APPENDIX B-1
VISUAL IMPACT ASSESSMENT

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Visual Impact Assessment

Daggett Solar Power Facility

San Bernardino County, California

June 29, 2018

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FIGURES

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1 Overview

Daggett Solar Power 1 LLC, a subsidiary of NRG Renew LLC (Applicant), is proposing to develop the Daggett Solar Power Facility (Project) in San Bernardino County, east of Daggett (Figure 1). The proposed Project would consist of constructing and operating a utility-scale, solar photovoltaic (PV) electricity generation and energy storage facility, that would produce up to 650 megawatts (MW) of power and include up to 450 MW of battery storage capacity on approximately 3,500 acres of land (Figure 2 and Figure 3). The Project would use existing electrical transmission infrastructure adjacent to the Coolwater Generating Station—a recently retired natural gas-fired power plant—to deliver renewable energy to the electric grid.

The proposed Project site is flat, and is generally bounded by the town of Daggett approximately 0.5 mile to the west; the Mojave River, Yermo, and Interstate 15 to the north; Barstow-Daggett Airport, Route 66, and Interstate 40 to the south; and Newberry Springs and Mojave Valley to the east. County zoning for the proposed Project site allows for development of renewable energy generation facilities with a Conditional Use Permit (CUP). The proposed Project is anticipated to be constructed in three phases, and is seeking thirteen separate CUPs to facilitate project phasing and financing. Those three phases would share facilities such as the on-site project substations and generation tie (gen-tie) line. Development would occur on privately-owned land.

The Applicant selected the proposed Project site based on its proximity to existing electrical transmission infrastructure, and to repurpose former fossil fuel-based electricity generation capacity with renewable energy. The Project is being designed in accordance with the County's Solar Ordinance (an ordinance amending Chapter 84.29, Renewable Energy Generation Facilities) and the recently adopted General Plan's Renewable Energy and Conservation Element (August 8, 2017), which strives to preserve the character of the project area and surrounding communities. The Project area is in close proximity to existing high voltage electrical infrastructure, existing energy generation facilities, and other industrial uses, including the presently non-operational Coolwater Generating Station (626-MW natural gas-fired power plant), the 44-MW PV Sunray Solar Project, the Los Angeles Department of Water and Power (LADWP) high-voltage transmission corridor (approximately 1,000 feet in width), several high-voltage substations and transmission lines owned by Southern California Edison (SCE), major highway and railroad infrastructure, and the Barstow-Daggett Airport.

HDR, Inc. was retained by NRG Renew, LLC to perform a Visual Impact Assessment (VIA) for the Project. This VIA was prepared to identify and evaluate the potential visual and aesthetic impacts associated with construction and operation of this Project.

2 Project and Site Description

2.1 Project Location

The Project site is located east of Barstow and Daggett, south of Interstate 15 and the Mojave River, and north of Interstate 40, and adjacent to Barstow-Daggett Airport (Figure 1). The Project area is situated within Township 9 North, and within Ranges 1 East and 2 East. The sections are Sections 13, 23, and 24 in Range 1 East; Sections 7, 8, 15-19, 21, and 23 in Range 2 East.

The Project site is shown on four U.S. Geological Survey 7.5-minute topographic quadrangles in California: Yermo, Minneola, Harvard Hill, and Newberry Springs (see Figure 2). The Project site is approximately within the latitudes of 34.83° and 34.90° and within the longitudes of –116.70° and –116.88° (in decimal degrees)..

2.2 Project Components

The proposed Project consists of solar PV panels that are mounted on a single axis tracking system that tracks the sun. The tracking system is supported by steel piles and the panels are arranged into long narrow rows, which are grouped into regions, informally referred to as solar arrays or blocks. The proposed design also includes inverters and transformers mounted on small concrete pads and distributed across the site. Electricity produced by the arrays would be collected and routed to an on-site substation where it would be stepped up in voltage. Each phase would have its own on-site substation, which is also expected to include a battery storage system. From the on-site substations, each phase would include a segment of the overhead gen-tie line, which would connect the project to the existing SCE-owned 115- and 230-kV Coolwater substations, which are adjacent to the Coolwater Generating Station. The project would also include security fencing for all phases and an O&M (Operations and Maintenance) building to be constructed with the first phase. A preliminary layout of the proposed facility is shown in Figures 3 and 4.

Major project features are described below and photographs of selected, typical components are shown in Appendix A.

2.2.1 Solar Array

Solar panels would be mounted on a tracking system, which would be supported when practical, by driven piers (piles) embedded directly into the ground. Panels would be organized in rows in a uniform grid pattern, with each row separated by approximately 10-20 feet (from post to post). A fixed-tilt tracking system, which does not track the sun, may also be used if deemed suitable. Panels are proposed up to a maximum of 20 feet in height. Typical solar array and tracker panel layouts are provided in Appendix A, Figures A1 and A2, respectively.

The specific equipment chosen for the proposed project would be determined prior to construction. However, at this time, the solar panels are anticipated to be either crystalline silicon modules, or cadmium telluride modules (also known as panels; see A2).

