Appendix C

Visual Resources Assessment

Visual Resources Assessment for the Starlight Solar Project, San Diego County, California

MAY 2025

PREPARED FOR

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VISUAL RESOURCES ASSESSMENT FOR THE STARLIGHT SOLAR PROJECT, SAN DIEGO COUNTY, CALIFORNIA

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EXECUTIVE SUMMARY

The existing visual character of the project site and its surroundings is a product of both natural and built elements, including uses such as ranching, large-lot rural residential, a prominent U.S. Border Patrol station, utility-scale wind and solar development, three very high voltage electric transmission lines, a transmission electric substation, an abandoned railroad line, rural residential, commercial, public infrastructure, and open space. The project site is spread over a large and somewhat varied area; however, its rolling topography and hillsides, patterns of native vegetation, and mostly rural use all contribute to a moderately high to high existing visual quality.

The project would introduce a large utility-scale solar array facility into a rural and mostly natural setting. Although other renewable energy facilities exist in the region, the proposed project features would be visually inconsistent with the existing landscape quality and character of the site and surroundings and would be in conflict with visual resource preservation policies identified in applicable community and area plans. Some elements of the project would interrupt views of primary and secondary ridgelines as seen from travel corridors. The proposed removal of native vegetation would be noticeable and inconsistent with the natural landscape patterns. From some public vantage points, the scale and visual exposure of the project would change the scenic quality of the landscape. From closer viewpoints, the project would be readily visible and alter the visual context. Large swaths of photovoltaic arrays and other supporting project elements constructed throughout the project site would introduce a new, visually incompatible use into the viewshed as seen from some surrounding public and private viewpoints.

As seen from some of the surrounding viewpoints, fractions of the project would be seen from Interstate 8, State Route 94, Jewel Valley Road, and Tierra del Sol Road. This alteration of the surrounding ridgelines and visual backdrop would adversely affect existing scenic vistas throughout the region.

The project would introduce new lighting and potential sources of glare onto the project site. However, the Solar Glare Analysis (Appendix B) identifies no substantial daytime glare effects resulting from photovoltaic panels. Review of the Solar Glare Analysis and the project lighting description indicates that proposed lighting, implemented in compliance with the applicable County of San Diego ordinances, would not result in substantial light or glare nor adversely affect daytime or nighttime views in the area. These ordinances include the County of San Diego Resource Protection Ordinance (8 San Diego County Code of Regulatory Ordinances 86.603), San Diego County Light Pollution Code (5 San Diego County Code of Regulatory Ordinances 51.201–51.209) and the County of San Diego Zoning Ordinance Sections 5200-5299 (Scenic Area Regulations) 6322 (Outdoor Lighting), 6324 (Lighting Permitted in Required Yards), and 6954 (Solar Energy Systems). The Solar Glare Analysis finds that the project would have zero minutes of potential glint or glare at all airports and route receptors.

The project would result in significant impacts on the existing visual quality and character of the site and surroundings, and would degrade scenic vistas. Starlight Solar, LLC (Applicant) has identified and committed to project design features PDF-AE-1 through PDF-AE-4, listed in Section 6, Visual Mitigation and Design Considerations, as part of the project to alleviate adverse visual effects; however, the adverse visual effects would remain significant.

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1 INTRODUCTION

1.1 Purpose of the Visual Resources Report

The purpose of this visual resources assessment is to assess the potential impacts to visual resources resulting from implementation of the proposed Starlight Solar Project (project), determine the significance of the impacts under California Environmental Quality Act (CEQA), and to propose measures to avoid, minimize, or mitigate adverse visual impacts associated with the construction of the project on the surrounding visual environment. The analysis is based on the review of existing resources, applicable laws, regulations, guidelines, and the location and physical characteristics of proposed project components.

1.2 Key Issues

Adverse effects typically associated with development include the loss of natural vegetation, removal of natural features with aesthetic value, modification of terrain (e.g., alteration of topography through grading), and/or the introduction of contrasting elements within the existing landscape setting. The loss or degradation of significant visual features or views and the introduction of project features that would significantly contrast with the visual character of an area or with the existing elements of form, line, color, or texture can be considered significant adverse visual effects. The effects and elements of the project that could result in significant visual quality impacts consist of the following:

- Introduction of a 588-acre solar facility including over 235,516 solar photovoltaic (PV) modules on vacant land.
- Installation of vertical features including the 6,500-square-foot on-site collector substation, a 400-square-foot storage building, a 450-square-foot control enclosure building, battery energy storage containers, and the generation tie-line (gen-tie) with an overhead section over Tule Jim Lane with two 50-foot-high steel poles.
- Various 24-foot-wide perimeter access and array-connecting roads and 20-foot-wide internal access roads to provide operational vehicles access to the site.
- Visibility of the proposed solar facility from Interstate 8 (I-8), Old Highway 80, State Route (SR) 94, Jewel Valley Road, Tierra del Sol Road, and local and federal recreation areas.
- Proximity of the solar facility to residences in the surrounding area.
- Contrasts in theme, color, site coverage, horizontal scale, and general character between project components and the natural and undeveloped elements in the surrounding area.
- Visual degradation of primary and intermediate ridgelines and hillsides.

1.3 Principal Viewpoints

Principal viewpoints used in this report are based on a comprehensive review of potential viewing locations in the surrounding area. Representative public viewpoints were identified for further analysis, considering dominance of the site within the view, the relationship to visual resources, duration of views, and expected sensitivity of the viewer group. Principal viewpoints used to assess the potential visual changes associated with the project were established at the following locations:

- I-8 westbound
- I-8 eastbound

- Old Highway 80
- Jewel Valley Road southbound
- Jewel Valley Road northbound
- SR 94
- Tierra del Sol Road

2 PROJECT DESCRIPTION

The project is a 100-megawatt (MW) solar PV electric generation project with a 217.4-MW battery energy storage system (BESS) and a collector substation on approximately 588 acres (net) in unincorporated San Diego County, south of the community of Boulevard and approximately 0.93 mile north of the U.S.–Mexico border (Figure 1). The project site is located south of I-8 and Old Highway 80 and east of Tierra del Sol Road. Regional access to the project site would be provided by SR 94 and I-8. Access to the project site would be provided by Jewel Valley Road, which connects to Old Highway 80 in the town of Boulevard.

The project includes the Major Use Permit project site of approximately 581 acres, an off-site gen-tie area of 7 acres, and an off-site vehicle turnaround area of 0.06 acre. The underground gen-tie would be located on the east side of Tule Jim Lane and connect into the southeast corner of the San Diego Gas and Electric Company (SDG&E) Boulevard substation. Although the majority would be underground, the gen-tie would have one overhead portion in order to cross Tule Jim Road and would encompass 7 acres. An off-site vehicle turnaround area on Jewel Valley Road would be 0.06 acre in size.

The project would be constructed in two separate phases. Phase I encompasses approximately 125 acres and includes the development of a PV system capable of generating up to 20 MW of solar energy and 17.4 MW of BESS. Phase II encompasses approximately 456 acres and includes the development of a PV system capable of generating up to 80 MW of solar energy and providing 200 MW of battery storage.

The project would include the following primary components:

- Approximately 235,516 PV modules would be mounted on support structures. The PV modules and support structures would be a maximum of 12 feet in height.
- A 1,500-volt direct current (DC) underground collection system would link the modules to the inverters and eight solar array systems based on current design standards.
- Inverter/transformer platforms, located throughout the solar facility, would convert the DC power generated by the modules into alternating current (AC) power, a compatible form for use with the transmission network.
- A 34.5-kilovolt (kV) underground AC collection system would link the inverters to the on-site collector substation.
- A 6,500-square-foot on-site collector substation, a 400-square-foot storage building, and a 450-square-foot control enclosure building would be located on the northeastern tip of the project site within an approximately 3-acre substation site.
- The gen-tie would run from the on-site project substation to the Boulevard substation. It would consist of two lines—a 69-kV line and a 138-kV line—that would be strung overhead to cross Tule Jim Lane but would otherwise be located underground.
- A 217.4-MW BESS would be located on approximately 5.14 acres in two locations.

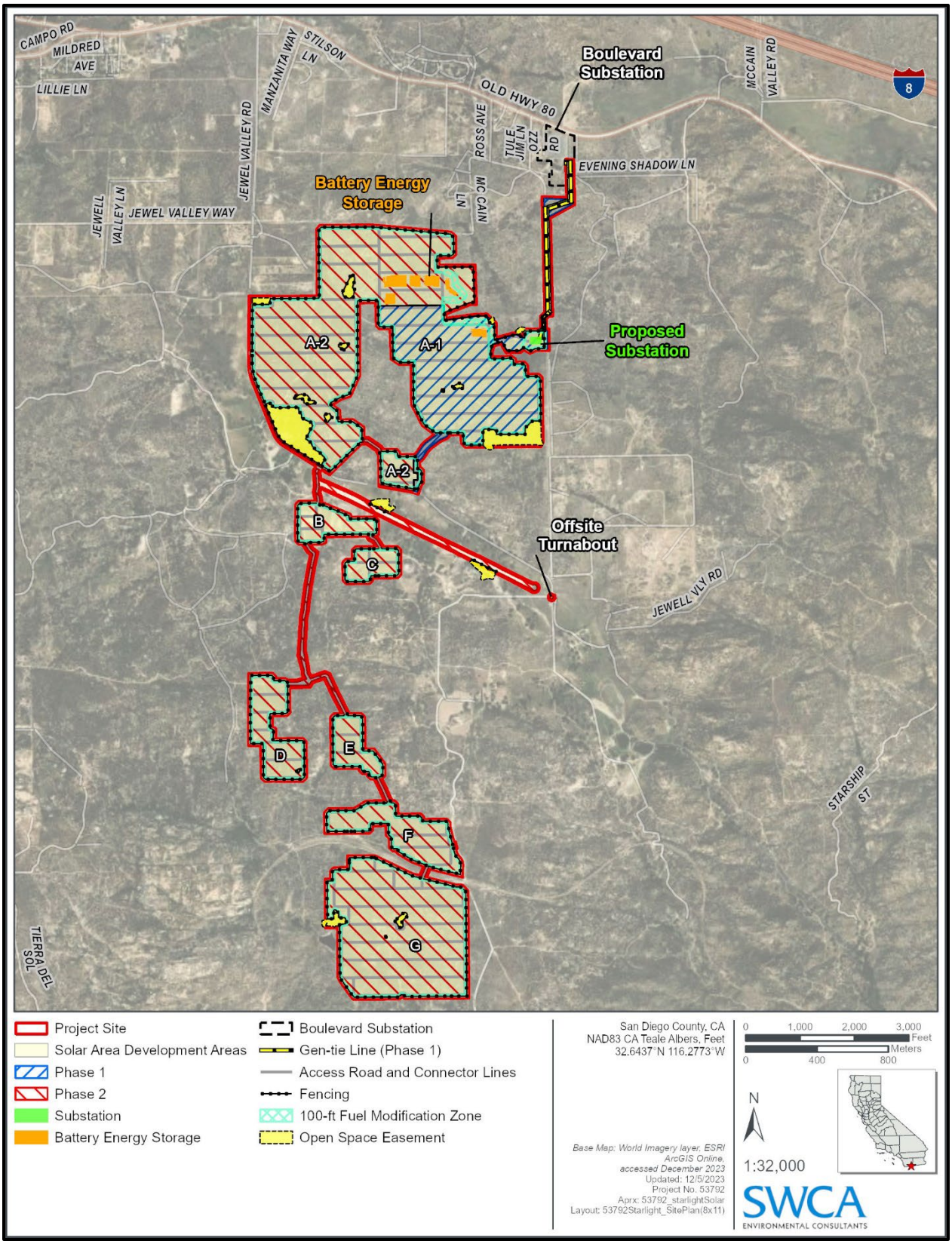

Figure 1. Project Layout

- A 24-foot-wide perimeter access road and array-connecting roads and 20-foot-wide internal access decomposed granite roads would be used to provide operational vehicles access to the site.
- Project equipment would be surrounded by 30- to 100-foot fuel modification zones.
- Biological resource mitigation land would be conserved and managed south and west of the project site within Assessor's Parcel Numbers 659-130-03, 659-140-01, and 659-140-02.

The site would be fenced along the entire facility boundary for security. Fencing would be up to 7 feet in total height, with a 6-foot-high chain-link perimeter fence and three strands of barbed wire extending 1 foot along the top.

The project would install a total of six 10,000-gallon water tanks with fire department connections available. The water tanks would be 12 feet wide and 15 feet tall. The water tanks would be located strategically across the various areas of the project site. Three water tanks would be located in Area A-1, two water tanks would be located in Area A-2, and two water tanks would be in Area G at the southern extent of the project site (see Figure 1).

All lighting would have bulbs that do not exceed 100 watts or equivalent. All lights would be shielded and directed downward, and would comply with the County of San Diego Light Pollution Code, also known as the Dark Sky Ordinance (5 San Diego County Code of Regulatory Ordinances 51.201–51.209). Outdoor lighting circuits would incorporate dusk-to-dawn photocell controllers, occupancy sensors, and/or switches as appropriate. Additionally, lighting for the project would be designed in accordance with the County of San Diego (County) Zoning Ordinance, Sections 6320, 6322, and 6324, which guide performance standards for glare and control excessive or unnecessary outdoor light emissions.

A minimum 30-foot-wide fuel modification zone would be provided between the PV modules and the off-site wildland fuels. This area would include contiguous fuel modification from the perimeter fence inward and would include the perimeter fire access road. Additionally, a minimum 100-foot-wide fuel modification zone would surround the two BESS areas.

The project contains open space easement areas within the project site. No development would occur within the open space easement areas. These areas would be fenced with a 6-foot-high chain-link perimeter fence and three strands of barbed wire extending 1 foot along the top.

In compliance with the County Grading Ordinance (8 San Diego County Code of Regulatory Ordinances Section 87.428) to minimize fugitive dust (particulate matter 10 microns in diameter or smaller [PM_{10}]) during the construction phase of the project all disturbed areas would be reseeded with a native plant hydroseed mix as soon as possible after disturbance. To provide dust control and minimize erosion during project operation, at least 70% vegetation cover shall be maintained during project operation on the portions of the solar facility development footprint within the perimeter fencing not overlain by vehicle access driveways and internal access, inverter/transformer platforms, battery storage containers, and the substation. These areas shall be reseeded with a native hydroseed mix that shall be approved by the County landscape architect prior to reseeding.

2.1 Project Phasing

The project would be constructed in two separate phases. Construction of Phase I would occur over approximately 12 months and Phase II would occur over approximately 18 months (spring 2026–winter 2027). An approximate 1-year gap is anticipated between construction of Phase I and Phase II. With the exception of the on-site project substation, which would be constructed during Phase I, construction of both phases of the project would include the following construction activities:

- Site mobilization
- Site preparation (including access driveways and staging areas), grading, and stormwater protections
- Fence installation
- Substation installation
- Pile driving
- Blasting
- Tracker and PV module installation
- DC electrical
- Underground medium AC voltage electrical
- Inverter/transformer platform installation
- BESS installation
- Commissioning

2.2 Land Use Designations and Zoning

The General Plan (County of San Diego 2011a) designates 17 of the 18 parcels composing the project site as Rural Lands 80 (RL-80), and the County's Zoning Ordinance identifies the entire site as General Rural (S-92) (County of San Diego 2025). One parcel (Assessor's Parcel Number 612-092-1300) is designated Semi-Rural Residential (SR 10) and houses the existing SDG&E Boulevard substation (not a part of the project); it would include a part of the gen-tie connecting the solar array to the substation. No portion of the project site is subject to any Special Area Regulations.

The entire project site is bounded by lands designated as RL-80, RL-40 (Rural Lands – one dwelling unit per 40 acres), or SR 10, and zoned S92. To the east of the project site are several parcels owned by California State Parks, zoned S-80, and designated Public Agency Lands. The S-80 zoning district is intended for recreation areas or areas with severe environmental constraints. Portions of the community of Boulevard along Jewel Valley Way and Fisher Road are designated as Rural Lands (RL 40) and Semi-Rural Residential (SR 10).

The project site is within the Mountain Empire Subregion (County of San Diego 2016), which contains five subregional group areas, as described in Section 2.3. The project site is located in the Boulevard Subregional Planning Area.

2.3 Regulatory Framework, Policies, and Guidance

In addition to their regulatory application, the following policies, ordinances, and goals serve as indicators of potential sensitivity to changes in the visual environment for purposes of assessing visual impacts associated with implementation of the project.

2.3.1 *State*

2.3.1.1 CALIFORNIA SCENIC HIGHWAY SYSTEM

Created by the California State Legislature in 1963, the California Scenic Highway Program includes highways designated by the California Department of Transportation (Caltrans) as scenic. There are five Officially Designated Scenic Highways in San Diego County, and the nearest (SR 78 from the west to east boundary of Anza-Borrego Desert State Park) is located over 30 miles from the project site. However, I-8 is an Eligible State Scenic Highway from SR 67 to the eastern San Diego County border, and SR 94 is an Eligible State Scenic Highway from SR 125 to its connection with I-8 (Caltrans 2019). At its closest location, I-8 is located approximately 0.6 mile north of the northern project boundary and SR 94 is located approximately 1 mile north of the northern project boundary (see Figure 1).

2.3.1.2 CALIFORNIA STATE HISTORIC ROUTES

Old Highway 80 is a designated California State Historic Route. In 2006, the State legislature granted this designation in recognition of the highway's "outstanding natural, cultural, historic, and scenic qualities." Despite this description, the designation does not influence the development of public and private properties adjacent to Old Highway 80 (California Legislature Information 2006).

2.3.2 *Local*

2.3.2.1 *COUNTY OF SAN DIEGO GENERAL PLAN*

The *San Diego County General Plan: A Plan for Growth, Conservation, and Sustainability* (General Plan) (County of San Diego 2011a), through elements established to address the various issues accompanying planning and development, provides guidance for the protection of visual resources. Select policies within the Land Use, Mobility, and Conservation and Open Space Elements of the General Plan (County of San Diego 2011b, 2011c, 2011d) address the protection of existing visual character and quality of areas and contain general direction regarding the minimization of adverse impacts to visual resources. The following goals and policies of the Land Use (LU), Mobility (M), and Conservation and Open Space (COS). Elements concern the preservation of visual and scenic resources. Policies from the remaining elements of the General Plan are not considered applicable since they do not concern the protection of visual resources.

2.3.2.1.1 Land Use Element

- **GOAL LU-2: Maintenance of the County's Rural Character.** Conservation and enhancement of the unincorporated County's varied communities, rural setting, and character.
    - **LU-2.8:** Mitigation of Development Impacts. Require measures that minimize significant impacts to surrounding areas from uses or operations that cause excessive noise, vibrations, dust, odor, aesthetic impairment and/or are detrimental to human health and safety.
    - **LU-2.9:** Maintaining Rural Character. Consider level of service criteria, in accordance with Policy M-2.1, to determine whether adding lanes to a Mobility Element road would adversely impact the rural character of a community or cause significant environmental impacts. In those instances, consider other options to mitigate LOS [level of service] where appropriate.
- **GOAL LU-6: Development – Environmental Balance.** A built environment in balance with the natural environment, scarce resources, natural hazards, and the unique local character of individual communities.

