXHIBIT E

Other Public Comments Received

Oquendo, John

From: Elizabeth Candlish <ecandlish@gmail.com>
Sent: Saturday, November 14, 2015 12:16 PM
To: Oquendo, John
Subject: Longboat Solar (P2014-00516)

Dear Mr. Oquendo,

I am the granddaughter of Sherman and Grace Hill who homesteaded this land early in the last century. I am delighted that this degraded desert land can be used to produce clean energy. I am sure my grandparents would be pleased as well.

Thank you for your consideration!

Elizabeth Candlish
Attorney at Law
San Francisco, CA 94133

Subject: Re: Revised Storage Yard Lease, Community Blvd, Stockton, CA
Date: Tuesday, July 28, 2015 at 1:21:08 PM Pacific Daylight Time
From: Phil Hawtin (Consultant)
To: maxdiannaeddy@aol.com
BCC: Christa Hudson, Andrew Bell, Nate Holderbein (Consultant)

Max:

I have been able to confirm that as a matter of practice, EDF does not make cash payouts to resolve concerns over its projects and therefore cannot meet your requests for a one-time cash payment of \$300,000 or the purchase of your home for \$600,000. That being said, EDF does want to be a good neighbor. We have taken your concerns seriously and have made some substantial changes to our project that we believe will address them. Specifically:

- 1). We have reduced the height of the solar panels by 25%, from 16 feet to 12 feet. This lower profile limits the types of solar panels we can use, but it will result in a significant reduction in project visibility.
- 2). We have increased setbacks from your property lines well beyond what the County requires. The setback to the easterly project fence is now 74 feet (an 490% increase over the County standard). The setback to the southerly project fence is now 34 feet (an 226% increase over the County standard). The setback to the westerly project fence is now 55 feet (an 365% increase).
- 3). We have revised our site plan to relocate all inverters so that none are closer than 500 feet from your property line.

Subject to project approval, we can also make the following changes:

- 4). In the process of surveying the project it has come to light that the southern fence on your parcel encroaches onto APN: 0497-101-14 by 24.1 feet on the east end to 26.5 feet on the west end. EDF has negotiated with the owner (Soppeland Trust) of this parcel and they have agreed to grant, without charge, an access easement (subject to project approval) on the portion of their property that you are currently encroaching on.
- 5). Because we have increased the setbacks from the project fence lines (see #2 above), it may be feasible to plant some trees or shrubs near your southern and eastern property lines that would equal the 12 foot height of the panels.

Thank you for your patience in waiting for a response from EDF regarding your requests. Because we took them seriously, it took time to route your requests through upper management and assess whether we could redesign the project along the lines above.

Sincerely,

Philip C. Hawtin,
Solar Development Consultant

EDF Renewable Energy
505 14th Street, Suite 1150
Oakland, CA 94612

CELL: 209.481.9497
FAX: 209.444.0222

www.edf-re.com

This email is confidential and may contain privileged information. If you are not an intended recipient, please delete this email and notify us immediately. Any unauthorized use or disclosure is prohibited.

From: "Max Eddy Sr." <maxdiannaeddy@aol.com>
Date: Mon, 13 Jul 2015 11:03:26 -0400
To: <Phil.Hawtin.consultant@edf-re.com>
Subject: Re: Revised Storage Yard Lease, Community Blvd, Stockton, CA

Good Morning Phil, Anywords ??

-----Original Message-----

From: Phil Hawtin (Consultant) <Phil.Hawtin.consultant@edf-re.com>
To: Max Eddy Sr. <maxdiannaeddy@aol.com>
Sent: Mon, May 11, 2015 5:03 pm
Subject: Re: Revised Storage Yard Lease, Community Blvd, Stockton, CA

Max,

I have received your voicemails from the past week, my apologies for not responding sooner. I have been working with EDF management on the proposed solutions but it has been difficult. One problem I have is that your protest is a big change from the plan I put in place with respect to your property. This affects my own credibility when sharing your potential solutions with them.

