

5.13 VISUAL RESOURCES

This section discusses the potential for the construction, operation, and maintenance of the SJS 1&2 site to cause significant impacts to aesthetic values within the Project vicinity. This section addresses the inventory of existing visual resources of the affected environment, the assessment of the environmental consequences of SJS 1&2 on visual resources, and the LORS pertaining to the aesthetic effects of SJS 1&2.

The visual resource analysis was conducted in conformance with CEC guidelines for the inventory and assessment of visual impacts for an AFC. The CEC guidelines, in turn, comply with the CEQA documentation requirements, summarized in Section 5.13.2. The study methods used (described in more detail in the inventory and impact assessment sections below) were based upon those established by the BLM, Visual Resource Management Inventory and Contrast Rating System (BLM 1986), the Federal Highway Administration (FHWA) visual impact assessment (FHWA 1981), United States Forest Service (USFS) visual management system (USFS 1974; 1995), and previous methodologies used in other CEC studies and other energy-related projects. Additionally, the methodology has been tailored to meet the specific issues and regulatory requirements associated with the Project.

5.13.1 Affected Environment

This section describes the inventory of visual resources within the vicinity of the Project. A description of the regional landscape setting, the anticipated visual sphere of influence (VSOI) of the Project, and the inventory methods and results are included.

5.13.1.1 Regional Landscape Setting

The Project site (Figures 5.13-1 and 5.13-2) is 640 acres located on one section of land adjacent to West Jayne Avenue, within unincorporated southwestern Fresno County. The Project includes the plant site as well as two alternatives for overhead transmission line routes (northern and southern routes) extending east from the site to connect to the Gates Substation, as described in Section 3.0, Project Description and Location.

The majority of the Project site is developed for agricultural use; however, a small portion of the northwestern and northeastern quarter are currently vacant. Several crops are raised at the site including wheat, pistachios, cotton, safflower, and garlic. Development observed on site includes several unpaved service roads that separate different fields, a groundwater well with associated irrigation pump equipment and aboveground storage tanks (ASTs) located near the southwestern corner of the site, and an abandoned concrete pad in the vacant, northwestern corner of the site.

Agricultural land surrounds the site to the east, north, and south. Other nearby land uses are predominantly agricultural in nature; however, the adjacent property to the west is occupied by the Coalinga State Hospital (a State mental hospital for sexually violent predators) and the Pleasant Valley State Prison beyond the hospital to the west (Figure 5.13-3). In addition, the northeastern quarter of the site lies within the Gujarral Hills Oil Field, and while oil extraction activities no longer occur on site, active oil extraction occurs in the areas to the northeast and east of the site.

Several large transmission line corridors that support electricity transmission to and from the Gates Substation (a major interconnection point with PG&E located approximately 5.0 miles to the east of the site) extend across the landscape and along West Jayne Avenue.

Site topography, shown on Figure 5.13-1, is generally flat, allowing for open, expansive views of distant hills to the north, west, and south of the valley. These include the Black Mountains to the north, west, and south; Coalinga Nose to the north; and La Luneta and El Perro to the south. Site elevations range from approximately 620 feet above msl in the northeastern corner to 570 feet above msl in the southwestern corner.

There are no creeks or washes running through the site. While there is no dominant water feature in the Project area, several small, ephemeral streams in the area include Los Gatos, Warthan, Jacalitos, Avenal, and Zapato Chino Creeks. The nearest surface water is Zapato Chino Creek, located southeast of the Project site, which is a small stream that has no consistent water supply (see Figure 5.13-2).

In general, the area comprises agricultural lands, ranch lands, and semi-urban developed areas (*e.g.*, the City of Coalinga and commercial developments along the I-5 corridor). The Project area landscape is highly engineered in that its use for intensive agricultural production has been made possible by land clearing and leveling and development of drainage channels, irrigation canals, roads, and transmission lines.

The Project site is located in an unincorporated region of Fresno County, in an area of low population. As discussed in Section 5.10, Socioeconomics, the current population within the project vicinity (6-mile radius) is approximately 11,812, including the town of Huron, portions of Coalinga and Kettleman Hills.

5.13.1.2 VSOI

The VSOI for the Project (Figure 5.13-1) represents the area within which the Project could be seen and potentially result in significant impacts to visual resources. The furthest distance at which potentially significant visual impacts could occur has been identified as 5 miles. This conservative distance was based primarily on the Project description regarding the potential visibility of major project components (*e.g.*, poles along the transmission line route, structures within the power block as well as the boundary of the Project site) from sensitive viewing areas (see Section 3.0, Facility Description and Location; Figure 3.4-1 for a general layout of Project components). In addition, the distance was based upon the guidelines established in the USFS Visual Management System (USFS 1974; 1995). Based upon USFS distance definitions, the Project was reviewed for sensitive resources within the following view ranges:

Foreground: 0 to 0.5 mile from the observer's position. At this distance, the observer can view details of trees, shrubs, wildflowers, and animals.

Middleground: 0.5 to 5 miles from the observer's position. At this distance, the observer can see forest stands, natural openings, masses of shrubs, and rock outcrops.

Background: 5 miles to horizon from the observer's position. At this distance, the observer can view mountain peaks, ridgelines, and patterns of forest stands and openings.

Based on a 5-mile distance limit, the VSOI boundary was refined to account for local viewing conditions, primarily topographic and vegetative screening. Computer viewshed analyses were conducted (using 30-meter-grid cell resolution, generated from 1:24,000 Digital Elevation Model [DEM] data from the USGS) to map the boundaries of the VSOI within the 5-mile limit. USGS DEM files were imported into an ArcView 9.2-based GIS using the spatial analysis extension. The combined DEM was used to run viewshed analyses in Universal Transverse Mercator (UTM), Zone 10, North American Datum of 1983 (NAD83).

The centroid of the 640-acre site was used (at 6 feet above existing grade) to run an existing viewshed map. Next, a centroid of the facility site's tallest structure (at a height of 115 feet), the perimeter/fence line for the entire site, the 85-foot-tall transmission pole heights along both proposed transmission line routes, and a vertical observer offset of 6 feet were input into the viewshed model. The results represent a "typical" viewshed for the Project area.

Overall, the Project site is clearly visible from nearby roadway users, a few scattered residences, and from the adjacent Coalinga State Hospital (within 0.5 mile); middleground views exist from I-5, nearby agricultural operations and other residences (within 1.0 mile), and sporadic locations within the valley and surrounding mountains (3.5 to 5.0 miles and beyond). Beyond the mapped VSOI, the Project would either not be visible due to topography/screening, or of such a small size in the background field of view that significant impacts would not be expected.

The VSOI also takes into account the visibility of the existing industrial development (existing roadways/highways, Pleasant Valley State Prison, Coalinga State Hospital, existing oil field activities, commercial land uses, agricultural operations, a few scattered residences, abandoned/dilapidated structures, large transmission system/networks, and Gates Substation within 5 miles surrounding the Project), as well as the visibility of Project facilities (*e.g.*, the most visible components). Other variables affecting potential visibility of the Project include orientation of the viewer, duration of view, atmospheric conditions, lighting (daylight versus nighttime), and visual absorption capability (VAC). VAC is defined as the extent to which the complexity of the landscape can absorb new elements without changing the overall visual character of the area.

The VSOI was mapped to identify the maximum potential area for significant impacts of the Project in views from visually sensitive areas. Within the VSOI, varying levels of Project visibility have been identified. The highest level of Project visibility exists when the viewer is adjacent to the SJS 1&2 site, is a permanent stationary viewer, and there is no screening. Conversely, the lowest level of visibility exists, for example, when the viewer is located at greater distances from the site, the viewer is traveling at a high rate of speed, and the viewer is in partial to fully screened conditions.

Sensitive viewing areas were identified and inventoried within the 5-mile-radius of the Project site. The identification of sensitive viewing areas within the VSOI was conducted through review of existing land use data, agency contacts, and during field reviews. The following is a representative list of sensitive viewing areas that were considered during the inventory:

- Residential areas (*e.g.*, the closest residences surrounding the site).

- Travel routes: major roads or highways used primarily used by local residents, workers, and commuters along West Jayne Avenue and I-5, as well as aircraft using the New Coalinga Municipal Airport.
- Recreation and wildlife areas.

During field surveys conducted within the immediate Project vicinity, it was estimated that few residences are present to the north that may have views to the Project site. The nearest residence to the Project site is located approximately 1,300 feet from the northern boundary of the Project site (Figure 5.13-4). As this residence is in an elevated position relative to the Project site, residents have foreground-direct, largely unobstructed views to the Project. There are no other residences located near the Project site with direct and/or unobstructed views to the site.

In addition to residential viewers, travelers along West Jayne Avenue will have direct views of the site as well as direct views of the northern transmission line route extending from the site to the Gates Substation. The I-5 is located approximately 3.0 miles east of the site (within the VSOI identified for the Project), travelers at the I-5/West Jayne Avenue overpass may have direct, albeit distant and partially obscured views to the Project (Figure 5.13-4). Traffic flow was examined for West Jayne Avenue and I-5 travel routes within the VSOI. Road counts are approximately 3,200 ADT along West Jayne Avenue in the vicinity of the Project site, and approximately 36,000 ADT along I-5 (although views are distant, often screened, and sporadic).

The New Coalinga Municipal Airport is located within the VSOI, approximately 4.0 miles northwest from the site (Figure 5.13-1). The airport is owned by the City of Coalinga and is open for public use, with a general aviation functional classification. The airfield is generally used by local residents with small planes, and currently supports little air traffic (approximately 46 flights per week).

As the Coalinga State Hospital is located immediately west of the Project site and viewers from this location would have direct/unobstructed views to the Project site, employees/visitors/patients of this facility are considered sensitive. Coalinga State Hospital is sized to contain approximately 1,500 patients and 1,600 employees at maximum capacity. To date, this facility has not reached maximum capacity; however, the total number of patients/employees is not known at this time.

No recreation or wildlife areas were identified within the VSOI, nor are any expected to have views to the Project.

Levels of potential impact on sensitive viewing areas were established through an analysis of the following two primary components:

- Impact susceptibility: the degree to which a sensitive viewpoint would be impacted by changes within its viewshed.
- Impact severity: the degree of change to the landscape created within a specific viewshed.

Character photos of the areas surrounding the Project site (Figures 5.13-3 through 5.13-5) are intended to show sensitive viewing areas and sensitive visual resources within the surrounding Project area. Some of these character photos do not have views to the Project but have been included to help identify potentially

sensitive visual resources within the region. These photos also help the reader understand the general visual character of the surrounding area and the land uses within the region. The results of the viewshed analysis and the field photo survey indicated that most sensitive viewing areas within the VSOI were from those areas immediately adjacent to Project site (foreground viewers) and those traveling along West Jayne Avenue adjacent to the proposed northern transmission line route and Project interconnection at Gates Substation.

5.13.1.3 Visual Study Inventory Components

The following sections detail the visual study inventory components used in the assessment of potential impacts. Three primary components that were inventoried include: 1) an evaluation of scenic attractiveness; 2) consideration of Existing Scenic Integrity Levels (ESILs); and 3) the identification of sensitive viewing areas.

5.13.1.3.1 Scenic Attractiveness

When evaluating scenic attractiveness, both natural and manmade components within the VSOI were considered as they relate to either adding to or detracting from the overall landscape character within a specific setting. Scenic attractiveness levels are established by evaluating the distinctiveness and diversity of a particular landscape setting in relation to the following elements:

- Landform
- Vegetation
- Water
- Color
- Effects of adjacent scenery
- Scarcity of the landscape
- Cultural modifications

The inventory and evaluation of the above elements assist with the characterization of scenic attractiveness within the VSOI. In general, landscapes are characterized by Classes A through C.

Class A: Areas have outstanding diversity or interest; characteristic features of landform, water, and vegetation are distinctive or unique in relation to the surrounding region. These areas contain considerable variety in form, line, color, and texture.

Class B: Areas have above-average diversity or interest, providing some variety in form, line, color, and texture. The natural features are not considered rare in the surrounding region but provide adequate visual diversity to be considered of value.

Class C: Areas have minimal diversity or interest; representative natural features have limited variation in form, line, color, or texture in the context of the surrounding region. Discordant cultural modifications

(e.g., substations, transmission lines, and other cultural modifications) can be highly noticeable, which can reduce the inherent value of the natural setting.

The VSOI for the Project area was characterized as Class C for scenic attractiveness. No landscapes were considered to have distinctive characteristics as defined for Class A levels. Most landscapes within the VSOI were identified as Class C or as landscapes lacking significant natural amenities.

Scenic Attractiveness Classification Evaluation Forms (Figures 5.13-6 through 5.13-10) were developed for key view areas within the VSOI. The values underlined in the scenic attractiveness rating box on the forms illustrate the assigned values (H – high, M – moderate, L – low) for each natural feature (e.g., landform, vegetation, water, etc.) or negative/positive cultural modification. The combined value of these elements is used to determine in which class the landscape should be characterized. The Visual Resource Management (VRM) system is designed to separate the existing landscape and the proposed project into their features and elements and to compare each part to the other to identify parts that are incompatible (BLM 1986). The resulting landscape classifications are:

Class I: The objective of this class is to preserve the existing character of the landscape. Changes to the landscape character should not be evident.

Class II: The objective of this class is to retain the existing character of the landscape. Changes to the landscape character may attract slight attention but should be subordinate to the visual setting.

Class III: The objective of this class is to partially retain the existing character of the landscape. Changes to the landscape character may begin to attract attention but should not dominate the visual setting.