- **LU-6.6: Integration of Natural Features into Project Design.** Require incorporation of natural features (including mature oaks, indigenous trees, and rock formations) into proposed development and require avoidance of sensitive environmental resources.
- **LU-6.9: Development Conformance with Topography.** Require development to conform to the natural topography to limit grading; incorporate and not significantly alter the dominant physical characteristics of a site; and to utilize natural drainage and topography in conveying stormwater to the maximum extent practicable.
- **LU-10.2: Development – Environmental Resource Relationship.** Require development in Semi-Rural and Rural areas to respect and conserve the unique natural features and rural character, and avoid sensitive or intact environmental resources and hazard areas.
- **LU-11.2: Compatibility with Community Character.** Require that commercial, office, and industrial development be located, scaled, and designed to be compatible with the unique character of the community.
- **LU-12.4: Planning for Compatibility.** Plan and site infrastructure for public utilities and public facilities in a manner compatible with community character, minimize visual and environmental impacts, and whenever feasible, locate any facilities and supporting infrastructure outside preserve areas. Require context sensitive Mobility Element road design that is compatible with community character and minimizes visual and environmental impacts; for Mobility Element roads identified in Table M-4, an LOS D or better may not be achieved.
- **M-4.5: Context Sensitive Road Design.** Design and construct roads that are compatible with the local terrain and the uses, scale and pattern of the surrounding development. Provide wildlife crossings in road design and construction where it would minimize impacts in wildlife corridors.

2.3.2.1.2 Conservation and Open Space Element

- **GOAL COS-11 Preservation of Scenic Resources**. Preservation of scenic resources, including vistas of important natural and unique features, where visual impacts of development are minimized.
  - **COS-11.1 Protection of Scenic Resources.** Require the protection of scenic highways, corridors, regionally significant scenic vistas, and natural features, including prominent ridgelines, dominant landforms, reservoirs, and scenic landscapes.
  - **COS-11.2 Scenic Resource Connections.** Promote the connection of regionally significant natural features, designated historic landmarks, and points of regional historic, visual, and cultural interest via designated scenic corridors, such as scenic highways and regional trails.
  - **COS-11.3 Development Siting and Design.** Require development within visually sensitive areas to minimize visual impacts and to preserve unique or special visual features, particularly in rural areas, through the following:
  - Creative site planning
  - Integration of natural features into the project
  - Appropriate scale, materials, and design to complement the surrounding natural landscape
  - Minimal disturbance of topography
  - Clustering of development so as to preserve a balance of open space vistas, natural features, and community character
  - Creation of contiguous open space networks

  - **COS-11.7 Underground Utilities.** Require new development to place utilities underground and encourage "undergrounding" in existing development to maintain viewsheds, reduce hazards associated with hanging lines and utility poles, and to keep pace with current and future technologies. The concept of "undergrounding" in the initial phases of a project not only increases the aesthetic value of the surrounding viewshed, but can also reduce costs in the long run since less infrastructure is exposed to the elements.

- **GOAL COS-12 Preservation of Ridgelines and Hillsides**. Ridgelines and steep hillsides that are preserved for their character and scenic value.
  - **COS-12.1 Hillside and Ridgeline Development Density.** Protect undeveloped ridgelines and steep hillsides by maintaining semi-rural or rural designations on these areas.
  - **COS-12.2 Development Location on Ridges.** Require development to preserve the physical features by being located down and away from ridgelines so that structures are not silhouetted against the sky.

- **GOAL COS-13 Dark Skies**. Preserved dark skies that contribute to rural character and are necessary for the local observatories.
  - **COS-13.1 Restrict Light and Glare.** Restrict outdoor light and glare from development projects in Semi-Rural and Rural Lands and designated rural communities to retain the quality of night skies by minimizing light pollution.
  - **COS-13.2: Palomar and Mount Laguna.** Minimize, to the maximum extent feasible, the impact of development on the dark skies surrounding Palomar and Mount Laguna observatories to maintain dark skies which are vital to these two world-class observatories by restricting exterior light sources within the impact areas of the observatories.

In addition to goals and policies, the Conservation and Open Space Element establishes a County Scenic Highway System that is composed of scenic corridors that includes county roads, state routes, and interstate freeways. Near the project site, segments of I-8, SR 94, and Old Highway 80 are included within the County Scenic Highway System (County of San Diego 2011d).

2.3.2.2 SAN DIEGO COUNTY GENERAL PLAN – MOUNTAIN EMPIRE SUBREGIONAL PLAN

The project site is located within the Mountain Empire Subregion of San Diego County. The *Mountain Empire Subregional Plan, San Diego County General Plan* (Mountain Empire Subregional Plan) (County of San Diego 2016) contains policies applicable to visual resources that are applicable to the project. The following goals, policies, and recommendations established in the Mountain Empire Subregional Plan are relevant to the project:

- **Land Use Element Goal:** provide a land use pattern consistent with the subregional population forecast.
  - **Policy and Recommendation 1:** The landforms of the Subregion are an important environmental resource that should be respected in new development. Hillside grading shall be minimized and designed to blend in with the existing natural contours.

- **Conservation - Environmental Resources Goal:** Ensure that there is careful management of environmental resources in the area in order to prevent wasteful exploitation or degradation of those resources and to maintain them for future needs.
  - **Policy and Recommendation 1.** All development shall demonstrate a diligent effort to retain as many native oak trees as possible.

- **Policy and Recommendation 4.** The dark night sky is a significant resource for the Subregion and appropriate steps shall be taken to preserve it.
- **Policy and Recommendation 5.** Development shall not adversely affect the habitat of sensitive plant and wildlife species or those areas of significant scenic value

- **Scenic Highways Goal:**
  - Establish a network of scenic highway corridors within which scenic, historical and recreational resources are protected and enhanced.

There are five scenic corridors identified on the Scenic Highways Figure C-5 in the Conservation and Open Space Element that pass through the Mountain Empire Subregion (County of San Diego 2011d):

- Tecate Road (SR 188), from the U.S.–Mexico border north to SR 94
- Potrero Valley Road, from SR 94 to Potrero County Park
- I-8, from SR 79 east to the Imperial County Line
- SR 94, through Tecate, Potrero, Boulevard, and Jacumba
- Old Highway 80 through Boulevard and Jacumba

2.3.2.3 BOULEVARD SUBREGIONAL PLANNING AREA, MOUNTAIN EMPIRE SUBREGION

The project site lies within the boundaries of the Boulevard Subregional Planning Area, in the Mountain Empire Subregion (County of San Diego 2013). Policies of the *Boulevard Subregional Planning Area, Mountain Empire Subregional Plan* (Boulevard Subregional Plan) (County of San Diego 2013) that concern visual resources and are relevant to the project consist of the following:

2.3.2.3.1 Community Character

- **Issue LU 1.1** The ability to experience open spaces, extensive views to local and distant horizons, abundant wildlife and unfragmented habitat, grazing livestock, and a sense of stepping back in time, is essential to preserving Boulevard's rural and rustic quality of life and community character and should not degrade and detract from the stunning visual resources, clutter free horizons, and the rural quality, character, and atmosphere that attracts residents, visitors, and outdoor enthusiasts to Boulevard and the backcountry.
  - **Goal LU 1.1** The continued maintenance of a rural lifestyle and community character exemplified by a pattern of residential and agricultural uses on large lots outside the Rural Village, along with the protection and preservation of open landscapes, unique and geographically extensive views and vistas, dark skies, steep slopes, canyons, and floodplains, while accommodating moderate, responsible, and sustainable growth at a slower rural pace.
  - **Policy LU 1.1.2** Encourage development to protect the quality and quantity of ground and surface water resources, air quality, dark skies, visual resources, and low ambient noise levels, as well as retain and protect the existing natural and historic features characteristic of the community's landscape and natural environment.
  - **Policy LU 1.1.3** Encourage development to respectfully incorporate existing topography and landforms, watersheds, riparian areas, oaks, and other native vegetation and wildlife, ridgelines, historic and cultural resources, views, and sustainability design factors.
  - **Policy LU 1.1.4** Require commercial and public development along scenic and historic routes to apply designs standards that will blend the development in with the terrain and

rustic southwestern nature of the community character, while keeping outdoor lighting to an absolute and well shielded minimum.

- **Issue LU 1.2** Regional infrastructure, public facilities, and large scale energy generation and transmission projects are often proposed in rural and low-income areas. These large projects can degrade and fragment ranch lands, neighborhoods, highly valued visual resources, scenic viewsheds, ridgelines, and native habitat, including those on tribal, public, and protected lands.
    - **Goal LU 1.2** The protection of the integrity and value of the visual, historical, cultural, and natural resources along with agricultural, ranch, and public lands. All of which make Boulevard a nice place to live, work, and play.
- **Goal LU 3.1** Protection as a Dark Sky Community through preservation of the dark skies in Boulevard to support the continued operation of the San Diego Astronomy Association and Tierra Del Sol Observatories and to continue to attract stargazers, photographers, scientists, and researchers from around the world.
    - **Policy LU 3.1.1** Encourage development to preserve dark skies with reduced lighting and increased shielding requirements.

2.3.2.3.2 Community Conservation and Protection

- **Issue LU 6.1** Commercial, industrial development and large scale energy generation projects in the rural community of Boulevard can negatively impact community character, natural resources, and the overall quality of rural lifestyle.
    - **Goal LU 6.1** Boulevard retains its community character by limiting any commercial or industrial development that negatively impacts our community and its resources.
    - **Policy LU 6.1.1** Require commercial, industrial development and large scale energy generation projects to mitigate adverse impacts to the rural community character, charm, quiet ambiance and lifestyle, or the natural resources, wildlife, and dark skies of Boulevard, if feasible, in accordance with the California Environmental Quality Act.
    - **Policy LU 6.1.2** Encourage commercial, industrial development and large scale energy generation projects to create and maintain adequate buffers between residential areas and incompatible activities that create heavy traffic, noise, infrasonic vibrations, lighting, odors, dust and unsightly views and impacts to groundwater quality and quantity.
    - **Policy LU 6.1.3** Encourage commercial, industrial development and large scale energy generation projects to provide buffers from public roads, adjacent and surrounding properties and residences, recreational areas, and trails.

2.3.2.3.3 Conservation and Open Space

- **Issue COS 1.3** Boulevard and the surrounding area is blessed with unique stunning and geographically extensive scenic views and landscapes. These visual and scenic resources are highly valued and play a major role in Boulevard's community character, quality of life, appeal to visitors and tourists, and local property values. Residents willingly sacrifice the conveniences and amenities of urban living to enjoy and benefit from the rural and scenic resources that represent the backcountry way of life and quality of life. The Historic Route designation for Route 80 requires repairs to be implemented in a manner that reflects its original concrete slabs. Historic Route 80, SR 94, and I-8 are part of the County Scenic Highway System and qualify for designation as State Scenic Highways.

2.3.2.4 COUNTY OF SAN DIEGO CODE OF REGULATORY ORDINANCES

2.3.2.4.1 County of San Diego Zoning Ordinance

Sections 5200–5299 Scenic Area Regulations

The provisions of Sections 5200 through 5299 of the County's Zoning Ordinance are known as the Scenic Area Regulations. The purpose of these provisions is to regulate development in areas of high scenic value both to assure exclusion of incompatible uses and structures and to preserve and enhance the scenic resources present in adjacent areas. These regulations constitute recognition of important social, recreational, and economic values obtained from preserving and enhancing the scenic qualities of these areas of San Diego County for the benefit of residents and visitors.

The Scenic Area Regulations shall be applied to areas of unique scenic value including scenic highway corridors designated by the General Plan, critical viewshed and prime viewshed areas, and areas adjacent to significant recreational, historic, or scenic resources, including federal and state parks. The project site is not located within a designated Scenic Area and is not subject to these regulations.

Section 6322 Outdoor Lighting and Section 6324 Lighting Permitted in Required Yards

Section 6322 (Outdoor Lighting) of the County Zoning Ordinance has performance standards for glare for all commercial and industrial uses in residential, commercial, and identified industrial zones. All commercial and industrial uses subject to this section shall be operated in a manner that does not produce glare, which is readily detectable without instruments by the average person beyond the zones outlined in this section. These sections of the County Zoning Ordinance establish regulations to control excessive or unnecessary outdoor light emissions which produce unwanted illumination of adjacent premises within the unincorporated area of San Diego County. In addition to the prohibition of certain lighting sources including searchlights, lighting for advertisements, and lighting for recreational facilities requirements for yard lighting are established in Section 6324 (Lighting Permitted in Required Yards).

Section 6954 Solar Energy Systems

Section 6954 (Solar Energy System) of the County's Zoning Ordinance regulates solar energy systems. Section 6954(b)(2) specifies that a PV energy system for off-site uses with a project site greater than 10 acres is considered a Major Impact Service and Utility within all zones and requires a Major Use Permit. In addition, Section 6954(b)(3) specifically relates to visual resources and requires that the following measures be implemented to minimize the visual impacts of a project:

1. **Setback**. A system or plant shall meet all of the setback requirements of the zone.
2. **Height**. A system or plant of more than 200 feet in height is required to comply with Federal Aviation Administration safety height requirements.
3. **Visual**. The following measures shall be followed in order to minimize the visual impact of the project:
    a. Removal of existing vegetation shall be minimized.
    b. Internal roads shall be graded for minimal size and disruption.
    c. Any accessory buildings shall be painted or otherwise visually treated to blend with the surroundings.
    d. A structure shall be non-reflective in all areas possible to blend with the surroundings.

2.3.2.4.2 County of San Diego Resource Protection Ordinance

Prior to approval of the project, a resource protection study must be completed, and the approving authority shall make a finding that the use or development permitted by the application is consistent with the provisions of the Resource Protection Ordinance (8 San Diego County Code of Regulatory Ordinances 86.603).

The Resource Protection Ordinance limits development on steep slopes through density restrictions on "Steep Slope Lands" and through requirements for steep slope areas to be placed in easements. The requirements of this ordinance therefore often result in the protection of slopes in their natural state, which provides the added benefit of protecting a potential aesthetic resource. In terms of the preservation of aesthetic resources, this policy encourages the preservation of the existing natural terrain, established vegetation, and visually significant geologic displays.

The Resource Protection Ordinance is intended to protect sensitive lands and prevent their degradation and loss by requiring a slope analysis for certain discretionary projects. A function of the slope analysis is to identify Steep Slope Lands—lands that have slopes with a natural gradient of 25% or greater and a minimum rise of 50 feet. Based on the percentage of a parcel containing Steep Slope Lands, the Resource Protection Ordinance defines maximum percentage of allowable development encroachment. This encroachment may be further reduced due to environmental concerns or other design criteria.

Slope analysis indicates that no slopes within the project site are identified as Steep Slope Lands in accordance with the County Resource Protection Ordinance. The majority of the existing slopes range in steepness from 0% to 24%. Of the 588-acre project site, approximately 567 acres are less than 25%, approximately 19.3 acres are from 25% to 50%, and approximately 1.2 acres are steeper than 50%. Within the project site, no slopes steeper than 25% have a vertical rise of 50 feet or more.

2.3.2.4.3 County of San Diego Light Pollution Code (County Dark Sky Ordinance)

The County of San Diego Light Pollution Code(5 San Diego County Code of Regulatory Ordinances 51.201–51.209), also known as the Dark Sky Ordinance, was developed by the County of San Diego Department of Planning and Development Services and Department of Public Works in cooperation with lighting engineers, astronomers, and land use planners from SDG&E, Palomar and Mount Laguna Observatories, and local planning and sponsor groups to address and minimize the impact of new sources of light pollution on nighttime views.

For purposes of lighting requirements, the Light Pollution Code separates the unincorporated portion of San Diego County into three geographic lighting zones: Zone A, Zone B, and Zone C. Zone A includes the areas within a 15-mile radius of both the Palomar Observatory and the Mount Laguna Observatory, Zone B includes all areas not included in Zone A or Zone C, and Zone C includes the Community Planning Areas of the Julian Community Planning Area and Borrego Springs Community Planning Area. As the project site boundary is over 15 miles from the Mount Laguna Observatory, the project is in Zone B. Section 51.205 of the Light Pollution Code includes lighting standards for Zone B.

3 VISUAL ENVIRONMENT OF THE PROJECT

This analysis and subsequent determination of impacts is based primarily on a comparison of the project with the visual character and quality of its setting and surrounding vistas. The study also compares the project to the specific visual resources goals of the County. When policy and stated goals demonstrate that

a high degree of value is placed on the visual environment, the standards to which the project is compared are considered equally high. As a result of the project's location relative to public transportation corridors, recreational areas, and surrounding communities, combined with an awareness of scenic quality as reflected in County planning policy, it is anticipated that community and viewer sensitivity to visual changes is moderately high.

3.1 Project Setting

3.2 Regional Context

The project site encompasses approximately 588 acres in unincorporated San Diego County, south of the community of Boulevard and approximately 0.9 mile north of the U.S.–Mexico border (see Figure 1). The community of Boulevard encompasses approximately 4 square miles and includes the communities of Manzanita, Tierra del Sol, Live Oak Springs, and Boulevard.

The human-made landscape is made up of clusters of rural single-family residential housing with some dispersed houses. The community of Boulevard consists of several commercial buildings and residences approximately 1 mile northwest of the project site. Other human-made elements include the nearby SDG&E Boulevard substation and related transmission line infrastructure, I-8, a Caltrans materials yard approximately 0.75 mile northeast of the project site, a U.S. Border Patrol station, and two commercial-scale wind turbine facilities approximately 4 miles northwest of the project site on the Campo Indian Reservation and north of I-8. Jewel Valley Road crosses the project site diagonally, from northwest to southeast, connecting residences south of the project site to I-8.

The regional context is a product of both natural and built elements, including uses such as rural and agricultural uses, ranches, rural residential, limited commercial, and public infrastructure uses. The natural landscape includes rolling and varied topography, patterns of native vegetation, rock outcroppings, and open space, which all contribute to a moderate to high regional visual character and quality.

I-8 is a primary interstate travel route with approximately 8,000 average daily trips and is identified as an Eligible State Scenic Highway for the segment near the project site (Caltrans 2017). Old Highway 80 is a two-lane local travel route that passes approximately 0.65 mile north of the project site and is adjacent to the Boulevard substation. Old Highway 80 connects to the McCain Valley Recreation Area on Bureau of Land Management–administered lands approximately 3 miles north of the project site. Jewel Valley Road is a public community roadway that bisects the project site into north/south sections and connects to residences south of the project site and to the community of Boulevard and I-8. Other non-paved private roads in the vicinity provide local access to nearby residences. South of the project site, Empire Ranch currently contains a ranch compound with residential buildings, structures for livestock, private roads, and an airstrip.

The region has abundant scenic views and landscapes. Many of these visual and scenic resources are unique and play a major role in the regional and community visual quality and character. The high visual quality of the region is due in part to scenic vistas which often include views of the rolling topography, patterns of native vegetation, distant mountains and ridgelines, rock outcroppings, and rural and open space land uses. The overall sparse and modestly scaled development supports the visual cohesiveness of the semi-rural character of the area. The Boulevard area's confluence of high elevation, insolation, prevalent winds, and two high-voltage transmission lines has led to a high concentration of San Diego County's utility-scale renewable energy projects. Existing utilities and other infrastructure seen throughout the region are the type and frequency typical of visual character elements seen in this type of landscape.

3.2.1 *Project Site*

The project site encompasses approximately 588 acres in unincorporated San Diego County, south of the community of Boulevard and approximately 0.9 mile north of the U.S.–Mexico border. The entire project site is undeveloped. It is located within the boundaries of the privately owned Empire Ranch, an approximately 3,795-acre ranch that stretches from south of Old Highway 80 to the U.S. border with Mexico. Adjacent to the project site boundaries, the Empire Ranch currently contains a ranch compound with residential buildings, structures for livestock, private roads, and an airstrip. Empire Ranch also contains limited agricultural and ranching uses. A section of the abandoned San Diego & Arizona Eastern Railway runs east to west through the southern portion of the project site. An abandoned airstrip is located within the Jewel Valley Creek watercourse. The project site is surrounded by unpaved roads, other rural residential development, an electrical substation, and undeveloped land. The Boulevard substation is located on approximately 2 acres to the northeast of the project site, directly south of Old Highway 80. Remnants of Boundary Creek flow through the project site in a southeast direction directly south of Jewel Valley Road.

