

## **SECTION 4.1**

---

### **AESTHETICS**

## 4.1 AESTHETICS

---

This section defines terms used to assess visual quality and describes the existing visual resources in the vicinity of the Project site that could potentially be affected by the construction and operation of the solar farm complex and transmission line. This section also examines the potential for the proposed Project to degrade the existing visual character or quality of the Project area and its surroundings through changes in the existing landscape. Key Observation Points (KOPs) are identified from which the Project is analyzed. Potential visual effects are evaluated using photo simulations. A *Solar Glare Hazard Analysis* prepared for the Project by Good Company (2013) was also used to determine potential for glare from the proposed Project (**Appendix L**).

### DEFINITIONS AND TERMINOLOGY

The following definitions of key terms are provided to describe and assess potential visual impacts.

- **Key Observation Point.** A point along a travel route or an area where the view of the proposed Project would be visible.
- **Scenic Vista.** An area that is designated, signed, and accessible to the public for the express purposes of viewing and sightseeing as designated by a federal, state, or local agency.
- **Scenic Highway.** A section of public roadway that is designated as a scenic corridor by a federal, state, or local agency.
- **Sensitive Viewpoints.** Views from a public park, recreational trails, and/or culturally important sites are considered to have a high visual sensitivity and are considered examples of sensitive viewpoints.
- **Sensitive Receptors.** Areas subject to high visibility by a large number of people are considered to be sensitive receptors. Residential viewers typically have extended viewing periods and are generally considered to have high visual sensitivity.
- **Viewshed.** The landscape that can be viewed free of obstruction under favorable atmospheric conditions from a viewpoint or along a transportation corridor.

#### 4.1.1 REGULATORY FRAMEWORK

##### A. FEDERAL

##### Bureau of Land Management

In 1976, Congress designated 25 million acres of land in Southern California as the California Desert Conservation Area (CDCA) through the Federal Land Policy and Management Act (FLPMA). The Bureau of Land Management (BLM) oversees approximately 10 million acres of the CDCA (BLM 1980). All of the public lands in the CDCA managed by the BLM (with the exception of a few small and scattered parcels), are designated into four multiple-use classes: C (suitable for wilderness designation by Congress); L (Limited Use); M (Moderate Use) and I (Intensive Use).

A 2.25-mile portion of the transmission line would extend east from the Project area across approximately two miles of public land managed by the BLM (Sections 14 and 15) to the existing Imperial Irrigation District (IID) Anza Substation located in Section 13. On November 15, 2002, BLM granted IID right-of-way (ROW) CACA 044554 to construct the overbuilt 92 kV transmission line as part of a larger IID project. The BLM has confirmed that the granted ROW remains valid (BLM 2012). Neither the transmission line nor the substation is located within a designated utility corridor or an Area of Critical Environmental Concern (ACEC) per the CDCA (BLM 1980).

## 4.1 AESTHETICS

### B. STATE

#### **Southern California Association of Governments**

The Southern California Association of Governments (SCAG) Intergovernmental Review (IGR) section, part of the Environmental Planning Division of Planning and Policy, is responsible for performing consistency review of regionally significant local plans, projects, and programs. Regionally significant projects are required to be consistent with SCAG's adopted regional plans and policies. The IGR section does not include any policies regarding aesthetics, light or glare. Therefore, there are no policies that relate to the analysis of visual resources and the Project cannot be analyzed for consistency with SCAG's IGR section.

### C. LOCAL

#### **Imperial County General Plan**

Two elements of the Imperial County General Plan discuss issues relevant to the analysis of visual resources. These include the Circulation and Scenic Highways Element and the Conservation and Open Space Element.