Class IV: The objective of this class is to allow for activities that modify the existing character of the landscape. Changes to the landscape character may attract attention and dominate the visual setting. However, these activities should minimize changes to the landscape where possible.

5.13.1.3.2 ESILs

The ESILs of a specific landscape setting can be defined as the extent to which natural features have been modified by human actions to the point of degrading the natural setting. An inventory of the ESILs within the VSOI was taken and varying cultural modifications were documented. Varying cultural modifications included, but were not limited to, the existing roadways/highways, Pleasant Valley State Prison, Coalinga State Hospital, existing oil field activities, commercial land uses, agricultural operations, a few scattered residences, and abandoned/dilapidated structures within 5 miles of the Project site. Several large transmission line corridors that support electricity transmission to/from the Gates Substation also traverse the landscape within the VSOI. The following ESIL criteria were used to evaluate degrees of modifications:

- High – The landscape character appears intact. Deviations are present but repeat form, line, color, texture, and patterns common to the landscape character so completely and at such a scale that they are not evident.

- Moderate – The landscape character appears slightly altered. Noticeable deviations remain visually subordinate to the landscape character being viewed.
- Low – The landscape character appears heavily altered. Deviations strongly dominate the landscape character. Deviations do not borrow from attributes such as size, shape, edge effects, vegetative type changes, or architectural styles within or outside the landscape being viewed.

Most areas within the VSOI were classified as retaining low ESILs.

5.13.1.3.3 Viewer Sensitivity and Sensitive Viewing Areas

Viewer Sensitivity: While conducting this study, no attempt was made to model varying levels of viewer concern with change in their landscape. Because of the difficulty in inventorying for every individual's sensitivity level, it was determined that all viewers may have a high level of concern related to changes occurring in landscapes within the VSOI. Generally, a viewer's concern level is associated with, but not limited to, the following factors:

- Viewing location, orientation of view, and duration of view;
- Activity in which the viewer may be engaged (*e.g.*, water-related recreation activities, bird-watching);
- Visual acuity related to the intensity of visual detail within a landscape setting;
- State of mind or attitude;
- Preconceived expectations related to scenic quality; and
- Inherent values related to scenic quality and familiarity within specific landscape settings.

Sensitive Viewing Areas: After discussions with CEC visual staff, and a review of surrounding land uses, it was determined that sensitive viewing areas within the VSOI consisted primarily of low density residences to the north, Coalinga State Hospital employees/visitors/patients, and travelers along West Jayne Avenue. As previously stated, the nearest residence to the Project site is located approximately 1,300 feet from the northern boundary of the Project site. As this residence is in an elevated position relative to the Project site, residents have foreground-direct, unobstructed views to the Project.

West Jayne Avenue runs in an east/west orientation adjacent to the northern boundary of the Project site. Topographical variations for westbound travelers, and development in the area (such as Pleasant Valley and Coalinga State Hospital facilities) for eastbound travelers, block portions of the site on approach. However, direct unobstructed traveler views are available as the highway nears the northern boundary of the site from both eastbound and westbound travelers.

In addition, West Jayne Avenue extends along the southern boundary of the Gates Substation. The northern transmission line route proposes Project transmission lines to run virtually parallel to West Jayne Avenue for the entirety of the proposed route until interconnection with the Gates Substation. The southern transmission line route also proposes Project transmission lines to run parallel to West Jayne Avenue, however, one mile to the south (see Figure 5.13-2), and after crossing I-5 make a 90-degree turn north to interconnect with the Gates Substation. Travelers along West Jayne Avenue would have direct,

unobstructed views of Project northern route transmission lines as well as both northern and southern route transmission interconnections to the Gates Substation.

I-5 extends in a southeast to northwest orientation across the VSOI and is approximately 3.3 miles east of the Project site. FHWA and California Department of Transportation (Caltrans) standards do not identify either I-5 or West Jayne Avenue as a designated scenic highway. However, I-5 is considered by the County of Fresno to be a Scenic Highway. Views of the Project site from the elevated I-5/West Jayne Avenue overpass are lessened by distance and buffered by agricultural operations and commercial developments between this location and the Project site. In addition, a persistent haze, generally characteristic of the air quality in the area, impairs the clarity of distant views. Furthermore, I-5 is not elevated, as is the I-5/West Jayne Avenue overpass, and viewers would not have direct views to the site. Therefore, in coordination with CEC staff, I-5 was not identified as a sensitive viewing area in relation to the Project.

No other travel routes within the VSOI are designated as federal, state, or county scenic highways or travel routes subject to aesthetic management goals or objectives.

5.13.1.4 Inventory Results

5.13.1.4.1 Scenic Attractiveness

The VSOI is composed primarily of Class C landscapes. This is due to the high degree of human modifications present within the VSOI and the absence of distinctive natural amenities (*e.g.*, diverse and distinctive natural elements). Areas inventoried along I-5 possess a slightly higher degree of scenic attractiveness because elevations in topography allow large expansive views of the valley and mountains in the area. Natural amenities adjacent to I-5, however, have been visually impacted because of the presence of commercial land uses, large transmission systems/networks, agricultural development, and other industrial facilities.

Within the VSOI, agricultural lands add to the general continuity of the visual setting. Checkerboard parcels of an assortment of crops add to the distinctiveness of the rural setting and openness of the landscape. Background views of several large mountain ranges add variety within the background-viewing threshold. However, the natural amenities of the Project area have been visually impacted due to the presence of transmission systems/networks, agricultural development, Pleasant Valley Prison, Coalinga State Hospital, oilfield activities, and other industrial facilities.

5.13.1.4.2 ESILs

Most landscapes inventoried within the VSOI can be classified as retaining primarily low ESILs because of the presence of manmade development including existing roadways/highways, Pleasant Valley Prison, Coalinga State Hospital, existing oil field activities, commercial land uses, agricultural/industrial operations, a few scattered residences, abandoned/dilapidated structures, large transmission system/networks, and Gates Substation, all within 5 miles of the Project site.

5.13.1.4.3 Sensitive Viewing Areas and Key Observation Points

Key observation points (KOP) are viewing locations chosen to be representative of the most visually sensitive areas that would view the Project. The inventory of KOPs included three components: (1) identification and photo-documentation of viewing areas and potential KOPs; (2) classification of visual sensitivity of KOPs; and (3) description of Project visibility from KOPs. KOPs were identified based on review of available land use data, field inspection, and discussion with CEC staff responsible for the evaluation of visual resources.

Viewer sensitivity is a measure of the degree of concern for change in the visual character of a landscape. Viewer sensitivity considers type of use, user attitude, volume of use, adjacent land use, visual quality, and special classifications. Three levels of viewer sensitivity (high, moderate, or low) were used to describe the sensitivity of viewers within the study area. High-sensitivity viewpoints identified in the study area include existing residences. Moderate-sensitivity viewers identified in the study area consist of existing primary area roadway travelers along West Jayne Avenue and employees/visitors/patients of the Coalinga State Hospital. Low-sensitivity viewers include industrial areas and are not evaluated in detail for this study because these are considered to be of compatible use with the facility, and therefore, would not result in significant visual impacts.

Visibility determines how the Project would be seen from a particular viewing area or KOP. The inventory of Project visibility documented the distance from the viewpoint to the Project. Perception of details (*e.g.*, form, line, color, and texture) diminishes with increasing distance. The distance zones were foreground (0 to 0.5 mile), middleground (0.5 to 5 miles), and background (beyond 5 miles). In addition, the inventory evaluated if views were open, partially screened (filtered), or screened (*e.g.*, presence of hillside terrain, vegetation, and/or buildings).

Five sensitive viewing areas were identified as representative of viewers who would be most susceptible to visual impact within their viewshed as a result of the proposed Project. A brief characterization of these areas is provided below:

Sensitive Viewing Area and KOP No. 1. This image was taken from the front yard of the closest residence (mobile home), approximately 1,300 feet from the northern perimeter of the Project site (Figure 5.13-11, see also Figures 5.13-1 and 5.13-2 for KOP location). As this is the closest residence to the north, and has largely unobstructed/direct views to the Project site, it was chosen as a representative KOP. This view represents the “worst case” residential views to the Project. This view has the longest viewing duration of the Project, as well as the highest degree of severity due to proximity. SJS 1&2, especially the most visually dominant components of the Project (components within the power block, as well as the proposed transmission lines), will be clearly visible from this location. In addition, potential visible plumes and nighttime Project lighting added to the area will be visible from this KOP location. SJS 1&2, in the absence of screening, would be highly visible due to the flat, open viewing conditions and the elevated position of the residence in relation to the Project site. The viewshed has been modified with the presence of the Pleasant Valley Prison, Coalinga State Hospital, agricultural operations, existing transmission lines, and existing/abandoned structures in the foreground. The ESIL from this area can be characterized as Class C (Figure 5.13-6).

Sensitive Viewing Area and KOP No. 2. This image was taken from westbound West Jayne Avenue near the northeastern Project boundary (Figure 5.13-13, see also Figures 5.13-1 and 5.13-2 for KOP location). The Project site is located immediately south of West Jayne Avenue. This KOP location represents the most unobscured view to the Project site for westbound travelers along West Jayne Avenue, and therefore, was chosen as a representative KOP. This KOP will have direct/unobstructed views to the Project. In addition, potential visible plumes and nighttime Project lighting added to the area will be visible from this KOP location. This view is consistent with shorter viewing durations of the Project (*i.e.*, from travelers focusing on the road). SJS 1&2, in the absence of screening, would be highly visible due to the flat, open viewing conditions. It should be noted that the westbound traveler viewshed has already been modified with the presence of Coalinga State Hospital, Pleasant Valley Prison, existing transmission lines, oil extraction activities, and intensive agricultural production operations in the immediate vicinity. The ESIL from this area can be characterized as Class C (Figure 5.13-7)

Sensitive Viewing Area and KOP No. 3. This image was taken from eastbound West Jayne Avenue at the northwestern Project boundary shared with Coalinga State Hospital (Figure 5.13-15, see also Figures 5.13-1 and 5.13-2 for KOP location). The Project site is located immediately east of Coalinga State Hospital and immediately south of West Jayne Avenue. The photo from this location represents traveler views along West Jayne Avenue as well as employee/visitor/patient views from Coalinga State Hospital. This location represents the most unobscured view to the Project site from both these locations and therefore was chosen as a representative KOP. This KOP will have direct/unobstructed views to the Project at the northwestern site boundary. In addition, potential visible plumes and nighttime Project lighting added to the area will be visible from this KOP location. This view is consistent with short viewing durations (*i.e.*, from travelers focusing on the road) as well as longer viewing durations (*i.e.*, views from Coalinga State Hospital) of the Project. SJS 1&2, in the absence of screening, would be highly visible due to the flat, open viewing conditions. It should be noted that the eastbound traveler viewshed has already been modified with the presence of the Pleasant Valley Prison, Coalinga State Hospital, existing transmission lines, and intensive agricultural production operations in the immediate vicinity. The ESIL from this area can be characterized as Class C (Figure 5.13-8).

Sensitive Viewing Area and KOP No. 4. This image was taken from westbound West Jayne Avenue just east of the southern boundary of the Gates Substation near the proposed Project interconnection site (Figure 5.13-17, see also Figures 5.13-1 and 5.13-2 for KOP location). The photo from this location represents traveler views of the Project's proposed interconnection with the Gates Substation from westbound West Jayne Avenue. This KOP location represents the most unobscured view to the proposed transmission routes (both southern and northern) and Project interconnection with the Gates Substation for travelers along West Jayne Avenue; therefore, was chosen as a representative KOP. This view is consistent with short viewing durations (*i.e.*, from travelers focusing on the road) and will have a low degree of severity due to the degree of existing large transmission systems in the area as well as the substantial size of the Gates Substation (Figure 5.13-5). It should be noted that the most distinct visual characteristic of the area for travelers along West Jayne Avenue, other than the substantial power facilities, is the patchwork of various agricultural crops. Potential plumes from the Project site would not be visible at this location due to distance. The ESIL from this area can be characterized as Class C (Figure 5.13-9).

KOP No. 5. This image was taken at the southeastern corner of the Project site near the proposed southern route for the Project transmission system (Figure 5.13-20, see also Figures 5.13-1 and 5.13-2 for KOP location). The photo from this location represents views of the Project's proposed southern transmission system route. During the field survey, no new sensitive viewer was identified with direct views of this proposed southern transmission system route. While this KOP does not represent views from a specific sensitive viewing area, for the purposes of this analysis, it was included to provide the reader with a representative visual impact discussion of this alternative transmission line route. This KOP location represents the most unobscured view to the proposed southern transmission route as it extends off-site and travels eastward along an existing agricultural dirt road to ultimately connect with the Gates Substation (see Figures 5.13-1 and 5.13-2). This view is consistent with a low degree of severity due to the degree of existing and similar transmission systems in the area. The ESIL from this area can be characterized as Class C (Figure 5.13-10).

5.13.2 Environmental Consequences

5.13.2.1 Significance Criteria and Assessment Methodology

The visual resources study included the assessment of impacts on scenic attractiveness and sensitive viewing areas within the VSOI related to the construction, operation, maintenance, and long-term presence of SJS 1&2.

The consideration of significant visual impacts was based predominantly on the requirements of CEQA. Appendix G of the CEQA Guidelines states that potential impacts to visual resources would be significant if a proposed project results in:

- A substantial adverse effect on a scenic vista;
- Substantial damage to scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings;
- Substantial degradation of the existing visual character or quality of the site and its surroundings; and
- Creation of a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

Additionally, the CEC requires that consideration be given to the following:

- Compliance with LORS;
- Level of viewshed alteration and ground form manipulation;
- Regional effects to visual resources;
- Magnitude of impact related to light and glare;
- Magnitude of back-light scatter during nighttime hours; and
- Level of sunlight reduction or increase in shadows in areas used by the public.