Jewel Valley Road bisects the project site into somewhat north/south sections and connects to residences south of the project site and to the community of Boulevard and I-8. Non-paved roads in the project site provide local access to nearby residences. Primary access to the project site would be provided by Jewel Valley Road, which runs north to south and connects to Old Highway 80 in the community of Boulevard.

The project site is topographically diverse. The project site is in a geographic transitional zone of San Diego County between the desert region and Peninsular Ranges. The visually prominent Laguna Mountains are north of the project site. In the project site's northern portion, the east- and south-facing sloping hillsides are characteristic of the project site, and a prominent ridgeline known as the Tecate Divide is located in the southern portion of the site.

The project site is spread over a large and somewhat varied area. The northeastern portion of the project site reaches elevations up to 3,650 feet above mean sea level. In the southern portion of the project site, elevation decreases to 3,450 feet above mean sea level.

Although the topography of the project site is varied, most of the existing slopes range in steepness from 0% to 24%. Of the 588-acre project site, approximately 567 acres are less than 25%, approximately 19.3 acres are from 25% to 50%, and approximately 1.2 acres are steeper than 50%. Within the project site, no slopes steeper than 25% have a vertical rise of 50 feet or more.

The visual character of the project site is distinctly rural, and the landform and landcover of the project site is generally representative of the area. The landscape is characterized by rolling hills with scattered granite boulders and outcroppings and patterns of native vegetation. There are 14 natural vegetation communities and land cover types and three additional cover types within the category of disturbed or developed land. Transitional mountain chaparral vegetation such as mixed chaparral and chamise (*Adenostoma* spp.) is seen throughout the area. Vegetation for the project site itself is primarily chaparral and native grasses and forbs with scattered juniper (*Juniperus* spp.). Larger trees and ornamental vegetation are associated with commercial areas and scattered residences and ranches. The site's rolling topography and hillsides, patterns of native vegetation, and rural use all contribute to a moderate to high existing visual quality.

3.3 Project Viewshed

The visual environment can be vast; therefore, for purposes of analyzing impacts, boundaries must be placed on it. The area within those boundaries is commonly referred to as the viewshed. A viewshed is composed of all the surface areas visible from an observer's viewpoint. The limits of a viewshed are defined

as the visual limits of the views located from the project. The viewshed also includes the locations of viewers likely to be affected by visual changes brought about by project features.

The project viewshed is part of San Diego County's geographic transitional zone between the desert region and Peninsular Ranges. The Laguna Mountains are prominently located to the north of the project site. The viewshed is characterized by rolling hills covered by granite boulders and transitional mountain chaparral vegetation such as mixed chaparral and some chamise.

Because of the project's large expanse, extensive layout, and varied landform, the project viewshed extends over a wide area in the region and would have a potential effect on a number of public scenic vistas throughout the area. Viewing distances would range from as close as 60 feet along Jewel Valley Road to long-range views of more than approximately 2 miles from sections of I-8. Important public views that would be affected would include sections of I-8, SR 94, Jewel Valley Road, Tierra del Sol Road, and other local roadways.

Although the undulating topography of the region limits the viewshed from certain viewpoints, the topography also elevates much of the project site and can result in greater visual exposure to the surrounding area. As seen from many of the surrounding viewpoints, portions of the project would be seen on either a primary or secondary ridgeline, extending above the horizon line.

3.4 Landscape Character Units

Landscape character units (LCUs) are a useful tool for understanding the various subareas of composite landscape. By defining common and unique visual characteristics of a subarea, the visual analysis can address issues and proposed changes specific to that area and provide more prescriptive responses as appropriate.

An LCU is a portion of the regional landscape that exhibits a distinct visual character. Topography, vegetation, and land use patterns often contribute to the uniqueness of visual character. Slopes, ridges, and other physical elements can serve to distinguish one unit from another. The visual pattern elements that define LCUs may be abrupt and obvious (a primary mountain ridgeline, for example) but may also be less obvious and transitional in nature (the broad sweep of a valley or transitional uplands which slowly changes to boulder-strewn mountain foothills). LCU boundaries can be affected by visual access and viewing perception factors such as distance, duration, orientation, and other factors. An LCU will often correspond to a place or district that is memorable or commonly known among local viewers.

The project site and the surrounding area can be seen as a transitional landscape, where certain identifying characteristics of adjacent areas overlap or gradually change into that of an adjacent area. As a result, the LCUs are not delineated by distinct borders but rather as general areas having some degree of unique physical and/or visual perception attributes.

For purposes of this study, three LCUs were identified in the project site: the Boulevard/Manzanita LCU, the Jewel Valley LCU, and the Tierra del Sol LCU. Section 4 discusses the quality and characteristics of these LCUs; Figure 2 in Section 5.2 shows the locations of the LCUs relative to the project site. Although the overall regional landscape has many common characteristics, within the project vicinity the Boulevard/Manzanita LCU has certain development characteristics, and the Jewel Valley and Tierra del Sol LCUs are somewhat distinct in their spatial qualities and potential viewshed availability relative to the project site and the surrounding landscape.

4 EXISTING VISUAL RESOURCES AND VIEWER RESPONSE

4.1 Existing Visual Resources

4.1.1 *Visual Quality and Character*

Visual character is descriptive and non-evaluative, which means it is based on defined attributes that are neither positive nor negative in themselves. A change in visual character cannot be described as having positive or negative attributes until it is compared with the viewer response to that change. If there is public preference for the established visual character of a regional landscape and resistance to a project that would contrast that character, then changes in the visual character should be evaluated.

The existing visual quality and character of the region is a product of both natural and built elements, including uses such as rural and agriculture uses, ranches, rural residential, limited commercial, renewable energy, and public infrastructure uses such as transmission lines. The natural landscape includes rolling and varied topography, patterns of native vegetation, rock outcroppings, and open space, which all contribute to the existing moderate to high visual character and quality.

The project site is in a region that has abundant scenic views and landscapes. Many of these visual and scenic resources are unique and play a major role in the regional and community visual quality and character. Although renewable energy facilities and other development are seen in the region, a high visual quality exists due in part to scenic vistas, which often include views of the rolling topography, patterns of native vegetation, distant mountains and ridgelines, rock outcroppings, and rural and open space land uses.

The region has a generally high degree of visual unity. Existing visual elements in the landscape such as line, form, scale, color, and textures tend to combine in overall harmonious visual patterns, evident in the foreground and midground as well as part of more distant views and backdrops.

The combinations and patterns of natural and built elements support the moderate to high visual intactness of the overall landscape type. Although as seen from most areas, natural elements such as topography and vegetation generally dominate the view, the overall sparse and modestly scaled development supports the visual cohesiveness of the semi-rural character of the area. Existing utilities, renewable energy development, and other infrastructure seen throughout the region are the type and frequency typical of visual character elements seen in this type of rural landscape.

The visual quality character of the project site itself is not uncommon for the region. As a result, the memorability, or vividness of the project site is dependent as much on its contribution in support of regional view quality than it is on its own unique characteristics.

4.1.2 *Boulevard/Manzanita Landscape Character Unit*

The Boulevard/Manzanita LCU is the most developed portion of the area. Based primarily along the Old Highway 80 and I-8 corridors, this LCU serves as a community center and includes retail and commercial uses, a public school, and residential areas.

Other than from the somewhat elevated vantage points along the I-8 highway, many long-range views of the surrounding landscape from this LCU are blocked or substantially limited by the proximity of existing development. Despite the increased development, the visual character of this LCU maintains that of a rural

community, with visual attributes in terms of built form, density, and style that support its moderately high visual quality and scenic character.

4.1.3 *Jewel Valley Landscape Character Unit*

The Jewel Valley LCU occupies the area south of the Boulevard/Manzanita commercial area and the I-8 and Old Highway 80 corridors. This LCU is an area of predominantly ranchland, scattered rural residential development, and open space. The landform and landcover of this area are typical of the region, with rolling topography dotted with rock outcroppings, scattered juniper, chaparral, and native grasses and forbs.

The visual character of Jewel Valley is distinctly rural, supported by its land use, ranch and rural residential buildings and architecture, and sparse development. From much of this LCU, the Laguna Mountains define the horizon to the north and east, contributing to the LCU's high visual quality.

Jewel Valley Road traverses the LCU in a south to southeast orientation and passes directly adjacent to and through portions of the project site. Because of this proximity, viewers in the LCU would have greater exposure to any visual effects of proposed changes to the landscape and would experience the project differently than viewers in the Boulevard/Manzanita and Tierra del Sol LCUs.

4.1.4 *Tierra del Sol Landscape Character Unit*

The Tierra del Sol LCU follows the Tierra del Sol Road corridor. This LCU is differentiated from the other two LCUs by its increased elevation and its more expansive views, as Tierra del Sol Road crests between the Tierra del Sol community and SR 94.

The character and visual quality of this LCU is typical of the region, generally defined by scattered ranches, rural residential development, and open space. Juniper, chaparral, and native grasses are seen throughout the surrounding undulating landform.

The elevated topography of this LCU affords somewhat longer-range and panoramic views than the other two LCUs. These more expansive views result in a high visual quality which includes scenic vistas of the Laguna Mountains to the north and east.

4.2 Viewer Response

Viewer response to change is the product of viewer exposure, viewing duration, and viewer sensitivity to changes in the visual environment. Viewer exposure is the degree to which viewers are exposed to a view or visual resources (e.g., number of viewers, length of time, and/or frequency of views). Viewer sensitivity can be affected by the viewer's perception of a project's compatibility with existing features in a landscape; sensitivity and expectations are based on the preferences, standards, ideas, opinions, and bias of different viewers. Anticipated viewer response for each LCU is summarized below.

4.2.1 *Boulevard/Manzanita Landscape Character Unit*

4.2.1.1 VIEWER GROUPS, EXPOSURE, AND AWARENESS

The Boulevard/Manzanita LCU is the most developed area in the project vicinity. In addition to being the commercial center of the area, this LCU includes major thoroughfares I-8, SR 94, and Old Highway 80. This LCU has the greatest number and concentration of potential viewers in the region.

Old Highway 80 is a designated California State Historic Route and is used primarily by local residents, travelers to and from the McCain Recreation Area north of I-8, and employees of the Caltrans maintenance station.

I-8 is one of the primary east-west interstate freeway corridors traversing the southern part of California. Approximately 17,000 vehicles per day (Caltrans 2017) pass along I-8 through the Boulevard/Manzanita LCU. Within this LCU, I-8 is an Eligible State Scenic Highway (Caltrans 2017) and is identified as a Scenic Corridor in the Conservation and Open Space Element (County of San Diego 2011d). Portions of the project would be seen along an approximately 3.5-mile section of I-8, with a potential viewing duration of approximately 3 minutes, 15 seconds traveling at the posted speed limit.

SR 94 and Old Highway 80 include regional and inter-regional travelers, as well as local residents. SR 94 and Old Highway 80 serve as the main street through the community and are primary access to an elementary school and the post office. Approximately 1,850 vehicles per day use SR 94 through the Boulevard/Manzanita LCU (Caltrans 2017). Portions of the project, including PV panels, access roads, and cleared vegetation, would be seen along an approximately 0.5-mile section of SR 94, with a potential viewing duration of approximately 45 seconds traveling at the posted speed limit. Approximately 1,850 vehicles per day use SR 94 through the Boulevard/Manzanita LCU (Caltrans 2017). Portions of the project would be seen intermittently along an approximately 0.4-mile section of Old Highway 80, with a potential viewing duration of approximately 30 seconds traveling at the posted speed limit. It is estimated that approximately 500 vehicles per day use Old Highway 80 through the Boulevard/Manzanita LCU (Kittelson & Associates [Kittelson] 2024).

Although transportation corridors through the Boulevard/Manzanita LCU provide access to many recreational areas in eastern San Diego County, no official public parks or recreational trails are located within the LCU. McCain Valley Recreation Area is located approximately 3 miles north of the project site and provides little to no visibility of the project site.

4.2.1.2 VIEWER SENSITIVITY

The expected sensitivity of viewers in the Boulevard/Manzanita LCU varies greatly. Although this area has the largest number of potential viewers, most of the viewing opportunities to the project site are limited to the elevated sections of I-8. From many areas in the community along SR 94 and Old Highway 80, views to the project site are precluded by intervening topography, vegetation, and existing development. Viewing distances from the Boulevard/Manzanita LCU to the project range from approximately 1.5 to 2.5 miles. These viewing distances would somewhat reduce viewer exposure as well as sensitivity to the individual elements of the project. Although distant, from many locations these views would still provide high-quality panoramic vistas and support an increased viewer sensitivity.

Although some degree of existing development is visible along I-8, SR 94, and Old Highway 80, the State and local scenic and historic designations of these routes tend to create a higher level of viewer expectations regarding visual quality, resulting in an inherent increase in viewer sensitivity.

Because of the range of viewing exposure, viewer activities, and expectations, the overall sensitivity and response to changes in the visual environment within the Boulevard/Manzanita LCU are considered moderately high.

4.2.2 *Jewel Valley Landscape Character Unit*

4.2.2.1 VIEWER GROUPS, EXPOSURE, AND AWARENESS

The Jewel Valley LCU extends south along Jewel Valley Road from the Boulevard community into ranch land, scattered rural residential development, and open space. Jewel Valley Road is classified as a rural collector (County of San Diego 2011a), and although it has no scenic designations, it passes through a high-quality visual environment and provides access to local privately owned recreation areas and scenic vantage points. Viewers experiencing this quality visual environment are expected to have an increased sensitivity to changes to the quality and character of the surrounding landscape.

The Jewel Valley LCU includes the project site, and as a result, viewers from many locations in this LCU would see the project in close proximity. Viewing distances from the Jewel Valley LCU to the project range from approximately 60 feet to 1.5 miles. Portions of the project, including PV panels, supporting structures, fencing, access roads, and other elements would be seen intermittently along an approximately 1-mile section of Jewel Valley Road, with a potential viewing duration of approximately 1 minute, 15 seconds traveling at the posted speed limit. It is estimated that approximately 310 vehicles per day use Jewel Valley Road through the Jewel Valley LCU (Kittelson 2024). Travelers along Jewel Valley Road often make local trips and are typically driving at slow to moderate rates of speed.

This close exposure would substantially increase viewer awareness of the proposed visual changes as well as noticeability of individual project elements. This heightened level of exposure would affect travelers along Jewel Valley Road and other local roadways as well as residences in the area.

4.2.2.2 VIEWER SENSITIVITY

The Jewel Valley LCU is mostly rural and open space with sparsely developed ranchland and a limited number of public roadways. However, because of the high quality and character of the surrounding landscape, in combination with the increased visual exposure and proximity to the project site, the sensitivity of viewers in this LCU is considered high.

4.2.3 *Tierra del Sol Landscape Character Unit*

4.2.3.1 VIEWER GROUPS, EXPOSURE, AND AWARENESS

The Tierra del Sol LCU generally follows Tierra del Sol Road west of the project site. This LCU is the least developed of the identified LCUs and is characterized primarily by open space and scattered ranchland in a distinctly rural setting.

Tierra del Sol Road is classified as a rural collector and provides an important connection between the rural communities of Tierra del Sol and Boulevard/Manzanita (County of San Diego 2011a). Tierra del Sol Road is used primarily for regional and local travel. Although Tierra del Sol Road has no scenic designations, travelers along this roadway as well as nearby residents enjoy somewhat expansive, high-quality scenic vistas and rural visual character.

Viewing distances from the Tierra del Sol LCU to the project range from approximately 1.4 to 2.5 miles. From much of this LCU, the project site would occupy a portion of the midground and background and would be in the context of the panoramic landscape and distant hills. Portions of the project including PV panels, access roads, cleared vegetation, and other elements would be seen intermittently along an approximately 1-mile section of Tierra del Sol Road, with a potential viewing duration of approximately 1 minute traveling at the posted speed limit. Although no traffic volume data are available for Tierra del Sol

Road, its importance is identified in the Boulevard Subregional Plan as a local road with views that are "breathtaking in the sheer amount of territory that can be seen in virtually all directions with virtually no obstructions" (County of San Diego 2013:8).

4.2.3.2 VIEWER SENSITIVITY

The longer viewing distances afforded from this LCU would somewhat reduce viewer exposure and sensitivity to the individual elements of the project. Despite this moderating effect, views would still include high-quality panoramic vistas and rural landscapes. As a result, the overall sensitivity and response to changes in the visual environment within the Tierra del Sol LCU are considered moderate.

5 VISUAL IMPACT ASSESSMENT

5.1 Guidelines for Determining Significance

5.1.1 *Guidelines for Determining Significance – Visual Resources*

The *Guidelines for Determining Significance and Report Format and Content Requirements – Visual Resources* (County of San Diego 2007) was reviewed to determine the applicable significance thresholds for the project. According to the County guidelines for determining significance, a project will generally be considered to have a significant effect if it proposes any of the following, absent specific evidence to the contrary:

1. The project would introduce features that would detract from or contrast with the existing visual character and/or quality of a neighborhood, community, or localized area by conflicting with important visual elements or the quality of the area (such as theme, style, setbacks, density, size, massing, coverage, scale, color, architecture, building materials, etc.) or by being inconsistent with applicable design guidelines.
2. The project would result in the removal or substantial adverse change of one or more features that contribute to the valued visual character or image of the neighborhood, community, or localized area, including but not limited to landmarks (designated), historic resources, trees, and rock outcroppings.
3. The project would substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from:
    - a public road,
    - a trail within an adopted County or State trail system,
    - a scenic vista or highway, or
    - a recreational area.
4. The project would not comply with applicable goals, policies or requirements of an applicable County Community Plan, Subregional Plan, or Historic District's Zoning.

5.1.2 *Guidelines for Determining Significance – Dark Skies and Glare*

The *Guidelines for Determining Significance and Report Format and Content Requirements – Dark Skies and Glare* (County of San Diego 2009) was reviewed to determine the applicable significance thresholds

for the project. According to the County guidelines for determining significance, a project will generally be considered to have a significant effect if it proposes any of the following, absent specific evidence to the contrary (County of San Diego 2009):

1. The project will install outdoor light fixtures that do not conform to the lamp type and shielding requirements described in Section 59.105 (Requirements for Lamp Source and Shielding) and are not otherwise exempted pursuant Section 59.108 or Section 59.109 of the San Diego County Light Pollution Code.[1]
2. The project will operate Class I or Class III outdoor lighting between 11:00 p.m. and sunrise that is not otherwise exempted pursuant Section 59.108 or Section 59.109 of the San Diego County Light Pollution Code.
3. The project will generate light trespass that exceeds 0.2 foot-candles measured five feet onto the adjacent property.
4. The project will install highly reflective building materials, including but not limited to reflective glass and high-gloss surface color, which will create daytime glare and be visible from roadways, pedestrian walkways or areas frequently used for outdoor activities on adjacent properties.
5. The project does not conform to applicable Federal, State, or local statute or regulation related to dark skies or glare, including but not limited to the San Diego County Light Pollution Code.

5.2 Methodology

Two field visits to the project site were conducted on May 4 and 5, 2022. Additional data were collected via desktop in late August 2023 to document and gain an understanding of the existing landscape character to compare with the character of the project components (e.g., solar arrays, BESS facility, substation, and gen-tie), as well as to collect the necessary photograph documentation from each key observation point (KOP) for analysis and computer simulations.

An image series of two to three horizontal photographs was taken with a digital single-lens reflex camera at each KOP for use in producing a panorama "orientation" photograph with a single-frame simulation photograph to represent 50 millimeters (mm), the approximate field of view a human eye would see looking toward the project from each KOP. The photo points were recorded using a GPS unit and photographs were collected under typical, sunny, and generally clear viewing conditions.

The project was viewed from potential viewer group locations in the surrounding area. Representative public viewpoints were identified for further analysis based on dominance of the project site within the view, the relationship to visual resources, duration of views, and expected sensitivity of the viewer group. Of those representative viewpoints, consistent with County requirements, seven KOP locations were selected that best illustrate the visual effects and changes that would occur as a result of the project (Figure 2 and Table 1). The number identifications of the seven KOP locations (KOPs 2, 3, 4, 6, 7, 8, and 9) are consistent with the original field data numbering and are therefore not in direct numerical sequence.