Figure 1. Project Location

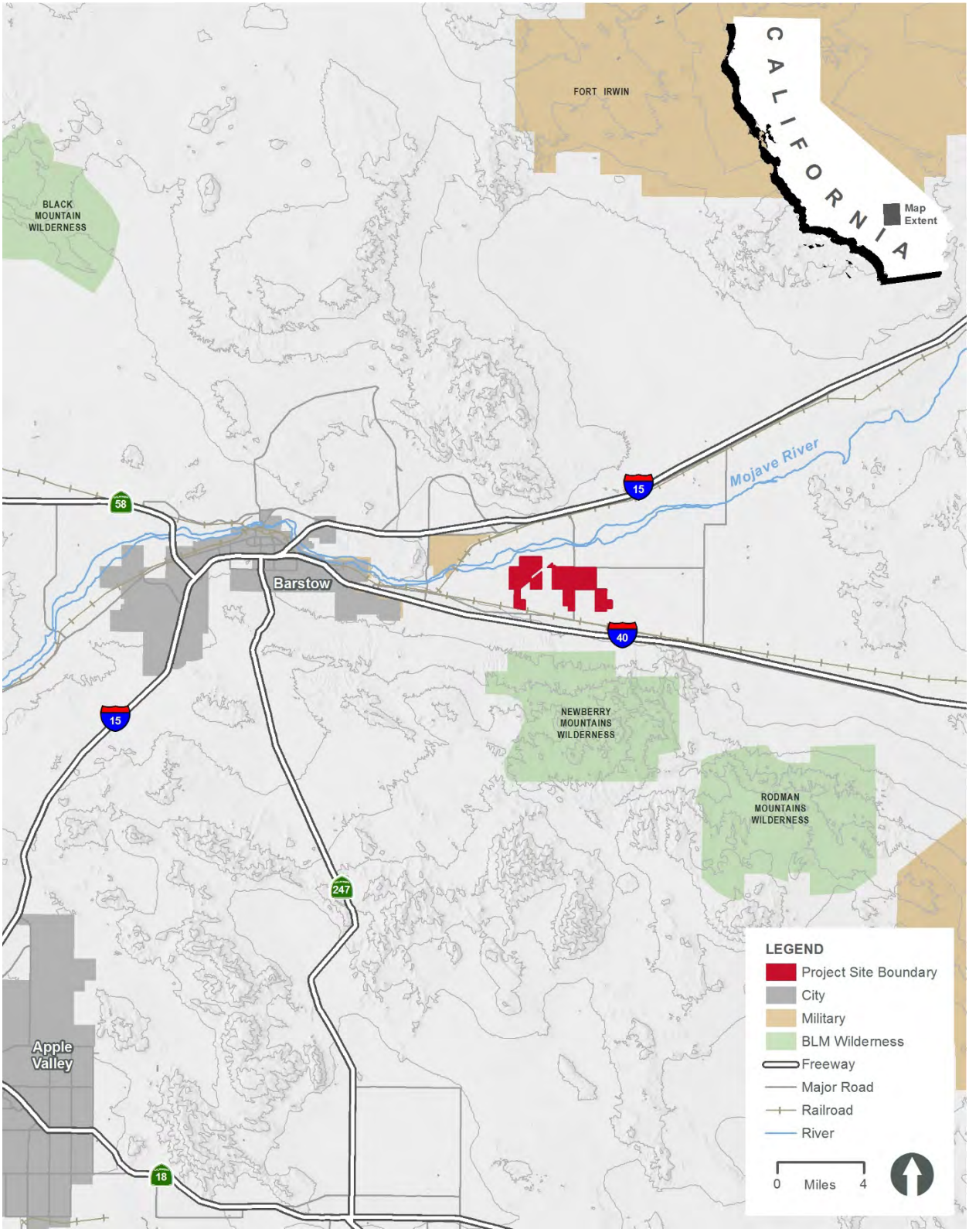


Figure 2. Project Site on USGS Quadrangles

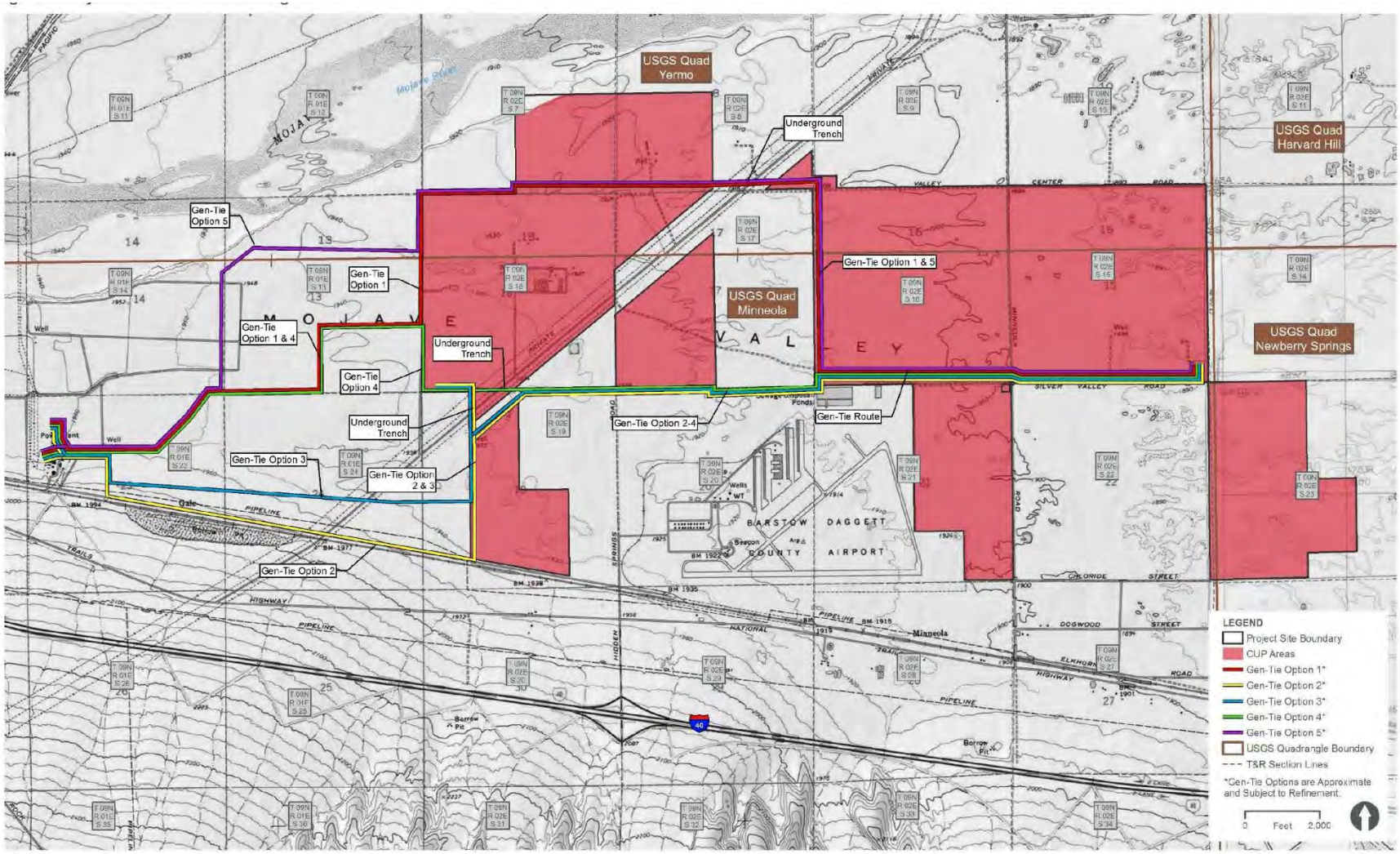


Figure 3. Project Site Aerial Imagery

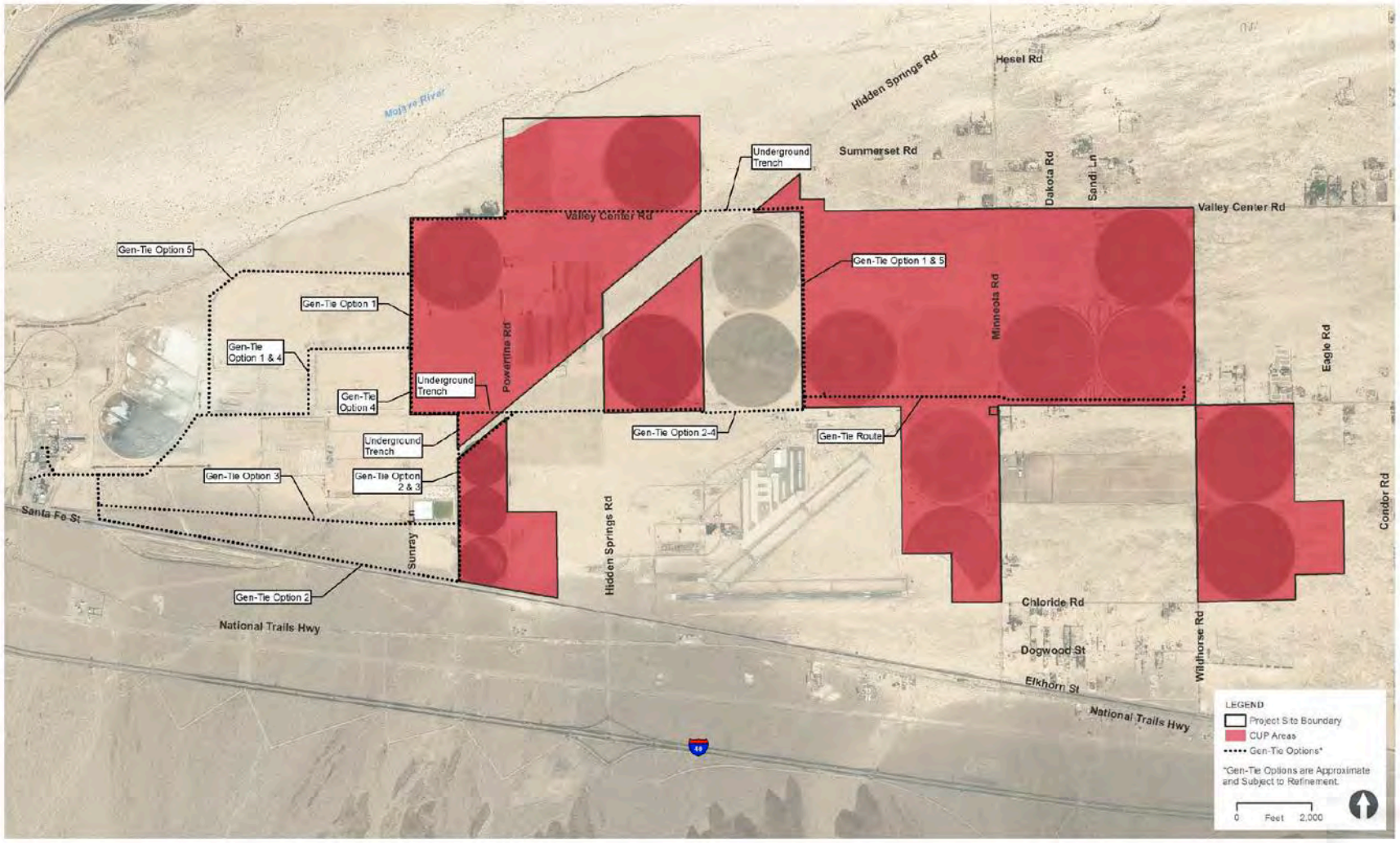
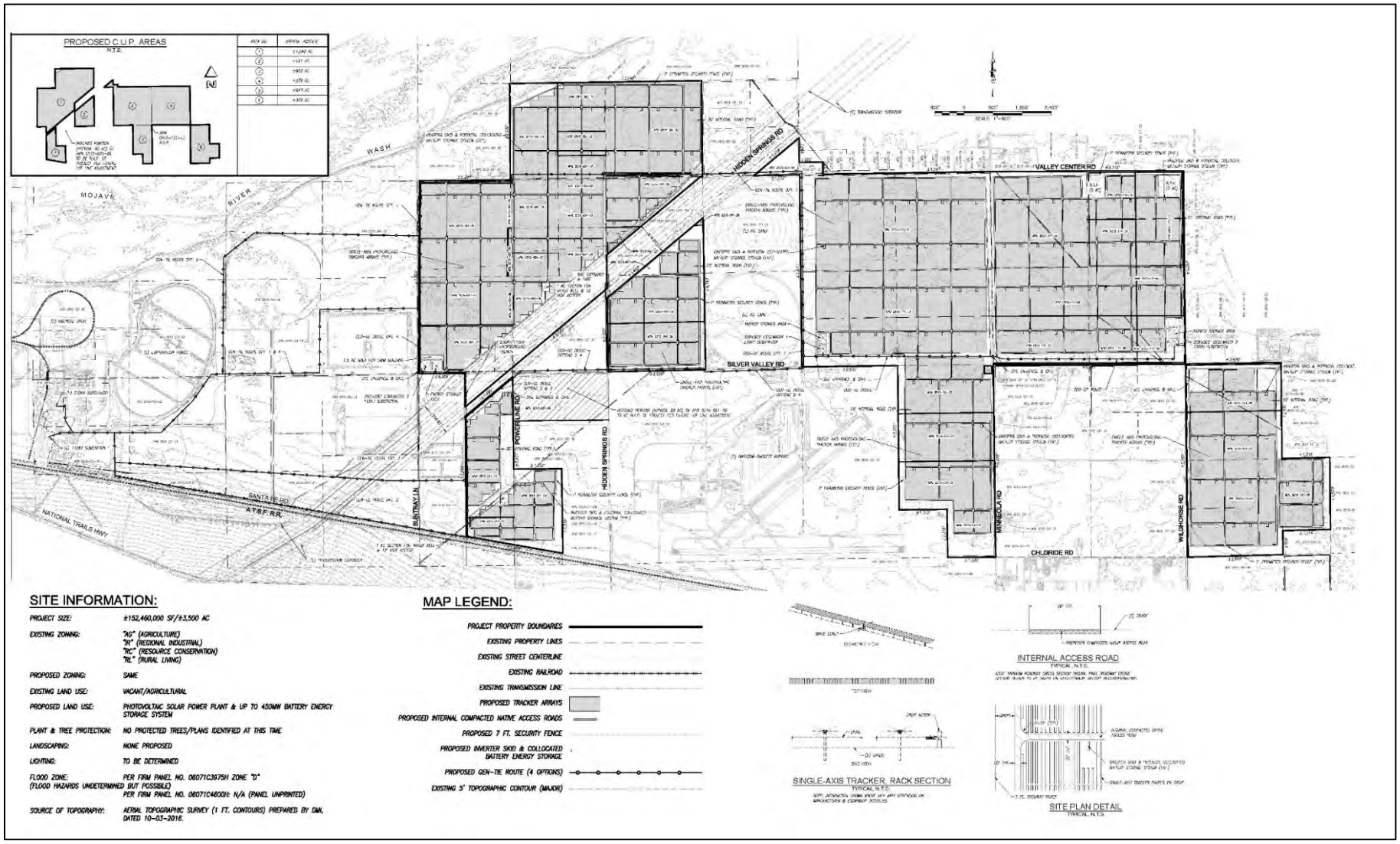


Figure 4. Site Layout



2.2.2 Inverters and Switchgear

Individual PV panels would be connected together in series to create a “string” to carry direct current (DC) electricity. Strings of DC electricity would be routed to inverters, which would take the DC output and convert it to alternating current (AC) electricity.

The system likely will use either centralized or string inverters (Figure A3). Centralized inverters and transformers would be supported on small concrete or steel equipment pads, on a foundation of either a concrete footing approximately 10 feet by 50 feet in size, or on foundational piers. The inverters and transformers would be up to 10 feet in height. Small string inverters would be mounted throughout the solar array, and frequently as attached to each of the tracker rows. In each phase, the power from inverters would be collected and transported to a new Project substation. Power from new Project substations would be transported via a new gen-tie line to the two existing SCE-owned Coolwater substations, where power would then flow into the utility-owned electric system. The battery system would be either AC- or DC-coupled, meaning the battery would be electrically connected either between the DC panels and the inverter input (in the case of a DC-coupled system) or further downstream, after the output of the inverters (in the case of an AC-coupled system).

2.2.3 Substations

One new substation would be constructed as a component of each of the three Project phases. The substations containing the high-voltage equipment would be unenclosed, occupy an area of approximately 300 feet by 300 feet each, and would have security fences for protection and isolation (Figure A4). The electrical equipment inside the substation fence would be about 70 feet tall at its highest points. A small one-story, rectangular control building housing the communication and supervisory control and data acquisition (SCADA) equipment would also be located in the substation footprint. From those new substations, a gen-tie line would be constructed to connect the solar facility to its point of interconnection—the two existing substations (115- and 230-kV, owned and operated by SCE)—and adjacent to the retired Coolwater Generating Station. The work SCE will perform to connect the gen-tie will occur primarily inside the existing substations; therefore, no expansion of the existing substations is anticipated. Figure 4 shows preliminary locations for the project substations; however, those locations may be changed to optimize overall facility design.

SCE would conduct limited work within and surrounding the existing Coolwater Generating Station to facilitate connection of the Project to their system.

2.2.4 Battery Storage

The project is anticipated to include up to 450 MW of battery storage constructed in three phases, corresponding to the phased construction of the solar arrays. The location of that battery storage system is anticipated to be either adjacent to each of the substations, or distributed throughout the solar array at the inverter equipment pads or tracker rows. Up to 16 acres of battery storage would be located throughout the project site.

Should batteries be located adjacent to the substations, they would be contained either within steel enclosures similar to a shipping container or a freestanding building (Figure A5). Each of those battery storage facilities would occupy up to approximately one acre of land. The anticipated locations of the battery storage facilities adjacent to project substations can be seen in Figure 4. If distributed throughout the solar array, the battery system would likely be contained within metal housings, up to 10 feet in height, and electrically connected to the inverters located at each of the equipment pads shown in Figure 4. Figure 4 shows preferred locations for the battery storage facilities; however, those locations may be changed to optimize overall facility design.

The battery storage system likely would use one of several available lithium ion (Li-ion) technologies, although alternatives may be considered (such as flow batteries) given the sustained technological advancements in the battery industry. In general, a Li-ion battery is a rechargeable type of battery consisting of three major functional components: a positive electrode made from metal oxide, a negative electrode made from carbon, and an electrolyte made from lithium salt. Lithium ions move from negative to positive electrodes during discharging, and in the opposite (positive to negative) direction when charging. Currently, five major Li-ion battery sub chemistries are commercially available:

1. Lithium Nickel Cobalt aluminum (NCA)
2. Lithium Nickel Manganese cobalt (NMC)
3. Lithium Manganese oxide (LMO)
4. Lithium Titanate Oxide (LTO)
5. Lithium-iron phosphate (LFP)

Selection of the Li-ion sub chemistry for the Project would take into consideration various technical factors including safety, life span, energy performance, and cost.

The proposed battery storage system would be designed, constructed, operated, and maintained in accordance with applicable industry best practices and regulatory requirements, including fire safety standards. As of this submission, current best practices for fire safety use chemical agent suppressant-based systems to detect and suppress fires. If smoke or heat were detected, or if the system were manually triggered, an alarm would sound; horn-strobes would flash; and the system would release suppressant, typically FM-200, NOVEC 1230, or similar, from pressurized storage cylinders. However, final fire safety design would follow applicable standards and would be specific to the battery technology chosen.