The matrix presented in Table 5.13-1 aids in the assessment of visual impact significance.

Table 5.13-1
Visual Impact Significance Matrix – Sensitive Viewing Areas

Visual Impact Severity	High Susceptibility	Moderate Susceptibility	Low susceptibility
High Impact Severity	Significant	Less Than Significant	Less Than Significant
Moderate Impact Severity	Less Than Significant	Less Than Significant	Less Than Significant
Low Impact Severity	Less Than Significant	Less Than Significant	No Impact

5.13.2.1.1 Visual Simulations

A comparison of existing views with visual simulations, depicted on Figures 5.13-11 through 5.13-21, aided in verifying Project-related impacts. The simulations served to present a representative sample of the existing landscape settings contained within the VSOI, as well as an illustration of how SJS 1&2 may look from specific key viewing locations.

To ensure a high degree of visual accuracy in the visual simulations, computer-aided design (CAD) equipment, GIS, and the use of a GPS allow for life-size modeling within the computer. This translates to using real-world scale and coordinates to locate facilities, other site data, and the camera locations corresponding to three-dimensional (3D) simulation viewpoints.

A GIS site map is imported as a background reference. CAD drawings of proposed facilities are placed on top of the site map in GIS. Locations of sensitive viewing areas are also input into GIS. The camera positioning information is then referenced to the 3D data set. The 3D massing models of both the proposed facility and all ancillary facilities are generated in real-world coordinates, scaled, and input into GIS.

An electronic camera lens matches the camera lens that was actually used in the field. A Nikon 6.1-megapixel digital camera set to take a 19.2-mm lens image was used consistently throughout the process. This lens setting selection allows for viewing of the computer-generated model in the same way that SJS 1&2 would be viewed in the field.

Next, the photograph is imported into the 3D database and loaded as an environment within which the view of the 3D model is generated. To generate the correct view relative to the actual photograph, the electronic camera is placed at a location (within the computer) from where the photograph was taken. From there, the 3D wire frame model is displayed on top of the existing photo so that proper alignment, scale, angle, and distance can be verified. When all lines of the wire frame model exactly match the photograph, the camera target position is confirmed.

It should be noted that final simulations were created using CAD files obtained from LP Daniel Engineering to remain consistent with general SJS 1&2 development engineering. Once field KOP location photos and coordinates for photo locations were gathered, these were incorporated into the final

simulation production. The processes described above relate to general simulation construction and are included for reader understanding of the procedures.

The visual simulations developed for the Project have been designed to be viewed 10 inches from the viewer’s eye. This distance will portray the most realistic life-size image from the location of the sensitive viewing area.

5.13.2.1.2 Assessing Visual Impact Susceptibility on Sensitive Viewing Areas

As stated previously in Section 5.13.1.2, visual impact susceptibility is the degree to which a sensitive viewpoint would be impacted by changes within its viewshed. Following identification of the four most sensitive viewing areas within the VSOI, the degree of impact on each area was determined through the analysis of the following components:

- ESIL – The degree of existing disturbance within the natural setting.
- Viewer Sensitivity – All identified viewers with foreground views were considered high-sensitivity viewers.
- Project Visibility – An assessment of the viewing angle, potential screening, lighting conditions, and time of day.
- Viewer Exposure – An assessment of the distance from the proposed project, number of viewers, and duration of views.
- Table 5.13-2 illustrates the level of visual impact susceptibility anticipated for each sensitive viewing area based on an evaluation of the previously stated factors.

**Table 5.13-2
Visual Impact Susceptibility – Sensitive Viewing Areas**

Viewing Areas	Existing Scenic Integrity Level	Viewer Sensitivity	Project Visibility	Viewer Exposure	Visual Impact Susceptibility
Sensitive Viewing Area and KOP No. 1 (Figure 5.13-11, see also Figure 5.13-1 for KOP location) – from unobscured front yard view of closest residence to the north.	Low	High	High	Moderate	High
Sensitive Viewing Area and KOP No. 2 (Figure 5.13-13, see also Figure 5.13-1 for KOP location) – traveler view from westbound West Jayne Avenue east of northeastern Project boundary.	Low	Low/Moderate	High	Low	Low/ Moderate

**Table 5.13-2
Visual Impact Susceptibility – Sensitive Viewing Areas
(Continued)**

Viewing Areas	Existing Scenic Integrity Level	Viewer Sensitivity	Project Visibility	Viewer Exposure	Visual Impact Susceptibility
Sensitive Viewing Area and KOP No. 3 (Figure 5.13-15, see also Figure 5.13-1 for KOP location) – traveler/employee/visitor/patient view from eastbound West Jayne Avenue and Coalinga State Hospital at northwestern Project boundary.	Low	Low/Moderate	High	Low/Moderate	Low/ Moderate
Sensitive Viewing Area and KOP No. 4 (Figure 5.13-17, see also Figure 5.13-1 for KOP location) – traveler view of substation interconnection from westbound West Jayne Avenue.	Low	Low	Low	Low	Low
KOP No. 5 (Figure 5.13-20, see also Figure 5.13-1 for KOP location) – views of the Project's proposed southern transmission system route.	Low	Low	Low	Low	Low

5.13.2.1.3 Assessing Visual Impact Severity on Sensitive Viewers

The severity of the impact (high to low) on sensitive viewers was assigned a severity level proportionate to the amount of anticipated change to the landscape created within a specific viewshed. The primary criteria for project impacts include:

- The degree of project contrast (*e.g.*, form, line, color, and texture).
- Scale and spatial dominance.
- Extent of view blockage/screening (topographic and/or vegetative) and night lighting.

Table 5.13-3 describes levels designated to each variable above as they relate to the degree of visual impact severity anticipated on representative sensitive viewing areas.

**Table 5.13-3
Visual Impact Severity – Sensitive Viewing Areas**

Viewing Areas	Form Contrast	Line Contrast	Color Contrast	Texture Contrast	Scale Dominance	Spatial Dominance	View/Blockage/ Night Lighting	Visual Impact Severity
Sensitive Viewing Area and KOP No. 1 (Figure 5.13-11, see also Figure 5.13-1 for KOP location) – from unobscured front yard view of closest residence to the north.	Moderate	Moderate/ Low	Moderate/ Low	Moderate/ Low	Co-Dominant	Co-Dominant	Moderate	Moderate
Sensitive Viewing Area and KOP No. 2 (Figure 5.13-13, see also Figure 5.13-1 for KOP location) – traveler view from westbound West Jayne Avenue east of northeastern Project boundary.	Moderate/ Low	Moderate/ Low	Low	Low	Subordinate	Subordinate	Low/Moderate	Low/ Moderate
Sensitive Viewing Area and KOP No. 3 (Figure 5.13-15, see also Figure 5.13-1 for KOP location) – traveler/employee/visitor/patient view from eastbound West Jayne Avenue and Coalinga State Hospital at northwestern Project boundary.	Low	Low	Low	Low	Subordinate	Subordinate	Low/Moderate	Low/ Moderate
Sensitive Viewing Area and KOP No. 4 (Figure 5.13-17, see also Figure 5.13-1 for KOP location) – traveler view of substation interconnection from westbound West Jayne Avenue.	Low	Low	Low	Low	Subordinate	Subordinate	Low	Low
KOP No. 5 (Figure 5.13-20, see also Figure 5.13-1 for KOP location) – views of the Project’s proposed southern transmission system route.	Low	Low	Low	Low	Subordinate	Subordinate	Low	Low

This page intentionally left blank

The final evaluation conducted in the impact assessment was the assignment of potential impact levels on representative sensitive viewing areas by combining viewer susceptibility and impact severity levels at key and characteristic viewing locations.

5.13.2.2 Visual Impact Assessment Results

This section discusses the affected visual resources for the Project. A description of the potential impacts on scenic attractiveness and on sensitive viewers is provided. A detailed description of the Project site is in Section 3.0, Project Description and Location. Table 5.13-4, provided below, includes design characteristics of some of the more prominent Project features (due to height/size) and other important Project details taken into account as part of the visual impact assessment.

- Site access would be provided from West Jayne Avenue via access gates located at the northwestern and northeastern corners of the site.
- A security fence (a 10-foot-high chain link fence) with mesh/privacy slats will enclose the entire 640-acre Project site.
- The property is largely vacant, historically used for agricultural purposes.
- The Project will require construction of approximately 6 miles of new overhead transmission line to interconnect with the Gates Substation. New transmission poles (approximately 85 feet in height) would be constructed (following the northern or southern transmission line route). See Section 3.0, Project Description and Location, for further description of the proposed transmission line route and interconnection.
- Several large transmission line corridors currently exist within the immediate and surrounding Project vicinity.
- Surrounding site development includes existing roadways/highways, Pleasant Valley State Prison, Coalinga State Hospital, existing oil field activities, commercial land uses, agricultural/industrial operations, a few scattered residences, abandoned/dilapidated structures, large transmission system/networks, and Gates Substation within 5 miles of the Project site.
- The property is relatively flat, sloping gently down to the southwest. Due to the existing grade of the site, site preparation earthwork includes terracing at the northeastern corner of the site and surface grading to level and maintain the existing natural gradient.

**Table 5.13-4
Major Component Design Characteristics**

Component	Height (feet)	Size (feet)	Color/Materials
Power Block			
Scrubber	75	30 DIA	Corrugated steel; natural shades of beige and brown
BioMass Heater	68	32 x 40	Corrugated steel; natural shades of beige and brown
BioMass Exhaust Stack	100	30 DIA	Corrugated steel; natural shades of beige and brown

**Table 5.13-4
Major Component Design Characteristics
(Continued)**

Component	Height (feet)	Size (feet)	Color/Materials
Control and Administration Building	50	60 x 75	Corrugated steel; natural shades of beige and brown
Steam Turbine Generator (STG)	60	50 x 200	Corrugated steel; natural shades of beige and brown
Cooling Towers	26	36 x 135	Corrugated steel; natural shades of beige and brown
Warehouse and Shop Building	20	75 x 150	Corrugated steel; natural shades of beige and brown
Take-Off, Dead End, and Buss Structures	40	30 x 35	Corrugated steel
Transmission System, In Line	85	- -	Wood Poles
Raw Water-Fire Water Tank (2,000,000 Gallons)	45	100 DIA	Corrugated steel; natural shades of beige and brown
Demineralized Water Tank (40,000 Gallons)	28	17 DIA	Corrugated steel; natural shades of beige and brown
Reflector Line	15.5	19 x 1,000	Low iron glass with coposite steel backing
Baghouse	65	30 x 40	Corrugated steel; natural shades of beige and brown
Steam Drum	12 DIA	60	Corrugated steel; natural shades of beige and brown
Steam Drum Support Structure	58	15 x 40	Corrugated steel; natural shades of beige and brown

5.13.2.2.1 Direct Impacts

The following sections describe direct impacts related to the Project.

Visual Impact Significance on Scenic Attractiveness:

Project Site

Given the large scale of the Project (640 acres) and the lack of significant topographic features within the VSOI, the Project would be highly visible from adjacent locations in the area and potentially significant impacts on scenic attractiveness would be expected. However, due to the degree of existing modification and landscape degradation in the Project vicinity (*e.g.*, Coalinga State Hospital, Pleasant Valley Prison, oilfield activities, and transmission lines), potential impacts to the area's scenic attractiveness are reduced. In addition, landscapes inventoried within the VSOI are classified as retaining primarily low ESILs. Ground-disturbing activities at the Project site would occur in areas previously disturbed (agricultural crop rows) or with degraded landscapes and within areas classified as retaining low distinctive or diverse natural amenities or lacking substantial positive cultural modifications. While the Project would change the existing character of the site, significant impacts to the scenic attractiveness of the VSOI identified for the Project are not anticipated. Therefore, less than significant impacts would occur relative to existing scenic attractiveness.

Project Interconnection with Gates Substation

The Project will connect to the existing Gates Substation located approximately 5 miles east of the Project site. The proposed northern transmission line route would largely travel along the south side of West Jayne Avenue, adjacent to an existing transmission line system. The proposed southern transmission line route would largely travel along an existing agricultural dirt road parallel to West Jayne Avenue (a section of land to the south). The Project transmission line configuration is described in more detail above and in Section 3.0, Facility Description and Location, and is depicted on Figure 3.4-2, and Figure 3.4-7.

As discussed above, a large number of transmission systems transverse the area surrounding the Gates Substation (Figure 5.13-5, Character Photos of Project Area). In addition, transmission systems currently exist along West Jayne Avenue, as well as other roadways within the VSOI.

Given the number of existing transmission systems within the vicinity of the Gates Substation, in combination with the variety of cultural modifications along the transmission line routes (between the Project site and the Gates Substation) and within the VSOI, less than significant impacts on scenic attractiveness are anticipated. Therefore, less than significant impacts will occur relative to existing scenic attractiveness.