[1] The County guidelines specifically reference the Requirements for Lamp Source and Shielding as Section 59.105; however, the County zoning ordinances have been updated since the publication of the guidelines. Requirements for Lamp Source and Shielding is now numbered as Section 51.204 of the County Light Pollution Code.

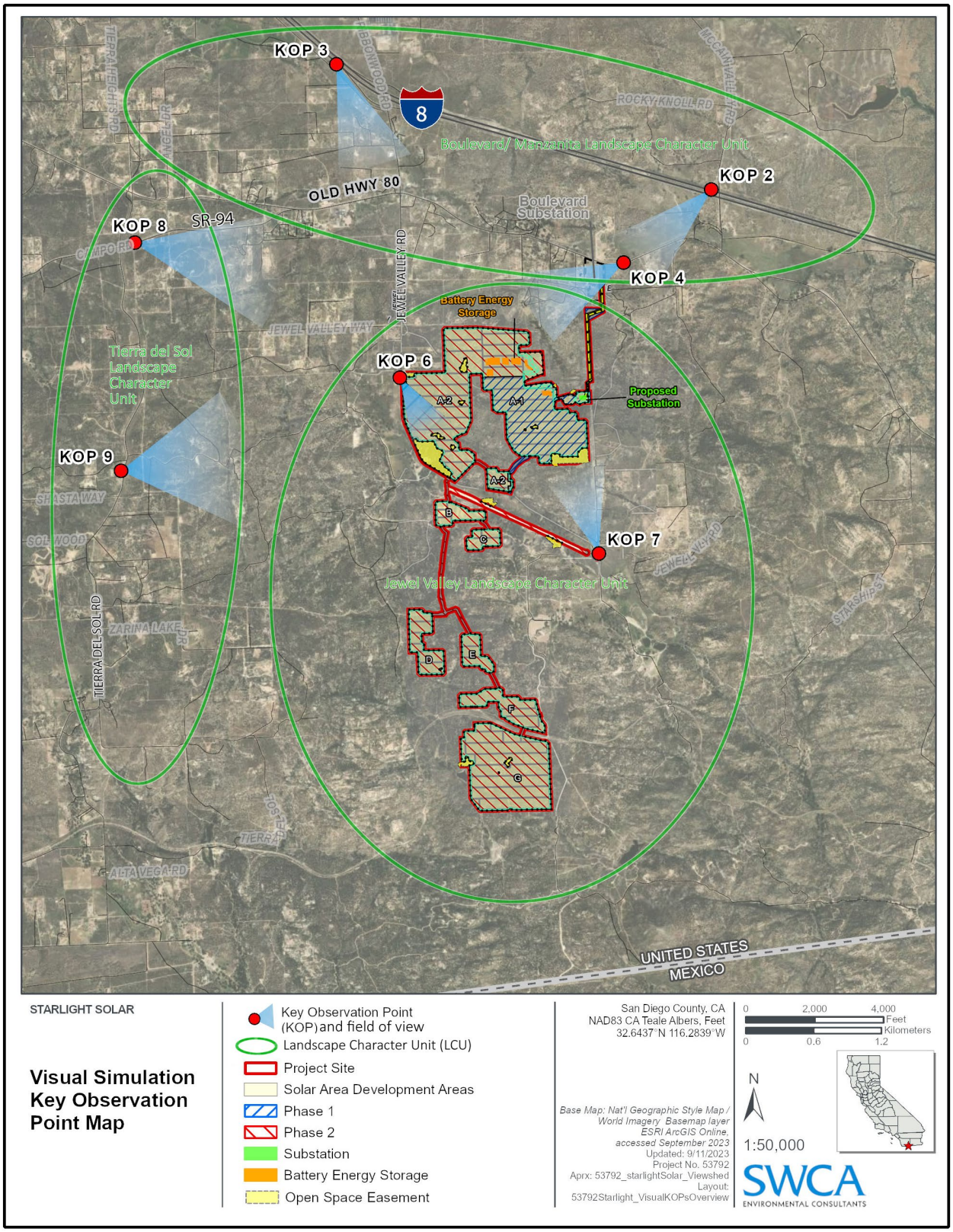

Figure 2. Key Observation Point and Landscape Character Unit Locations

Table 1. Key Observation Points

KOP Number	Description	Sensitive Viewer Group	Approximate Distance to nearest Project Boundary (miles) / Distance Zone
2	I-8 westbound	Travelers (Eligible State Scenic Highway)	1.2 / Midground
3	I-8 eastbound	Travelers (Eligible State Scenic Highway)	1.6 / Midground
4	Old Highway 80 westbound	Travelers (California State Historic Route)	0.7 / Foreground
6	Jewel Valley Road southbound	Travelers (local)	<0.1 / Foreground
7	Jewel Valley Road northbound	Travelers (local)	0.7 / Midground
8	SR 94 (two viewing angles)	Travelers (Eligible State Scenic Highway)	1.8 / Midground
9	Tierra del Sol Road	Travelers (local)	1.6 / Midground

Although KOPs were not specifically identified on private property, the selected key views are representative of not only public viewpoints, but also provide a basis for assessing the viewing angles and distances available to residential and recreational viewer groups in surrounding areas. The primary transportation corridors and developed areas in the region are north of the project site. Accordingly, the majority (but not all) of public viewing opportunities to the project will also occur in the areas surrounding the northern area of the project site.

5.2.1 *Visual Simulations*

Visual simulations were prepared to quantify potential project visibility and to assess related visual effects. Visual simulations are included in Section 5.3, Key Views, for quick reference, and again in Appendix A, Visual Simulations. Appendix A shows the simulations in a larger format with greater detail and includes technical data associated with each photograph and simulation. The appearance of structures shown in the photo-simulations is based on designs provided by Starlight Solar, LLC (Applicant), and as identified in the project description. Simulations of the project components for each KOP were made using Esri ArcGIS, Google Earth Pro, Autodesk products (AutoCAD and 3DS Max), and Adobe Photoshop software. The proposed layout of the solar arrays, battery storage, substation, and gen-tie were modeled based on most recent design files available, dated July 2023; the images (or "models") of the layout were then superimposed onto the panoramic photographs taken during the field reconnaissance.

The simulations were developed by superimposing a three-dimensional computer model of the project components on a digital elevation model and then placing that onto the base photographs at the correct scale and distance. Date and time-of-day inputs determine shadows and reflected light, and the software accounts for distance and haze to increase accuracy of viewing conditions. The specifications of the project layout included 1) portrait PV panels, 2) solar array panels oriented at 60 degrees, and 3) solar array strings placed in rows 15 to 25 feet apart. Project modeling also included a 10-foot-high BESS, 230-kV underground gen-tie, substation, and 6-foot-high security fence.

5.2.2 *Visual Assessment*

This analysis and subsequent determination of impacts is based primarily on a comparison of the project with the visual character and quality of its setting and surrounding vistas. The study also compares the project to the specific visual resources goals of the County. When policy and stated goals demonstrate that a high degree of value is placed on the visual environment, the standards to which the project is compared

are considered equally high. As a result of the project's location relative to public transportation corridors, recreational areas, and surrounding communities, combined with an awareness of scenic quality as reflected in County planning policy, it is anticipated that community and viewer sensitivity to visual changes is moderately high.

Visual character is qualitatively defined by four primary components: form, line, color, and texture. Projects that create a high level of contrast with the existing visual character of a project setting are more likely to generate adverse visual impacts due to visual incompatibility. Conversely, projects that create a low level of contrast with the existing visual character are less likely to generate adverse visual impacts due to inherent visual compatibility. Proposed project modifications were evaluated on this basis for impact analysis purposes.

The visual analysis in this section evaluates the project against thresholds from *Guidelines for Determining Significance and Report Format and Content Requirements – Visual Resources* (County of San Diego 2007) and *Guidelines for Determining Significance and Report Format and Content Requirements – Dark Skies and Glare* (County of San Diego 2009).

5.2.3 *Contrast Analysis*

The visual contrast analysis is a qualitative discussion of anticipated contrast between the existing landscape character and the proposed activities and/or facilities. Factors taken into consideration for such an analysis include distance of the project elements from the viewer and the level of perceived contrast between the project elements and the existing landscape. These factors are further defined below. The contrast analysis rating sheets are shown in Appendix C.

The following distance zones were used for evaluating impacts to scenery from each KOP:

- Foreground: up to 0.5 mile
- Midground: 0.5 to 3 miles
- Background: 3 to 5 miles

The level of perceived contrast between the project elements and the existing landscape from each KOP was classified using the following terms:

- None: The element contrast is not visible or perceived.
- Weak: The element contrast can be seen but does not attract attention.
- Moderate: The element contrast begins to attract attention and begins to dominate the characteristic landscape.
- Strong: The element contrast demands attention, would not be overlooked, and is dominant in the landscape.

5.2.4 *Glare Analysis*

To determine the potential for significant glint or glare from solar panels and other built project components that may affect residents and travelers on I-8, SR 94, Old Highway 80, Tierra del Sol Road, and Jewel Valley Road, SWCA Environmental Consultants (SWCA) used the Sandia National Laboratories' online Solar Glare Hazard Analysis Tools by ForgeSolar (see Appendix B). The glare tool and associated report illustrate via Google Earth imagery where the project is located relative to sensitive viewing locations such as airports, KOPs, roads/highways, and other transportation routes. The glare analysis methodology is

consistent with County dark sky guidelines and ordinances. Using simple parameters provided by the Applicant, the glare analysis provides a quantitative assessment of when and where glare from the project components would occur throughout the year and shows potential effects on the human eye at locations where glare occurs. The glare analysis also assesses the project's energy production so that the Applicant can compare alternative designs to maximize energy production while mitigating the impacts of glare. Additional information regarding the orientation and tilt of the PV panels, reflectance of project components, local environmental conditions, and ocular factors (e.g., flash blindness) are considered in the analysis (ForgeSolar 2020). The PV panels used in this analysis are fixed-frame racks with a tilt of 30 degrees resting angle and 60-degree maximum tracking and a maximum height of 12 feet above the ground, facing south. Existing vegetation and structures are considered when analyzing the results.

Analysis for the project used the GlareGauge model (also known as Solar Glare Hazard Analysis Tool [SGHAT]) developed by ForgeSolar and the U.S. Department of Energy's Sandia National Laboratories to evaluate potential glare (the Solar Glare Analysis and associated data are provided in Appendix B). The analysis focused on potential glare effects on observation points and linear travel routes. Aircraft landing and approach were considered. The proposed project site is approximately 6.5 miles west of the County-owned and publicly used Jacumba Airport. Although the project is not located on airport property and therefore not subject to Federal Aviation Administration (FAA) jurisdiction under 14 Code of Federal Regulations 77 to protect airspace safety, and is located beyond the 2-mile final approach as defined in the Interim Solar Policy, the Applicant has sought to voluntarily apply FAA ocular hazard standards (*Federal Register* 78:63276). These results comply with the FAA standards described in the Interim Solar Policy.

Military operating areas occur throughout eastern San Diego County. Review of the Solar Glare Analysis and the project site lighting description indicates that proposed lighting, implemented in compliance with the County lighting ordinance and policies, would not result in substantial light to military operating area day-to-day operations. The minimal glare modeled from the sensitive receptors does not create hazards such as flash blindness or continuous glare, nor adversely affect daytime or nighttime views in the area. Coordination with local defense facility and operations would be obtained as part of the project's required approvals. As part of the Major Use Permit and/or CEQA process, the Applicant would seek written concurrence of the project's compatibility with military operations if necessary.

5.3 Key Views

5.3.1 *KOP 2: Interstate 8 Westbound*

5.3.1.1 ORIENTATION

KOP 2 represents westbound travelers along I-8, an Eligible State Scenic Highway, north of the project site (see Figure 2). An average of approximately 8,000 vehicles per day pass along this section of I-8 (Caltrans 2017). Viewers along this roadway would be traveling at a high rate of speed and would be looking south-southwest to view the project at a distance of approximately 1.2 miles. Portions of the project including PV panels, access roads, cleared vegetation, and other elements would be seen along an approximately 3.5-mile section of I-8, with a potential viewing duration of approximately 3 minutes, 15 seconds traveling at the posted speed limit.

Along a portion of this route, viewers would have slightly elevated views of the northern edge of the project, including the PV arrays, substation, BESS, and portions of the gen-tie. Viewers would also have open, panoramic views of the rolling landscape dotted with rock outcroppings and shrub-sized vegetation and would see the entire width of the north side of the project, east to west. Figure 3 presents both existing and simulated views of the project from KOP 2.

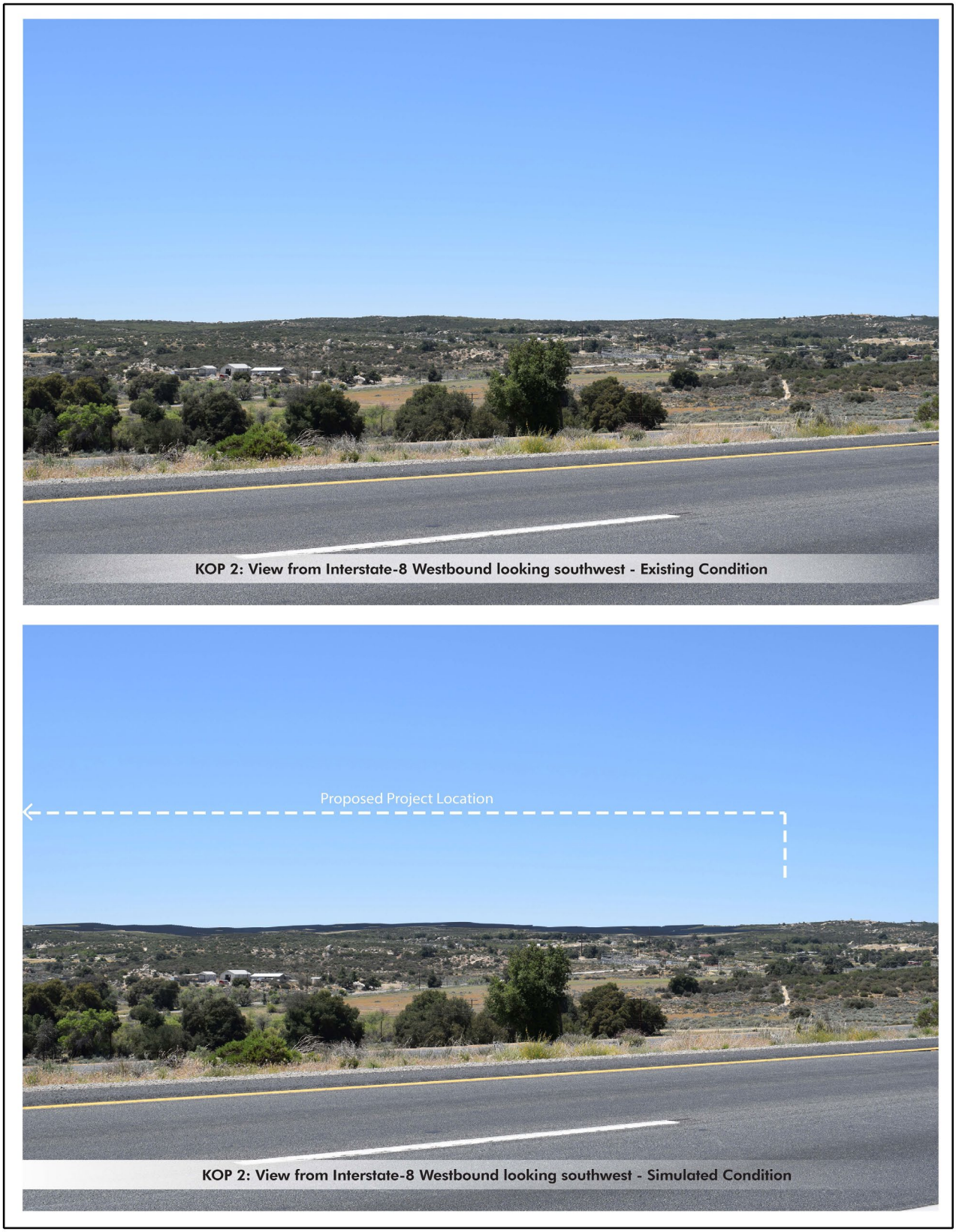

Figure 3. Visual Simulation – KOP 2, View from Interstate 8 Westbound, Facing Southwest

5.3.1.2 EXISTING VISUAL CHARACTER AND QUALITY

Views from KOP 2 (see Figure 3) include expansive panoramas of gently undulating terrain in the foreground, with moderately sloped hills in the midground and large mountains defining the horizon in the background. The site appears naturalistic with dense low-growing, dark green shrubs such as manzanita (*Arctostaphylos* sp.) and low-growing native trees such as juniper. Development in this area consists of single-family residential housing dispersed throughout the landscape. An existing electrical substation can be seen in the foreground along with associated transmission lines.

Although development can be seen from KOP 2, the visual character maintains that of a rural community. The existing visual attributes such as built form, density, and style support this moderately high visual quality and scenic character.

5.3.1.3 CHANGES TO VISUAL CHARACTER AND QUALITY

The project would be constructed on the hillside, spreading east to west from this vantage point. The dark panels would appear somewhat similar in shade to the existing vegetation and would have weak to moderate visual contrast to the surrounding natural colors. Despite some rock outcroppings remaining in place along the project ridgeline, the arrays would attract attention and would have strong visual contrast with the terrain. Although the PV arrays would generally follow the existing landform, their geometric forms and industrial appearance would be seen and would occupy a relatively large portion of the existing viewshed to the south. From this viewing area, the dark, angular, alternating, geometric forms of the arrays would be seen silhouetting above the ridgeline. The high visibility and scale of the project in combination with the inherent alteration to a more industrial use would substantially reduce the rural character of the site and surroundings.

5.3.1.4 VIEWER RESPONSE

The viewing distance from KOP 2 to the project would be approximately 1.2 miles. This viewing distance would somewhat reduce viewer exposure as well sensitivity to the individual elements of the project. However, this view would still provide high-quality panoramic vistas and support an increased viewer sensitivity. Although existing development is visible from this KOP, the Eligible State Scenic Highway designation of I-8 tends to create a higher level of viewer expectations regarding visual quality, resulting in an inherent increase in viewer sensitivity. Because of the numbers of potential viewers traveling the highway, and its status as an Eligible State Scenic Highway and resulting expectations, the sensitivity and response to visual changes from KOP 2 are considered moderately high.

5.3.1.5 RESULTING VISUAL IMPACT

This KOP represents westbound travelers along I-8 north of the project site (see Figure 3). Travelers along this route would have slightly elevated views of the northern portions of the project with views of the substation, BESS, and portions of the gen-tie that would be above ground. Viewers from this KOP would have open, panoramic views of the rolling landscape dotted with rock outcroppings and shrub-sized vegetation. From this viewpoint, the project would be seen from a somewhat raised viewing position where viewers would see nearly the entire width of geometric patterns associated with arrays along the north side of the project. With the introduction of new forms and lines not found in the existing landscape, the scale of the project would attract attention and be inconsistent with the mostly rural and natural visual quality.

Due to the somewhat elevated viewer perspective, the project would be readily seen from this KOP. Intervening topography and the somewhat random visual pattern elements of vegetation, rock, and scattered

development on the site and surroundings would reduce project noticeability to some degree. Vegetation removal would be apparent and would increase the perception of the project's utilitarian visual character.

The proposed gen-tie would be almost entirely underground, and the roughly 100-foot overhead section where visible as seen from this viewing distance would be somewhat similar in form, line, color, and texture to the existing transmission lines in the area.