2.2.5 Gen-Tie Lines

The Project is expected to be constructed in three phases. Each phase would include a new substation and segment of above ground gen-tie line and supporting towers. From each substation, a segment of gen-tie would be constructed in order to connect the solar facility's output to the electrical grid at the existing SCE-owned 115- and 230-kV substations, located adjacent to the Coolwater Generating Station. The gen-tie monopole tower structures are expected to be up to 120 feet in height and would be capable of accommodating both 115- and 230-kV electrical circuits. Each phase and its associated

CUPs would share the substations and gen-tie facilities. The first segment of gen-tie would be constructed with Phase 1. The second segment of gen-tie would be constructed with Phase 2, connecting it to Phase 1. The third segment would be constructed with Phase 3, connecting it to Phase 2 such that at full build the gen-tie would be one line that serves all phases of the project.

Three primary alternative routes are being considered for the project gen-tie lines (Figure 4). The five primary alternatives are shown in Figures 2 and 3. These routes traverse the Project site from east to west and would be primarily along Silver Valley Road.

2.2.6 Access Roads

Figure 4 shows the main access points for the project. A 26-foot-wide perimeter access route would be constructed along the Project site's fence line. All interior access roads would be a minimum of 20 feet in width. All roads within the site would consist of compacted native soil per fire department requirements. If necessary, all roads would be stabilized with a soil stabilization material.

2.2.7 Perimeter Fencing

Chain-link fencing with one foot of barbed wire is proposed along the perimeter of the Project site. Access gates would be provided at each site entry point. Substation sites and/or battery storage sites may be separately fenced.

2.2.8 Lighting

Limited lighting is proposed on the project site. Manual, timed, and motion-sensor lights would be installed at equipment pads and substations for maintenance and security purposes. Remote-controlled cameras and other security measures would also be installed. No other lighting is planned.

2.2.9 Stormwater Facilities

The site drainage is designed to follow natural drainage patterns. None of the on-site facilities, including fences and panel posts, are expected to prevent stormwater flow. Therefore, the Applicant anticipates that the project would have limited impact to on-site drainage. No on-site detention facilities are planned.

2.2.10 Other Infrastructure

During the first phase of the project, an O&M building would be constructed on approximately 1.5 acres within the project footprint (see Figure 4).

Telecommunications equipment, such as fiber-optic line, a SCADA (supervisory control and data acquisition) system, and auxiliary power, would be installed throughout the project, at each inverter equipment pad, substation, and security system. Fire protection would also be included per applicable requirements.

2.3 Construction

The Project would be constructed in three or more phases. For each phase, project construction would consist of two major stages. The first stage would include site preparation, grading, and preparing staging areas and on-site access routes. Grubbing and grading would occur on the site to achieve the required surface conditions. Because the majority of the site is relatively flat, limited grading would be required.

The second stage would involve installing equipment including but not limited to support piers, tracker mounts, solar panels, cabling, substations and gen-tie. Project construction would require driving piles approximately 6 to 10 feet into the ground to support mounting structures for the solar panels. In areas where geotechnical analysis has determined that piles might not be feasible or cost-effective, conventional foundations (such as isolated spread foundations or continuous footings) would be used. These construction methods (isolated spread foundations or continuous footings) would involve placement of concrete in these areas to create the foundations and/or footings.

2.4 Operation and Maintenance

The Project would include an O&M building and would accommodate both permanent and temporary staff. At full build out, the Project could include a plant manager, maintenance manager, solar technicians, and environmental specialists. Operational activities would include monitoring of the solar facility performance, periodic equipment maintenance, weed abatement, and cleaning.

2.5 Decommissioning

At the end of the Project life the Project would be decommissioned in accordance with an approved decommissioning plan. Decommissioning activities would adhere to the requirements of applicable federal, State, and County regulations. The Project would utilize Best Management Practices (BMPs) to maximize the collection and recycling of modules to the extent feasible.

3 Environmental Setting

3.1 Regional Character

The Project site is located within the Mojave Desert. The site is located in the Desert Planning Region of San Bernardino County, at the western end of the Mojave Valley, just south of the Mojave River. The Desert Planning Region consists of mountain ranges interspersed with long, broad valleys that often contain dry lakes. The elevation changes from near sea level, to desert valleys between 1,000 and 4,000 feet, to mountain ridges 8,000 feet or more. Immediately surrounding views from the Project site consist of the BNSF and Union Pacific (UP) railways to the south, north, and west; the Sunray Solar facility to the west, and highways to the north (I-15) and south (I-40 and US-66). U. S.

Highway 66 (also referred to as the National Trails Highway) borders the southern perimeter of the Project site.

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. Mountain ranges and peaks in the Project vicinity include:

- Newberry Mountains Wilderness Area. The Newberry Mountains Wilderness Area is located approximately 1.25 miles south of the Project site. This area includes a peak of 4,496 feet above located approximately 5 miles to the south of the Project site.
- Cady Mountain. Cady Mountain includes a peak of 4,627 feet located approximately 20 miles to the east of the Project site.
- Black Butte. Black Butte includes a peak of 1,978 feet located approximately 1 mile to the east of the Project site.
- Elephant Mountain. Elephant Mountain includes a peak of 2,674 feet located less than 3 miles to the northwest of the Project site.
- Calico Mountains. The Calico Mountains includes a peak of 4,542 feet located approximately 7.5 miles to the north of the Project site. Calico Ghost Town is located in Wall Street Canyon, in the Calico Mountains, at approximately 2,200 feet.

3.1.1 Existing Land Use

On-site Land Uses

The Project site is mostly comprised of active or formerly active agriculture land with multiple visual encroachments within the landscape, including existing infrastructure associated with the Coolwater Generating Station and associated transmission corridor (Appendix B, Figure B1). The site currently contains railroad infrastructure and other supporting infrastructure that was used to deliver coal to the power plant. The Project site also contains utility-related uses on land owned by Southern California Edison. The Project would use electrical transmission infrastructure that previously supported the Coolwater Generating Station, which was originally built as a coal-fired power plant in the 1950s. It was later converted to a natural gas–fired power plant, but has recently been retired and is no longer in service.

The private lands located in the central and eastern parts of the Project site consist of agricultural lands that produce primarily alfalfa and pistachios, sparsely spaced rural residential dwellings, previously disturbed and now fallow farmland, and some undeveloped desert land.

Off-site Land Uses

Immediately adjacent to the Project site is a high-voltage transmission corridor owned by the Los Angeles Department of Water and Power (LADWP) that is about 1,000 feet wide (Figure B1). The transmission corridor contains several high-voltage substations and transmission lines owned by Southern California Edison (SCE) and diagonally bisects to the Project site. In addition, the Sunray project, a 44 MW PV solar project built in 2016, is

located on the former site of two decommissioned solar thermal projects and one solar PV project (Figure B2). The Coolwater Generating Station is visible in the background of Figure B2.

Barstow-Daggett Airport, a County-owned, public-use, general-aviation airport, is located directly south of the Project site (Figure B3).

3.1.2 Scenic Routes

I-40 and I-15 near the Project site are eligible for California State Scenic Highway Designation. County-designated Scenic Routes in the Project area include:

- US-66, to the south, east, and west of the Project site
- I-15, north, east, and west of the Project site, omitting the highway section from Ghost Town Road to East Yermo Road overpass, and omitting the highways sections within Barstow
- I-40, from approximately 30 miles east of the Project site, in Ludlow, and continuing east. Ludlow is where Route 66 veers south away from I-40, and traverses Lava Hills, Marble Mountains, and Clipper Mountains, parallel to and approximately 10 miles south of I-40
- Amboy Road, from US-66, south of the Lava Hills, and continuing south to the City of Twentynine Palms
- Highway 247, continuing south from Barstow to the Town of Yucca Valley
- SR-127, continuing north from I-15 and the community of Baker
- Kelbaker Road, from I-40 to I-15, passing through the Mojave National Preserve, approximately 60 miles east of the Project site

3.1.3 Vista Points

There are no Department of Transportation (DOT) designated vista points on state highways within 40 miles of the Project site. The nearest vista points identified by Caltrans in 2015 are south and west of the City of Victorville, and south of the community of Lucerne Valley in the San Bernardino National Forest or in the foothills of the Angeles National Forest. The Project site is not visible from any of these vista points (Caltrans 2015).

3.1.4 Wilderness Areas

Wilderness Areas are managed under the Wilderness Act and generally do not allow motorized equipment, motor vehicles, mechanical transport, temporary roads, or permanent structures or installations. The Newberry and Rodman Mountains Wilderness Areas are located to the south and visible from the Project site.

3.2 Existing Visual Character

3.2.1 BLM Visual Resource Inventory and Management Guidance

The Project will be developed on private property within an unincorporated area of San Bernardino County. BLM administers much of the land surrounding the project area, including two designated Wilderness Areas south of the Project areas. BLM uses a Visual Resources Management (VRM) system to identify, set, and maintain scenic values for land areas under its management. The VRM system has two key aspects: inventorying visual resources and managing those resources (BLM 1986).

BLM's Visual Resource Inventory (VRI) classification system is a baseline description of the existing scenic values in the environment and, unlike VRM classifications, does not provide objectives as to how the land should be used or managed. All VRI descriptions used for this analysis are based on the BLM's VRI Inventory Classes identified in the Desert Renewable Energy Conservation Plan (DRECP). The DRECP includes a compilation of VRIs completed by local field offices (e.g. Barstow) that include BLM-managed land in the region immediately surrounding the project area (BLM 2015b, Section III.20). Although no information for private lands or other non-BLM lands is included in the VRI, the close proximity of the classified BLM lands to the Project site provides a useful baseline for locating key observation points (KOP) for further analysis.

The VRI developed by BLM identifies the visual resources of a given area and, based upon specific standards, assigns an inventory class to each area. This process, further described in detail in BLM Manual H-8410-1 (BLM 1986), involves rating the resource's visual qualities, measuring public concern, and determining the extent to which an area is visible from travel routes and other observation points. Those three factors then determine which of the four VRI classes are assigned to each area of BLM-administered lands based on visual sensitivity level (high, medium, and low), scenic quality (A to C), and distance. According to the BLM (2015b, Section III.20.1.2):

> These four VRI classes represent the relative values of the existing visual resources. VRI Classes I and II represent the highest visual value, Class III represents moderate value, and Class IV represents relatively low visual value. The four VRI classes are the foundation upon which BLM considers visual values in its management planning processes….

As shown in Figure III.20-4 of the DRECP Final Environmental Impact Statement (BLM 2015b), lands within the Newberry Wilderness Area are identified as VRI Class I. North of the Newberry Wilderness Area (and south of I-40), lands are classified as VRI Class III and transition to Class IV north of I-40. Lands along the Mojave River and north of I-15 are classified as VRI Class II. Isolated areas within the immediate Project site are classified as VRI Class IV. These classifications are depicted for the immediate Project area in Figure B4 of Appendix B.

Specific terminology used in describing the existing visual environment is provided below.