Visual Impact Significance on Sensitive Viewing Areas: Figures 5.13-11 through 5.13-21, depicting existing and simulated views from each of the four selected KOPs, aided in verifying Project-related impacts and assessing visual impact significance. As stated, the four sensitive viewing areas were identified as representative of viewers most susceptible to visual impacts within their viewshed as a result of the Project. While KOP#5 is not identified as a sensitive viewing area, it does provide the reader with a clear depiction and visual description of the southern transmission line route (for the purposes of this analysis). The simulations served to present a representative sample of the existing landscape settings contained within the VSOI, as well as an illustration of how the Project may look from specific key viewing locations. Table 5.13-2, Visual Impact Susceptibility – Sensitive Viewing Areas, Table 5.13-3, Visual Impact Severity – Sensitive Viewing Areas, and Table 5.13-5, Visual Impact Significance – Sensitive Viewing Areas, illustrate the visual impact susceptibility, visual impact severity, and resultant visual impact significance on sensitive viewing areas, respectively. Less than significant visual impacts are expected to occur within the VSOI and region with the construction, operation, maintenance, and long-term presence of the Project.

It should be noted that SJS 1&2 may draw positive visual interest to the area. As one of the first projects of its kind in California, the solar technology has the potential to become a tourist attraction, drawing visitors from the energy industry, environmental community, and government/political figures who seek direct personal experience of progressive renewable energy solutions. For example, since its development, the wind farm of approximately 4,000 wind turbine generators/windmills in the San Gorgonio Pass area (which includes portions of Palm Springs, Desert Hot Springs, and Coachella Valley) have become somewhat a symbol of the area. The technology as well as the total size and number of windmills creates a spectacle that attracts tourists and there are numerous companies that offer tours to view the area; however, prior to its development, the proposed wind farm was seen as a potentially inmitigable significant visual impact for travelers through the area.

A description of potential impacts for the five KOPs is provided in Table 5.13-5 below. It should be noted that the existing viewshed has already been modified with the presence of West Jayne Avenue (and traffic on this roadway), Coalinga State Hospital, Pleasant Valley Prison, the existing transmission system/network along West Jayne Avenue, oil extraction/oil field activities, a few scattered residences, abandoned/dilapidated structures, intensive agricultural production operations, and other cultural modifications in the immediate vicinity.

**Table 5.13-5
Visual Impact Significance – Sensitive Viewing Areas**

Viewing Area	Description of Impact	Visual Impact Susceptibility	Visual Impact Severity	Visual Impact Significance
<p>Sensitive Viewing Area and KOP No. 1 (Figure 5.13-12, see also Figure 5.13-1 for KOP location) – from unobscured front yard view of closest residence to the north.</p>	<p>This KOP location represents the closest unobstructed residential view to the Project site. KOP 1, located approximately 1,300 feet north of the Project site, has unobstructed foreground views to the site and is consistent with longer viewing durations (<i>i.e.</i>, from residential views) of the Project as well as the highest degree of severity due to proximity to the site. SJS 1&2, in the absence of screening, would be highly visible due to the flat, open viewing conditions and the elevated position of the residence in relation to the Project site. The Project will change the existing character of the Project site. However, as substantial existing industrial development is located within foreground/midground views of this KOP, viewers from this location are not anticipated to be significantly visually impacted by similar development. Nighttime Project lighting would be minimal, and is not expected to be substantially more noticeable in comparison to lighting at the Coalinga State Hospital and Pleasant Valley Prison adjacent to the Project site. Potential visible plumes will be clearly visible from this KOP location; however, plumes are anticipated to occur largely only during seasonal clear weather conditions from November to April (Section 5.13.2.2.3 for further analysis on visible plumes). Visual impact susceptibility from this location is characterized as high (Table 5.13-2). Visual impact severity from this location is characterized as moderate (Table 5.13-3). Therefore, aesthetic impact significance from this location is classified as less than significant.</p>	<p align="center">High</p>	<p align="center">Moderate</p>	<p align="center">Less Than Significant</p>
<p>Sensitive Viewing Area and KOP No. 2 (Figure 5.13-14, see also Figure 5.13-1 for KOP location) – traveler view from westbound West West Jayne Avenue east of northeastern Project boundary.</p>	<p>This KOP location represents the most unobscured view to the Project site for westbound travelers along West Jayne Avenue. West Jayne Avenue is not designated a scenic highway; however, it has approximately 3,200 travelers/ADTs. Views along West Jayne Avenue have therefore been considered to have moderate/low sensitivity. This view is consistent with sporadic short viewing durations (<i>i.e.</i>, from travelers focusing on the road). As identified for KOP 1, nighttime Project lighting would be minimal, and is not expected to be substantially more noticeable in comparison to lighting at the Coalinga State Hospital and Pleasant Valley Prison adjacent to the Project site. Potential visible plumes will be clearly visible from this KOP location; however, plumes are anticipated to occur largely only during seasonal clear weather conditions from November to April (see Section 5.13.2.2.3 for further analysis on visible plumes). Due to topography and other cultural modifications, travelers</p>	<p align="center">Low/ Moderate</p>	<p align="center">Low/ Moderate</p>	<p align="center">Less Than Significant</p>

**Table 5.13-5
Visual Impact Significance – Sensitive Viewing Areas
(Continued)**

Viewing Area	Description of Impact	Visual Impact Susceptibility	Visual Impact Severity	Visual Impact Significance
	<p>along West Jayne Avenue, in general, will not have distant views to the Project or Project interconnection. Project features will only be visible when the traveler nears the site. Visual impact susceptibility from this location is characterized as low/moderate (Table 5.13-2). Visual impact severity from this location is characterized as low/moderate (Table 5.13-3). Therefore, aesthetic impact significance from this location is classified as less than significant.</p>			
<p>Sensitive Viewing Area and KOP No. 3 (Figure 5.13-16, see also Figure 5.13-1 for KOP location) – traveler/employee/visitor/patient view from eastbound West Jayne Avenue and Coalinga State Hospital at northwestern Project boundary.</p>	<p>This KOP location represents the most unobscured view to the Project site for eastbound travelers along West Jayne Avenue as well as employee/visitor/patient views from Coalinga State Hospital. This view is consistent with short viewing durations (<i>i.e.</i>, from travelers focusing on the road) as well as somewhat longer viewing durations (<i>i.e.</i>, employee/visitor/patient views from Coalinga State Hospital) of the Project.</p> <p>The discussion for this KOP for eastbound travelers along West Jayne Avenue is similar to that provided for KOP 2 (westbound West Jayne Avenue travelers). In addition, viewing durations are further limited as Pleasant Valley Prison and Coalinga State Hospital block all views of the site for eastbound travelers until the traveler passes both of these facilities. Project features will only be visible once the traveler virtually reaches the northwestern boundary of the Project site. As the Project is proposed immediately adjacent to Pleasant Valley Prison and Coalinga State Hospital, and Project structures will follow similar form and line characteristics as these existing facilities, less than significant visual impacts for eastbound West Jayne Avenue travelers are expected.</p> <p>SJS 1&2, in the absence of screening, would be highly visible for employee/visitor/patient views from Coalinga State Hospital. While the Project would change the existing character of the site, it is not expected to represent significant contrast to the existing setting as Project features would follow similar form and line to the existing Pleasant Valley Prison and Coalinga State Hospital. As identified for KOPs 1 and 2, nighttime Project lighting would be minimal, and is not expected to be substantially more noticeable in comparison to lighting at the Coalinga State Hospital and Pleasant Valley Prison adjacent to the Project site.</p>	<p>Low/ Moderate</p>	<p>Low/ Moderate</p>	<p>Less Than Significant</p>

**Table 5.13-5
Visual Impact Significance – Sensitive Viewing Areas
(Continued)**

Viewing Area	Description of Impact	Visual Impact Susceptibility	Visual Impact Severity	Visual Impact Significance
	<p>Potential visible plumes will be clearly visible from this KOP location; however, plumes are anticipated to occur largely only during seasonal clear weather conditions from November to April (see Section 5.13.2.2.3 for further analysis on visible plumes).</p> <p>Visual impact susceptibility from this location is characterized as low/moderate (Table 5.13-2). Visual impact severity from this location is characterized as low/moderate (Table 5.13-3). Therefore, aesthetic impact significance from this location is classified as less than significant. The ESIL from this area can be characterized as Class C (Figure 5.13-8)</p>			
<p>Sensitive Viewing Area and KOP No. 4 (Figures 5.13-18 and 5.13-19, see also Figure 5.13-1 for KOP location) – traveler view of substation interconnection from westbound West Jayne Avenue.</p>	<p>This KOP location represents the most unobscured view to the proposed transmission routes and Project interconnection with the Gates Substation for westbound travelers along West Jayne Avenue. This KOP has foreground views to the substation interconnection and is consistent with short viewing durations (<i>i.e.</i>, from travelers focusing on the road) and have a low degree of severity due to the degree of existing large transmission systems in the area as well as the substantial size of the Gates Substation (Figure 5.13-5). Foreground views from this KOP are highly impacted by views of the existing Gates Substation, numerous large existing power transmission systems, industrial site fencing, and other associated substation structures. The addition of Project transmission lines to this viewshed is expected to be virtually indistinguishable to travelers at this KOP location. In addition, the Project site is not visible from this KOP (as it is located 5 miles to the west). Therefore, no impacts to visual resources associated with construction/operation activities or lighting at the Project site or potential plume emissions from the Project will occur. Visual impact susceptibility from this location is characterized as low (Table 5.13-2). Visual impact severity from this location is characterized as low (Table 5.13-3). Therefore, aesthetic impact significance from this location is classified as no impact.</p>	<p>Low</p>	<p>Low</p>	<p>No Impact</p>
<p>KOP No. 5 (Figure 5.13-21, see also Figure 5.13-1 for KOP location) – views of the Project’s proposed southern transmission</p>	<p>As stated, this KOP is not identified as a sensitive viewing area; however, this location was chosen to represent and clearly depict the proposed southern transmission line route. As this route is proposed to run along an existing agricultural dirt road located parallel to and one-mile south of West Jayne Avenue, travelers along West Jayne Avenue may have</p>	<p>Low</p>	<p>Low</p>	<p>No Impact</p>

**Table 5.13-5
Visual Impact Significance – Sensitive Viewing Areas
(Continued)**

Viewing Area	Description of Impact	Visual Impact Susceptibility	Visual Impact Severity	Visual Impact Significance
system route.	intermittent views of the transmission line. However, due to topography in the area and adjacent to the roadway, these middleground views are highly intermittent. In addition, as Project transmission poles are proposed as 85-foot wood poles, similar in height and materials as other existing numerous transmission systems traversing the area, Project transmission lines are not anticipated to create a variation from preconceived expectations related to scenic quality or existing visual character for the area. The addition of Project transmission lines to this viewshed is expected to be virtually indistinguishable to area viewers. Therefore, no impacts to visual resources associated with the southern transmission line route are anticipated. Visual impact susceptibility from this location is characterized as low (Table 5.13-2). Visual impact severity from this location is characterized as low (Table 5.13-3). Therefore, aesthetic impact significance from this location is classified as no impact.			

5.13.2.2.2 Lighting

Night Lighting: Currently, night lighting produced within the immediate Project vicinity consists mainly of security lighting for the Pleasant Valley Prison and Coalinga State Hospital. Additionally, vehicle headlights for roadway travelers also create temporary light additions to the area.

Lighting design for the Project would be consistent with all CEC lighting requirements and local LORS. Lighting will be required for safe and efficient operation/maintenance activities within the Power Block (approximately 4 acres) at the center of the Project site. No lighting is proposed within the solar field. To avoid intrusion on sensitive areas, outdoor lighting will be directed downwards and towards the interior of the plant. In addition, the power block is located within the solar field; therefore, no nighttime lighting will be placed near the Project boundaries thus further reducing potential spillage. While SJS 1&2 may slightly add to existing lighting in the area, the Project would not significantly increase the existing night lighting in the Project area or create significant night lighting impacts from backscatter light a nearby viewer may experience when looking toward the site.

FAA Advisory Circular 70/7460-1K requires that all airspace obstructions over 200 feet in height or in close proximity to an airfield have obstruction lighting. The tallest structure proposed on site is 115 feet high, and the tallest transmission pole would be 150 feet high. As there are no airfields in close proximity to the site (New Coalinga Municipal Airport approximately 4.0 miles northwest of the Project site), and all proposed Project structures are below the 200-foot limit, no onsite structures or transmission poles will require obstruction lighting. Furthermore, as the proposed transmission line route will be immediately adjacent to existing transmission lines along West Jayne Avenue, as well as the transmission system network surrounding the Gates Substation, no impacts to aircraft operation are expected.

Glint/Glare: As described in Section 3.0, Project Description and Location, parabolic trough solar collectors (mirrored glass reflectors) focus the sun's rays onto a HCE, which is a steel tube encased in vacuum-sealed glass (treated internally and externally with an anti-reflective coating) to absorb the sunlight. The SJS 1&2 collectors and HCE are similar to the design in use at in SEGS I through IIX plants at Kramer Junction, California. The collectors are designed so that sun rays from the mirrors will be reflected directly at the HCE.

A Glint and Glare Study prepared for this Project has been included in Appendix L of this document. The sun's position in the sky is dependent upon the time of day as well as the time of year. Because of the way collector rows are oriented within the solar field, the amount of rotation during operation each day is minimal. At the end of the daily cycle, the entire solar field is set to an east-facing stow position. The solar collector moves from the maximum stow position (-30 degrees below sunrise horizon) to +/-2 degrees above the sunset horizon, for a maximum angle deployed of 178 degrees. The "normal" solar collector stow position is -30 degrees to minimize wind loads (Section 3.0, Project Description and Location). The reflectors do not only track the sun in the east/west direction, but track based on sun angle above the horizon that varies with the season (higher in summer, lower in winter).