Although the large arrays of PV panels would mostly follow the existing landform, they would be seen as angular built forms extending above a visually important mid-distance ridgeline to the southwest, as described in County planning documents. This contrast with the existing natural landscape would result in a reduction in the quality of the scenic vista and an alteration of existing rural character.

5.3.2 *KOP 3: Interstate 8 Eastbound*

5.3.2.1 ORIENTATION

KOP 3 represents the view from a vehicle traveling east on I-8 northwest of the project site (see Figure 2) with the traveler looking to the south and southeast. This KOP represents travelers along an Eligible State Scenic Highway. Viewers along this roadway would be traveling at a high rate of speed and would be looking south-southeast to view the project approximately 1.6 miles from this vantage point. Portions of the project would be seen along an approximately 3.5-mile section of I-8, with a potential viewing duration of approximately 3 minutes, 15 seconds traveling at the posted speed limit. Approximately 17,000 vehicles per day pass along I-8 through the Boulevard/Manzanita LCU (Caltrans 2017). Figure 4 presents both existing and simulated views of the project from KOP 3.

5.3.2.2 EXISTING VISUAL CHARACTER AND QUALITY

The view from this KOP (see Figure 4) is characterized by broad, panoramic views of the gently rolling landscape composing the project site with moderately sized dark green vegetation, dense in some areas and patchy in others, and taller trees surrounding residences in the foreground. Light green, shorter vegetation and dispersed tan boulders are clustered in areas as seen from this vantage point but are more dispersed in the project site.

Views from this vantage point are of expansive panoramas of gently undulating terrain in the foreground, with moderately sloped hills in the midground and large mountains in the background. The site appears naturalistic with dense low-growing, dark green shrubs such as manzanita and low-growing native trees such as juniper. Development in this area consists of single-family residential housing dispersed throughout the landscape. Commercial structures associated with the community are located near the highway and can be seen in the immediate foreground.

KOP 3: View from Interstate-8 Eastbound looking southeast - Existing Condition

KOP 3: View from Interstate-8 Eastbound looking southeast - Simulated Condition

Figure 4. Visual Simulation – KOP 3, View from Interstate 8 Eastbound, Facing Southeast

5.3.2.3 CHANGES TO VISUAL CHARACTER AND QUALITY

The project would be constructed on the distant hillside, spreading east to west from this vantage point. The dark panels would appear somewhat similar in shade to the existing dark green vegetation and would have weak to moderate contrast relative for color. The form and line of the arrays would vary from the existing site conditions; however, with the rock outcroppings remaining in place along the ridgeline, the array would attract attention as a visually contrasting element to the natural surroundings but would have substantial impacts to the terrain. The scale of the project as seen from this vantage point covers a large area. Although broken up by small segments of open vegetation, the project is expected to attract the attention of the casual observer and to have moderately strong visual contrast with the surrounding landscape character resulting from the dark, alternating, angular, geometric forms of the arrays which would be seen silhouetting above the ridgeline.

5.3.2.4 VIEWER RESPONSE

Viewing distance from KOP 3 to the project would be approximately 1.6 miles. Similar to KOP 2, the viewing distance would reduce viewer exposure as well as sensitivity to the individual elements of the project. The view from KOP 3 would still provide high-quality panoramic vistas which would add to viewer sensitivity. Existing development in the surrounding area can be seen from KOP 3. Despite that, the Eligible State Scenic Highway designation of this route creates a higher level of viewer expectations regarding visual quality, resulting in an increase in viewer sensitivity. Because of the numbers of potential viewers traveling on I-8, and its Eligible State Scenic Highway status and resulting expectations, the sensitivity and response to visual changes from KOP 3 are considered moderately high.

5.3.2.5 RESULTING VISUAL IMPACT

This KOP represents the view from a vehicle traveling east on I-8 northwest of the project site (see Figure 2) with the traveler looking to the south and southeast. The view from this KOP (see Figure 4) is characterized by broad, panoramic views of the gently rolling landscape covered with moderately sized dark green vegetation, dense in some areas and patchy in others, and taller trees surrounding residences in the foreground. Light green, shorter vegetation and dispersed tan rock outcroppings are clustered in areas as seen from this vantage point.

Due to the somewhat elevated viewer perspective, the project would be easily visible from this KOP resulting from the contrasting angular, geometric patterns of the arrays with the generally organic edges and forms of the surrounding vegetation and landform. Intervening topography and the generally random visual patterns of vegetation, rock, and scattered development on the site and the surrounding areas would reduce project noticeability to some extent. Vegetation removal would be noticeable and would increase the perception of the project's industrial visual character.

Although the majority of the proposed gen-tie would be underground, a section near its connection to the substation would be visible, and although similar in form, line, color, and texture to the existing transmission lines in the area, would add to the project's overall visual contrast with the surrounding natural landscape. The visible contrast with the natural surroundings would also increase the developed visual character of the area.

The large swaths of PV panels would generally follow the existing topography; however, they would also be seen extending above a mid-distance ridgeline to the southeast, resulting in a reduction in the quality of the scenic vista and an alteration of existing rural character.

5.3.3 *KOP 4: Old Highway 80 Westbound*

5.3.3.1 ORIENTATION

KOP 4 is from Old Highway 80 westbound and represents the wide range of travelers using this important local roadway (see Figure 2). Viewers along Old Highway 80 would be traveling at low to moderate rates of speed and would be facing west to southwest toward the project site at a distance of approximately 0.7 mile. From this vantage point visual access to the project would be substantially limited due to intervening landform, vegetation, and occasional development. Portions of the project such as the substation, aboveground gen-tie, and to a lesser extent the BESS and solar arrays would be seen intermittently along an approximately 0.4-mile section of Old Highway 80, with a potential viewing duration of approximately 30 seconds traveling at the posted speed limit. It is estimated that approximately 500 vehicles per day use Old Highway 80 through the Boulevard/Manzanita LCU (Kittelson 2024). Figure 5 presents both existing and simulated views of the project from KOP 4.

5.3.3.2 EXISTING VISUAL CHARACTER AND QUALITY

The visual character as seen from KOP 4 (Figure 5) is that of a rural community, with visual attributes such as built form, density, and style that support its moderately high visual quality and scenic character. The combinations and patterns of natural and built elements contribute to the quality visual context. From this viewpoint the generally sparse and modestly scaled development supports the visual cohesiveness of the semi-rural character of the view. From Old Highway 80, many long-range views of the surrounding landscape are blocked or substantially limited by the proximity of existing development.

Existing utilities and other infrastructure can be readily seen from KOP 4. Development in this area includes a substation and associated power lines as well as scattered residential housing. Although the relatively close viewing proximity of these built elements increases their noticeability, the underlying visual character from KOP 4 and Old Highway 80 is mostly defined by the overall natural landform and vegetation and rural development land use.

5.3.3.3 CHANGES TO VISUAL CHARACTER AND QUALITY

The existing high quality of views along Old Highway 80 is based in large part on varied topography, native vegetation, rock outcroppings, and rural character. The project would be constructed on the hillside, approximately 0.7mile at its nearest location, but would predominantly be screened to Old Highway 80 travelers from both directions due to intervening topography and vegetation.

5.3.3.4 VIEWER RESPONSE

The California State Historic Route designation of Old Highway 80 increases viewer sensitivity and anticipations regarding scenic quality. Along with high-quality views, existing development is also part of the visual context along this Old Highway 80, including utility infrastructure and industrial facilities such as the SDG&E substation and the Caltrans maintenance yard. The somewhat industrial appearance of these facilities and their close proximity to the roadway changes viewing expectations to some degree. Because of these competing factors, the sensitivity and response to visual changes as seen from KOP 4 are considered moderate.

Figure 5. Visual Simulation – KOP 4, View from Highway 80 Westbound, Facing Southwest

5.3.3.5 RESULTING VISUAL IMPACT

Viewers from KOP 4 would have foreground, level views of the substation and portions of the aboveground gen-tie, but views of the solar panel arrays would be partially or entirely screened due to intervening topography and existing vegetation (see Figure 5). Similarly, the BESS would be somewhat obscured by topography and would have limited views for travelers along Old Highway 80. Due to this limited visibility, many casual observers would be generally unaware of the changes implemented by the project. Accordingly, as seen from KOP 4 the project would result in only a minor reduction in the existing visual quality.

5.3.4 *KOP 6: Jewel Valley Road Southbound*

5.3.4.1 ORIENTATION

KOP 6 is from Jewel Valley Road southbound and represents local travelers (see Figure 2). Viewers along this roadway would be traveling at low rates of speed and would be looking primarily south with unobstructed views of the project as close as 60 feet from the roadway (see Figure 6). Travelers along Jewel Valley Road are often making local trips and are typically driving at slow to moderate rates of speed. Portions of the project including close-up views of the PV panels and support structures, fencing, and access roads, as well as distant arrays would be seen intermittently along an approximately 1-mile section of Jewel Valley Road, with a potential viewing duration of approximately 1 minute, 15 seconds traveling at the posted speed limit. It is estimated that approximately 310 vehicles per day use Jewel Valley Road through the Jewel Valley LCU (Kittelson 2024). Figure 6 presents both existing and simulated views of the project from KOP 6.

5.3.4.2 EXISTING VISUAL CHARACTER AND QUALITY

The view from KOP 6 (see Figure 6) and elsewhere along Jewel Valley Road is predominantly ranchland, scattered rural residential development, and open space. The landform and landcover of this view are typical of the region, with rolling topography dotted with rock outcroppings, scattered juniper, chaparral, and native grasses and forbs. The visual character of KOP 6 is rural, supported by its land use, ranch and rural residential buildings and architecture, and sparse development. As seen from KOP 6, distant mountains define the horizon, contributing to the high visual quality and character of this viewpoint.

5.3.4.3 CHANGES TO VISUAL CHARACTER AND QUALITY

Views from this vantage point are panoramas of a rural and natural landscape. The introduction of solar panels would screen or partially screen panoramic views from this vantage point along an approximately 0.5-mile segment of this roadway. In locations where the roadside panels do not block long-distance views, other solar panels would be visible on the rolling hills to the south and east. The solar arrays would introduce new form, line, color, and texture to the site. The geometric and angular forms of the arrays, support structures, fencing, and roads would be noticeable compared to the otherwise mostly natural and rural surrounding landscape. Views would have strong contrast due to the close proximity to the panels. From some locations the proximity and heights of the panels would partially block views of the surrounding mountains. These changes would alter the visual quality and character from rural to semi-industrial by adding industrial elements to the viewshed.

KOP 6: View from Jewel Valley Road looking southeast - Existing Condition

KOP 6: View from Jewel Valley Road looking southeast - Simulated Condition

Figure 6. Visual Simulation – KOP 6, View from Jewel Valley Road, Facing Southeast

5.3.4.4 VIEWER RESPONSE

Jewel Valley Road passes through a high-quality visual environment and provides access to local privately owned recreation areas and scenic vantage points. Viewers experiencing this quality visual environment from Jewel Valley Road and KOP 6 are expected to have an increased sensitivity to changes to the quality and character of the surrounding landscape. Travelers along Jewel Valley Road and from the KOP 6 vantage point are usually making local trips and are typically driving at slow to moderate rates of speed which would increase viewer exposure and awareness. In addition, viewers from KOP 6 and along much of Jewel Valley Road would see the project in close proximity, at distances as close as 60 feet. Because of the high quality and character of the surrounding landscape, in combination with the increased visual exposure and proximity to the project site, the sensitivity of viewers in KOP 6 is considered high.

5.3.4.5 RESULTING VISUAL IMPACT

As seen from KOP 6 and much of Jewel Valley Road, proximity to the roadway and viewing orientation would result in direct, close-range views of the project. From these viewpoints, the project would be readily visible and substantially redefine the visual character of the site and the project vicinity from rural to semi-industrial. The project would result in a noticeable contrast with the visual character and quality of the natural and rural setting due to the introduction of angular, repetitive, industrial elements and forms. In addition, from segments of Jewel Valley Road, the viewing proximity and heights of the adjacent panel arrays would block views of the distant hillsides.

Proposed removal of substantial amounts of mature native vegetation would be noticeable from this KOP. Large fields of solar arrays constructed throughout the project site would introduce a new, visually incompatible contrasting elements into a predominantly natural viewshed as seen from KOP 6. Visible project elements would reduce the rural character of the area. As a result of these factors, the project would result in a substantial adverse effect on the existing visual quality and character of the site and surroundings as seen from this KOP.

5.3.5 *KOP 7: Jewel Valley Road Northbound*

5.3.5.1 ORIENTATION

KOP 7 represents primarily local and recreational users traveling northbound along the southern segment of Jewel Valley Road (see Figure 2). Similar to KOP 6, viewers along this roadway are typically traveling at moderate rates of speed, with views oriented primarily to the north uphill toward the project, depending on direction of travel. The viewing distance from KOP 7 to the project boundary is approximately 0.7 mile. Based on the project layout, size, and undulating landform, the array system would generally not be seen in its entirety, but rather as smaller sub-units, or along the horizon. Portions of the project would be seen intermittently along an approximately 1-mile section of Jewel Valley Road, with a potential viewing duration of approximately 1 minute, 15 seconds traveling at the posted speed limit. Figure 7 presents both existing and simulated views of the project from KOP 7.

5.3.5.2 EXISTING VISUAL CHARACTER AND QUALITY

The view from KOP 7 (Figure 7) and Jewel Valley Road is predominantly ranchland, scattered rural residential development, and open space. The landform and landcover is typical of the region, with rolling topography dotted with rock outcroppings, scattered juniper, chaparral, and native grasses and forbs. The visual character of KOP 7 is distinctly rural, supported by its land use, ranch and rural residential buildings

and architecture, and sparse development. As seen from KOP 7, distant mountains define the horizon, contributing to the high visual quality and character of this viewpoint.

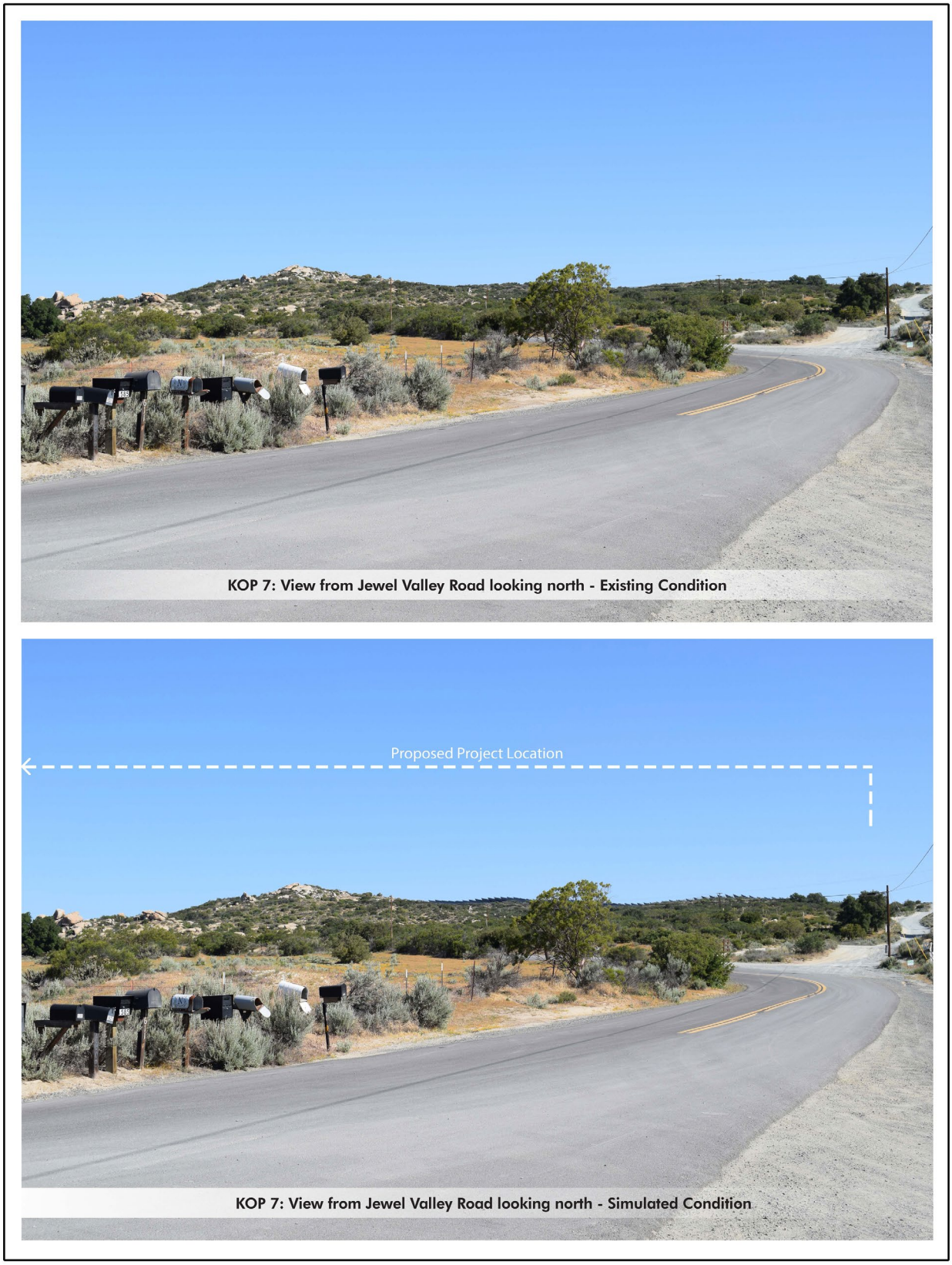

Figure 7. Visual Simulation – KOP 7, View from Jewel Valley Road, Facing North

5.3.5.3 CHANGES TO VISUAL CHARACTER AND QUALITY

From KOP 7 the solar arrays primarily along the eastern portion of the project would be seen on a hillside approximately 0.7 mile to the north. The dark panels would appear somewhat similar in shade to the existing dark green vegetation and would have weak to moderate contrast relative for color. The form and line of the arrays would vary from those seen in the surrounding area and contrast with the natural landscape, due to the repetitive lines and geometric forms of the arrays. Although existing rock outcroppings would remain in place along the ridgeline, the arrays would attract attention. The scale of the project as seen from this vantage point covers a large area. Although broken up by small segments of open vegetation, the project is expected to be noticeable and to have moderately strong visual contrast with the surrounding landscape context. The arrays of PV panels would generally follow the existing topography; however, the repetitive angled edges and geometric forms of the panels and the arrays would also be seen silhouetting above the primary ridgeline to the north, resulting in a reduction in existing rural character and quality.

5.3.5.4 VIEWER RESPONSE

Viewers from KOP 7 and along Jewel Valley Road pass through a high-quality visual environment that provides access to local privately owned recreation areas and scenic vantage points. Viewers experiencing this quality visual environment are expected to have an increased sensitivity to changes to the quality and character of the surrounding landscape. This heightened level of exposure would affect views from KOP 7 and travelers along Jewel Valley Road. Residences in the vicinity would also have views of the project. Although no CEQA findings are made solely from private residences, project visibility from residences is noted as it relates to overall visual exposure.

The viewing distance from the KOP 7 to the project would be approximately 0.7 mile. This mid-range distance would allow viewers to visually distinguish project forms and lines from the surrounding landscape, resulting in an increased sensitivity to the individual elements of the project. Because of the viewing orientation, quality of existing views, and resulting expectations, the viewer sensitivity and response to visual changes from KOP 7 are considered moderately high.

5.3.5.5 RESULTING VISUAL IMPACT

The view from KOP 7 is characterized by high-quality views of the gently rolling landscape covered with rock outcroppings, dark green native vegetation, with taller trees scattered throughout. Although ranches and residences can be seen in the area, those built features are visually subordinate to the underlying scenic quality defined by the topography, native vegetative patterns, and rock outcroppings.