Written confirmation of what we discussed and your concurrence that the project can move forward, would go a long way in helping me secure an answer. Based on our meeting April 2nd, here is my summary of some of the ideas that would satisfy you enough to withdraw your protest, earn your cooperation, and allow the project to move forward:

- 1). A one-time payment of \$300,000.00.
- 2). Potential lot line adjustment or easement to address the encroachment onto the neighboring APN: 0497-101-14 parcel to the south.
- 3). Some screening with either fencing or trees to the east and to the south.
- 4). Purchase the property for \$600,000.00.

Please understand that EDF is a large company and they don't take decisions like this lightly. As a contractor for EDF I cannot predict what management will decide, but as the project developer I need to keep things moving towards a solution the best I can.,

Can you please provide me with a confirmation of the potential solutions by replying to this message?

Regards,

**Philip C. Hawtin,
Solar Development Consultant**

EDF Renewable Energy

**** Please note that we've moved to Oakland! Our new address is listed below.****

**505 14th Street, Suite 1150
Oakland, CA 94612**

CELL: 209.481.9497

FAX: 209.444.0222

www.edf-re.com

This email is confidential and may contain privileged information. If you are not an intended recipient, please delete this email and notify us immediately. Any unauthorized use or disclosure is prohibited.

From: "Max Eddy Sr." <maxdiannaeddy@aol.com>

To: "Phil Hawtin (Consultant)" <Phil.Hawtin.consultant@edf-re.com>

Subject: Re: Revised Storage Yard Lease, Community Blvd, Stockton, CA

Phil, Confirmation that We are Ready to Sign, Max Sr.

-----Original Message-----

From: Phil Hawtin (Consultant) <Phil.Hawtin.consultant@edf-re.com>

To: maxdiannaeddy <maxdiannaeddy@aol.com>

Sent: Tue, Oct 21, 2014 3:28 pm

Subject: Re: Revised Storage Yard Lease, Community Blvd, Stockton, CA

Max:

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The last thing I am waiting on is the legal description of the lease area from my surveyor which I should have any day. Please confirm that this ready to sign once we have that.

Thank you,

**Philip C. Hawtin,
Solar Development Consultant**

EDF Renewable Energy

**** Please note that we've moved to Oakland! Our new address is listed below.****

**505 14th Street, Suite 1150
Oakland, CA 94612**

CELL: 209.481.9497

FAX: 209.444.0222

www.edf-re.com

This email is confidential and may contain privileged information. If you are not an intended recipient, please delete this email and notify us immediately. Any unauthorized use or disclosure is prohibited.

From: " maxdiannaeddy@aol.com" < maxdiannaeddy@aol.com >
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Subject: Re: Revised Storage Yard Lease, Community Blvd, Stockton, CA

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Oquendo, John

From: paul hensley <stude1963@hotmail.com>
Sent: Wednesday, March 18, 2015 8:41 AM
To: Creason, Tracy - LUS
Subject: FW: Delivery Status Notification (Failure)
Attachments: ATT00001

From: postmaster@mail.hotmail.com
To: stude1963@hotmail.com
Date: Mon, 16 Mar 2015 19:42:27 -0700
Subject: Delivery Status Notification (Failure)

This is an automatically generated Delivery Status Notification.

Delivery to the following recipients failed.

tracy.creason@lus.sbcounty.gov

--Forwarded Message Attachment--

From: stude1963@hotmail.com
To: tracy.creason@lus.sbcounty.gov
Subject: Project P201400516/CUP
Date: Mon, 16 Mar 2015 20:42:27 -0600

TRACY CREASON

This letter is in opposition to the proposed SOLAR PLANT on community blvd. We have lived on this street since 1983 and are not in favor of a solar plant. The zoning is RL-5 and we want to keep it that way. My wife and many of the neighbors feed the wild birds in this community which would be endangered with the installation of a solar plant. There are many wild species to include Red tail hawks, sparrows, doves, quail and even falcons. There are a number of us who ride our bicycles and walk on this street and do not welcome the additional traffic. This is one of the nicer streets in the Barstow area why put a solar plant here??? Lastly the freeway is right next to this sight I would think it would blind the traffic. Please acknowledge receipt of this email.