##### ***Circulation and Scenic Highways Element***

The Circulation and Scenic Highways Element of the Imperial County General Plan (Imperial County, revised 2008) identifies the transportation needs of the County and the various modes available to meet these needs. In addition, the Element provides a means of protecting and enhancing scenic resources within both rural and urban scenic highway corridors. There are no designated scenic highways in the area nor is the Project site visible from any designated scenic highway. The portion of SR 78 from the junction with SR 86 to the San Diego County line is eligible for future Scenic Highway Designation in the Imperial County General Plan and California Scenic Highway Mapping System (State of California 2013). The area is considered scenic because of its desert characteristics and view of Salton Sea.

##### ***Conservation and Open Space Element***

The Conservation and Open Space Element of the Imperial County General Plan identifies plans and measures for the preservation and management of biological and cultural resources, soils, minerals, energy, regional aesthetics, air quality, and open space. The Land Use element provides goals and objectives regarding the regional vision of the County. **Table 4.1-1** analyzes the consistency of the proposed Project with the applicable goals and objectives relating to visual resources from these two elements of the General Plan. While this EIR analyzes the Project's consistency with the General Plan pursuant to CEQA Guidelines Section 15125(d), the Imperial County Board of Supervisors ultimately determines consistency with the General Plan.

**TABLE 4.1-1  
IMPERIAL COUNTY GENERAL PLAN CONSISTENCY ANALYSIS**

| General Plan Goals and Objectives   | Consistent with General Plan? | Analysis   |
|---|-------------------------------|--|
| <b>CONSERVATION AND OPEN SPACE POLICIES</b>   |                               |  |
| <b>Preservation of Visual Resources</b>   |                               |  |
| <b>Goal 7:</b> The aesthetic character of the region shall be protected and enhanced to provide a pleasing environment for residential, | Yes                           | The Project would temporarily change the visual character of the Project area from vacant agricultural land reverting to open desert to a solar farm complex with PV |

**TABLE 4.1-1  
IMPERIAL COUNTY GENERAL PLAN CONSISTENCY ANALYSIS**

| General Plan Goals and Objectives   | Consistent with General Plan? | Analysis   |
|---|-------------------------------|--|
| commercial, recreational, and tourist activity.   |                               | and/or CPV panels, ancillary structures, electrical lines, and on overbuilt 92 kV transmission line. A 12 kV distribution line currently exists through the same alignment as the proposed 92 kV transmission line. Thus, the overbuild of the proposed 92 kV transmission line would merely modify and existing feature. Likewise, modifications to Anza Substation would not drastically change the existing character of the Project area given that the substation is an existing use. The solar farm complex site is currently in a state of decline with abandoned buildings, tamarisk windbreaks and scattered vegetation. Development of the proposed Project would result in the solar farm complex site being cleaned of existing structures, debris and some of the tamarisk windbreaks. The solar farm complex site would transformed with rows of PV and/or CPV panels and associated infrastructure and would be maintained to be free of weeds and vegetation. The solar farm complex site is setback from SR 78 and would appear as a uniform industrial feature. The majority of the transmission line would extend through the existing BLM ROW. While it would increase the height of the existing overhead infrastructure, it would not introduce an entirely new feature. Based on the deteriorating conditions on the solar farm complex site, the Project would improve the aesthetic character of the area. Therefore, the proposed Project is considered consistent with this goal. |
| <b>Objective 7.1</b> Encourage the preservation and enhancement of the natural beauty of the desert and mountain landscape. | Yes                           | The proposed Project would temporarily convert approximately 1,235 acres of land formerly used for agriculture that are currently idle to a solar farm complex.  |