Although intervening topography and roadside vegetation would reduce project noticeability to some degree, the prominent location of the solar arrays on the highly visible ridgeline would allow the project to be readily seen from this KOP and the surrounding area. The solar arrays would generally follow the existing topography; however, their noticeability extending above an important mid-distance ridgeline, as valued in County policy, due to the repetitive elements of the angled arrays would result in a reduction in the quality of the scenic vista and an alteration of existing rural character. In addition, vegetation removal would be apparent and would increase the perception of the project's industrial visual character.

5.3.6 *KOP 8: State Route 94 Eastbound*

5.3.6.1 ORIENTATION

KOP 8 is from SR 94 eastbound and represents travel route viewers from an Eligible State Scenic Highway (see Figure 2). Viewers along this roadway would be traveling at low to moderate rates of speed and would

be looking primarily east as they crest the hill with panoramic views of the project site, as represented by this KOP. From this viewpoint the project would be seen at a distance of approximately 1.8 miles to the southeast. Portions of the project such as the panel arrays and removed vegetation would be seen along an approximately 0.5-mile section of SR 94, with a potential viewing duration of approximately 45 seconds traveling at the posted speed limit. Approximately 1,850 vehicles per day use SR 94 through the Boulevard/Manzanita LCU (Caltrans 2017).

Figures 8 and 9 present both existing and simulated views of the project from KOP 8. Figure 8 presents views facing east, and Figure 9 presents views facing southeast.

5.3.6.2 EXISTING VISUAL CHARACTER AND QUALITY

The visual character seen from KOP 8 (see Figures 8 and 9) is mostly defined by panoramic views of the varied and undulating topography and series of intermediate and distant ridgelines and mountainous backdrop. Exposed rock outcroppings provide visual interest and add to the natural character of the landscape. The visual character observed from KOP 8 is distinctly rural, supported by its land use, ranch and rural residential buildings and architecture, and sparse development. Scattered ranches, rural residential development, and open space contribute to a high visual quality. Vegetative patterns of native juniper, chaparral, and grasses are the predominant vegetative landcover seen throughout the area and are an important character-defining element. The elevated vantage point of this KOP affords scenic vistas with high compositional value, resulting in a high visual character and quality.

5.3.6.3 CHANGES TO VISUAL CHARACTER AND QUALITY

The proposed solar panel arrays would be constructed on the distant hillside, approximately 1.8 miles from this viewpoint (see Figures 8 and 9). The dark panels would appear somewhat similar in shade to the existing dark green vegetation seen in the surrounding landscape. Despite the color similarity, the massing of geometric forms and repetitive lines of the solar array fields would contrast with the natural patterns of the viewshed. As seen from KOP 8, the project would follow the existing topography; however, the solar array fields would be seen occupying an intermediate ridgeline to the southeast, resulting in a reduction in existing rural character and quality due to the angular, and repetitive geometric forms in contrast to the surrounding soft, natural vegetative forms.

Although the viewing distance from KOP 8 and along SR 94 would somewhat reduce project noticeability, the distance would also make the scale of the project more apparent, increasing the perception of the visual character change from rural and open space to a utility infrastructure use.

Figure 8. Visual Simulation – KOP 8, View from State Route 94 Eastbound, Facing East

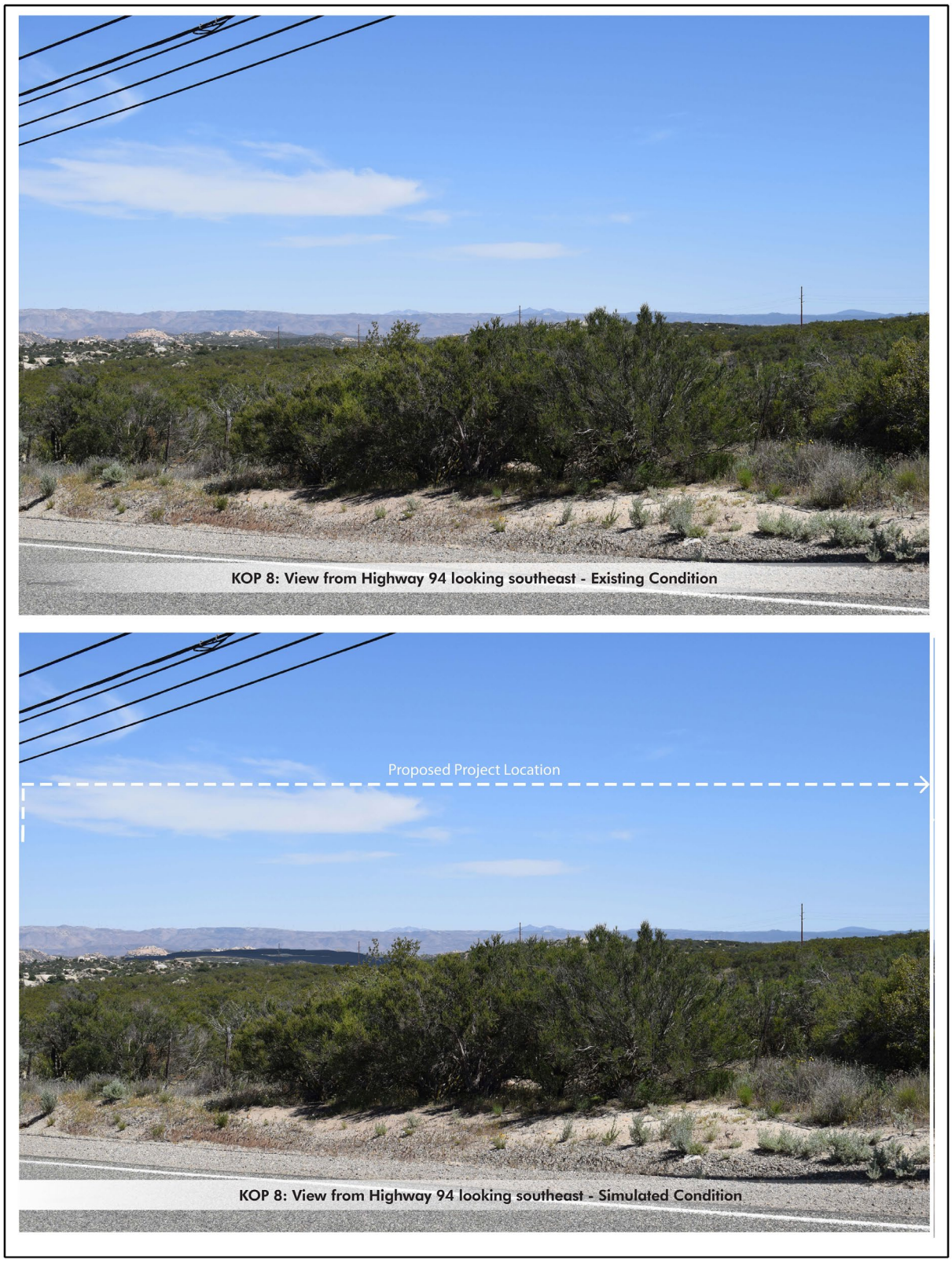

Figure 9. Visual Simulation – KOP 8, View from State Route 94, Facing Southeast

5.3.6.4 VIEWER RESPONSE

The longer viewing distances afforded from KOP 8 would somewhat reduce viewer exposure and sensitivity to the individual elements of the project. Despite this moderating effect, views would still include high-quality panoramic vistas and rural landscapes (see Figures 8 and 9). As a result, the overall viewer sensitivity and response to changes in the visual environment from this viewpoint are considered moderately high.

5.3.6.5 RESULTING VISUAL IMPACT

This KOP represents travel route viewers along SR 94, an Eligible State Scenic Highway section of the highway with slightly raised views of the northernmost project site. Views from this KOP are characterized by broad, panoramic, high-quality views of the valley in which the project is sited (see Figures 8 and 9). Viewers would notice changes such as the contrast between the linear form of the arrays and the natural landscape, as well as the visually incompatible large scale of the project. Other project elements, such as the aboveground portion of the gen-tie or BESS facility would not be seen from this vantage point.

Large fields of solar arrays constructed throughout the project site would introduce a new, visually contrasting and incompatible industrial use into the rural viewshed as seen from KOP 8. As a result of these factors, the project would result in a moderately adverse effect on the existing visual quality and character of the site and surroundings.

5.3.7 *KOP 9: Tierra del Sol Road*

5.3.7.1 ORIENTATION

KOP 9 represents viewers traveling along Tiera del Sol Road, an important north-south corridor in the region (see Figure 2). Views from this local roadway are considered high quality and representative of the region's rural and scenic character. Viewers passing by this KOP would be traveling at moderate rates of speed as they crest the hill with panoramic views of the project site. From this viewpoint the project would be seen at a distance of approximately 1.6 miles to the east. Portions of the project such as the PV arrays along the western project area would be seen intermittently along an approximately 1-mile section of Tierra del Sol Road, with a potential viewing duration of approximately 1 minute traveling at the posted speed limit. Although no traffic volume data are available for Tierra del Sol Road, its importance is identified in the Boulevard Subregional Plan as a local road with views that are "breathtaking in the sheer amount of territory that can be seen in virtually all directions with virtually no obstructions" (County of San Diego 2013:8). Figure 10 presents both existing and simulated views of the project from KOP 9.

From much of Tierra del Sol Road, views to the project would be blocked by intervening landforms and vegetation. However, from certain areas of KOP 9, portions of the project would be easily seen in the distance. Travelers viewing eastward from Tierra del Sol Road would see the arrays to the east, where the intervening foreground landforms drop in elevation and the arrays come into the midground view.

Figure 10. Visual Simulation – KOP 9, View from Tierra del Sol Road, Facing East

5.3.7.2 EXISTING VISUAL CHARACTER AND QUALITY

KOP 9 shows the visual character and quality of the landscape from a somewhat elevated public vantage point (Figure 10). These more expansive views result in a high visual quality which includes scenic vistas of the Laguna Mountains to the north. Similar to KOP 8, the character and visual quality of this KOP are typical of the region. The visual character observed from KOP 9 is distinctly rural, supported by its land use, ranch and rural residential buildings and architecture, and sparse development, which contribute to a high visual quality. Vegetative patterns of native juniper, chaparral, and grasses are the predominant vegetative landcover seen throughout the area and are an important character-defining element. The elevated vantage point of this KOP affords scenic vistas with high compositional value, resulting in a high visual character and quality.

5.3.7.3 CHANGES TO VISUAL CHARACTER AND QUALITY

The proposed solar panel arrays would be constructed on the distant hillside, approximately 1.6 miles from this viewpoint. The dark panels would appear somewhat similar in shade to the existing dark green vegetation seen in the surrounding landscape. Despite the color similarity, the massing of geometric and angular forms and lines of the solar array fields would contrast with the natural patterns of the predominantly natural viewshed. As seen from KOP 9, the project would follow the existing topography; however, they would be seen occupying an intermediate ridgeline to the southeast, resulting in a reduction in existing rural character and quality.

Although the viewing distance from KOP 9 and along Tierra del Sol would reduce project noticeability, the distance would also make the scale of the project more apparent, increasing the perception of the visual character change from rural and open space to a utility infrastructure use.

5.3.7.4 VIEWER RESPONSE

The longer viewing distances and wider viewshed associated with KOP 9 would reduce viewer exposure and sensitivity to the individual elements of the project. Despite this moderating effect, views would still include high-quality panoramic vistas and rural landscapes. As a result, the overall viewer sensitivity and response to changes in the visual environment from this viewpoint are considered moderately high.

5.3.7.5 RESULTING VISUAL IMPACT

Views from this KOP 9 are characterized by broad, panoramic, high-quality views of the valley in which the project is sited. Viewers could notice changes such as the contrast between the linear form of the arrays and the natural landscape, as well as the visually incompatible large scale of the project. Other project elements, such as the aboveground portion of the gen-tie or BESS facility would not be seen from this vantage point.

This view from KOP 9 is considered high quality and representative of the region's valued rural and scenic character. From much of Tierra del Sol Road, views to the project would be blocked by intervening landform and vegetation. However, from certain areas, such as the vicinity of the California Department of Forestry and Fire Protection (CAL FIRE) White Star Fire Station, portions of the project would be easily seen in the distance. Travelers viewing eastward from Tierra del Sol Road may see the arrays to the east, where the intervening foreground landforms drop in elevation and the arrays come into the midground view, appearing as modular, darker, and contrasting forms on the hillsides. The views of the project from Tierra del Sol Road diminish from visible to partially obscured and not visible the farther south a traveler is from the project.

The visibility of large swaths of solar arrays would introduce a new, industrial, and visually contrasting use into the viewshed as seen from KOP 9. As a result of these factors, the project would result in a moderately adverse effect on the existing visual quality and rural character of the site and surroundings.

5.4 Assessment of Visual Character and Visual Quality

5.4.1 *Assessment of Visual Character*

5.4.1.1 EXISTING CONDITION

The existing visual character of the project site and its surroundings is a product of both natural and built elements, including uses such as rural and agricultural, residential, commercial, renewable energy, public infrastructure, and open space. The project site is spread over a large and somewhat varied area; however, its rolling topography and hillsides, patterns of native vegetation, and mostly rural use all contribute to a moderately high to high value existing visual character.

5.4.1.2 DURING CONSTRUCTION

The project would be constructed in two separate phases. Construction of Phase I would occur over approximately 12 months and Phase II would occur over approximately 18 months. It is anticipated there would be approximately a 1-year gap between construction of Phase I and Phase II.

During the construction period, earth-moving activities and construction materials, heavy and light equipment, trucks, and parked vehicles would be visible on the project site. Throughout construction, a number of activities would take place, including large-scale vegetation removal, earthwork, and installation of all project elements. These construction activities would result in a greater degree of visual contrast than would occur during project operation. Because of the relatively close time frame between construction phases, it is expected that the casual observer and the surrounding community would perceive project construction as occurring in a single, overlapping phase.

Although the visual contrast and effect on character during the construction phase would be somewhat greater than that during subsequent project operations, this overall adverse effect on visual character would be moderated due to the temporary nature of the construction activities.

5.4.1.3 END OF CONSTRUCTION

Although visibility of the project would be somewhat blocked from certain mid- and long-range public views, the project would result in a noticeable contrast with the visual character and quality of the natural and rural setting where visible. As seen from closer viewpoints, the project would be readily visible and substantially alter the visual context. The project would alter the visual character of the site and the project vicinity. A change in character is inherent with the conversion of open space and rural land to a utility-scale solar development. The project would remove significant amounts of mature native vegetation in large geometric patterns to accommodate the facility. Large swaths of PV arrays and other supporting project elements constructed throughout the project site would introduce a new, industrial, and visually contrasting use into the viewshed as seen from many surrounding public viewpoints.

The proposed reseeding of disturbed areas immediately following project construction would not visually mitigate the alteration of vegetative character caused by removal of substantial amounts of native plants.

As a result of these factors, the project would result in a substantial adverse effect on the existing visual quality and character of the site and surroundings and would be inconsistent with County policy regarding preservation of visual quality.

5.4.1.4 MATURITY

The project proposes to reseed all disturbed areas with a native plant hydroseed mix as soon as possible after disturbance. In addition, at least 70% vegetation cover is proposed to be maintained during project operation on the portions of the solar facility development footprint within the perimeter fencing not overlain by vehicle access driveways and internal access, inverter/transformer platforms, battery storage containers, and the on-site substation.

Due to the uncertainty of revegetation success, combined with the required fuel modification zones and permanently disturbed areas, the proposed revegetation seeding would provide only partial visual benefit of reducing the visual contrast of light-colored exposed soils in comparison with the surrounding, dark green vegetation and mitigation of loss of visual character to the project site and the surroundings.

5.4.2 *Assessment of Visual Quality*

5.4.2.1 EXISTING CONDITION

Similar to as described for visual character above, the visual quality of the project site and the surrounding area is a product of natural and built elements, including rural and agriculture uses, residential, commercial, renewable public infrastructure, and open space. Scenic vistas in the region that are either identified in County of San Diego planning policy or otherwise meet the quality definition of a scenic vista typically include views of the rolling topography, patterns of native vegetation, surrounding mountains and ridgelines, rock outcroppings, and rural and open space land uses. Although the project site covers a large area, its rolling topography and hillsides, native vegetative patterns, and mostly rural use all contribute to a moderately high to high existing visual quality.

5.4.2.2 DURING CONSTRUCTION

As described above, the project would be constructed in two separate phases occurring over an approximately 3.5-year period. An approximately 1-year gap is proposed between the construction of Phase I and Phase II.

Throughout construction a number of activities would take place, including large-scale vegetation removal, earthwork, and installation of all project elements. Similar to the effect on visual character, these construction activities would result in a greater degree of visual contrast and visual impact than would occur during project operation. Because of the relatively close time frame between construction phases, it is expected that the casual observer and the surrounding community would perceive project construction as occurring in a single, overlapping phase.

Similar to that described for visual character, the visual contrast and resulting effect on visual quality during the construction phase would be greater than that during subsequent project operations. However, this overall adverse effect on visual quality would be moderated due to the temporary nature the construction activities.

5.4.2.3 END OF CONSTRUCTION

Because of its large expanse, extensive layout, and varied landform, portions of the project would be seen over a wide area in the region and would have a potential effect on a number of scenic vistas throughout the area. Important public views that would be affected would include sections of I-8, SR 94, Jewel Valley Road, and Tierra del Sol Road.

Although intervening topography, vegetation, and distance would somewhat reduce visibility of the project from certain mid- and long-range public views, the project would result in a noticeable contrast with the high visual quality of the natural and rural setting where visible. As seen from closer viewpoints, the project would be readily visible and substantially alter the visual quality. The project would disrupt the natural visual pattern elements such as line, form, color, and texture and would redefine much of the existing rural and open space as a utility-scale solar development. The project would remove substantial amounts of mature native vegetation. Large swaths of PV arrays and other supporting project elements constructed throughout the project site would introduce a new, industrial, and visually contrasting use into the viewshed as seen from many surrounding public viewpoints.

Although the undulating topography of the region blocks views of the project from certain viewpoints, the topography also elevates the project site and can result in greater visual exposure to the surrounding area. From many of the surrounding viewpoints, portions of the project would be seen on either a primary or secondary ridgeline, extending above the horizon line. This alteration of the surrounding ridgelines and visual backdrop would adversely affect the existing scenic vistas throughout the area. As seen from closer public viewpoints surrounding the project such as Jewel Valley Road, the project would dominate the foreground views and would distract from the larger scenic context of the viewshed. As a result of these factors the project would have a substantial effect on the existing scenic vistas and visual quality.

5.4.2.4 MATURITY

The project proposes to reseed all disturbed areas with a native plant hydroseed mix as soon as possible after disturbance. In addition, at least 70% vegetation cover is proposed to be maintained during project operation on the portions of the solar facility development footprint within the perimeter fencing not overlain by vehicle access driveways and internal access, inverter/transformer platforms, battery storage containers, and the substation.

Similar to the effect on visual character, because of the uncertainty of revegetation success, combined with the required permanent fuel modification zones and disturbed areas such as roadways, the proposed revegetation seeding would provide only partial visual benefit and mitigation of loss of visual quality by only somewhat reducing the visual contrast of light-colored exposed soils in comparison with the surrounding, dark green vegetation.

5.5 Assessment of Viewer Response

The viewer response to change is the sum of viewer exposure, viewing duration, and viewer sensitivity to changes in the visual environment. Viewer exposure is the degree to which viewers are exposed to a view or visual resources (e.g., number of viewers, length of time, and/or frequency of views). Viewer sensitivity can be affected by the viewer's perception of a project's compatibility with existing features in a landscape; sensitivity and expectations are based on the preferences, standards, ideas, opinions, and bias of different viewers. The viewer groups present within the project viewshed, as well as their sensitivity and exposure to the existing visual environment, are summarized below. The anticipated viewer response to the project compared to existing conditions is assessed below by development stage.