During rotation of the collectors from the stow position, potential glint/glare from the mirrors may be visible to adjacent areas to the east/west; however, as this would occur in the early hours of the morning, sunlight is not strong and glint/glare from the mirrors is not anticipated to be significant. As this operation is considered temporary, less than significant glint/glare impacts are anticipated. In addition, the residents

represented by KOP 1 have existing development with the potential for glint/glare within foreground/middleground views (e.g. glint/glare from security facilities surrounding Pleasant Valley Prison and Coalinga State Hospital) and therefore are not anticipated to be significantly visually impacted by similar industrial development. Potential glint/glare impacts to sensitive viewers within the Project area are anticipated to be an infrequent event based on the orientation of the collectors on site. During final design, if design analysis indicates that significant glint/glare impacts would occur, potential mitigation should be proposed.

In addition, transmission structures and conductors will be treated to reduce sun reflectivity. Proposed transmission lines will parallel existing linear features and will be constructed of like materials to the extent practicable, for most of their overall lengths. Therefore, no glint/glare impacts associated with the construction of the Project transmission system are expected to occur.

New Coalinga Municipal Airport: The New Coalinga Municipal Airport is only used by local residents with small planes, and currently supports very little air traffic. Aircraft utilizing the New Coalinga Municipal Airport are unlikely to be impacted by glint/glare from the Project site. Each solar reflector is designed to focus light falling on it into a HCE positioned above it, thus limiting the potential for stray reflections. Views and/or potential glint/glare from the Project are anticipated to be similar to a body of water to pilots in aircraft flying over the site. As the airfield is approximately 4.0 miles northwest of the Project site, potential glint/glare from the solar reflectors is not expected to distract and/or affect pilots during landing or take-off operations. The conclusion of this analysis is supported by real world experience under similar conditions at the Kramer Junction Solar Electric Generating Station located in Barstow, California. The Kramer Junction facility is located within the flight path of Edwards Air Force Base. According to CEC staff, pilots flying into the base have not reported any glare distraction from the nearby solar facility impacting their flight/landing operations.

In addition, the AFC prepared for the Victorville 2 Hybrid Power Project (07-AFC-1), identified that the US Air Force conducted overflights over an existing solar energy facility (the solar energy generating station power plant in the Mojave Desert at Harper Lake) to determine if the facility produced visual distractions for pilots. It was documented that no significant visual distractions were observed during the overflights. Given CEC staff accounts and documentation reviewed within the Victorville 2 Hybrid Power Project AFC (07-AFC-1), it is not expected that the SJS 1&2 solar array would cause adverse effects to aviation operations at New Coalinga Municipal Airport.

5.13.2.2.3 Visible Plumes

A two-cell evaporative cooling tower will be used as the primary mechanism for removal of heat from the steam cycle for each power plant, and will operate at all times of the year, *i.e.*, during solar generation, biomass generation and any combination of the two. The tower is rated for a daytime heat rejection rate of 348,736,300 Btu/hr and a nighttime heat rejection rate of 285,383,900 Btu/hr. Table 5.13-6 shows operating data corresponding to typical summer and winter operation. Note that only two of the four fans per tower are assumed for winter conditions, while all four fans would operate in summer

**Table 5.13.6
Winter and Summer Operating Conditions for Individual Cooling Towers**

Season	Ambient Wet Bulb Temperature (°F)	Number of Fans Running	Exhaust Temperature (°F)	Exhaust Mass Flow Rate (lb/hr)	Liquid Drift in Exhaust Air (gpm/lbph)
Summer	78	4	95.1	16,441,873	2.0/1,000
Winter	45	2	98.2	7,156,200	1.3/650

Liquid drift emissions from the towers will be controlled by state-of-the-art drift eliminator systems, as required to meet Best Available Control Technology requirements for air quality. A much larger moisture total of 667 gallons per minute will be released as water vapor from each tower (equivalent to about 320,000 pounds). Primarily during winter a portion of this moisture will condense and form a visible (white) plume that will be transported downwind for some distance. When winds are from the north or south there may be an additive plume effect, since the distance between the two towers is only approximately 300 feet; otherwise the two plumes will move parallel to each other.

The ambient conditions that would be expected to produce maximum visible plume lengths would be cold temperatures with high humidity and relatively light winds. Fortunately, warm temperatures and low humidity and warm, sunny conditions are far more typical at the Project site, which clearly was an important factor in its selection for a solar power plant. However, the central locations of the tower within the 1 mile square Project site will ensure that visible moisture plumes would rarely if ever travel outside the SJS 1&2 property line.

The moisture content of the biomass combustor fuel is expected to be between 11.5% and 27% for the specific fuel types that will be used and approximately 19% for the expected average blend of these fuels. This relatively high fuel moisture level will result in additional atmospheric emissions of roughly 12 to 15% by mass of the combustor exhaust flow (roughly 530,000 pounds per hour per combustor). The corresponding mass of water amounts to between 63,000 and 79,000 pounds per hour per combustor. The maximum total water emissions from all four combustors will be less than the water released from the cooling towers, and will be released to the atmosphere at a higher temperature. However, as with the cooling towers, there is some potential for visible moisture plumes to form in the exhaust from each combustor stack, and for certain wind directions multiple plumes may merge to form larger plumes. However, it is unlikely that such plumes would often remain visible long enough to reach the site boundary nearly one-half mile from the emission points.

5.13.2.2.4 Landscaping

Landscaping will not be incorporated into the Project description.

5.13.2.2.5 Indirect and Direct Construction-related Impacts

The construction laydown area will be contained within the 640-acre Project site. The temporary onsite construction area will include the construction laydown area, construction parking, offices, and a warehouse. Construction access will be from West Jayne Avenue north of the Project site.

Project site preparation includes terracing in the northeastern quadrant of the site as well as overall site grading to accommodate the Project on the existing landscape. Excavation work will consist of the removal, storage, and/or disposal of earth, sand, gravel, vegetation, organic matter, loose rock, and debris to the lines and grades necessary for construction. See also Section 3.0 for more information relating to earthwork.

The Project construction period is expected to last 15 months. Construction will most typically take place during 10 hour days, Monday through Friday. Due to worker health and safety considerations associated with high daytime temperatures, early work hours (prior to daybreak) may be adopted. Additionally, certain critical construction activities may need to occur during nighttime hours to accelerate the Project schedule. The workforce is expected to be approximately 744 workers in the peak month. The workforce is expected to come from the Fresno and Kern County area.

During the Project construction period, construction activities, construction materials, equipment, trucks, temporary structures, and vehicles, will be visible to surrounding areas due to the flat, open viewing conditions surrounding the Project site. As the Project site is undeveloped, such construction activities at the site will contrast significantly with the existing natural character of the area; however, interconnection construction activities at the Gates Substation are not anticipated to contrast significantly with maintenance and other operational activities that routinely occur at the substation. In addition, during construction of the transmission line, construction materials, equipment, and vehicles will be visible to adjacent areas.

While visual changes associated with construction activities at the Project site and along the approved transmission line route will introduce new activities and structures, construction activities will be conducted within a 15-month period; therefore, visual impacts are considered temporary and thus, less than significant. Indirect impacts associated with the construction, operation, and long-term presence of the Project and ancillary facilities may include impacts associated with glint/glare, fugitive dust, and the presence of construction equipment. Construction activities will be conducted in a manner that minimizes (visible) dust emissions. Potential impacts are considered temporary and insignificant.

5.13.3 Cumulative Impacts

The assessment of cumulative impacts for the Project includes a review of other projects where an application has been filed with Fresno County, as well as projects anticipated by the CEC. The Project area and the surrounding area have not had any major development projects in the past 18 months, though 19 potential projects may be considered in the foreseeable future.

The areas within the VSOI and greater Fresno County are generally characterized by cultivated farmlands of the valley, foothill grasslands, and high mountain peaks supported by small towns and other sparsely populated communities. Accordingly, the number, size, and scale of cumulative projects in the area are substantially less than in other more-urbanized portions of California.

A foreseeable future project in the Project area is the Coalinga water treatment facility that will provide recycled wastewater to the Project for water supply. Refer to Table 5.18-1, Cumulative Impacts, for information on these potential projects. No cumulative land use impacts are expected.

5.13.4 Mitigation Measures

The Project design inherently includes mitigation measures, although none are required. For example, the Project location was chosen because of its proximity to other industrial existing land uses (such as Pleasant Valley Prison, Coalinga State Hospital and oilfield activities). By keeping industrial development localized in this area, changes to visual resources will be minimized. Furthermore, by focusing development within this area, scenic areas within the County can be maintained. In addition, Project features have been designed to help minimize visual impacts. These include, but are not limited to the following:

- Locating the power block (tallest/largest Project structures) within the solar field – largest Project structures will not be placed immediately adjacent to roadways, Coalinga State Hospital, or adjacent agricultural operations.
- Shielding/directing onsite lighting to avoid backscatter and impacts to public viewers.
- Only proposing lighting within the Power Block and Biomass Facilities at the center of the Project site. No lighting is proposed within the solar field; therefore, no nighttime lighting will be placed near the Project boundaries, reducing potential spillage.
- Use of non-reflective or matted steel/metal, and natural shades of beige and brown on Project structures to the greatest extent possible.

5.13.5 LORS Compliance

Applicable visual resources LORS are summarized in Table 5.13-6 and described below. Agency contacts are provided in Table 5.13-7.

5.13.5.1 Federal

The Project is located on privately-owned land under the jurisdiction of Fresno County. There are a few patches of BLM lands within the area that have views to the Project site (Figure 5.13-1). However, no federal lands considered to be sensitive are located within the VSOI. BLM VRM guidelines were considered for this Project due to the fact that VRM methodology is an effective assessment tool which categorizes impacts based upon changes to scenic quality, sensitivity levels, and distance zones. These are all discussed in detail in Section 5.13.1, Affected Environment.

5.13.5.2 State

State-designated scenic highways or highways eligible for designation were not identified within the VSOI. Furthermore, no other area managed by the State was identified that will require the Project to adhere to State aesthetic LORS. However, CEQA methodology is described in Section 5.13.2.1, Significance Criteria and Assessment Methodology, and was used as part of the assessment methodology.

5.13.5.3 Local

The Project is located on unincorporated land within Fresno County. Kings County is approximately 5.0 miles southeast (just inside the VSOI identified for the Project); however, no sensitive viewing area is expected to have views to the Project site. There are no other counties within the 5-mile VSOI radius identified for the Project. Therefore, local LORS were only considered for Fresno County.

The existing zoning designation for the Project site is AE, Exclusive Agriculture District. Energy production on agricultural land requires an unclassified conditional use permit in the AE Zone district (see Section 5.9, Land Use for a further discussion of zoning).

The Fresno County General Plan (2000) contains several goals and policies relating specifically to aesthetics and minimizing impacts to visual resources. These local LORS, and the Project’s conformance to these LORS, are summarized in Table 5.13-7.

In addition, Project design elements that will be effective in minimizing visual impacts have been incorporated into the Project description (see Section 3.0, Facility Description and Location). The Project will conform to all applicable local LORS related to the preservation of areas identified as retaining high scenic value. Based on the inventory of scenic attractiveness and ESILs, areas retaining high scenic value were not identified within the VSOI. Therefore, compliance with local aesthetic LORS will be maintained.

**Table 5.13-7
Summary of LORS**

Jurisdiction	LORS	Requirements	Conformance Section	Administering Agency	Agency Contact
Federal					
There are no applicable federal LORS.					
State					
	Application for Certification Requirements	Rules of Practice and Procedure & Power Plant Site Certification Regulations, Appendix B.	Data Adequacy Worksheet	California Energy Commission (CEC)	1
	State Scenic Highway Requirements	Requirements are applicable to State-designated scenic highways. There are none in the project area.	There are no designated or eligible State Scenic Highways in the VSOI. Therefore, compliance with State aesthetic LORS is inapplicable.	California Department of Transportation (Caltrans)	2

**Table 5.13-7
Summary of LORS
(Continued)**

Jurisdiction	LORS	Requirements	Conformance Section	Administering Agency	Agency Contact
Local					
Fresno County	Fresno County General Plan/Public Facilities and Services – <i>Goal PF-J</i>	To provide efficient and cost-effective utilities that serves the existing and future needs of people in the unincorporated areas of the County.	Project Objectives, Section 2.0.	Fresno County Planning Department	3
Fresno County	Fresno County General Plan/Public Facilities and Services - <i>Goal PF-J.2</i>	The County shall work with local gas and electric utility companies to design and locate appropriate expansion of gas and electric systems, while minimizing impacts to agriculture and minimizing noise, electromagnetic, visual, and other impacts on existing and future residents.	The proposed site is adjacent to an existing transmission line corridor as well as other industrial facilities. By developing power sources in this already disturbed localized area, impacts to visual resources are minimized.	Fresno County Planning Department	3
Fresno County	Fresno County General Plan/Public Facilities and Services - <i>Goal PF-J.3</i>	The County shall require all new residential development along with new urban commercial and industrial development to underground utility lines on-site.	Necessary transmission lines will go a minimal distance (approximately 6 miles from switchyard to substation) and will be constructed adjacent to an existing transmission line corridor to help reduce visual impacts associated with the introduction of transmission lines in the Project vicinity. All other utilities will be placed underground.	Fresno County Planning Department	3