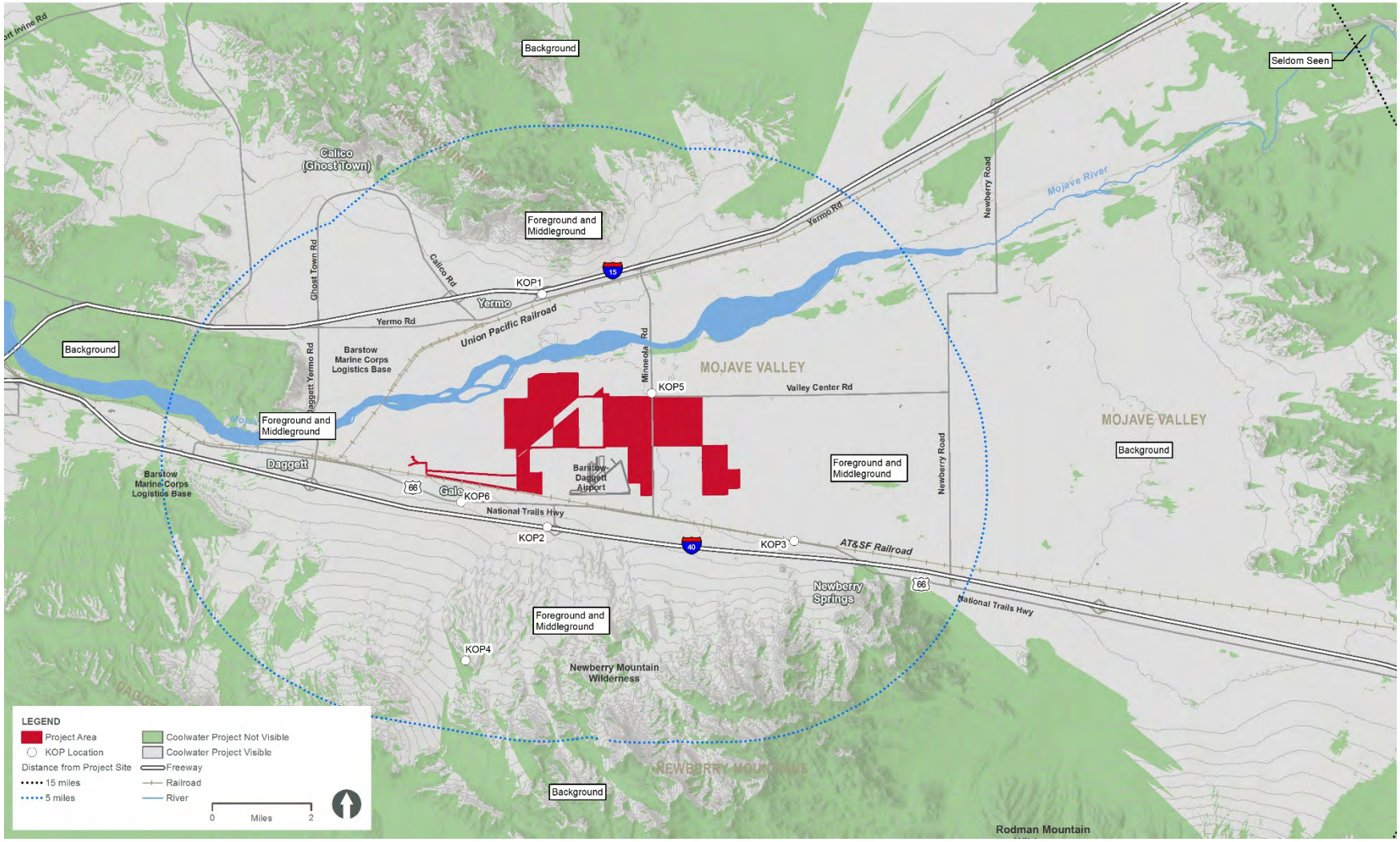
- Contrast. Opposition or unlikeness of different forms, lines, colors, or textures in a landscape. Contrast rating: a method of analyzing the potential visual impacts of proposed management activities.

- Form. The mass or shape of an object or objects that appears unified, such as a vegetative opening in a forest, a cliff or mountain formation, a water tank, or a highway overpass.
- Key observation point (KOP). One or a series of points on a travel route or at a use area or potential use area, where the view of a management activity would be most revealing.
- Scenic quality is a measure of the visual appeal of a tract of land. In the visual resource inventory process, public lands are given an A, B, or C rating based on the apparent scenic quality that is determined using seven key factors: landform, vegetation, water, color, adjacent scenery, scarcity, and cultural modifications.
- Sensitivity level. Sensitivity levels are a measure of public concern for scenic quality. Public lands are assigned high, medium, or low sensitivity levels by analyzing the various indicators of public concern.
- Simulation. A realistic visual portrayal that demonstrates the perceivable changes in landscape features caused by a proposed management activity. This is done using photography, artwork, computer graphics, and other such techniques.
- Texture. The visual manifestations of the interplay of light and shadow created by the variations in the surface of an object or landscape.
- Viewshed. A landscape unit seen from a key observation point.
- Visual quality. The relative worth of a landscape from a visual perception point of view.
- Visual resource. The visible physical features on a landscape (for example, land, water, vegetation, animals, structures, and other features).
- Visual resource inventory. The visual resource inventory process provides BLM managers with a means for determining visual values. The inventory consists of a scenic quality evaluation, sensitivity level analysis, and a delineation of distance zones. Based on these three factors, BLM-administered lands are placed into one of four visual resource inventory classes. These inventory classes represent the relative value of the visual resources, with Classes I and II being the most valued, Class III representing a moderate value, and Class IV being of least value. The inventory classes provide the basis for considering visual values in the BLM resource management planning process.

3.2.2 Field Acquisition and Methods

This impact assessment uses terminology and follows guidance as recommended by Bureau of Land Management (BLM) Manual 8431 (1986). In following that methodology as guidance, key observation points (KOPs) were selected for further evaluation. To establish the KOP locations, an initial viewshed analysis was completed using ArcGIS 3D analyst and a publically available digital elevation model (DEM). The gen-tie tower height was used as the feature of reference. Based on these inputs, Figure 5 depicts the Project's

Figure 5. Viewshed Analysis



potential visibility from the surrounding landscape. With this reference, locations containing sensitive viewers (e.g. local residences, US 66, etc.) were factored into the KOP selection. Following coordination with Country staff on potential KOP locations, a select number of KOPs were identified that provide a representative vantage of those locations within the surrounding viewshed that have the potential to view the Project and may otherwise be sensitive to changes in the visual landscape.

Photographs were taken with the digital single-lens reflex (DSLR) Canon 5D Mark III camera during fair weather conditions on August 28, 2017. Each photo-documented location was recorded using a Trimble Geo-XT 6000 series GPS receiver, set to NAD 83, UTM Zone 10N. Post-processing was performed using a Pathfinder Office Pro utilizing correction data from the UNAVCO base station in Rialto, California. Following coordination with staff from the County's Land Use Services Department on the location of the proposed KOPs, the precise location of each KOP was selected in the field based on accessibility and safety.

3.2.3 Landscape Visibility

Perception of details (e.g., form, line, color, and texture) diminishes with increasing distance. The distance zone is dependent on the location of the observer relative to the Project. These distance zones are (BLM 1986):

- Foreground and middle ground: 0 to 5 miles from point of interest
- Background: remaining area up to 15 miles away from the point of interest
- Seldom seen: over 15 miles from the point of interest

In addition, the inventory evaluated if views were open, partially screened (filtered), or screened (e.g., presence of hillside terrain, vegetation, and/or buildings).

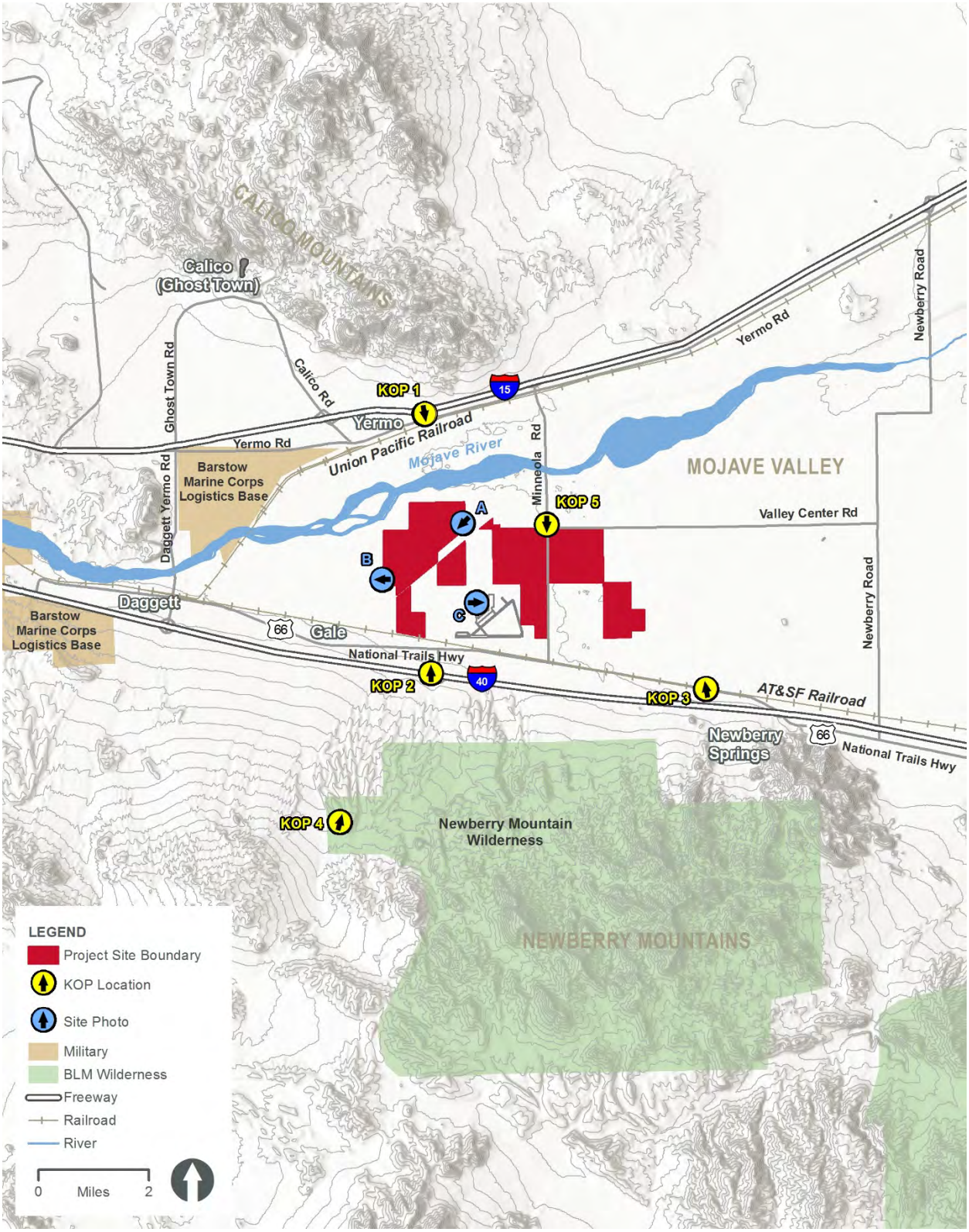
3.2.4 Key Observation Points

Five KOPs were selected to assess the level of visual change resulting from the Project solar facilities as described in Section 2, Project Description, on the existing environment. The location of the five KOPs are presented in Figure 6. The KOPs were selected to capture representative vantages from Scenic Routes (I-15, I-40, and US-66), residential areas northeast of the Project site, Calico Ghost Town, and Newberry Mountains Wilderness Area. Photos from each KOP under both existing conditions and post-project simulation are presented in Appendix C, and discussed in Section 6, *Impact Analysis*, of this report

Key Observation Point 1

KOP 1 is located on the eastbound on-ramp to I-15 at Yermo Road. This location is north of the Project site as shown in Figure 6. Appendix C, Figure C1 depicts both the existing visual conditions and the post-project simulation for KOP 1. As shown in Figure C1, south-facing views from I-15 contain large agricultural lots within the foreground and middleground with a few isolated trees and shrubs. Existing visual encroachments include fencing at multiple distances within the foreground and local utility distribution lines. In the

Figure 6. Key Observation Point and Site Photograph Locations



eastern middleground, residential structures and adjacent trees obstruct views of the Project site. An existing electrical transmission corridor is visible in the far middleground. Ridgelines, including the Newberry Mountains, are visible in the far background to the south.

The overall scenic attractiveness of KOP 1 is typical given its common scenic quality and the landscape lacks form and contrast. This landscape view is common in the area, without distinctive features, such as unusual landforms or other features. The scenic quality of KOP 1 is identified as low (Class IV) as visual encroachments including fences, residences, and distribution and transmission towers are distributed throughout the landscape. The Project site is contained within the middleground of KOP 1 and is partially visible from I-15. This KOP provides a typical view for a motorist traveling east and westbound on I-15, 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 viewer sensitivity to the visual changes in the area, partially obstructed by the existing residential structures and isolated trees.