5.5.1 *Existing Condition*

Because of its size, layout, and surrounding land uses, public viewing distances to the project would vary greatly. Viewing distances would range from as close as 60 feet along Jewel Valley Road to long-range views of more than approximately 2 miles from sections of I-8. The numbers of potential viewers traveling surrounding roadways also varies greatly and includes I-8, with average volumes of approximately 8,000 vehicles per day, along with many small neighborhood-serving access roads.

Overall viewer sensitivity to potential changes in the visual environment throughout the project region are considered moderately high. Viewpoints in close proximity to the project would have a high degree of exposure and subsequent alteration of the viewer experience. Viewers along Jewel Valley Road and much of the surrounding area pass through high-quality visual environments that provide access to recreation areas and scenic vantage points. Viewers experiencing these quality visual settings are expected to have an increased sensitivity to changes to the quality and character of the surrounding landscape. Longer distance viewpoints such as I-8 and Tierra del Sol Road would have somewhat reduced viewer exposure; however, these viewpoints would still provide high-quality panoramic vistas, contributing to an increased viewer sensitivity. In addition, local, state, and national goals, policies, regulations and scenic designations concerning visual quality provide an indication of aesthetic values and a heightened sensitivity to visual change. For viewpoints along I-8 and Old Highway 80, the scenic designations of those routes create a higher level of viewer expectations regarding visual quality, resulting in increased viewer sensitivity.

5.5.2 *During Construction*

As described above, the project would be constructed in two separate phases occurring over an approximately 3.5-year period. An approximately 1-year gap is proposed between the construction of Phase I and Phase II. Throughout construction, a number of activities would take place, including large-scale vegetation removal, earthwork, and installation of all project elements. In general, the heavy construction activities and large scale of the construction site would be more visually disruptive and noticeable than after the project is built. This increased noticeability would draw attention to the project and is expected to cause concern regarding subsequent visual changes. This concern would to some extent be moderated by a general understanding of the temporary nature typical of construction activities.

5.5.3 *End of Construction*

Following construction, the overall viewer sensitivity to potential visual changes throughout the project region would remain moderately high. Viewpoints in close proximity to the project would continue to have a high degree of exposure. Viewers along Jewel Valley Road would continue to pass through high-quality visual environments providing access to recreation areas and scenic vantage points. Viewers experiencing these quality visual settings would have an increased sensitivity to changes to the quality and character of the surrounding landscape. Local, state, and national goals, policies, regulations, along with scenic designations such those for as I-8 and Old Highway 80, would create a higher level of viewer expectations regarding visual quality, resulting in increased viewer sensitivity.

5.5.4 *Maturity*

Over time, some viewers may become accustomed to the visual changes caused by the project. These reduced expectations would lower viewer sensitivity to some extent; however, the underlying quality of the landscape would remain evident and would continue to support an overall moderately high degree of visual sensitivity. Combined with the permanent required fuel modification zones and disturbed areas such as

roadways, the proposed revegetation seeding would not substantially screen the project and would have little effect on viewer response or sensitivity.

5.6 Determination of Significance

5.6.1 *Significance Thresholds*

The criteria used to assess the significance of visual impacts from the project are derived from the *Guidelines for Determining Significance and Report Format and Content Requirements – Visual Resources* (County of San Diego 2007):

1. Would the project introduce features that would detract from or contrast with the existing visual character and/or quality of a neighborhood, community, or localized area by conflicting with important visual elements or the quality of the area (such as theme, style, setbacks, density, size, massing, coverage, scale, color, architecture, building materials, etc.) or by being inconsistent with applicable design guidelines?
2. Would the project result in the removal or substantial adverse change of one or more features that contribute to the valued visual character or image of the neighborhood, community, or localized area, including but not limited to landmarks (designated), historic resources, trees, and rock outcroppings?
3. Would the project substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from:
    a. public road,
    b. a trail within an adopted County or State trail system,
    c. a scenic vista or highway; or
    d. a recreational area?
4. Would the project not comply with applicable goals, policies or requirements of an applicable County Community Plan, Subregional Plan, or Historic District's Zoning?

In addition, the *Guidelines for Determining Significance and Report Format and Content Requirements – Dark Skies and Glare* (County of San Diego 2009) was used to assess the significance of visual impacts resulting from the project:

1. Would the project install outdoor light fixtures that do not conform to the lamp type and shielding requirements described in Section 59.105 (Requirements for Lamp Source and Shielding) and are not otherwise exempted pursuant Section 59.108 or Section 59.109 of the San Diego County Light Pollution Code?
2. Would the project operate Class I or Class III outdoor lighting between 11:00p.m. and sunrise that is not otherwise exempted pursuant Section 59.108 or Section 59.109 of the San Diego County Light Pollution Code?
3. Would the project generate light trespass that exceeds 0.2 foot-candles measured five feet onto the adjacent property.
4. The project will install highly reflective building materials, including but not limited to reflective glass and high-gloss surface color, which will create daytime glare and be visible from roadways, pedestrian walkways or areas frequently used for outdoor activities on adjacent properties.
5. The project does not conform to applicable Federal, State or local statute or regulation related to dark skies or glare, including but not limited to the San Diego County Light Pollution Code.

The County's guidelines for determining significance are generally intended to address the questions posed in Appendix G, Issue I, Aesthetics, of the State CEQA Guidelines; several of these questions have been revised, deleted, or modified since the County's guidelines for determining significance were written. This report analyzes the project's impacts against the questions in Appendix G and, to the extent they remain consistent with Appendix G, the County's guidelines for determining significance.

Aesthetics Question 1c of Appendix G regarding visual quality and character was revised to differentiate between urbanized and non-urbanized project locations. Thresholds 1 and 2 below, from the County's guidelines for determining significance (County of San Diego 2007), sufficiently address revised Question 1c and are therefore used as threshold determinants regarding project visual quality and character. No other CEQA Appendix G Aesthetics questions have been altered.

This visual resources assessment considers the County's guidelines for determining significance to be consistent with the questions posed in Appendix G, Issue I, Aesthetics, of the 2023 State CEQA Guidelines; therefore, the County's guidelines for determining significance were used for the analysis in this report.

5.6.2 *Determinations Per Threshold*

5.6.2.1 COUNTY OF SAN DIEGO GUIDELINES FOR DETERMINING SIGNIFICANCE AND REPORT FORMAT AND CONTENT REQUIREMENTS – VISUAL RESOURCES

5.6.2.1.1 Threshold 1

Would the project introduce features that would detract from or contrast with the existing visual character and/or quality of a neighborhood, community, or localized area by conflicting with important visual elements or the quality of the area (such as theme, style, setbacks, density, size, massing, coverage, scale, color, architecture, building materials) or by being inconsistent with applicable design guidelines?

The project would introduce a large utility-scale solar array into an otherwise mostly rural and natural setting. Due to the extensive layout, viewshed angles, topography, and size, the project would be easily visible throughout a large portion of the surrounding region. Although other renewable energy projects and transmission lines exist in the region, public views of the project area would include project features that would be visually inconsistent with the existing rural and open space land use density, architecture, vegetative patterns, and natural forms that currently define landscape quality and character with the site and surroundings. As a result, the project would not comply with applicable visual and aesthetic goals as listed in the Mountain Empire Subregional Plan (County of San Diego 2016). The proposed substantial removal of native vegetation would be noticeable and inconsistent with the natural landscape patterns. Although the surrounding topography and viewing distance would limit visibility from some viewpoints, the vast scale and overall visual exposure of the project would be evident from many public viewpoints and would fundamentally alter the scenic quality of the landscape. Therefore, the project would detract from the existing visual quality and contrast with the mostly rural and natural landscape and small-town character of the surrounding community, and resulting impacts would be **significant** (**Impact AE-1**).

5.6.2.1.2 Threshold 2

Would the project result in the removal or substantial adverse change of one or more features that contribute to the valued visual character or image of the neighborhood, community, or localized area, including but not limited to landmarks (designated), historic resources, trees, and rock outcroppings?

The existing visual character of the project site and the surrounding area is a product of both natural and built elements, including uses such as rural and agricultural, residential, commercial, renewable energy, public infrastructure, and open space. The project site is spread over a large and somewhat varied area; however, its rolling topography and hillsides, patterns of native vegetation, and mostly rural use all contribute to a moderately high to high existing visual quality.

The project would remove substantial amounts of mature native vegetation. Large swaths of PV arrays and other supporting project elements constructed throughout the project site would introduce a new, visually incompatible use onto the project site as seen from many surrounding public viewpoints. The project would interrupt primary and secondary ridgelines as seen from important travel corridors. Although visibility of the project would be somewhat blocked from certain mid- and long-range public views, the project would result in a noticeable contrast with the visual character and quality of the natural and rural setting where visible. As seen from closer viewpoints, the project would be readily visible and completely alter the visual context. The project would substantially redefine the visual character of the site and the project vicinity. A change in character is inherent with the conversion of open space and rural land to an industrial utility development such as this.

As a result of these factors, the project would result in a substantial adverse change to aesthetic features that contribute to the valued visual character and image of the community and surrounding area and would be inconsistent with County policies regarding preservation of visual quality. The project would place large areas of PV panels and supporting infrastructure on scenic hillsides and ridges identified in the General Plan (County of San Diego 2011a), the Boulevard Subregional Plan (County of San Diego 2013), and the Mountain Empire Subregional Plan (County of San Diego 2016) as valued character-defining visual resources. Therefore, the impacts to visual character would be **significant** (**Impact AE-2**).

5.6.2.1.3 Threshold 3

Would the project substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from:

- **a public road**
- **a trail within an adopted County or State trail system,**
- **a scenic vista or highway, or**
- **a recreational area.**

Scenic vistas are generally defined as high-quality views displaying good aesthetic and compositional value that can be seen from public viewpoints. If the project substantially degrades the scenic landscape as viewed from public roads or from other public or recreation areas, this would be considered a significant impact to the scenic vista. The degree of potential impact on scenic vistas also varies with factors such as viewing distance, duration, viewer sensitivity, and the visual context.

Scenic vistas in the region that are either identified in County planning policy or otherwise meet the quality definition of a scenic vista typically include views of the rolling topography, patterns of native vegetation, surrounding mountains and ridgelines, rock outcroppings, and rural and open space land uses.

Because of its large expanse, extensive layout, and varied landform, portions of the project would be seen over a wide area in the region and would have a potential effect on a number of scenic vistas throughout the area. Important public views that would be affected would include sections of I-8 and SR 94 (both Eligible State Scenic Highways), Jewel Valley Road, Tierra del Sol Road, and other local roadways.

Although the undulating topography of the region blocks views of the project from certain viewpoints, the topography also elevates the project site and can result in greater visual exposure to the surrounding area. As seen from many of the surrounding viewpoints, portions of the project would be seen on either a primary or secondary ridgeline, extending above the horizon line. This alteration of the surrounding ridgelines and visual backdrop would adversely affect the existing scenic vistas throughout the area. As seen from closer public viewpoints surrounding the project, such as Jewel Valley Road, the project would dominate the foreground views and would distract from the larger scenic context of the viewshed. Because of these factors the project would have a substantial effect on the existing scenic vistas, resulting in a **significant impact** (**Impact AE-3**).

5.6.2.1.4 Threshold 4

Would the project not comply with applicable goals, policies or requirements of an applicable County Community Plan, Subregional Plan, or Historic District's Zoning?

The project site lies within the boundaries of the Boulevard Subregional Planning Area within the Mountain Empire Subregion. The project site is not located within a Historic District. Table 2 summarizes the project's consistency with applicable policies and requirements.

Although implementation of the project was determined to result in significant and unmitigable impacts to focal or panoramic vistas from several locations including I-8 and Old Highway 80, the project would comply with applicable visual and aesthetic goals as listed in the Boulevard Subregional Plan (County of San Diego 2013).

The project would comply with the County's Light Pollution Code, also known as the Dark Sky Ordinance, Section 59.101 et seq., during construction, operation, and decommissioning. During construction and decommissioning, the project would be compliant with the lamp type and shielding requirements as established by the County Light Pollution Code and would be fully shielded and directed downward to minimize opportunities for unnecessary sky glow and light trespass. During operation, all lighting for the solar facility would be shielded, directed downward, and would comply with the County Light Pollution Code. In addition, the project would comply with the County Zoning Ordinance, Sections 6320, 6322, and 6324, which guide performance standards for glare, and control excessive or unnecessary outdoor light emissions.

Although implementation of the project was determined to result in significant and unmitigable impacts to focal or panoramic vistas from several locations including I-8 and Old Highway 80, the project would not conflict with this policy. Neither the project site nor the surrounding area has been designated by local, state or federal agencies or organizations as containing or being of "significant" scenic value. Still, the areas identified for solar development encompass flatter terrain, and unique or particularly vivid terrain including ridgelines and slopes would not be substantially disturbed by the project development.

Due to the inclusion of existing energy infrastructure in the I-8, SR 94, and Old Highway 80 viewsheds and because the project does not inhibit the County from establishing regulations and/or development standards geared toward the protection and enhancement of scenic highways, the project would not be inconsistent with the Scenic Highways Goal of the Mountain Empire Subregional Plan (County of San Diego 2016).

Hillside grading would be minimized and designed to conform to the existing contours to the extent feasible. Buffers would be incorporated into the project design to minimize visual incompatibility with nearby residential areas, roads, and recreational areas.

Table 2. Policy Consistency Evaluation

Goals, Policies, and Requirements	Consistency Determination
Mountain Empire Subregional Plan, San Diego County General Plan **(County of San Diego 2016)**	
Land Use Element	
Policy and Recommendation 1: The landforms of the Subregion are an important environmental resource that should be respected in new development. Hillside grading shall be minimized and designed to blend in with the existing natural contours.	**Consistent.** The project (i.e., all components of the solar facility) would be consistent with this policy. The general topography within the project site consists of flat land and rolling hills. Grading would be necessary for the construction of access and service roads and the installation of solar arrays; trenching for the underground electrical DC and AC collection system, including the telecommunication lines; and construction of the project substation. Hillside grading would be minimized and designed to conform to the existing contours to the extent feasible.
Conservation – Environmental Resources	
Policy and Recommendation 1: All development shall demonstrate a diligent effort to retain as many native oak trees as possible.	**Consistent.** According to the Oak Tree Inventory included in the Biological Resources Technical Report, 200 oak trees were identified within 100 feet of the project site (Appendix D of the Environmental Impact Report [EIR] for this project [SWCA 2025]). However, only 38 oak trees would be removed as a result of the project. Additionally, an off-site biological open space easement would be granted over 448 acres of sensitive vegetation communities, special-status plant species, and habitat for special-status species to protect sensitive biological resources. This easement is for the protection of biological resources and prohibits all of the following on any portion of the land subject to said easement: grading; excavation; placement of soil, sand, rock, gravel, or other material; clearing of vegetation; construction, erection, or placement of any building or structure; vehicular activities; trash dumping; or use for any purpose other than as open space. The biological open space easement would be unfenced. As such, implementation of the biological open space easement proposed by the project would increase tree preservation in San Diego County.
Policy and Recommendation 4. The dark night sky is a significant resource for the Subregion and appropriate steps shall be taken to preserve it.	**Consistent.** The solar facility would be consistent with this policy and. would comply with the County's Light Pollution Code (also known as the Dark Sky Ordinance, Section 59.101 et seq.) during construction and operations. More specifically, during construction, portable night lighting used during construction would be fully compliant with the lamp type and shielding requirements for Class II lighting as established by Section 51.204 of the County Light Pollution Code and would be fully shielded and directed downward to minimize opportunities for unnecessary sky glow and light trespass. During operations, all lighting for the solar facility would be shielded, directed downward, and would comply with the County Light Pollution Code. Lastly, the proposed project would comply with the County Zoning Ordinance, Sections 6320, 6322, and 6324, which guide performance standards for glare and control excessive or unnecessary outdoor light emissions.

Goals, Policies, and Requirements	Consistency Determination
Policy and Recommendation 5. Development shall not adversely affect the habitat of sensitive plant and wildlife species or those areas of significant scenic value.	**Consistent.** As discussed in Section 2.2, Biological Resources, of the EIR for this project (SWCA 2025), the solar facility would result in impacts to sensitive plant and wildlife species. However, through mitigation, potentially significant impacts would be reduced to less than significant. Although implementation of the project was determined to result in significant and unmitigable impacts to focal or panoramic vistas from several locations including I-8 and Old Highway 80, the project would not conflict with this policy. Neither the project site nor the surrounding area has been designated by local, state or federal agencies or organizations as containing or being of "significant" scenic value. Still, the areas identified for solar development encompass flatter terrain and unique or particularly vivid terrain including ridgelines and slopes would not be disturbed by the project development.
Scenic Highways	
Establish a network of scenic highway corridors within which scenic, historical and recreational resources are protected and enhanced.	**Consistent.** Within the Mountain Empire Subregion, I-8 from SR 79 east to the Imperial County Line and Old Highway 80, from the Central Mountain Subregion to I-8, are designated scenic corridors. The solar facility would be visible from portions of I-8, SR 94, and Old Highway 80. Despite their inclusion in the County's scenic highway system, there are no current local regulations governing development of lands along I-8 or Old Highway 80. For example, existing energy infrastructure including the Boulevard substation, wind turbines, transmission lines, and the East County substation 138-kilovolt (kV) line are currently visible from I-8, SR 94, and Old Highway 80. Near the project site, I-8, SR 94, and Old Highway 80 were identified as providing opportunities for long and/or broad scenic views. Implementation and operation of the project would not prevent the County from continuing to establish and designate scenic highways and would not inhibit the County from establishing regulations and/or development standards geared toward the protection and enhancement of scenic highways. Due to the inclusion of existing energy infrastructure in the I-8, SR 94, and Old Highway 80 viewsheds and because the project does not inhibit the County from establishing regulations and/or development standards geared toward the protection and enhancement of scenic highways, the project would not be inconsistent with the Scenic Highways goal of the Mountain Empire Subregional Plan.
***Boulevard Subregional Planning Area, Mountain Empire Subregional Plan* (County of San Diego 2013)**	
Community Character	
Policy LU 1.1.2 Encourage development to protect the quality and quantity of ground and surface water resources, air quality, dark skies, visual resources, and low ambient noise levels, as well as retain and protect the existing natural and historic features characteristic of the community's landscape and natural environment.	**Consistent.** The project has been designed to minimize impacts to existing topography, landforms, and views to the extent practicable. Potential impacts associated with quality and quantity of groundwater and surface water, air quality, dark skies, visual resources, and noise have all been analyzed and disclosed within the project's EIR (SWCA 2025). Project design features have been provided to mitigate potential impacts to the extent feasible.
Policy LU 1.1.3 Encourage development to respectfully incorporate existing topography and landforms, watersheds, riparian areas, oaks, and other native vegetation and wildlife, ridgelines, historic and cultural resources, views, and sustainability design factors.	**Consistent.** The project facilities have been designed to minimize impacts to existing topography, landforms, riparian areas, oaks, native vegetation and wildlife, ridgelines, cultural resources, and views to the extent practicable.
Policy LU 1.1.4 Require commercial and public development along scenic and historic routes to apply designs standards that will blend the development in with the terrain and rustic southwestern nature of the community character, while keeping outdoor lighting to an absolute and well shielded minimum.	**Consistent.** The project is not considered a commercial or public development as defined by the County Zoning Ordinance.