## 4.1 AESTHETICS

**TABLE 4.1-1  
IMPERIAL COUNTY GENERAL PLAN CONSISTENCY ANALYSIS**

| General Plan Goals and Objectives  | Consistent with General Plan? | Analysis  |
|--|-------------------------------|---|
|  |                               | <p>Approximately 2.0 miles of the proposed transmission line would be on lands managed by the BLM comprised of desert landscape south of SR 78 and the Ocotillo Wells State Vehicular Recreation Area. The corridor where the transmission line is proposed is currently the site of existing IID 12.5 kV distribution lines and supporting structures. These features are already visible in the same viewshed as the proposed Project. Likewise, the modifications to the Anza Substation are in the same viewshed and would not drastically change the existing views of and surrounding the substation. While the proposed Project would not necessarily preserve or protect the desert and mountain landscape, it would likewise not result in a substantial aesthetic detriment given the current state of the solar farm complex site and existing IID overhead infrastructure and substation. Refer to the analysis under Goal 7, above. The Project would not convert desert lands nor would it obstruct distant views of the mountain landscape. Therefore, the proposed Project is consistent with this objective.</p> |
| <b>LAND USE ELEMENT</b>  |                               |   |
| <b>Regional Vision</b>   |                               |   |
| <p><b>Goal 3:</b> Achieve balanced economic and residential growth while preserving the unique natural, scenic, and agricultural resources of Imperial County.</p> | <p align="center">Yes</p>     | <p>The proposed Project would create construction and operation jobs thereby improving the economy of Imperial County. The solar farm complex site has not been actively farmed in several years. Therefore, the Project would not convert active or unique agricultural resources. Refer to the analysis under Goal 7 above regarding preservation of natural and scenic resources. The proposed Project is consistent with this goal.</p>   |

**TABLE 4.1-1  
IMPERIAL COUNTY GENERAL PLAN CONSISTENCY ANALYSIS**

| General Plan Goals and Objectives  | Consistent with General Plan? | Analysis   |
|--|-------------------------------|--|
| <b>Objective 3.4</b> Protect/improve the aesthetics of Imperial County and its communities.  | Yes                           | The proposed Project is located in a rural, unpopulated portion of Imperial County. The site was previously used for agricultural purposes and does not contain any designated scenic features. Based on the rural nature of the area, the proposed Project would not obstruct views or degrade scenic vistas. Refer to the analysis under Goal 7 regarding how the proposed Project would improve the aesthetics of the County given existing conditions and overhead infrastructure. Therefore, the proposed Project would be consistent with Objective 3.4.   |
| <b>Objective 3.6</b> Recognize and coordinate planning activities as applicable with the BLM, and the California Desert Conservation Plan. | Yes                           | The Applicant has coordinated with the County and BLM regarding the proposed Project and transmission line. A portion of the transmission line would be overbuilt on existing infrastructure and extend east from the Project area to the Anza Substation across approximately 2.0 miles of public land managed by the BLM. On November 15, 2002, BLM granted IID ROW CACA 044554 to construct the overbuilt 92 kV transmission line as part of a larger IID Project. The BLM has confirmed that the granted ROW remains valid (BLM 2012). Neither the transmission line nor the substation is located within a designated utility corridor or an ACEC per the CDCA (BLM 1980). Therefore, the proposed Project would not negatively impact BLM land. The proposed Project would be consistent with Objective 3.6. |

#### 4.1.2 ENVIRONMENTAL SETTING

The visual setting includes private lands under the jurisdiction of Imperial County (solar farm complex site), lands managed by the IID (transmission line and Anza Substation) as well as lands managed by the California State Parks (Ocotillo Wells State Recreational Vehicle Area [OWSRVA]) to the north of SR 78.

## 4.1 AESTHETICS

---

### A. REGIONAL

Imperial County encompasses 4,597 square miles in the southeastern portion of California. The County is bordered by Riverside County on the north, the international border of Mexico on the south, San Diego County on the west and Arizona on the east. The length and breadth of the County provide for a variety of visual resources ranging from desert, sand hills, mountain ranges, and the Salton Sea (approximately 14 miles to the north of the Project area).

The desert includes several distinct areas that add beauty and contrast to the natural landscape. The barren desert landscape of the Yuha Desert, lower Borrego Valley, East Mesa, and Pilot Knob Mesa provide a dramatic contrast against the backdrop of the surrounding mountain ranges. The West Mesa area is a scenic desert bordered on the east by the Imperial Sand Dunes, the lower Borrego Valley, the East Mesa and Pilot Knob Mesa. The Project area is situated in the lower Borrego Valley.