Key Observation Point 2

KOP 2 is located on the westbound on-ramp of I-40 at Hidden Springs Road; south of the Project site as depicted in Figure 6. This KOP depicts views from the highway, oriented north (see C2) with the Project site contained in the middleground. The foreground in KOP 2 contains agricultural residences with visual encroachments including fencing, overhead utilities, and roadways. The middleground in KOP 2 contains a combination of agricultural and industrial uses to the east, and institutional and residential uses to the west. The Barstow-Daggett Airport is visible in the middleground (on the west). Ridgelines, including the Calico Mountains, are visible in the background to the north.

The scenic attractiveness of KOP 2 is typical based on its common scenic quality and the urbanized landscape in the middle, which lacks contrast. This landscape view is common in the area, without distinctive features, such as unusual landforms or other features. The scenic quality of KOP 2 is moderate (Class III) since the existing visual encroachment including, institutional facilities, utility distribution lines, and railroad, appear subordinate to the overall landscape (see Figure C2). This KOP provides a typical view for a motorist traveling east and westbound on I-40, likely traveling at a high rate of speed based on the posted speed limit. Considering the short duration of viewing, viewers would have a moderate level of viewer sensitivity to the visual changes in the area, since the Project site is more or less unobstructed from view.

Key Observation Point 3

KOP 3 is located on US-66, oriented north (see Figure 6). KOP 3 depicts views from US-66, looking north towards the BNSF railway berm in the foreground (see Figure C3). The Project site is visible in the foreground and middleground of KOP 3; beyond (further north) of the railway, which is located on a slightly, elevated berm. In the middleground, a combination of agriculture and rural residential uses and associated windrows are present. Ridgelines, including Calico Mountains on the left and Alvord Mountain in the center, are visible in the background.

The scenic attractiveness of KOP 3 is typical given the common scenic quality and the landscape lacks form and contrast. This landscape view is common in the area, without distinctive features, such as unusual landforms or other features. The BNSF railway berm is visible in the immediate foreground and is a prominent feature (see Figure C3). The scenic quality of KOP 3 is low (Class IV). This KOP provides a typical view for a motorist traveling east and westbound on US-66, likely traveling at a moderate rate of speed based on the posted speed limit. Considering the short duration of viewing, viewers would have a low sensitivity level to the visual changes in the area; partially obstructed by the elevated railway berm.

Key Observation Point 4

As shown in Figure 6, KOP 4 is located in the Newberry Mountains Wilderness Area, near Camp Rock Road, which is south of the Project site. This KOP depicts views from the wilderness area, oriented north (Figure C4). The middleground contains a combination of vacant, undeveloped land, industrial, institutional, and residential uses, as well as both fallow and currently used agriculture lands. The Barstow-Daggett Airport is visible in the middleground (on the right), along with agricultural fields and industrial facilities. The Project site is visible in the middleground of KOP 4. Ridgelines, including Calico Mountains, are visible in the background to the north. Parallel ridges within the Newberry Mountains partially obstruct views from the Calico Mountains.

The scenic attractiveness of KOP 4 is typical given the common scenic quality and the landscape lacks significant form. This landscape view is positive and common in the area, but lacks contrasting features, such as unusual landforms or other features. The scenic quality of KOP 4 is moderate (Class III). The view includes grazing lands in the foreground and large institutional facilities, railways, utility distribution lines, and agricultural fields in the middleground, which appear subordinate to the visible landscape (see Figure C4). This KOP provides a typical view for hikers in the foot of the Newberry Mountains Wilderness Area. Considering the moderate duration of viewing, viewers would have a moderate sensitivity level to the visual changes in the area.

Key Observation Point 5A – Rural Residential Area

KOP 5A is located on Valley Center Road in a residential area east-northeast of the Project site (see Figure 6). This KOP depicts views from a residential area, oriented west-southwest (Figure C5). Paved and dirt roads are visible in the foreground, along with residential structures in the middleground and to the right of the road. KOP 5A depicts the Project site in the background, which consists of agricultural land and rural residential use. Physical encroachments include the roadway, overhead power lines, and rural residential structures. Ridgelines, including Newberry Mountains, are visible in the background to the southwest. The undulating topography combined with large vegetated dunes and windrows shield much of the Project site from view.

The scenic attractiveness of KOP 5A is typical and the landscape lacks form and contrast. This landscape view is positive and common in the area, without distinctive features, such as unusual landforms or other features (see Figure C5). The scenic integrity of KOP 5A is low (Class IV) based on the presence of road infrastructure and utility distribution lines. There are also visible natural shrubs and trees in the foreground and middleground. This

KOP provides a typical view for residences living along Valley Center Road. Considering the frequent viewing, viewers would have a high sensitivity level to the visual changes in the area (See Section 3.2.6 above for description of constituent concern levels).

Key Observation Point 5B – Rural Residential Area

KOP 5B is located just north of the intersection of Valley Center Road and Minneola Road in a residential area immediately north of the eastern portion of the Project site (Figure 6). This KOP depicts views from a residential area, oriented south along Minneola Road (Figure C6). Paved roads are visible in the foreground, along with private property fencing, overhead electrical distribution lines (and poles), and a cluster of trees. Scattered rural residential structures and windrows are visible in the middleground. KOP 5B contains the Project site in the fore- and middleground. Physical encroachments include the roadways, overhead power lines, and rural residential structures. Ridgelines, including Newberry Mountains, are visible in the background to the south.

The scenic attractiveness of KOP 5B is typical and the landscape lacks substantial form and contrast. This landscape view is common in the area, but retains a distinctive background with topographical features (see Figure C6). The scenic quality of KOP 5B is moderate (Class III) based on the presence of road infrastructure and overhead utility distribution lines. This KOP provides a typical view for residences living along Minneola Road. Considering the frequent viewing, viewers would have a high constituent concern level to the visual changes in the area (See Section 3.2.6 above for description of constituent concern levels).

3.3 Light, Glint, and Glare

Existing sources of light in the Project area are limited to outdoor lighting sources, such as street lights, including that from I-15, structural lighting at scattered residential locations. Mobile sources of light and glare originate from railway trains, vehicles, and metal buildings. The rural residential structures located near the Project site and the adjacent industrial operations, combined with rail traffic and automobile traffic on I-15 and I-40, are the primary sources of nighttime lighting.

Glare is considered a continuous source of brightness, relative to diffused light, whereas glint is a direct redirection of the sunbeam in the surface of a PV solar module. Glint is highly directional, since its origin is purely reflective, whereas glare is the reflection of diffuse irradiance; it is not a direct reflection of the sun. Sources of glare in the Project area include windows and reflective building materials such as metal roofs.

4 Regulatory Setting

The following section outlines all federal, state, and local laws, policies, and regulations, which apply to the Project area and were considered in the development of this visual resources analysis.

4.1 Federal

The "Route 66 Corridor Preservation Program" is managed by the National Park Service, which abbreviates the resources as ROSI. Route 66 is also a National Historic Trail. In 1999, the U.S. Senate enacted a law to facilitate the development of guidelines and technical assistance and grants to set priorities for the preservation of the Route 66 corridor (U.S. Senate 1999). This Act designated the National Park Service to perform the functions of the Cultural Resources Programs for Route 66.

The National Park Service Route 66 Preservation Program collaborates to preserve and stimulate interest in Route 66, including promoting heritage-based tourism and assisting historic resources researchers, and also provides cost-sharing grants for activities such as restoration. There are over 250 Route 66 buildings, districts, and road segments that are listed on the National Register of Historic Places. Sixteen of these are in California.[1] None of these buildings, districts, and road segments are in the Project area.

The Bureau of Land Management (BLM) prepared the *California Historic Route 66 Corridor Management Plan: Needles to Barstow (CMP)* in 2015 in order for the route to be considered for nomination as a National Scenic Byway. They initiated the Visual Resource Inventory, based on the four Visual Resource Management Classifications levels (BLM 2015a):

- I = Preservation of scenery
- II = High level of scenery conservation
- III = Moderate level of scenery conservation
- IV = Low level of scenery conservation

The visual resource inventory only includes BLM lands.

Route 66 (also referred to as National Trails Highway) is located south of the Project site, and is designated as a National Historic Trail. This roadway was originally a federal route, established on November 11, 1926. It transverses 2,347 miles from Chicago through Missouri, Kansas, Oklahoma, Texas, New Mexico, and Arizona before ending at the beach in Santa Monica, California. Route 66, a major migratory road west, especially during the Great Depression, currently exists as Historic Route 66 and is commemorated by various organizations along the way, including the California Historic Route 66 Association (Caltrans). There are 345 miles of Route 66 in California.

[1] https://www.ncptt.nps.gov/rt66/history-and-significance-of-us-route-66/california/

4.2 State

4.2.1 Caltrans State Scenic Highway - Eligible Scenic Highways

California's Scenic Highway Program was created by the Legislature in 1963. Its purpose is to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways. The state laws governing the Scenic Highway Program are found in the Streets and Highways Code, Section 260 et seq. The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been so designated. The status of a state scenic highway changes from eligible to officially-designated when the local jurisdiction adopts a scenic corridor protection program, applies to Caltrans for scenic highway approval, and receives notification from Caltrans that the highway has been designated as a State Scenic Highway.

I-15 and I-40, located north and south of the Project site, respectively, are identified as “Eligible for State Scenic Highway Designation.”

In 1991, the California Assembly officially designated historic Route 66 as Historic Highway Route 66 (under Assembly Concurrent Resolution No.6-Relative to Route 66 (filed with Secretary of State July 11, 1991). This designation provides eligibility of the route to be considered for designation as an All-American Road or National Scenic byway by the Federal Highway Administration.

4.3 Local

The Project site is under the County of San Bernardino jurisdiction and subject to the County Development Code and General Plan guidelines. The Development Code includes development criteria within scenic areas and also required findings for approval of a commercial solar energy facility. The County General Plan does not specifically contain a visual element; however, it addresses related topics in the following General Plan sections: Section V – Conservation Element; Section VI – Open Space Element, and Renewable Energy and Conservation Element. The Renewable Energy and Conservation Element (adopted on August 8, 2017) and the Solar Ordinance (Amending Chapter 84.29, Renewable Energy Generation Facilities) comprise specific goals, policies and standards for renewable energy and specifically solar projects. Additionally, the General Plan provides a list of specific routes that are County-designated Scenic Routes.

Relevant laws, regulations, and plans included in the General Plan and the Solar Ordinance are listed in the Table 1 below.

Table 1. County of San Bernardino Applicable Visual Laws, Regulations, or Plans

Law, Regulation, or Plan	Summary
County of San Bernardino Development Code	
82.19.040 Development Criteria within Scenic Areas	Note on Applicability: criteria used to evaluate a land use proposed within a scenic area in an Open Space Overlay and to: (1) Areas with unique views of the County's desert, mountain and valley areas or any other aesthetic natural land formations. (2) An area extending 200 feet on both sides of the ultimate road right-of-way of State and County designated Scenic Highways as identified in the General Plan. The area covered may vary to reflect the changing topography and vegetation along the right-of-way. (c) *Building and structure placement*. Structure placement and style shall be compatible with and shall not detract from the visual setting or obstruct significant views. (d) *Review area.* Land development proposals, including but not limited to residential facilities, commercial activities and mobile home parks/manufactured home land-lease community, shall be designed to blend into the natural landscape and maximize visual attributes of the natural vegetation and terrain. The design of development proposals shall also provide for maintenance of a natural open space parallel to and visible from the right-of-way. (h) *Above ground utilities.* Utilities shall be constructed and routed underground except in those situations where natural features prevent the underground siting or where safety considerations necessitate above ground construction and routing. Above ground utilities shall be constructed and routed to minimize detrimental effects on the visual setting of the designated area. Where it is practical, above ground utilities shall be screened from view from either the Scenic Highway or the adjacent scenic or recreational resource by existing topography, or by placement of structures. (i) *Grading.* The alteration of the natural topography of the site shall be minimized and shall avoid detrimental effects to the visual setting of the designated area and the existing natural drainage system. Alterations of the natural topography shall be screened from view from either the Scenic Highway or the adjacent scenic or recreational resource by landscaping and plantings which harmonize with the natural landscape of the designated area, and which are capable of surviving with a minimum of maintenance and supplemental water.
83.13.060 Off-Site Signs	Designated scenic route. No off-site freestanding signs greater than 18 square feet in area shall be oriented toward a State or County Highway that has been designated as a Scenic Route by the Federal, State, or a local jurisdiction.
84.29.035 Required Findings for Approval of a Commercial Solar Energy Facility	(c)(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. (3) The siting and design of the proposed commercial solar energy generation facility will be either: (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