Goals, Policies, and Requirements	Consistency Determination
Policy LU 3.1.1. Encourage development to preserve dark skies with reduced lighting and increased shielding requirements.	**Consistent.** The project would comply with the County Light Pollution Code, also known as the Dark Sky Ordinance, Section 51.201 et seq. Additionally, lighting for the project would be designed in accordance with the County Zoning Ordinance, Sections 6320, 6322, and 6324, which guide performance standards for glare, and controls excessive or unnecessary outdoor light emissions. Lighting for the project would use shielded bulbs, with motion detection, and a maximum of 100 watts.
Community Conservation and Protection	
Policy LU 6.1.1 Require commercial, industrial development and large scale energy generation projects to mitigate adverse impacts to the rural community character, charm, quiet ambiance and lifestyle, or the natural resources, wildlife, and dark skies of Boulevard, if feasible, in accordance with the California Environmental Quality Act.	**Consistent.** Impacts associated with the project have been evaluated and mitigated to the extent feasible in accordance with CEQA. While the project vicinity has been historically of rural character, there has been a recent increase in renewable energy development in the region. All outdoor lighting would be hooded, directed downward, turned off when not required, and kept to a minimum for safety purposes. All lighting installed on the project site would be fully compliant with the lamp type and shielding requirements of the County Light Pollution Code.
Policy LU 6.1.2 Encourage commercial, industrial development and large-scale energy generation projects to create and maintain adequate buffers between residential areas and incompatible activities that create heavy traffic, noise, infrasonic vibrations, lighting, odors, dust and unsightly views and impacts to groundwater quality and quantity.	**Consistent.** The project would comply with the setback regulations as indicated in the County Zoning Ordinance, Section 4800 (Setback Regulations). Buffers from residential areas, public roads, surrounding properties, recreational areas, and trails are incorporated into the project design to minimize visual incompatibility. Lighting installed within the project boundary would be hooded, directed downward, and turned off when not required. Metallic equipment at the high-voltage substation and switchyard would feature a low-reflectivity finish to minimize glare. Lighting for the project would be fully compliant with the County's Light Pollution Code.

Implementation of the project would be consistent with the local visual policies and goals presented in Table 2, resulting in a **less than significant** impact.

5.6.2.2 COUNTY OF SAN DIEGO GUIDELINES FOR DETERMINING SIGNIFICANCE AND REPORT FORMAT AND CONTENT REQUIREMENTS – DARK SKIES AND GLARE

As stated in Section 2, Project Description, all project lighting would have bulbs that do not exceed 100 watts or equivalent, and all lights would be shielded, directed downward, and would comply with the County Light Pollution Code, also known as the Dark Sky Ordinance, Section 51.201 et seq. Outdoor lighting circuits would incorporate dusk-to-dawn photocell controllers, occupancy sensors, and/or switches, as appropriate. Additionally, lighting for the project would be designed in accordance with the County Zoning Ordinance, Sections 6320, 6322, and 6324, which guide performance standards for glare and control excessive or unnecessary outdoor light emissions.

5.6.2.2.1 Threshold 1

Would the project install outdoor light fixtures that do not conform to the lamp type and shielding requirements described in Section 59.105 (Requirements for Lamp Source and Shielding) and are not otherwise exempted pursuant Section 59.108 or Section 59.109 of the San Diego County Light Pollution Code?

Construction

Construction of the project would occur in two phases. Phase I would last approximately 12 months, and Phase II would last approximately 18 months. It is anticipated there would be about a 1-year gap between construction of Phase I and Phase II. Construction activities would generally occur during the County's allowable hours and days of operation but may involve extended hours, as needed, to complete certain construction activities and/or during emergencies or as approved by the County. For most of the year, nighttime construction lighting would not be required. However, during emergencies, tasks requiring extended hours, and during late fall and winter months, the lack of adequate natural light may dictate that portable lighting sources be used at specific construction sites.

When required, portable construction night lighting would temporarily illuminate and be focused on active areas of construction. All temporary construction lighting would be compliant with the County's Light Pollution Code. Specifically, portable night lighting used during construction would be fully compliant with the lamp type and shielding requirements for Class II lighting as established by Section 51.204 of the County Light Pollution Code. Lighting would be fully shielded and directed downward to minimize opportunities for unnecessary sky glow and light trespass. Due to the anticipated limited frequency of night construction lighting use and compliance with the lamp type and shielding requirements of the County Light Pollution Code, short-term construction lighting impacts to nighttime views would be **less than significant**.

Operation

Lighting associated with operation of the project would conform with outdoor light fixtures, lamp types, and shielding requirements described in Section 51.105 and would not otherwise be exempt pursuant to Section 59.108 or Section 59.109 of the San Diego County Light Pollution Code. Therefore, the effect of the project compared to this threshold would be **less than significant**.

5.6.2.2.2 Threshold 2

Would the project operate Class I or Class III outdoor lighting between 11:00p.m. and sunrise that is not otherwise exempted pursuant Section 59.108 or Section 59.109 of the San Diego County Light Pollution Code?

The project would not operate Class I or Class III outdoor lighting between 11:00 p.m. and sunrise that is not otherwise exempted pursuant to Section 51.212 of the San Diego County Light Pollution Code. Therefore, the effect of the project compared to this threshold would be **less than significant**.

5.6.2.2.3 Threshold 3

Would the project generate light trespass that exceeds 0.2 foot-candles measured five feet onto the adjacent property?

The project would not generate light trespass that exceeds 0.2 foot-candles measured 5 feet onto the adjacent property. Therefore, the effect of the project compared to this threshold would be **less than significant**.

5.6.2.2.4 Threshold 4

Would the project install highly reflective building materials, including but not limited to reflective glass and high-gloss surface color, that will create daytime glare and be visible from roadways, pedestrian walkways or areas frequently used for outdoor activities on adjacent properties?

The project would introduce new structural elements and materials which could be potential sources of glare onto the project site, inherent with the conversion of undeveloped land to a solar energy industrial use. However, the Solar Glare Analysis (see Appendix B) identifies no substantial daytime glare effects resulting from PV panels. The Solar Glare Analysis finds that the project would have zero minutes of potential glint or glare at all airports and route receptors.

Review of the Solar Glare Analysis and the project lighting description indicates that proposed lighting, implemented in compliance with the County Light Pollution Code and County Zoning Ordinance Sections 6320, 6322, and 6324 and policies, would not result in substantial light or glare nor adversely affect daytime or nighttime views in the area. Therefore, the effect of the project compared to this threshold would be **less than significant**.

5.6.2.2.5 Threshold 5

Would the project not conform to applicable Federal, State or local statute or regulation related to dark skies or glare, including but not limited to the San Diego County Light Pollution Code?

The project would comply with the County Light Pollution Code, also known as the Dark Sky Ordinance, Section 51.201 et seq. Additionally, lighting for the project would be designed in accordance with County Zoning Ordinance Sections 6320, 6322, and 6324, which guide performance standards for glare and control excessive or unnecessary outdoor light emissions.

Conformance with County dark sky and light pollution regulations would be subject to a determination by the Director of the Department of Planning and Land Use regarding the requirement for a photometric study as defined in Section 1 of *Guidelines for Determining Significance and Report Format and Content Requirements – Dark Skies and Glare* (County of San Diego 2009).

The project is not located on airport property and therefore is not subject to FAA jurisdiction under Federal Aviation Regulations Part 77 to protect airspace safety. The project is also located beyond the 2-mile final approach as defined in the Interim Solar Policy. In addition, the Solar Glare Analysis (see Appendix B) identifies no substantial daytime glare effects resulting from PV panels. The Solar Glare Analysis finds that the project would have zero minutes of potential glint or glare at all airports and route receptors. Therefore, the effect of the project compared to this threshold would be **less than significant**.

5.7 Cumulative Impacts

The discussion of cumulative impacts relates to the potential for the project to contribute to an aggregate change in visual quality from the surrounding public viewing areas, taking into consideration existing as well as proposed development. The cumulative study boundary for visual resources encompasses the project viewshed. The character elements of cumulative development occurring within the project viewshed contribute to the overall visual character of the viewshed and would affect, either negatively or positively, the quality of existing views of the landscape. Both the project and development occurring or planned within the viewshed of a designated scenic road could combine to permanently alter the visual character of the landscape and diminish the quality of existing views of valued scenic resources.

Cumulative projects considered in this analysis are those in the study area that would produce similar visual effects as the project. Therefore, for purposes of this analysis, electric substation, solar energy, wind energy, transmission line, and energy storage projects within the cumulative study area are considered and they would include highly visible and distinct elements (e.g., wind turbines) or would create similar form, line, color, and texture contrasts as the proposed solar facility. The following projects are considered in the cumulative impact analysis provided below.

5.7.1 Campo Wind Project and Boulder Brush Facilities

The Campo Wind Project proposes a 250-MW wind energy generation facility consisting of 60 wind turbines on approximately 2,200 acres within the Campo Band of Diegueño Mission Indians Reservation. In addition to wind turbines, the Campo Wind Project includes a collector substation, operations and maintenance facility, On-Reservation gen-tie, access roads, and temporary areas including a laydown yard and concrete batch plant on the reservation. The Boulder Brush Facilities include the construction of a gen-tie, high-voltage substation, and switchyard on approximately 200 acres of private land under the County's jurisdiction.

5.7.2 Jacumba Solar Energy Project

The Jacumba Solar facility is an existing 20-MW, 108-acre solar facility 2 miles east of the project site. It consists of approximately 81,108 PV modules fitted on 2,253 fixed-tilt rack panels.

5.7.3 JVR Energy Park

The project would develop a 90-MW solar energy facility and BESS of up to 90 MW.

5.7.4 Live Oaks Springs Water System

This project will construct water system improvements. The project includes new storage tanks, a new secondary well, and 7,500 feet of 8-inch water pipe.

5.7.5 Rugged Solar Project

The Rugged Solar Project is a 74-MW solar energy system in the McCain Valley. In addition to solar panels and inverter and transformer units, the Rugged Solar Project would include an on-site collector substation, a 138-kV overhead and underground transmission line, and an approximately 20-MW BESS.

5.7.6 Torrey Wind Project

The proposed Torrey Wind Project consists of an approximately 126-MW wind energy facility. The project would include approximately 30 new wind turbines (rated up to 4.2 MW each), an underground electrical collection system, a high-voltage substation, a 500-kV switchyard, an operations and maintenance facility and associated parking areas, a temporary staging area, a batch plant, meteorological towers, various access roads, and off-site improvements.

5.7.7 Tule Wind Project

The Tule Wind Project consists of 57 wind turbines, an underground electrical collection system linking the wind turbines to the collector substation, a 5-acre collector substation site and adjacent 5-acre operations and maintenance facility site, and meteorological towers. The Tule Wind Project delivers power through a project substation via a 138-kV gen-tie running south to an interconnection with the existing SDG&E rebuilt Boulevard substation. In October 2016, Avangrid Renewables received approval from the California State Lands Commission to construct Phase II of the Tule Wind Project. Phase II would consist of an additional 24 wind turbines constructed in the area that would generate approximate 69 MW. Seven wind turbines would be sited on lands managed by the California State Lands Commission and 17 would be constructed on tribal lands.

5.7.8 *Cumulative Effect*

The project has the potential to be experienced with one or more of the above. Because of the project's large size, extensive layout, topographic exposure, visibility from transportation corridors and other public viewpoints, combined with its visible contrast with existing visual character and scenic resources, the project would contribute to a cumulative public perception that the region is undergoing a substantial overall loss of visual quality. Therefore, the project, in conjunction with cumulative projects, would result in a **cumulatively considerable** impact on the existing visual character of the area (**Impact AE-CU-1)**; on the valued visual character or image of neighborhoods, communities, and localized areas (**Impact AE-CU-2)**; and on focal or panoramic vistas. Since the project would adhere to the goals, policies, and requirements of the appliable plans, and because similar development has occurred and is proposed within the subregional plan area, the impact from the project related to plan compliance would **not be cumulatively considerable**. Similarly, by conforming to existing County regulations, the project **would not result in a cumulatively considerable impact** associated with facility lighting. With regard to glare, project glare impacts would be less than significant and would not combine with anticipated glare effects from other solar projects to create a cumulative glare impact on daytime views in the area. Thus, the project **would not result in a cumulatively considerable impact** associated with glare.

5.8 Summary of Project Impacts and Significance and Conclusions

5.8.1 *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements – Visual Resources*

5.8.1.1 THRESHOLD 1

Would the project introduce features that would detract from or contrast with the existing visual character and/or quality of a neighborhood, community, or localized area by conflicting with important visual elements or the quality of the area (such as theme, style, setbacks, density, size, massing, coverage, scale, color, architecture, building materials) or by being inconsistent with applicable design guidelines?

The existing visual character of the project site and its surroundings is a product of both natural and built elements, including uses such as rural and agriculture uses, residential, commercial, public infrastructure, and open space. The project site is spread over a large and somewhat varied area; however, its rolling topography and hillsides, patterns of native vegetation, and mostly rural use all contribute to a moderately high to high existing visual quality.

Although visibility of the project would be somewhat blocked from certain mid- and long-range public views, the project would result in a noticeable contrast with the visual character and quality of the natural and rural setting where visible. As seen from closer viewpoints, the project would be readily visible and substantially alter the visual context. The project would redefine the visual character of the site and the project vicinity. A change in character is inherent with the conversion of open space and rural land to an industrial utility development such as this. The project would remove substantial amounts of mature native vegetation. Large swaths of PV arrays and other supporting project elements constructed throughout the project site would introduce a new, visually incompatible use into the viewshed as seen from many surrounding public viewpoints.

Impact AE-1

The Applicant has identified and committed to including PDF-AE-1 through PDF-AE-4, listed in Section 6 below, as part of the project to alleviate adverse aesthetics effects. However, as feasible mitigation measures have not been identified that would further reduce anticipated theme, style, size, scale, massing, and color contrasts resulting from construction and operation of the project, Impact AE-1 would be **significant and unavoidable.**

5.8.1.2 THRESHOLD 2

Would the project result in the removal or substantial adverse change of one or more features that contribute to the valued visual character or image of the neighborhood, community, or localized area, including but not limited to landmarks (designated), historic resources, trees, and rock outcroppings?

The project would redefine the visual character of the site and the project vicinity. As seen from distant viewpoints, the project would result in a noticeable contrast with the visual character and quality of the natural and rural setting. From closer viewpoints, the project would be readily visible and substantially alter the visual context.

The project would introduce a large utility-scale solar array facility into an otherwise mostly natural setting which would be seen throughout much of the surrounding region. The project features would be visually inconsistent with the existing landscape quality and character and would be in conflict with visual resource preservation policies identified in applicable community and area plans. The project would interrupt primary and secondary ridgelines as seen from important travel corridors. The proposed substantial removal of native vegetation would be noticeable and inconsistent with the natural landscape patterns. The large scale and visual exposure of the project would cause it to fundamentally change the scenic quality of the landscape.

Impact AE-2

The Applicant has identified and committed to including PDF-AE-1 through PDF-AE-4, listed in Section 6 below, as part of the project to alleviate adverse aesthetics effects. However, as feasible mitigation measures have not been identified that would further reduce the project's adverse effect on the valued visual character and quality of the community, neighborhood, and area, Impact AE-2 would be **significant and unavoidable.**

5.8.1.3 THRESHOLD 3

Would the project substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from:

- **a public road**
- **a trail within an adopted County or State trail system,**
- **a scenic vista or highway, or**
- **a recreational area.**

Because of its large expanse, extensive layout, and varied landform, portions of the project would be seen over a wide area in the region and would have a potential effect on a number of scenic vistas throughout the area, including views from I-8, SR 94, Jewel Valley Road, Tierra del Sol Road, and other local roadways. As seen from many of the surrounding viewpoints, portions of the project would be seen on either a primary or secondary ridgeline, extending above the horizon line. This alteration of the surrounding

ridgelines and visual backdrop would adversely affect existing scenic vistas throughout the region. As a result, the project would cause a significant reduction in the quality of existing scenic vistas.

Impact AE-3

The Applicant has identified and committed to including PDF-AE-1 through PDF-AE-4, listed in Section 6 below, as part of the project to alleviate adverse aesthetics effects. However, as feasible mitigation measures have not been identified that would further reduce the project's adverse effect on valued scenic vistas, Impact AES-3 would be **significant and unavoidable.**

5.8.1.4 THRESHOLD 4

Would the project not comply with applicable goals, policies or requirements of an applicable County Community Plan, Subregional Plan, or Historic District's Zoning?

The project site lies within the boundaries of the Boulevard Subregional Planning Area within the Mountain Empire Subregion. The project site is not located within a Historic District.

The project would introduce a large utility-scale solar array facility into an otherwise mostly natural setting which would be seen throughout much of the surrounding region. Although other renewable energy facilities exist in the region, the project features would be visually inconsistent with the existing landscape quality and character of the site and surroundings. The project would interrupt primary and secondary ridgelines as seen from important travel corridors. The proposed substantial removal of native vegetation would be noticeable and inconsistent with the natural landscape patterns. The large scale and visual exposure of the project would cause it to fundamentally change the scenic quality of the landscape.

Implementation of the project would be consistent with the local visual policies and goals presented in Table 2, resulting in a **less than significant** impact.

5.8.2 *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements – Dark Skies and Glare*

5.8.2.1 THRESHOLD 1–THRESHOLD 5

Would the project install outdoor light fixtures that do not conform to the lamp type and shielding requirements described in Section 59.105 (Requirements for Lamp Source and Shielding) and are not otherwise exempted pursuant Section 59.108 or Section 59.109 of the San Diego County Light Pollution Code?

Would the project operate Class I or Class III outdoor lighting between 11:00p.m. and sunrise that is not otherwise exempted pursuant Section 59.108 or Section 59.109 of the San Diego County Light Pollution Code?

Would the project generate light trespass that exceeds 0.2 foot-candles measured five feet onto the adjacent property?

Would the project install highly reflective building materials, including but not limited to reflective glass and high-gloss surface color, that will create daytime glare and be visible from roadways, pedestrian walkways or areas frequently used for outdoor activities on adjacent properties?

Would the project not conform to applicable Federal, State or local statute or regulation related to dark skies or glare, including but not limited to the San Diego County Light Pollution Code?

Review of the project and the surrounding area shows that it would introduce new lighting and potential sources of glare onto the project site, inherent with the conversion of undeveloped land to a solar energy industrial use. However, the Solar Glare Analysis (see Appendix B) identifies no substantial daytime glare effects resulting from PV panels. Review of the Solar Glare Analysis and the project lighting description indicates that proposed lighting, implemented in compliance with the County Light Pollution Code and County Zoning Ordinance Sections 6320, 6322, and 6324 and policies, would not result in substantial light or glare nor adversely affect daytime or nighttime views in the area. The Solar Glare Analysis finds that the project would have zero minutes of potential glint or glare at all airports and route receptors.

The project would comply with County performance standards regarding lighting during construction and operations, as well as County performance standards regarding glare-related issues. As a result, impacts would be **less than significant**.

6 VISUAL MITIGATION AND DESIGN CONSIDERATIONS

6.1 Mitigation Measures

As stated above, the project would result in a significant adverse effect on the existing visual quality and character of the site and surroundings, degrade scenic vistas, and be inconsistent with County policy regarding preservation of visual quality. No feasible mitigation measures have been identified to reduce the visual impacts of the project to a less than significant level (**Impact AE-1** through **Impact AE-3**).

6.2 Project Design Features

The Applicant has identified and committed to including the following project design features as part of the project to alleviate adverse aesthetic effects, to the extent feasible.

PDF-AE-1 The Applicant will coordinate with the resident of any existing (existing as of the date of Record of Decision approval) private residence located within a distance of 500 feet of a project solar panel installation to assess visibility impact complaints made within 1 year from the initial operations date of the project. This assessment would include possible remedies that the Applicant may implement depending upon the level of visibility impacts occurring at the residence, including financial assistance for the installation of visual screening measures, such as landscaping or fencing. Requests for assistance can be made through a project hotline to be established by the Applicant and published on the Applicant's website.

PDF-AE-2 Inverter enclosures will be a non-reflective color. If the enclosures are not manufactured as non-reflective, the enclosures shall be painted a non-reflective color.

PDF-AE-3 Energy storage containers will be a non-reflective color. If the containers are not manufactured as non-reflective, the containers will be painted a non-reflective color.

PDF-AE-4 All new transmission line conductors will be non-reflective in design to reduce conductor visibility and visual contrast.

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