THANK YOU;
PAUL AND LINDA HENSLEY
26061 COMMUNITY BLVD
BARSTOW, CA 92311

Subject: Re: Revised Storage Yard Lease, Community Blvd, Stockton, CA
Date: Wednesday, May 13, 2015 at 8:20:29 AM Pacific Daylight Time
From: maxdiannaeddy@aol.com
To: Phil.Hawtin.consultant@edf-re.com

Good Morning Phil , Have read Your email & the first three items are ideally sufficient, but the Forth is to low as a complete buy out, but might benifit the project more. . More Communications would be key in moving this project foward. Max

-----Original Message-----

From: Phil Hawtin (Consultant) <Phil.Hawtin.consultant@edf-re.com>
To: Max Eddy Sr. <maxdiannaeddy@aol.com>
Sent: Mon, May 11, 2015 5:03 pm
Subject: Re: Revised Storage Yard Lease, Community Blvd, Stockton, CA

Max,

I have received your voicemails from the past week, my apologies for not responding sooner. I have been working with EDF management on the proposed solutions but it has been difficult. One problem I have is that your protest is a big change from the plan I put in place with respect to your property. This affects my own credibility when sharing your potential solutions with them.

Written confirmation of what we discussed and your concurrence that the project can move forward, would go a long way in helping me secure an answer. Based on our meeting April 2nd, here is my summary of some of the ideas that would satisfy you enough to withdraw your protest, earn your cooperation, and allow the project to move forward:

- 1). A one-time payment of \$300,000.00.
- 2). Potential lot line adjustment or easement to address the encroachment onto the neighboring APN: 0497-101-14 parcel to the south.
- 3). Some screening with either fencing or trees to the east and to the south.
- 4). Purchase the property for \$600,000.00.

Please understand that EDF is a large company and they don't take decisions like this lightly. As a contractor for EDF I cannot predict what management will decide, but as the project developer I need to keep things moving towards a solution the best I can.,

Can you please provide me with a confirmation of the potential solutions by replying to this message?

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Oquendo, John

From: Sylvia Pile <hillsranch@gmail.com>
Sent: Wednesday, November 18, 2015 8:39 AM
To: Oquendo, John
Subject: longboat solar p2014-00516

I am very much in favor of this project. This is compromised farm land it is ideal for producing renewable energy. it take 100 years -if ever to return native growth as it has been fallow for 30 years. Every dry year more of our top soil blows to neighbors in a wet winter spring it becomes a fire hazard [tumble weed, mustard, fox tail]. there is no income still there are prop taxes and some attempt to mitigate the fire hazard. I will be pleased to see this project go forward. sylvia pile hills ranch

To whom it may concern,

March 25, 2015

Assessor parcel number: 0497-071-40

Project number: P201400516/CUP

1. How will this affect the property values in the surrounding area, including my property, and have there been any studies conducted?
2. During development, construction, and/or operation of this facility, is there a potential for the contamination of the ground water? If so, what contingencies will the sponsoring agency provide?
3. Will the local temperature, noise level, views, and brightness be affected by this facility and if so, what actions will be taken?
4. In regards to the design of this facility, how will it be connected to the grid? Will it be through local, overhead transmission and distribution lines, and if so, where is the proposed location of these lines?
5. How will this facility affect the local wildlife and resources?
6. Will this facility affect my ability to build on my land?
7. Is solar radiation going to be a concern for local residents and if so, what actions will the sponsoring agency take to keep the residents safe?

Thank you

sincerely: Juan Carlos Ramirez

RECEIVED
MAR 26 2015
COUNTY OF SAN BERNARDINO
BUILDING AND SAFETY

ATTENTION PROPERTY OWNERS

The development proposal listed below has been filed with County Planning. Please comment in the space below. You may attach additional pages as necessary.

Your comments must be received by Planning no later than **March 25, 2015** to be sure that they are included in the final project action. However, comments will be taken up to the time of the project decision. Please refer to this project by the Applicant's name and the Assessor Parcel Number indicated below. If you have no comment, a reply is not necessary. If you have any questions regarding this proposal, please contact **Planner, TRACY CREASON** at (760) 995-8143, by email at Tracy.Creason@lus.sbcounty.gov, or mail your comments to the address above. If you wish, you may also FAX your comments to (760) 995-8167.