Table 1. County of San Bernardino Applicable Visual Laws, Regulations, or Plans

Law, Regulation, or Plan	Summary
	visual qualities of the area as viewed from communities, rural residential uses, and major roadways and highways. (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. (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. (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. (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. (28) For proposed facilities within two (2) miles of the boundaries of a County, state or federal agency 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.
Chapter 83.07 Glare and Outdoor Lightning	Standards for outdoor lighting in the Mountain and Desert Regions, unless exempt in compliance with Subsection 83.070.040(e). This section provides guidance on the maximum height, shielding requirements, determination of light trespass, and direction for non-conforming light fixtures.
County of San Bernardino General Plan Section VI – Open Space Element	
Goal CO 1.2	The preservation of some natural resources requires the establishment of a buffer area between the resource and developed areas. The County will continue the review of the Land Use Designations for unincorporated areas within one mile of any state or federally designated scenic area, national forest, national monument, or similar area, to ensure that sufficiently low development densities and building controls are applied to protect the visual and natural qualities of these areas.
Goal OS 4	The County will preserve and protect cultural resources throughout the County, including parks, areas of regional significance, and scenic, cultural and historic sites that contribute to a distinctive visual experience for visitors and quality of life for County residents.
Goal OS 5	The County will maintain and enhance the visual character of scenic routes in the County.
Policy OS 5.1	Features meeting the following criteria will be considered for designation as scenic resources:

Table 1. County of San Bernardino Applicable Visual Laws, Regulations, or Plans

Law, Regulation, or Plan	Summary
	a. A roadway, vista point, or area that provides a vista of undisturbed natural areas. b. Includes a unique or unusual feature that comprises an important or dominant portion of the viewshed (the area within the field of view of the observer). c. Offers a distant vista that provides relief from less attractive views of nearby features (such as views of mountain backdrops from urban areas).
Policy OS 5.2	Define the scenic corridor on either side of the designated route, measured from the outside edge of the right-of-way, trail, or path. Development along scenic corridors will be required to demonstrate through visual analysis that proposed improvements are compatible with the scenic qualities present.
Policy OS 5.3	The County desires to retain the scenic character of visually important roadways throughout the County. A "scenic route" is a roadway that has scenic vistas and other scenic and aesthetic qualities that over time have been found to add beauty to the County. Therefore, the County designates the following routes as scenic highways and applies all applicable policies to development on these routes (see Figures 2-4A through 2-4C of the Circulation and Infrastructure Background Report): DESERT REGION (only one applicable): f. Historic Route 66 (National Trails Highway or Main Street) from Oro Grande northeast and east to the Arizona state line, excepting those areas with incorporated cities.
Policy D/OS 1.6	No development of any kind, including resource extraction, shall be approved which would destroy or seriously diminish the visual quality of existing sand dunes.
Goal D/CO 3	Preserve the dark night sky as a natural resource in the Desert Region communities.
Policy D/CO 3.1	Protect the night sky by providing information about and enforcing existing ordinances: (a) Provide information about the Night Sky Ordinance and lighting restrictions with each land use or building permit application. (b) Review exterior lighting as part of the design review process.
Policy D/CO 3.2	All outdoor lighting, including street lighting, shall be provided in accordance with the Night Sky Protection Ordinance and shall only be provided as necessary to meet safety standards.
County of San Bernardino General Plan – Renewable Energy and Conservation Element	
Policy 4.1	Apply standards to the design, siting, and operation of all renewable energy facilities that protect the environment, including sensitive biological resources, air quality, water supply and quality, cultural, archaeological, paleontological and scenic resources.
Policy 4.4	Encourage siting, construction and screening of RE generation facilities to avoid, minimize or mitigate significant changes to the visual environment including minimizing light and glare.
Policy 4.4.1	Reduce visual impacts through a combination of minimized reflective surfaces, context-sensitive color treatments, nature-oriented geometry, minimized vegetation clearing under and around arrays, conservation of pre-existing native plants, replanting of native plants as appropriate, maintenance of natural landscapes around the edges of facility complexes, and lighting design to

Table 1. County of San Bernardino Applicable Visual Laws, Regulations, or Plans

Law, Regulation, or Plan	Summary
	minimize night-sky impacts, including attraction of and impact to nocturnal migratory birds.
Policy 5.1	Encourage the siting of RE generation facilities on disturbed or degraded sites in proximity to necessary transmission infrastructure.
Policy 5.7	Support renewable energy projects that are compatible with protection of the scenic and recreational assets that define San Bernardino County for its residents and make it a destination for tourists.
Policy 5.7.1	Site renewable energy generation facilities in a manner that will avoid, minimize or substantially mitigate adverse impacts to sensitive habitats, cultural resources, surrounding land uses, and scenic viewsheds.
County of San Bernardino Solar Ordinance	
SECTION 3. Section 84.29.035 is added to Chapter 84.29 of Division 4 of Title 8	(a) In order to approve a commercial solar energy generation facility, the Planning Commission shall, in addition to making the findings required under Section 85.06.040(a) of the San Bernardino County Development Code, determine that the location of the proposed commercial solar energy facility is appropriate in relation to the desirability and future development of communities, neighborhoods, and rural residential uses, and will not lead to loss of the scenic desert qualities that are key to maintaining a vibrant desert tourist economy by making each of the findings of fact in subdivision (c). (b) In making these findings of fact, the Planning Commission shall consider: (1) the characteristics of the commercial solar energy facility development site and its physical and environmental setting, as well as the physical layout and design of the proposed development in relation to nearby communities, neighborhoods, and rural residential uses; and (2) the location of other commercial solar energy generation facilities that have been constructed, approved, or applied for in the vicinity, whether within a city or unincorporated territory, or on state or federal land. (c) The finding of fact shall include the following: (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. (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. (3) The siting and design of the proposed commercial solar energy generation facility will be either: (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,1 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.

Table 1. County of San Bernardino Applicable Visual Laws, Regulations, or Plans

Law, Regulation, or Plan	Summary
	(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. (8) The proposed commercial solar energy generation facility will be located in proximity to existing electrical infrastructure, such as transmission lines, utility corridors, and roads, so that: (A) minimal ground disturbance and above ground infrastructure will be required to connect to the existing transmission grid, considering the location of the project site and the location and capacity of the transmission grid, (B) new electrical generation tie lines will be 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. (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. (19) The proposed commercial solar energy generation facility will avoid modification of scenic natural formations. (28) For proposed facilities within two (2) miles of the boundaries of a County, state or federal agency 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.
SECTION 4. Section 84.29.040 of the San Bernardino County Code is amended to read:	**84.29.040 Solar Energy Development Standards.** (c) **Night Lighting**. Outdoor lighting within a commercial solar energy generation facility shall comply with the provisions of Chapter 83.07 of this Development Code.

Source: County of San Bernardino General Plan (2007), County of San Bernardino Development Code (2007), County of San Bernardino General Plan Renewable Energy and Conservation Element (2017), County of San Bernardino Solar Ordinance, amending Chapters 84.29 and 810.01 (2013).

5 Thresholds of Significance/Criteria

The County of San Bernardino does not have adopted guidelines for conducting visual resource impact assessments. For this analysis, the significance criteria outlined in Appendix G of the CEQA Guidelines, as amended, are applied to determine the Project's impact to existing visual resources. The CEQA-defined aesthetic issues of concern are:

- Would the proposed Project cause substantial, adverse effects on a scenic vista?
- Would the proposed Project cause substantial damage to scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings, within a state scenic highway?
- Would the proposed Project cause a substantial degradation of existing visual character or quality of a site and its surroundings?
- Would the proposed Project result in a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

5.1 Methodology

Using the photographs acquired at KOPs 1 through 5, HDR created a 3-D physical massing model that incorporates the PV scale model, and placed in array configurations as exhibited in the site plan provided in Figure 4. The model was then georeferenced and placed within GPS controlled site-specific photography to create simulations that demonstrate visual changes attributable to the Project (or lack thereof). For the analysis, HDR created visual simulations representing the proposed single axis tracker solar PV technology as depicted in A2.

The visual changes to the existing environment are described according to the terminology used in describing the existing visual environment and then assessed in the context of viewer sensitivity. In evaluating the Project's impact on the existing visual environment, the analysis considers the relationship between the magnitude of change to specific visual characteristics, the location of the visual change relative to sensitive land uses, and the length of time these visual changes are visible. The contrast rating worksheets completed in support of this assessment are included in Appendix D.

As an example, the permanent removal and conversion of an undisturbed, natural area to an urban land use (i.e., commercial) or the modification of an existing historically-significant structure within the foreground view of a state-designated state highway could have a significant visual impact under CEQA. In contrast, the conversion of previously disturbed areas, including agricultural lands to urban land use, may not be significant under CEQA, especially if adjacent areas already included these types of landscape alterations.

6 Impact Analysis

6.1 Scenic Vistas

Would the Project have a substantial adverse effect on a scenic vista?

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 Project site, as viewed from multiple vantages, is already developed with agricultural, rural residential, and industrial uses. The western portion of the Project site is composed of lands historically used in conjunction with the existing Coolwater Generating Station. This includes rail and infrastructure used to deliver coal to the power plant, agricultural uses, and utility-related uses on land owned by Southern California Edison. Immediately adjacent to the Project site are a high-voltage transmission corridor owned by LADWP about 1,000 feet wide, several high-voltage substations and transmission lines owned by Southern California Edison and the Sunray project, a 44 MW PV solar project built in 2016. The private lands located in the central and eastern parts of the Project site are agricultural lands that produce primarily alfalfa and pistachios, sparsely spaced rural residential dwellings, previously disturbed and now fallow farmland, and some undeveloped desert land. The solar arrays developed on site would consist of PV modules mounted on single axis tracker units up to 20 feet and enclosed by a perimeter chain-link fence.

KOP 4 provides a representative view of the Project site from the east-west trending ridgelines that border the valley. Both existing and post-project simulation views from KOP 4 are depicted in Figure C4. As shown, the solar arrays would be visible in the far middleground (transitioning to the background) view with the solar panels partially blending into the agricultural land use pattern at a distance. The largest contrast appears in the change of vegetation (irrigated pasture) to solar arrays. Although the solar arrays are visible from KOP 4, they do not substantially degrade the viewshed or obstruct views of the hill slopes and mountains to the south. The new gen-tie structures would be barely discernable at this distance, including any FAA-marker balls, if required, and would blend in with the existing lattice structures already located within the existing transmission corridor. Given the typical attractiveness, moderate scenic quality (Class III) based on the numerous existing visual encroachments, and moderate viewer sensitivity level, no significant landscape change is identified for KOP 4.

Based on these considerations, including the low profile of the Project facilities combined with the various existing, visual encroachments on-site and presence of existing developed features in surrounding areas, the Project would not result in a substantial adverse effect on a scenic vista and a less than significant impact would result.

6.2 Scenic Highways

Would the Project substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?

Based on a review of the California Department of Transportation (Caltrans) California Scenic Highway Mapping System, I-15 (KOP 1) and I-40 (KOP 2) are identified as eligible state scenic highways. The Project is located in a relatively flat area and does not contain scenic resources such as significant trees, rock outcroppings, or historic buildings.

KOP 1 provides a representative south-facing view of the Project site from I-15. Both existing and post-project simulation views from KOP 1 are depicted in Figure C1. As shown, the solar arrays would be visible in the middleground view with the solar panels and (related fencing) barely discernable and blending into the agricultural land use pattern at distance and obstructed by existing residential structures on the east. The new gen-tie structures would be barely discernable at this distance and would blend in with the existing lattice structures already located within the existing transmission corridor. As a result, the Project would not substantially degrade the viewshed. Given the typical attractiveness, low scenic quality based on the numerous existing visual encroachments, and low viewer sensitivity level, no significant landscape change is identified for KOP 1.