The eastern foothills of the Peninsular Range are located on the west side of the County. The Chocolate Mountains, named to reflect their dark color, are located in the northeastern portion of the County, extending from the southeast to the northwest between Riverside County and the Colorado River. These mountains reach an elevation of 2,700 feet making them highly visible throughout the County. The Santa Rosa Mountains are to the northwest of the Project area while the Fish Creek Mountains are to the south and the Vallecito Mountains are to the west and southwest.

Additional resources in the area include the OWSRVA to the north across SR 78 and the Anza Borrego State Park to the west.

### B. SURROUNDING AREA

The Project area is located in west-central Imperial County, California, approximately eight miles west of the junction of SR 78 and SR 86, and approximately three miles east of the San Diego County line. SR 78 aligns east to west approximately one-half mile to the north of the solar farm complex site. The proposed 92 kV transmission line would parallel the south side of SR 78 as is currently the case with the existing 12.5 kV distribution line. The IID Anza Substation is approximately one mile to the east of the northwestern corner of the solar farm complex site but the length of the transmission line along SR 78 would be approximately 2.25 miles. The Anza Substation currently occupies approximately .76 acres within a fenced area (approximately 160 feet east-west by 207 feet north-south) (EMA 2014a). The Substation currently consists of a 92 kV switch and breaker bank, a control house and 92 kV transformer and 13.8 kV/7.5 kV distribution facilities. The OWSVRA is immediately north of SR 78 across from the Project area. The OWSVRA is dominated by a diverse mix of desert shrub and limited woodland vegetation communities intermixed with barren or sparsely vegetated areas (OWSVRA Working Paper #2 2013, p. 2).

The solar farm complex site is surrounded by private properties and land administered by the BLM. The area surrounding the solar farm complex site is predominantly flat as most of the land has been leveled to accommodate past agricultural activities and facilitate irrigation. The Anza Substation is located on land owned by the IID. The substation and the several overhead transmission lines are readily visible throughout this area. Land surrounding the solar farm complex site, particularly along existing IID distribution line ROW adjacent to SR 78, and along the western boundary of the solar farm complex site have been subject to off-road vehicle use.

Two existing residences located in the northern portion of Lot 5 would be owned by Regenerate. These residences could be occupied only by parties associated with the development of that lot. Therefore, these residences are not considered to be sensitive receptors with regards to views of the Project area.

The nearest off-site residential land use (Scholl residence) is located approximately one mile west-northwest of the Project's proposed Lot 1 western boundary. Several other residences are also located further west of the Lot 1 boundary. The Blu-In RV Park is located approximately 1.85 miles west of the northwestern boundary of proposed Lot 6 of the solar farm complex site.

Based on the undeveloped nature of the surrounding landscape, very little light is generated in this area of the County. The primary source of light and glare in the area is from motor vehicles traveling on SR 78, and off-road vehicle activity in the OWSVRA. Glare is generated during daytime hours from the sun's reflection off of cars and paved roadway surfaces. Likewise at night, vehicle headlights on surrounding roadways generate light and glare.

### C. SOLAR FARM COMPLEX

The solar farm complex site is on privately-owned land. The solar farm complex site consists of flat-lying land historically cultivated for agricultural uses. Elevations across the solar farm complex site range from a high of approximately 5 feet below mean sea level (msl) at the northwest corner to a low of approximately 40 feet below msl at the southeast corner (PETRA 2012a, pp. 2-3). The solar farm complex site boundaries follow parcel lines rather than any roads or other physical features.