**Table 5.13-7
Summary of LORS
(Continued)**

Jurisdiction	LORS	Requirements	Conformance Section	Administering Agency	Agency Contact
Fresno County	Fresno County General Plan/Open Space and Conservation - Goal OS-K	To conserve, protect, and maintain the scenic quality of Fresno County and discourage development that degrades areas of scenic quality.	There are no scenic resources within the VSOI. The proposed site lies adjacent to the Pleasant Valley Prison and Coalinga State Hospital. By containing industrial development to this localized area, changes to visual resources will be minimized. Furthermore, by focusing development within this area, scenic areas within the County can be maintained.	Fresno County Planning Department	3
Fresno County	Fresno County General Plan/Open Space and Conservation - Goal OS-K.1	The County shall encourage the preservation of outstanding scenic views, panoramas, and vistas whenever possible. Methods to achieve this may include encouraging private property owners to enter into open space easements for designated scenic areas.	There are few scenic views, panoramas, and vistas within the VSOI. The County of Fresno does consider I-5 to be a locally designated Scenic Highway. Views from I-5 to the Project site are minimal, distant, and short in duration, due to vegetative screening, topography, and other development within the area adjacent to the highway. Scenic views and vistas from the highway would not change with construction and operation of the Project.	Fresno County Planning Department	3
Fresno County	Fresno County General Plan/Open Space and Conservation - Goal OS-K.4	The County should require development adjacent to scenic areas, vistas, and roadways to incorporate natural features of the site and be developed to minimize impacts to the scenic qualities of the site.	Design features have been incorporated to help minimize impacts to scenic quality as described in Section 5.13.4, as well as the project description, Section 3.0.	Fresno County Planning Department	3

**Table 5.13-7
Summary of LORS
(Continued)**

Jurisdiction	LORS	Requirements	Conformance Section	Administering Agency	Agency Contact
Fresno County	Fresno County General Plan/Open Space and Conservation - Goal OS-L	To conserve, protect, and maintain the scenic quality of land and landscape adjacent to scenic roads in Fresno County.	I-5 is designated a Fresno County Scenic Highway and lies approximately 3 miles east of the Project site. Views from this roadway to the Project are described in Section 5.13.1. In summary, the scenic quality of land and landscape adjacent to the highway will not change as a result of this project. No impacts to traveler views from the highway are anticipated.	Fresno County Planning Department	3

Notes:

LORS = laws, ordinances, regulations, and standards

VSOI = Visual Sphere of Influence

I-5 = Interstate 5

5.13.5.4 Agencies and Agency Contacts

**Table 5.13-8
Agency Contact List for LORS**

	Agency	Contact	Address	Telephone
1	California Energy Commission Systems Assessment and Facilities Siting Division Environmental Protection Office (1)	Mark Hamblin, Senior Planner/Supervisor	1516 Ninth Street, Sacramento, CA 95814	916-654-5107
2	California Department of Transportation (Caltrans) Guidelines for the Official Designation of Scenic Highways, Office of Landscape	Ken Murray, Senior Landscape Architect	2800 Gateway Oaks Drive, Suite 100, Sacramento, CA 95833	(916) 274-6138
3	Fresno County Department of Public Works & Planning Development Services Department	Planning & Resource	2220 Tulare Street, 6 th Floor Fresno, CA 93721	(559) 262-4343

5.13.5.5 Permits Required and Permitting Schedule

No permits are required pertaining to visual resources.

5.13.6 References

AirNav.com, New Coalinga Municipal Airport Coalinga, California, USA, 2008.

<http://www.airnav.com/airport/C80>.

Application for Certification for Victorville 2 Hybrid Power Project (07-AFC-1), February 2007.

Bureau of Land Management. 1986. Visual Resource Management Inventory and Contrast Rating System.

California Department of Mental Health, 2008.

http://www.dmh.ca.gov/Services_and_Programs/State_Hospitals/Coalinga/default.asp

California Department of Transportation, 1992. AFC, p. 5.9-1.

California Department of Transportation Web site – California Scenic Highway Mapping System: List of Eligible and Officially Designated Routes for Fresno County. 2008.

California Energy Commission, 2007. Rules of Practice and Procedure and Plant Site Certification Regulations.

California Energy Commission, Systems Assessment and Facilities Siting Division, personal correspondence, Eric Knight. 2007.

California Energy Commission, Systems Assessment and Facilities Siting Division, personal correspondence, Mark Hamblin. 2008.

California Energy Commission, Systems Assessment and Facilities Siting Division, Community Resources Unit, personal correspondence, Mark Hamblin. 2008.

Federal Highway Administration (FHWA). 1981.

Fresno County General Plan. 2000. http://www.co.fresno.ca.us/45_10/43_60/General_Plan/general_plan.htm.

URS Corporation. 2006. Application for Certification, Starwood Power-Midway, LLC Peaking Project.

URS Corporation. 2007. Application for Certification, Carrizo Energy Solar Farm Project

USFS. 1995. Landscape Aesthetics – A Handbook for Scenery Management. USDA Handbook.

U.S. Department of Agriculture, Forest Service

Adequacy Issue: Adequate _____ Inadequate _____

DATA ADEQUACY WORKSHEET

Revision No. 0 Date _____

Technical Area: **Visual Resources** _____

Project: San Joaquin Solar 1&2 _____

Technical Staff: _____

Project Manager: _____

Docket: _____

Technical Senior: _____

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Section 5.13.1 Section 5.13.2 Section 5.13.3 Section 5.13.4		
Appendix B (g) (6) (A)	Descriptions of the existing visual setting of the vicinity of the proposed project site and the proposed routes for any project-related linear facilities. Include:	Section 5.13.1.1 Figure 5.13-2 Figure 5.13-3 Figure 5.13-4 Figure 5.13-5		
Appendix B (g) (6) (A) (i)	Topographic maps at a scale of 1:24,000 that depict directions from which the project would be seen, the view areas most sensitive to the potential visual impacts of the project, and the locations where photographs were taken for (g)(6)(C); and	Figure 5.13-1		
Appendix B (g) (6) (A) (ii)	Description of the existing visual properties of the topography, vegetation, and any modifications to the landscape as a result of human activities, including existing water vapor plumes, above-ground electrical transmission lines, and nighttime lighting levels in the project viewshed.	Section 5.13.1 Section 5.13.1.4.3 Section 5.13.2.2.2 Section 5.13.2.2.3		
Appendix B (g) (6) (B)	An assessment of the visual quality of those areas that would be affected by the proposed project. For projects proposed to be located within the coastal zone, the assessment should also describe how the proposed project would be sited to protect views to and along the ocean and scenic coastal areas, would minimize the alteration of natural land forms, would be visually compatible with the character of surrounding areas.	Section 5.13.1 Section 5.13.1.4.3 Figure 5.13-6 Figure 5.13-7 Figure 5.13-8 Figure 5.13-9		

Adequacy Issue: Adequate _____ Inadequate _____
 Technical Area: Visual Resources
 Project Manager: _____

DATA ADEQUACY WORKSHEET

Revision No. 0 Date _____
 Technical Staff: _____
 Technical Senior: _____

Project: San Joaquin Solar 1&2
 Docket: _____

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (6) (C)	In consultation with Energy Commission staff, identify: i) any designated scenic roadways or scenic corridors and any visually sensitive areas that would be affected by the proposed project, including recreational and residential areas; and ii) the locations of the key observation points to represent the most critical viewing locations from which to conduct detailed analyses of the visual impacts of the proposed project. Indicate the approximate number of people using each of these sensitive areas and the estimated number of residences with views of the project. Also identify any major public roadways and trails of local importance that would be visually impacted by the project and indicate the types of travelers (e.g., local residents, recreationists, workers, commuters, etc.) and the approximate number of vehicles, bicyclists, and/or hikers per day.	Section 5.13.1 Section 5.13.1.2 Section 5.13.1.3 Section 5.13.1.4 Figure 5.13-1 Figure 5.13-2		
Appendix B (g) (6) (D)	A table providing the dimensions (height, length, and width, or diameter) and, proposed color(s), materials, finishes, patterns, and other proposed design characteristics of each major component visible from off the project site, including any project-related electrical transmission line and/or offsite aboveground pipelines and metering stations.	Table 5.13-4		

Adequacy Issue: Adequate _____ Inadequate _____

DATA ADEQUACY WORKSHEET

Revision No. 0 Date _____

Technical Area: **Visual Resources**

Project: San Joaquin Solar 1&2

Technical Staff: _____

Project Manager: _____

Docket: _____

Technical Senior: _____

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (6) (E)	Provide the cooling tower and heat recovery steam generator (HRSG) exhaust design parameters that affect visible plume formation. For the cooling tower, data shall include heat rejection rate, exhaust temperature, exhaust mass flow rate, liquid to gas mass flow ratio, and, if the tower is plume-abated, moisture content (percent by weight) or plume-abated fogging curve(s). The parameters shall account for a range of ambient conditions (temperature and relative humidity) and proposed operating scenarios, such as duct firing and shutting down individual cells. For the heat recovery steam generator exhausts, data shall include moisture content (percent by weight), exhaust mass flow rate, and exhaust temperature. The parameters must correspond to full-load operating conditions at specified ambient conditions, and shall account for proposed operating scenarios, such as power augmentation (i.e., evaporative coolers, inlet foggers, or steam injection) and duct firing, or proposed HRSG visible plume abatement, such as the use of an economizer bypass. For simple-cycle projects, provide analogous data for the exhaust stack(s).	Section 5.13.2.2.3		

Adequacy Issue: Adequate _____ Inadequate _____
 Technical Area: Visual Resources
 Project Manager: _____

DATA ADEQUACY WORKSHEET

Revision No. 0 Date _____
 Technical Staff: _____
 Technical Senior: _____

Project: San Joaquin Solar 1&2
 Docket: _____

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (6) (F)	Provide: i) full-page color photographic reproductions of the existing site, and ii) full-page color simulations of the proposed project at life-size scale when the picture is held 10 inches from the viewer's eyes, including any project-related electrical transmission lines, in the existing setting from each key observation point. If any landscaping is proposed to comply with zoning requirements or to mitigate visual impacts, include the landscaping in simulation(s) representing sensitive area views, depicting the landscaping five years after installation; and estimate the expected time until maturity is reached.	Figure 5.13-11 to Figure 5.13-17		
Appendix B (g) (6) (G)	An assessment of the visual impacts of the project, including light, glare, and any modeling of visible plumes. Include a description of the method and identify any computer model used to assess the impacts. Provide an estimate of the expected frequency and dimensions (height, length, and width) of the visible cooling tower and/or exhaust stack plumes. Provide the supporting assumptions, meteorological data, operating parameters, and calculations used.	Section 5.13.2 Section 5.13.2.2.2 Section 5.13.2.2.3		
Appendix B (g) (6) (H)	If any landscaping is proposed to reduce the visual impacts of the project, provide a conceptual landscaping plan at a 1:40 scale (1"=40'). Include information on the type of plant species proposed, their size, quantity, and spacing at planting, expected heights at 5 years and maturity, and expected growth rates.	Section 5.13.2.2.4		

Adequacy Issue: Adequate _____ Inadequate _____

DATA ADEQUACY WORKSHEET

Revision No. 0 Date _____

Technical Area: Visual Resources

Project: San Joaquin Solar 1&2

Technical Staff: _____

Project Manager: _____

Docket: _____

Technical Senior: _____

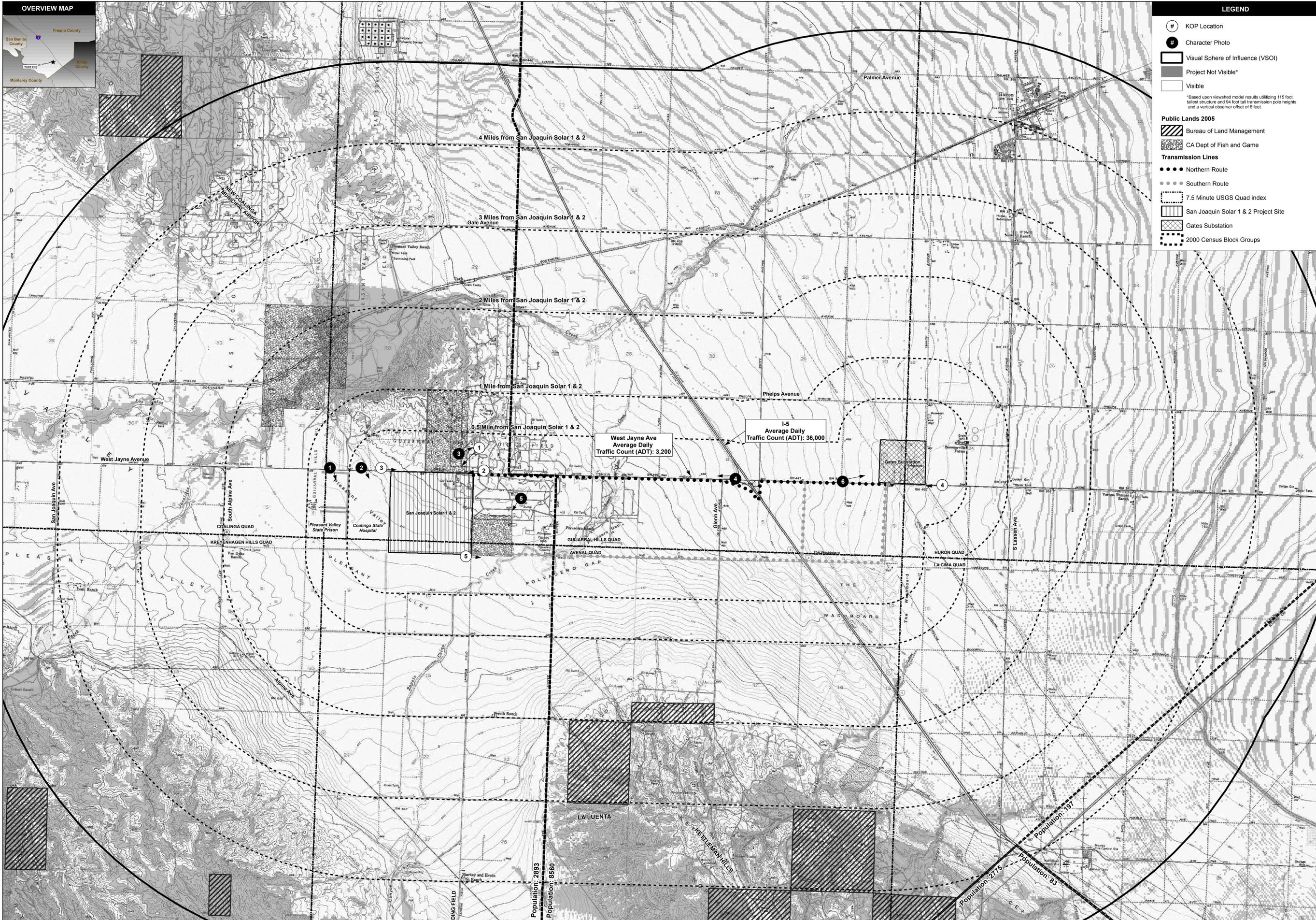
SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Section 5.13.5 Table 5.13-6		
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Section 5.13.5.4 Section 5.13.5.5 Table 5.13-7 No permits required for visual resources.		
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Table 5.13-7		
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Section 5.13.5.5		