KOP 2 provides a representative north-facing view of the Project site from I-40. Both existing and post-project simulation views from KOP 2 are depicted in Figure C2. As shown, the solar arrays would be visible in the foreground (on the west) and middleground views with the solar panels and (related fencing) becoming less discernable at a distance and blending into the agricultural land use pattern. Few encroachments exist that otherwise shield the Project from KOP 2. The new gen-tie structures would be barely discernable, including any FAA-required marker balls, at a distance in the far middleground and would blend in with the existing lattice structures located within the existing transmission corridor further north. As a result, the Project would not substantially degrade the viewshed. Given the typical attractiveness, low scenic quality (Class IV) based on the numerous existing visual encroachments, and low viewer sensitivity level, no significant landscape change is identified for KOP 2.

Based on these considerations, including the low profile of the Project facilities combined with the various existing visual encroachments on-site and presence of existing developed features in surrounding areas, the Project would not result in a substantial damage to scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway. For these reasons, a less than significant impact would result.

6.3 Visual Character

Would the Project substantially degrade the existing visual character or quality of the site and its surroundings?

The Project site is rural in character with a wide variety of visual encroachments, including scattered ranch structures and windrows, local electrical distribution lines and high-voltage transmission lines, well structures, roadways, and existing residential and commercial structures. 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 Daggett to the east. KOPs 3 and 5 provide representative views of the Project site's visual character and adjacent surroundings. Further consideration of these KOPs with the addition of the Project is provided below.

KOP 3 is visible, albeit to a limited degree, to drivers traveling on historic SR-66 (also referred to as National Trails Highway). This roadway also borders the southern boundary of the Project site. KOP 3 provides a representative north-facing view of the Project site from I-40. Both existing and post-project simulation views from KOP 3 are depicted in Figure C3. As shown, the solar arrays (and fencing) would be visible in the foreground just behind the existing railroad. The Project would add to the existing encroachments within the viewshed for KOP 3, including residential structures, power lines, and fencing. The new gen-tie structures would be barely discernable at a distance in the middleground and would blend in with the existing lattice structures contained in the existing transmission corridor further north. Notwithstanding the placement of the solar arrays, the Project would not substantially degrade the viewshed. Given the typical attractiveness, low scenic quality (Class IV) based on the numerous existing visual encroachments, and low viewer sensitivity level, no significant landscape change is identified for KOP 3.

KOP 5A is located on Valley Center Road, facing west, and borders the northeastern boundary of the Project site. KOP 5A provides a representative east-facing view of the Project site from the centroid of multiple rural residential properties. Both existing and post-project simulation views from KOP 5A are depicted in Figure C5. As shown, the solar arrays (and fencing) would not be visible due to the intervening topography. The new gen-tie structures would be barely discernable at a distance in the background and would blend in with the existing lattice structures contained in the existing transmission corridor to the west. As a result, the Project would not substantially degrade the viewshed. Given the typical attractiveness, low scenic quality (Class IV) based on the numerous existing visual encroachments, no significant landscape change is identified for KOP 5A.

KOP 5B is located just north of the intersection of Valley Center Road and Minneola Road, approximately 2 miles west of KOP 5A. This KOP faces south and is situated just north of the north-central portion of the Project site. Both existing and post-project simulation views from KOP 5B are depicted in Figure C6. As shown, the solar arrays (and fencing) would be visible in the distant foreground and middleground; although, direct views are partially obstructed by existing utility poles, isolated trees, and windrows. The new gen-tie structures would not be visible from this vantage. The Newberry Mountains would continue to be visible in the background similar to existing conditions. As a result, the Project would not substantially degrade the viewshed. Given the typical attractiveness, moderate scenic quality (Class III), and preexisting visual encroachments, no significant landscape change is identified for KOP 5B.

Although a few residents would have a consistent view of the Project site, the existing view has an indistinctive scenic attractiveness with low scenic quality, and intervening topography that obscures viewing of the Project site from multiple locations along Valley Center Road. For example, the closest property containing a rural residence, is located just west of KOP 5B and Minneola Drive. From this location, the Project would be directly visible. In contrast, residences with views similar to KOP 5A would have no direct visibility due to the intervening topography. Additionally, the surrounding ridgelines would remain visible from both KOPs 5A and 5B. Although residences along Minneola Drive and Valley

Center Road would be able to view the Project, the Project would not substantially alter the existing indistinctive scenic quality. In this context and given the minimal level of visual change as depicted in Figures C5 and C6, the Project would result in a less than significant change on the visual character of the existing landscape.

6.4 Light & Glare

Would the Project create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?

The Project is not expected to create a substantial new source of nighttime lighting or daytime glare. 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. 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.

Unlike solar thermal facilities, which rely on large fields of mirrors to reflect light, the potential reflection from solar PV modules is inherently low due since they are designed to capture and not to reflect 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 site 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. For example, 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, and also due to their low reflectivity, the panels are not expected to cause visual impairment for motorists on area roadways, engineers for passing freight trains, or pilots arriving and departing at Barstow Airport.

7 References

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Appendix A. Typical Project Components

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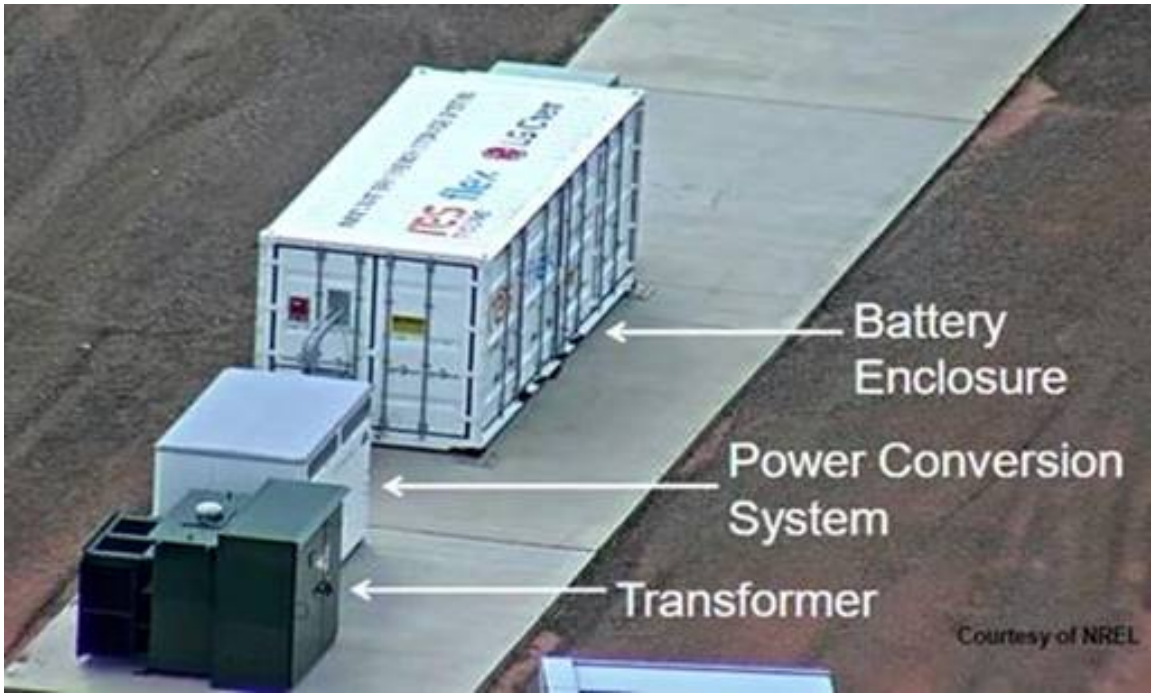
Figure A1. Typical Solar Array Layout

Figure A2. Typical Tracker Panel Configuration

Figure A3. Typical Inverter/Switchgear

Figure A4. Typical Substation

Figure A5. Typical Battery Storage Enclosure



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Appendix B. Project Site Photographs and VRI Classifications

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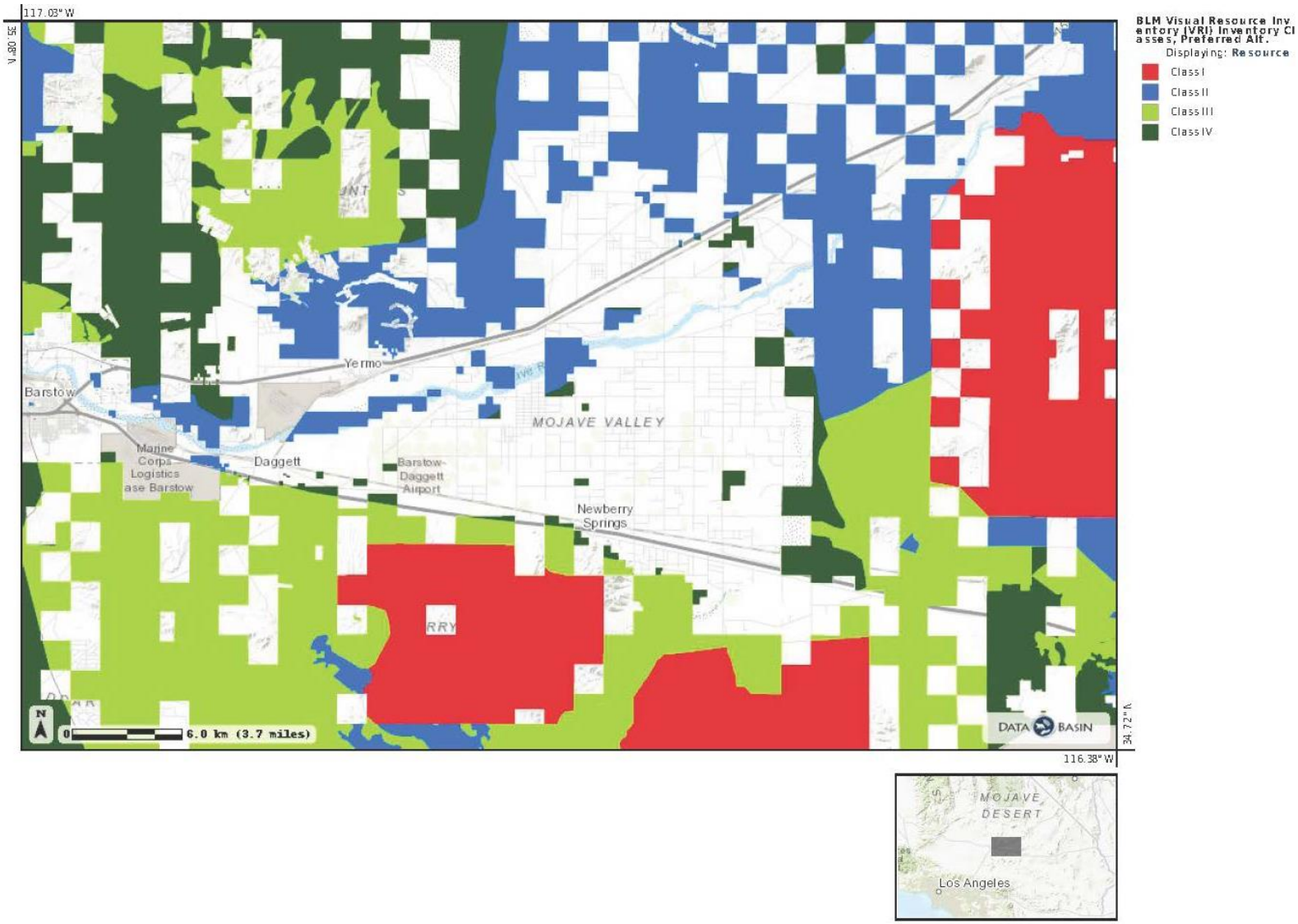
Figure A. LADWP Transmission Corridor (Facing Southwest)

Figure B. Sunray Solar Project (Facing West from Sunray Lane)

Figure C. Barstow-Daggett Airport (Facing East from Northern Access Road

Figure D. VRI Classifications (from BLM DRECP)



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Appendix C. Visual Simulations

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Figure C1. KOP 1 Visual Simulation

BEFORE – Original Photo

AFTER – Photo Simulation

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

Image Data
Camera Model: Canon EOS 5D Mark III
Camera Height: 66 inches
Direction of View: South
Distance to Project: 2,575 meters