ASSESSOR PARCEL NUMBER: 0497-071-40

(See map below for more information)

PROJECT NUMBER: P201400516/CUP

* Multiple Parcel Associations *

APPLICANT:

EDF RENEWABLE ENERGY (DBA LONGBOAT SOLAR, LLC)

LAND USE DISTRICT (ZONING):

RL-5

IN THE COMMUNITY OF:

BARSTOW/1ST/ SUPERVISORIAL DISTRICT

LOCATED AT:

BOTH SIDES OF COMMUNITY BLVD, WEST OF STATE HWY 58

PROPOSAL:

Conditional Use Permit to establish a 20 megawatt solar photovoltaic electric power generating facility on approximately 233 acres of 4 parcels totaling 325 acres

If you want to be notified of the project decision, please print your name clearly and legibly on this form and mail it to the address above along with a self-addressed, stamped envelope. All decisions are subject to an appeal period of ten (10) calendar days after an action is taken.

Comments (if you need additional space, please attach additional pages):

*April Williams
26595 Community Blvd
Barstow, CA 92311*

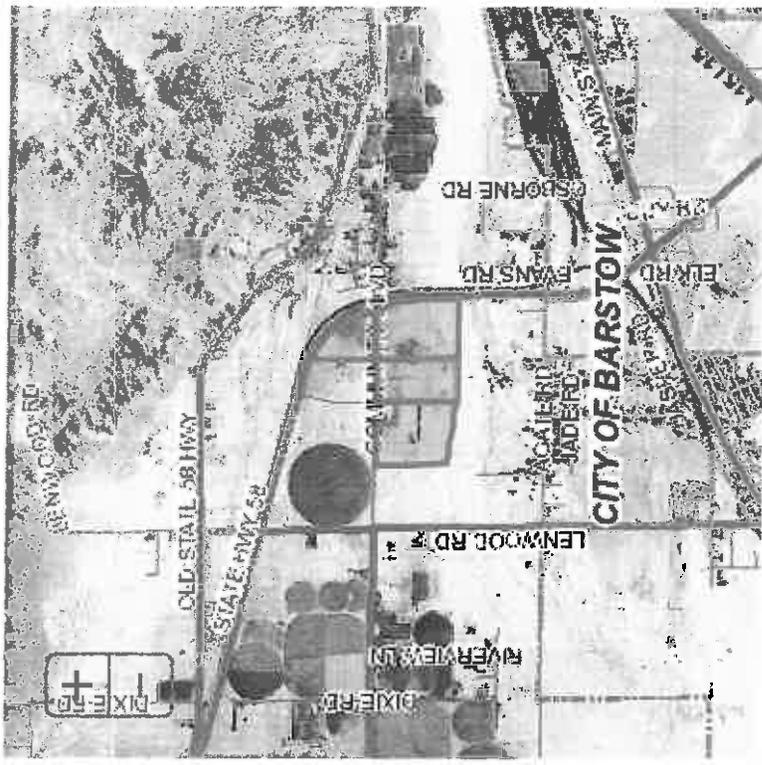


April Williams
26595 Community Blvd.
Barstow, CA 92311

April Williams



VICINITY MAP



March 16, 2015

San Bernardino County Land Use Services Planning

15900 Smoke Tree Street

Hesperia, CA. 92345

Project Number: P201400516/CUP APN: 0497-071-40

Dear Planning,

We are not approving this proposal and say NO to the EDF Renewable Energy (DBA Longboat Solar, LLC).

We are surrounded on all three sides of our property by this project. We have a family home with children, animals, livestock and gardens. We organically grow our food and depend on well water. We have determined that this current environment is necessary for our quality of living.

Our concerns and issues are as follows:

1. If our property is surrounded by Solar Fields our Property Value will be negatively impacted. Our ability to sell, refinance or build equity will be terminated. This will financially bankrupt us and our family. What will be done to resolve this?
2. What is the Environmental impact to wildlife?
3. Does the Solar generate heat? Will the temperature on our property become warmer?
4. Does the Solar have any affects on animals and children?
5. Does the Solar have any noise, dust, vibration or anything we would notice?
6. Will you be using ground water? How much? Will your use affect our ground water quantity or quality?
7. Will there be a privacy fence around and the equal height of the Solar panels?
8. Does RL-5 zoning allow for this project?

We would appreciate a response to our concerns.

Max Eddy

25499 Community Blvd

Barstow, CA. 92311

760-887-2909

APN: 0497-101-09