OVERVIEW MAP



LEGEND

- KOP Location
 - Character Photo
 - Visual Sphere of Influence (VSOI)
 - Project Not Visible*
 - Visible
- *Based upon viewshed model results utilizing 115 foot tallest structure and 94 foot tall transmission pole heights and a vertical observer offset of 6 feet.
- Public Lands 2005**
- Bureau of Land Management
 - CA Dept of Fish and Game
- Transmission Lines**
- Northern Route
 - Southern Route
- 7.5 Minute USGS Quad index
 - San Joaquin Solar 1 & 2 Project Site
 - Gates Substation
 - 2000 Census Block Groups



URS

SOURCES: USGS TOPOI (24k quads, various dates); TIGER (census blocks 2004); California Resources Agency (Public Lands 2005); URS (viewshed, KOPs, character photo locations).

**SENSITIVE VISUAL RESOURCES
VISUAL SPHERE OF INFLUENCE (VSOI) MAP
SAN JOAQUIN SOLAR 1 & 2**

2000 0 2000 4000 Feet

SCALE: 1" = 2000' (1:24,000)

SCALE CORRECT WHEN PRINTED AT 34X44

CREATED BY: CM DATE: 10-28-08 FIG. NO: 5.13-1

PM: AR PROJ. NO: 27658031

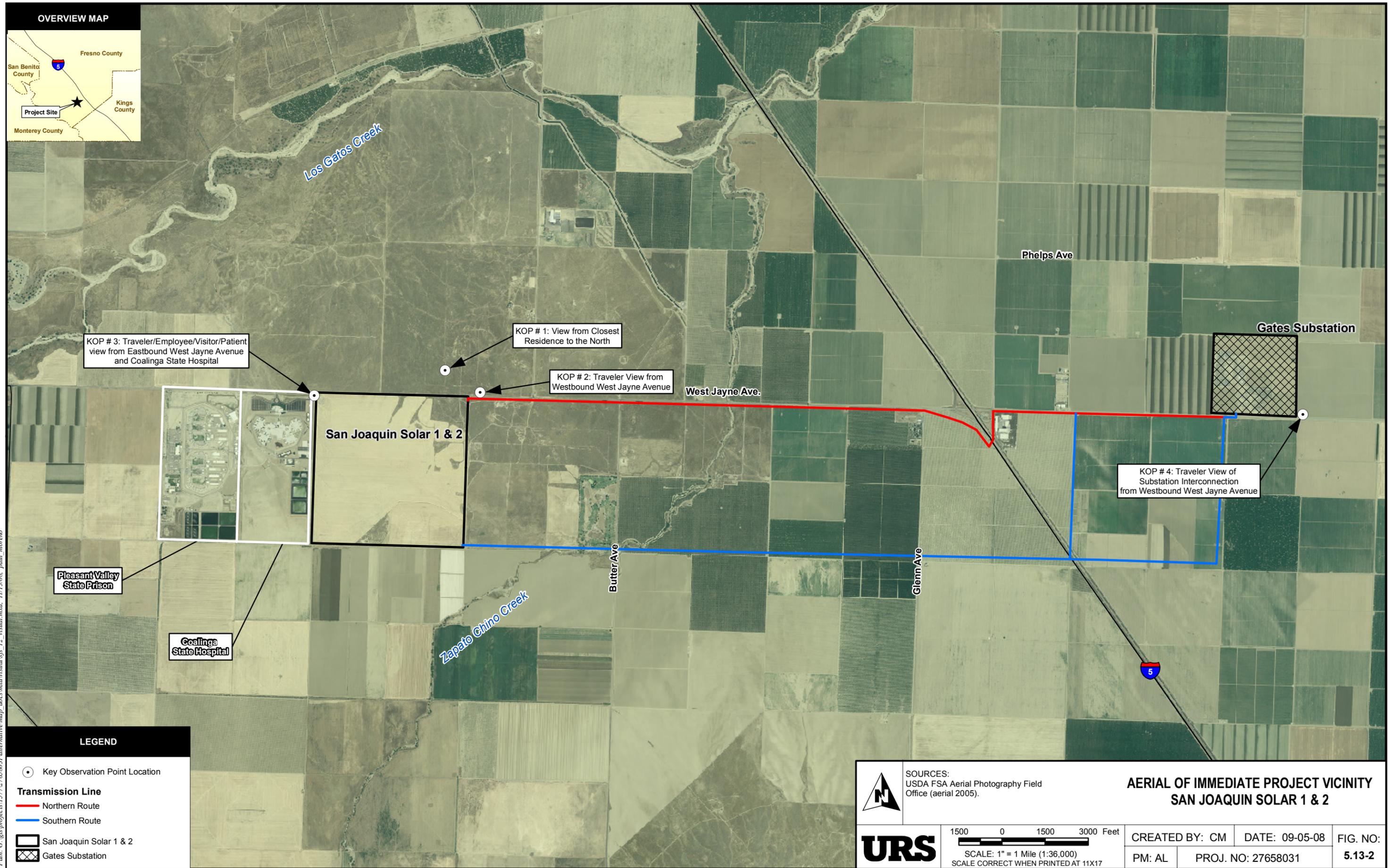
Population: 197

Population: 2175

Population: 83

Population: 2893

Population: 8560



Path: G:\projects\15772765803\alternative\map_docs\visual\sys_12_visual.mxd, 11/13/08, paul_moreno

OVERVIEW MAP



KOP # 3: Traveler/Employee/Visitor/Patient view from Eastbound West Jayne Avenue and Coalinga State Hospital

KOP # 1: View from Closest Residence to the North

KOP # 2: Traveler View from Westbound West Jayne Avenue

KOP # 4: Traveler View of Substation Interconnection from Westbound West Jayne Avenue

San Joaquin Solar 1 & 2

Gates Substation

Pleasant Valley State Prison

Coalinga State Hospital

Zapato Chino Creek

Butter Ave

Glenn Ave

West Jayne Ave.

Phelps Ave

LEGEND

- Key Observation Point Location
- Transmission Line**
- Northern Route
- Southern Route
- ▭ San Joaquin Solar 1 & 2
- ▩ Gates Substation



SOURCES:
USDA FSA Aerial Photography Field Office (aerial 2005).



1500 0 1500 3000 Feet
SCALE: 1" = 1 Mile (1:36,000)
SCALE CORRECT WHEN PRINTED AT 11X17

**AERIAL OF IMMEDIATE PROJECT VICINITY
SAN JOAQUIN SOLAR 1 & 2**

CREATED BY: CM	DATE: 09-05-08	FIG. NO:
PM: AL	PROJ. NO: 27658031	5.13-2



Photo Location 1: Pleasant Valley State Prison (adjacent to west of Coalinga State Hospital)



Photo Location 2: Coalinga State Hospital (adjacent to west of Project site)



NO SCALE

**CHARACTER PHOTOS OF PROJECT AREA
SAN JOAQUIN SOLAR 1&2
(FIGURE 1 OF 3)**

CREATED BY: AG

DATE: 08-19-08

FIG. NO:

PM: AR

PROJ. NO: 27658031.00614

5.13-3



Photo Location 3: Closest residence – Approximately 1,500 feet north of Project site (foreground views to the Project site)



Photo Location 4: Traveler view from I-5/West Jayne Avenue overpass – Approximately 3.0 miles east of Project site (distant and partially obscured views to the Project site)



**CHARACTER PHOTOS OF PROJECT AREA
SAN JOAQUIN SOLAR 1&2
(FIGURE 2 OF 3)**

NO SCALE

CREATED BY: AG

DATE: 08-19-08

FIG. NO:

PM: AR

PROJ. NO: 27658031.00614

5.13-4



Photo Location 5: Abandoned/dilapidated structures (adjacent to east of Project site)



Photo Location 6: Gates Substation – Approximately 5.0 miles east of Project site
(site of proposed interconnection for Project)



URS

NO SCALE

**CHARACTER PHOTOS OF PROJECT AREA
SAN JOAQUIN SOLAR 1&2
(FIGURE 3 OF 3)**

CREATED BY: AG

DATE: 08-19-08

FIG. NO:

PM: AR

PROJ. NO: 27658031.00614

5.13-5

**FIGURE 5.13-6
SCENIC ATTRACTIVENESS EVALUATION FORM FOR
SENSITIVE VIEW AREA AND KOP NO. 1**

Landform	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Vegetation	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Water	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Color	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Adjacent Scenery	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Scarcity	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Modifications*	H (2)	H/M (1)	M (0)	<u>M/L (-2)</u>	L (-4)
Scenic Attractiveness Class C (9)					

Scenic Quality Classifications
A = 19 or more
B = 12 to 18
C = 11 or less

Note: Evaluation score is bold and underlined; H = High; M = Moderate; and L = Low

* Explains cultural modifications present in the landscape, ranging from negative intrusions (-4) to those that complement the scenic quality and promote visual harmony (2)



Narrative Landscape Description and Photograph: This photograph representing Sensitive Viewing Area and KOP No. 1 (Figure 5.13-11 see also Figure 5.13-1 for KOP location). This photo was taken from the front yard of the closest residence to the Project along West Jayne Avenue, approximately 1,500 feet to the north looking southwest. A topographic rise of this area allows for more open, expansive views of the adjacent areas. Topographic relief across the setting consists of a broad horizontal composition varying from relatively flat terrain to distant rolling hills, adding to the panoramic visual appeal to landform characteristics of the area. The only water source in the area is the Zapato Chino Creek; however, does not have a consistent water supply. In addition, the creek is below grade and is therefore, not visible from this KOP. Cultural modifications visible in foreground and middleground views include cultivated farmland, miscellaneous tanks/structures, West Jayne Avenue, fencing and telephone/transmission lines, Coaling State Hospital as well as Pleasant Valley State Prison. The area is characterized by low contrast of generally mute tones. What little naturally occurring color variation exists is created mainly from low-lying vegetation (grasses and small shrubs). Views from this KOP to the east also consist of large expanses of farmlands (see Figure 5.13-4 for a character photo of this residence).

**FIGURE 5.13-7
SCENIC ATTRACTIVENESS EVALUATION FORM FOR
SENSITIVE VIEW AREA AND KOP NO. 2**

Landform	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Vegetation	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Water	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Color	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Adjacent Scenery	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Scarcity	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Modifications*	H (2)	H/M (1)	M (0)	<u>M/L (-2)</u>	L (-4)
Scenic Attractiveness Class C (9)					

Scenic Quality Classifications A = 19 or more B = 12 to 18 C = 11 or less
--

Note: Evaluation score is bold and underlined; H = High; M = Moderate; and L = Low

* Explains cultural modifications present in the landscape, ranging from negative intrusions (-4) to those that complement the scenic quality and promote visual harmony (2)



Narrative Landscape Description and Photograph: This photograph representing Sensitive Viewing Area and KOP No. 2 (Figure 5.13-13, see also Figure 5.13-1 for KOP location) was taken to represent “worst-case” traveler views from westbound West Jayne Avenue near the northeastern Project boundary. Topographic relief is similar to that described for KOP #1. The terrain is generally flat, varying little in distinctive setting. The hills in the background provide the main form and line characteristics in the area. As stated, the only water source in the area is the Zapato Chino Creek; however, does not have a consistent water supply, is below grade, and is therefore, not visible from this KOP. Cultural modifications visible in foreground and middleground views include cultivated farmland, miscellaneous tanks/structures, West Jayne Avenue, fencing and telephone/transmission lines. There is some variety in colors and contrast of the area; however, this is largely created by cultural modifications (mainly from agricultural crops). What little naturally occurring color variation exists is created mainly from patches of sparse low-lying vegetation along the roadway. The main visual interest and/or draw to this area is essentially created by the open expanses of land. While this landscape is mildly interesting within its setting, it is fairly common within the region.