Figure C2. KOP 2 Visual Simulation

BEFORE – Original Photo

AFTER – Photo Simulation

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

Image Data
Camera Model: Canon EOS 5D Mark III
Camera Height: 66 inches
Direction of View: South
Distance to Project: 1,192 meters

Figure C3. KOP 3 Visual Simulation

BEFORE – Original Photo

AFTER – Photo Simulation

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

Image Data
Camera Model: Canon EOS 5D Mark III
Camera Height: 66 inches
Direction of View: North
Distance to Project: 199 meters

Figure C4. KOP 4 Visual Simulation

BEFORE – Original Photo

AFTER – Photo Simulation

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

Image Data
Camera Model: Canon EOS 5D Mark III
Camera Height: 66 inches
Direction of View: Northeast
Distance to Project: 5,750 meters

Figure C5. KOP 5A Visual Simulation

BEFORE - Original Photo

AFTER - Photo Simulation

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

Image Data
Camera Model: Canon EOS 5D Mark III
Camera Height: 66 inches
Direction of View: West
Distance to Project: 2,273 meters

Figure C6. KOP 5B Visual Simulation

BEFORE – Original Photo

AFTER – Photo Simulation

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

Image Data
Camera Model: Canon EOS 5D Mark III
Camera Height: 68 inches
Direction of View: South
Distance to Project: 2,775 meters

Appendix D. Field Forms

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Form 8400-4
(September 1985)

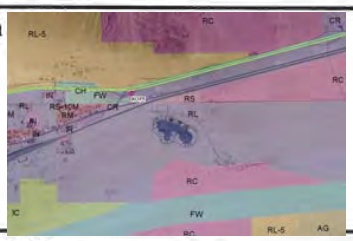
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date: August 28, 2017
District: Barstow
Resource Area:
Activity (program): N/A

SECTION A. PROJECT INFORMATION

1. Project Name: Daggett Solar Farm
2. Key Observation Point: #1
3. VRM Class: Unclassified
4. Location: Township 9 N; Range 1 E; Section 31; Yemo
5. Location



SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	flat to undulating terrian	sparse and irregular	linear and angular
LINE	diffuse edge	weak and irregular	weak and broken
COLOR	light tans to dark brown and orange	light green	grey and white
TEXTURE	gradational	patchy	medium

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	flat to undalating	sparse and irregular	linear and angular
LINE	diffuse edge	weak irregular	weak and broken
COLOR	light tans to dark brown and orange	light green	grey and white
TEXTURE	gradational	patchy	medium

SECTION D. CONTRAST RATING ☐ SHORT TERM ☒ LONG TERM

1. DEGREE OF CONTRAST

ELEMENTS	FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
Form			X				X				X	
Line				X				X			X	
Color			X				X					X
Texture			X				X					X

2. Does project design meet visual resource management objectives? ☐ Yes ☐ No (Explain on reverse side)

3. Additional mitigating measures recommended ☐ Yes ☐ No (Explain on reverse side)

Evaluator's Names: Genevieve Munsey, Kolton Kammer, Clint Meyer
Date: September 15, 2017

Rel. 8-30
1/17/86

Form 8400-4
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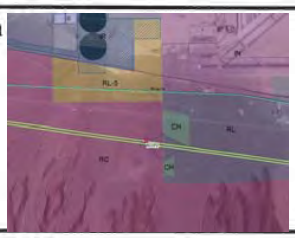
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date: August 28, 2017
District: Barstow
Resource Area:
Activity (program): N/A

SECTION A. PROJECT INFORMATION

1. Project Name: Daggett Solar Farm
2. Key Observation Point: #2
3. VRM Class: VRI Class III
4. Location: Township 9 N; Range 1 E; Section 30; Minneola
5. Location



SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	flat to undulating terrian	regular and symmetrical	weak, few
LINE	diffuse edge	regular and diverging	soft
COLOR	light tans to dark brown and orange	light and bright green	grey and white
TEXTURE	continuious	even and uniform	medium

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	flat to undalating	regular and symmetrical	weak, rectangular
LINE	diffuse edge	regular and diverging	soft, broken
COLOR	light tans to dark brown and orange	light green to dark grey	grey and white
TEXTURE	continuious	even and uniform	medium

SECTION D. CONTRAST RATING ☐ SHORT TERM ☒ LONG TERM

1. DEGREE OF CONTRAST

ELEMENTS	FEATURES: LAND/WATER BODY (1) Strong	Moderate	Weak	None	VEGETATION (2) Strong	Moderate	Weak	None	STRUCTURES (3) Strong	Moderate	Weak	None
Form			X			X				X		
Line				X				X			X	
Color			X				X				X	
Texture			X				X				X	

2. Does project design meet visual resource management objectives? ☐ Yes ☐ No (Explain on reverse side)

3. Additional mitigating measures recommended ☐ Yes ☐ No (Explain on reverse side)

Evaluator's Names: Genevieve Munsey, Kolton Kammer, Clint Meyer
Date: September 15, 2017

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1/17/86

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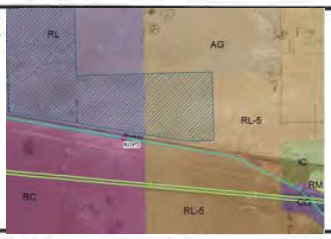
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date: August 28, 2017
District: Barstow
Resource Area:
Activity (program): N/A

SECTION A. PROJECT INFORMATION

1. Project Name: Daggett Solar Farm
2. Key Observation Point: #3
3. VRM Class: VRI Class IV
4. Location: Township 9 N; Range 2 E; Section 30; Newberry Springs
5. Location



SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	flat and irregular	sparse and irregular	linear. vertical, irregular
LINE	butt edge	broken	parallel and perpendicular
COLOR	light tans to dark brown and red	pale green	grey and brown
TEXTURE	medium	patchy, random	coarse and rough

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	flat and irregular	sparse and irregular	linear, vertical, irregular
LINE	butt edge	broken	parallel and perpendicular
COLOR	light tans to dark brown and red	pale green	dark grey and brown
TEXTURE	medium	patchy, random	coarse and rough

SECTION D. CONTRAST RATING ☐ SHORT TERM ☒ LONG TERM

1. DEGREE OF CONTRAST

ELEMENTS	FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
Form			X				X			X		
Line				X				X		X		
Color			X					X			X	
Texture			X					X			X	

2. Does project design meet visual resource management objectives? ☐ Yes ☐ No (Explain on reverse side)

3. Additional mitigating measures recommended ☐ Yes ☐ No (Explain on reverse side)

Evaluator's Names: Genevieve Munsey, Kolton Kammer, Clint Meyer
Date: September 15, 2017

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(September 1985)

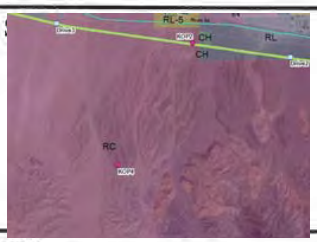
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date: August 28, 2017
District: Barstow
Resource Area:
Activity (program):

SECTION A. PROJECT INFORMATION

1. Project Name: Daggett Solar Farm
2. Key Observation Point: #4
3. VRM Class: Class 1
4. Location — Township: 9 N; Range: 1 E; Section: 30; Minneola
5. Location



SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	undulating terrian	regular and complex	weak, few
LINE	transitional edge	regular and continuious	soft
COLOR	light tans to dark brown and orange	pale and bright green	grey and white
TEXTURE	gradation	even and uniform	sparse

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	undalating terrain	regular and complex	weak, few
LINE	transitional edge	regular and continuious	soft
COLOR	light tans to dark brown and orange	pale green to bright green	dark grey and white
TEXTURE	gradation	even and uniform	sparse

SECTION D. CONTRAST RATING ☐ SHORT TERM ☒ LONG TERM

1. DEGREE OF CONTRAST

ELEMENTS	FEATURES: LAND/WATER BODY (1) Strong	Moderate	Weak	None	VEGETATION (2) Strong	Moderate	Weak	None	STRUCTURES (3) Strong	Moderate	Weak	None
Form		X				X					X	
Line		X					X				X	
Color			X				X				X	
Texture			X				X				X	

2. Does project design meet visual resource management objectives? ☐ Yes ☐ No (Explain on reverse side)

3. Additional mitigating measures recommended ☐ Yes ☐ No (Explain on reverse side)

Evaluator's Names: Genevieve Munsey, Kolton Kammer, Clint Meyer
Date: September 15, 2017

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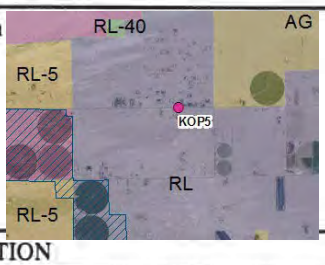
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date: August 28, 2017
District: Barstow
Resource Area:
Activity (program):

SECTION A. PROJECT INFORMATION

1. Project Name: Daggett Solar Farm
2. Key Observation Point: #5A
3. VRM Class: Unclassified
4. Location: Township 9 N; Range 1 E; Section 13; Havard Hill
5. Location



SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	flat and irregular	patchy and irregular	linear, vertical, irregular
LINE	diffuse edge	broken, irregular	parallel and perpendicular
COLOR	light tans to dark brown and orange	pale and light green, darker brown	grey and brown
TEXTURE	medium	patchy, random	coarse and rough

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	flat and irregular	patchy and irregular	linear, vertical, irregular
LINE	diffuse edge	broken, irregular	parallel and perpendicular
COLOR	light tans to dark brown and orange	pale and light green, darker brown	dark grey and brown
TEXTURE	medium	patchy, random	coarse and rough

SECTION D. CONTRAST RATING ☐ SHORT TERM ☒ LONG TERM

1. DEGREE OF CONTRAST

ELEMENTS	FEATURES: LAND/WATER BODY (1) Strong	Moderate	Weak	None	VEGETATION (2) Strong	Moderate	Weak	None	STRUCTURES (3) Strong	Moderate	Weak	None
Form			X				X			X		
Line				X				X			X	
Color			X					X			X	
Texture			X					X			X	

2. Does project design meet visual resource management objectives? ☐ Yes ☐ No (Explain on reverse side)

3. Additional mitigating measures recommended ☐ Yes ☐ No (Explain on reverse side)

Evaluator's Names: Genevieve Munsey, Kolton Kammer, Clint Meyer
Date: September 15, 2017

Rel. 8-30
1/17/86

Form 8400-4
(September 1985)

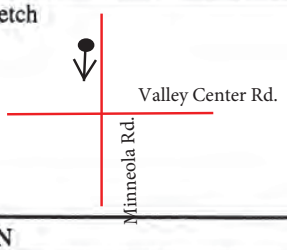
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date: September 28, 2017
District: Barstow
Resource Area:
Activity (program): N/A

SECTION A. PROJECT INFORMATION

1. Project Name: Daggett Solar Farm
2. Key Observation Point: #5B
3. VRM Class: Unclassified
4. Location: Township 9 N; Range 1 E; Section 9; Yermo
5. Location Sketch:



SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	flat and irregular	patchy and irregular	linear, vertical, irregular
LINE	band	broken, irregular	parallel and perpendicular
COLOR	light tans to dark brown and orange	pale and light green, darker brown	grey and brown
TEX-TURE	medium	sparse, random	coarse and striated

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	flat and irregular	patchy and irregular	linear, vertical, irregular
LINE	diffuse edge	broken, irregular	parallel and perpendicular
COLOR	light tans to dark brown and orange	pale and light green, darker brown	light and dark grey and brown
TEX-TURE	medium	sparse, random	coarse and striated

SECTION D. CONTRAST RATING ☐ SHORT TERM ☒ LONG TERM

1. DEGREE OF CONTRAST

ELEMENTS	FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
Form			X				X			X		
Line				X				X		X		
Color			X					X		X		
Texture			X					X			X	

2. Does project design meet visual resource management objectives? ☐ Yes ☐ No N/A (Explain on reverse side)

3. Additional mitigating measures recommended ☐ Yes ☐ No (Explain on reverse side)

Evaluator's Names: Genevieve Munsey, Kolton Kammer, Clint Meyer
Date: October 15, 2017

Rel. 8-30
1/17/86