**FIGURE 5.13-8
SCENIC ATTRACTIVENESS EVALUATION FORM FOR
SENSITIVE VIEW AREA AND KOP NO. 3**

Landform	H (5)	H/M (4)	M (3)	<u>M/L (2)</u>	<u>L (1)</u>
Vegetation	H (5)	H/M (4)	M (3)	<u>M/L (2)</u>	<u>L (1)</u>
Water	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Color	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Adjacent Scenery	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Scarcity	H (5)	H/M (4)	M (3)	<u>M/L (2)</u>	<u>L (1)</u>
Modifications*	H (2)	H/M (1)	M (0)	<u>M/L (-2)</u>	L (-4)
Scenic Attractiveness Class C (7)					

Scenic Quality Classifications A = 19 or more B = 12 to 18 C = 11 or less

Notes:

Evaluation score is bold and underlined; H = High; M = Moderate; and L = Low

* Explains cultural modifications present in the landscape, ranging from negative intrusions (-4) to those that complement the scenic quality and promote visual harmony (2)



Narrative Landscape Description and Photograph: This photograph representing Sensitive Viewing Area and KOP No. 3 (Figure 5.13-15, see also Figure 5.13-1 for KOP location) was taken near the northwestern corner of the Project site along West Jayne Avenue to represent “worst-case” traveler/employee/visitor/patient view from eastbound West Jayne Avenue and Coalinga State Hospital. Similar to that described for KOPs #1 and 2, topographic relief across the setting varies from flat terrain to low-lying distant hills. There are a variety of cultural modifications including West Jayne Avenue (and traffic on this roadway), Coalinga State Hospital, Pleasant Valley Prison, the existing transmission system/network along West Jayne Avenue, intensive agricultural production operations, and other cultural modifications in the immediate vicinity limiting visual appeal to form and line characteristics of the area. Virtually all significant color variations are created from cultural modifications. Vegetation and color within the area is sparse (tan barren landscape with dried weeds and grasses line the highway). No water sources are visible from this KOP.

**FIGURE 5.13-9
SCENIC ATTRACTIVENESS EVALUATION FORM FOR
SENSITIVE VIEW AREA AND KOP NO. 4**

Landform	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Vegetation	H (5)	H/M (4)	M (3)	<u>M/L (2)</u>	<u>L (1)</u>
Water	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Color	H (5)	H/M (4)	M (3)	<u>M/L (2)</u>	<u>L (1)</u>
Adjacent Scenery	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Scarcity	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Modifications*	H (2)	H/M (1)	M (0)	<u>M/L (-2)</u>	<u>L (-4)</u>
Scenic Attractiveness Class C (4)					

<p>Scenic Quality Classifications</p> <p>A = 19 or more</p> <p>B = 12 to 18</p> <p>C = 11 or less</p>

Notes:

Evaluation score is bold and underlined; H = High; M = Moderate; and L = Low

* Explains cultural modifications present in the landscape, ranging from negative intrusions (-4) to those that complement the scenic quality and promote visual harmony (2)



Narrative Landscape Description and Photograph: This photograph representing Sensitive Viewing Area and KOP No. 4 (Figure 5.13-17, see also Figure 5.13-1 for KOP location) was taken from westbound West Jayne Avenue to represent “worst-case” traveler views to the proposed Project substation interconnection. The Gates Substation is the dominant focal point of views from this KOP. This area consists of relatively flat lands in all directions. There are no water features in the area, and there is little to no natural vegetation. Virtually all contrasts to form, line and color variations are created from cultural modifications (including the substation, West Jayne Avenue, and the agricultural production activities in the area). The agricultural fields surrounding the substation create the limited visual interest to this area. See Figure 5.13-5 for a character photo of the substation).

**FIGURE 5.13-10
SCENIC ATTRACTIVENESS EVALUATION FORM FOR
KOP NO. 5**

Landform	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Vegetation	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Water	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Color	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Adjacent Scenery	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Scarcity	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Modifications*	H (2)	H/M (1)	M (0)	<u>M/L (-2)</u>	L (-4)
Scenic Attractiveness Class C (7)					

Scenic Quality Classifications A = 19 or more B = 12 to 18 C = 11 or less

Note: Evaluation score is bold and underlined; H = High; M = Moderate; and L = Low

* Explains cultural modifications present in the landscape, ranging from negative intrusions (-4) to those that complement the scenic quality and promote visual harmony (2)



Narrative Landscape Description and Photograph: This photograph represents KOP No. 5 (Figure 5.13-20 see also Figure 5.13-1 for KOP location). This photo was taken near the southeast corner of the Project site looking east along the proposed southern transmission line route. Similar to that described for KOPs #1, 2, and 3 topographic relief across the setting varies from flat terrain to the east to low-lying distant hills to the south and north. There are a variety of cultural modifications including an existing agricultural dirt road, intensive agricultural production operations, existing transmission system/networks scattered through the landscape, and other cultural modifications in the immediate vicinity. Vegetation and color within the area is seasonal and varies from a tan barren landscape with dried weeds and grasses to various sizes/colors of actively growing agricultural crops. No water sources are visible from this KOP. The only water source in the area is the Zapato Chino Creek; however, is not visible from this KOP.



KOP 1: Existing view from closest residence to the north, looking southwest toward the Project site (approximately 1,300 feet north of Project).

**EXISTING VIEW OF PROJECT FROM KOP #1
SAN JOAQUIN SOLAR 1&2**

URS

NO SCALE

CREATED BY: AG

DATE: 08-19-08

FIG. NO:

PM: AR

PROJ. NO: 27658031.00614

5.13-11



KOP 1: Simulated view from closest residence to the north, looking southwest toward the Project site (approximately 1,300 feet north of Project). This photo location is meant to represent “worst-case” views from residential viewers.

**SIMULATED VIEW OF PROJECT FROM KOP #1
SAN JOAQUIN SOLAR 1&2**

URS

NO SCALE

CREATED BY: AG

DATE: 08-19-08

FIG. NO:

PM: AR

PROJ. NO: 27658031.00614

5.13-12



KOP 2: Existing view for westbound West Jayne Avenue travelers, looking southwest toward the Project site.

**EXISTING VIEW OF PROJECT FROM KOP #2
SAN JOAQUIN SOLAR 1&2**

URS

NO SCALE

CREATED BY: AG

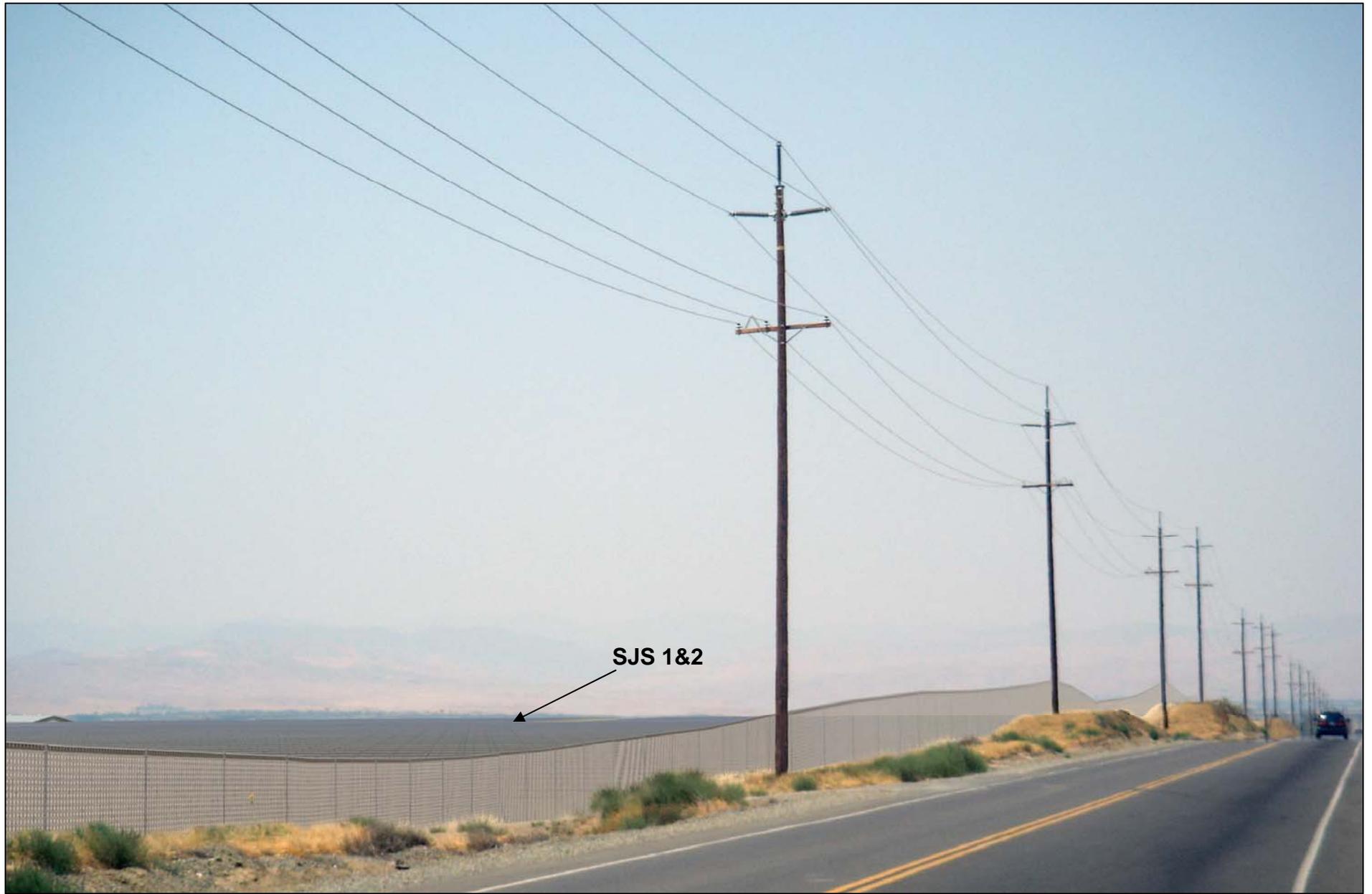
DATE: 11-12-08

FIG. NO:

PM: AR

PROJ. NO: 27658031.00614

5.13-13



SJS 1&2

KOP 2: Simulated view for westbound West Jayne Avenue travelers, looking southwest toward the Project site. This photo location is meant to represent “worst-case” views for westbound West Jayne Avenue travelers.

**SIMULATED VIEW OF PROJECT FROM KOP #2
SAN JOAQUIN SOLAR 1&2**

URS

NO SCALE

CREATED BY: AG

DATE: 11-12-08

FIG. NO:

PM: AR

PROJ. NO: 27658031.00614

5.13-14



KOP 3: Existing view for eastbound West Jayne Avenue travelers and employees/visitors/patients of Coalinga State Hospital, looking southeast toward the Project site (at northwestern Project boundary).

**EXISTING VIEW OF PROJECT FROM KOP #3
SAN JOAQUIN SOLAR 1&2**

URS

NO SCALE

CREATED BY: AG

DATE: 08-19-08

FIG. NO:

PM: AR

PROJ. NO: 27658031.00614

5.13-15



KOP 3: Simulated view for eastbound West Jayne Avenue travelers and employees/visitors/patients of Coalinga State Hospital, looking southeast toward the Project site (at northwestern Project boundary). This photo location is meant to represent "worst-case" views for eastbound West Jayne Avenue travelers and employees/visitors/patients of Coalinga State Hospital.

**SIMULATED VIEW OF PROJECT FROM KOP #3
SAN JOAQUIN SOLAR 1&2**

URS

NO SCALE

CREATED BY: AG

DATE: 08-19-08

FIG. NO:

PM: AR

PROJ. NO: 27658031.00614

5.13-16



KOP 4: Existing westbound West Jayne Avenue traveler view to the proposed interconnection at the existing Gates Substation.

**EXISTING VIEW OF PROJECT FROM KOP #4
SAN JOAQUIN SOLAR 1&2**

URS

NO SCALE

CREATED BY: AG

DATE: 11-04-08

FIG. NO:

PM: AR

PROJ. NO: 27658031.00614

5.13-17



KOP 4: Simulated westbound West Jayne Avenue traveler view to the proposed northern transmission line route interconnection at the existing Gates Substation. This photo location is meant to represent “worst-case” views of the proposed interconnection.

**SIMULATED VIEW OF PROJECT FROM KOP #4 (Northern T-line Route)
SAN JOAQUIN SOLAR 1&2**

URS

NO SCALE

CREATED BY: AG

DATE: 11-04-08

FIG. NO:

PM: AR

PROJ. NO: 27658031.00614

5.13-18



KOP 4: Simulated westbound West Jayne Avenue traveler view to the proposed southern transmission line route interconnection at the existing Gates Substation. This photo location is meant to represent “worst-case” views of the proposed interconnection.

**SIMULATED VIEW OF PROJECT FROM KOP #4 (Southern T-line Route)
SAN JOAQUIN SOLAR 1&2**



NO SCALE

CREATED BY: AG

DATE: 11-04-08

FIG. NO:

PM: AR

PROJ. NO: 27658031.00614

5.13-19



KOP 5: Existing view from southeast corner of the Project site, looking eastward to the proposed southern route for Project transmission system.

**EXISTING VIEW OF PROJECT FROM KOP #5
SAN JOAQUIN SOLAR 1&2**

URS

NO SCALE

CREATED BY: AG

DATE: 11-12-08

FIG. NO:

PM: AR

PROJ. NO: 27658031.00614

5.13-20



SJS 1&2

KOP 5: Simulated view from southeast corner of the Project site, looking eastward to the proposed southern route for Project transmission system. This photo location is meant to represent “worst-case” views.

**SIMULATED VIEW OF PROJECT FROM KOP #5
SAN JOAQUIN SOLAR 1&2**



NO SCALE

CREATED BY: AG	DATE: 11-12-08	FIG. NO:
PM: AR	PROJ. NO: 27658031.00614	5.13-21