The solar farm complex site is essentially vacant with several out buildings, an above-ground diesel fuel storage tank within a concrete block secondary containment structure, a covered material storage, a truck weigh scale and shed. Two residences are also located in the northeast corner of Lot 5. None of the existing structures are considered historic, and no rock outcroppings are located on the solar farm complex site. The areas along the existing IID distribution line right-of-way adjacent to SR 78 and along the western boundary of the solar farm complex site are used by off-road vehicles.

Two unlined basins occupying approximately 4.5 acres are located in the southeastern portion of the proposed solar farm complex site. This western basin receives runoff via unlined drainage ditches from the surrounding agricultural lands. Tamarisk thickets, Bermuda grass grassland and mesquite thickets were present in the western basin. The western basin overflows to the east, into a shallower basin that supports Bermuda grass grasslands and mesquite thickets (HELIX 2014b, p. 6).

The former agricultural fields are separated by dirt access roads or rows of mature tamarisk trees that serve as windbreaks. Views of the proposed solar farm complex site partially obstructed by existing tamarisk windbreaks extending north-south through the property Lots 4, 5 and 7, as well as east-west along the northern boundary of Lots 2, 3, 5 and 7. Other vegetation within the Project area is generally limited to sporadic weeds. All agricultural activities have been suspended within the last few years with the only exception being a small area in the southeast corner of the Project area which contained grain crops in 2012. The remainder of the solar farm complex site is reverting to open desert. There are no panoramic scenic views from the solar farm complex site. Though visible from SR 78, the solar farm complex site is not a dominant feature due to set-backs and the presence of existing tamarisk windbreaks.

### **Transmission line**

Electrical interconnection with the IID electrical transmission system would require construction of a new 92 kV transmission line (with static grounding/communication line[s]) from the IID switch station on the Property to the existing Anza Substation on the south side of SR 78. Approximately 0.75 miles of new 92 kV transmission line would be constructed on the Allegretti Farms property. An additional 2.25 miles of new 92 kV transmission line would be constructed from the Property to the existing IID Anza Substation. The transmission line would be "overbuilt" (i.e. constructed above) the IID's existing 12.5 kV distribution line located immediately south of SR 78. The proposed transmission line would average approximately 65 feet in height. [Note: On November 15, 2002, BLM granted IID ROW CACA 044554 to construct the

## 4.1 AESTHETICS

---

overbuilt 92 kV transmission line as part of a larger IID project. The BLM has confirmed that the granted ROW to IID remains valid (BLM 2012). However, the segment of the transmission line on BLM land is discussed as part of the analysis of visual impacts.]

The proposed modifications are described in detail in Chapter 2.0, Project Description, sub-section 2.1.6, C. Features. The modifications would expand the existing substation by approximately .24 acres and include relocating and reorienting the existing 92 kV switch and breaker bank into the expanded substation area. New equipment includes a new 92 kV switch and breaker bank and constructing up to five new steel and/or concrete poles. One pole would be approximately 40 feet in height while the other four would be approximately 70 feet in height. The proposed modifications would be consistent with the existing equipment and features that currently characterize the substation.

### D. VIEWSHED

Existing views of the Project area are available from the surrounding areas, specifically from SR 78, and the OWSVRA to the north. Due to the flat topography of the solar farm complex site and the surrounding area, the existing transmission lines and several rows of tamarisk trees planted as windblocks are the only readily visible features of the site. No other unique topographical features are associated with any portion of the Project (solar farm complex site on private lands, transmission line on BLM land, and Anza Substation on IID land). The viewshed is depicted from Key Observation Points (KOPs) determined based on consultation with Imperial County staff and comments received as part of the NOP process and scoping meeting.

#### **Key Observation Points**

To assess the visual impacts at ground-level, four KOPs were identified that are representative of views of the proposed Project area with emphasis on the solar farm complex site. **Figure 4.1-1** is a map showing the location of the KOPs. Photograph location coordinates for each KOP were verified using Google Earth. Each KOP was photographed at approximately 5 feet, 8 inches above the existing grade.

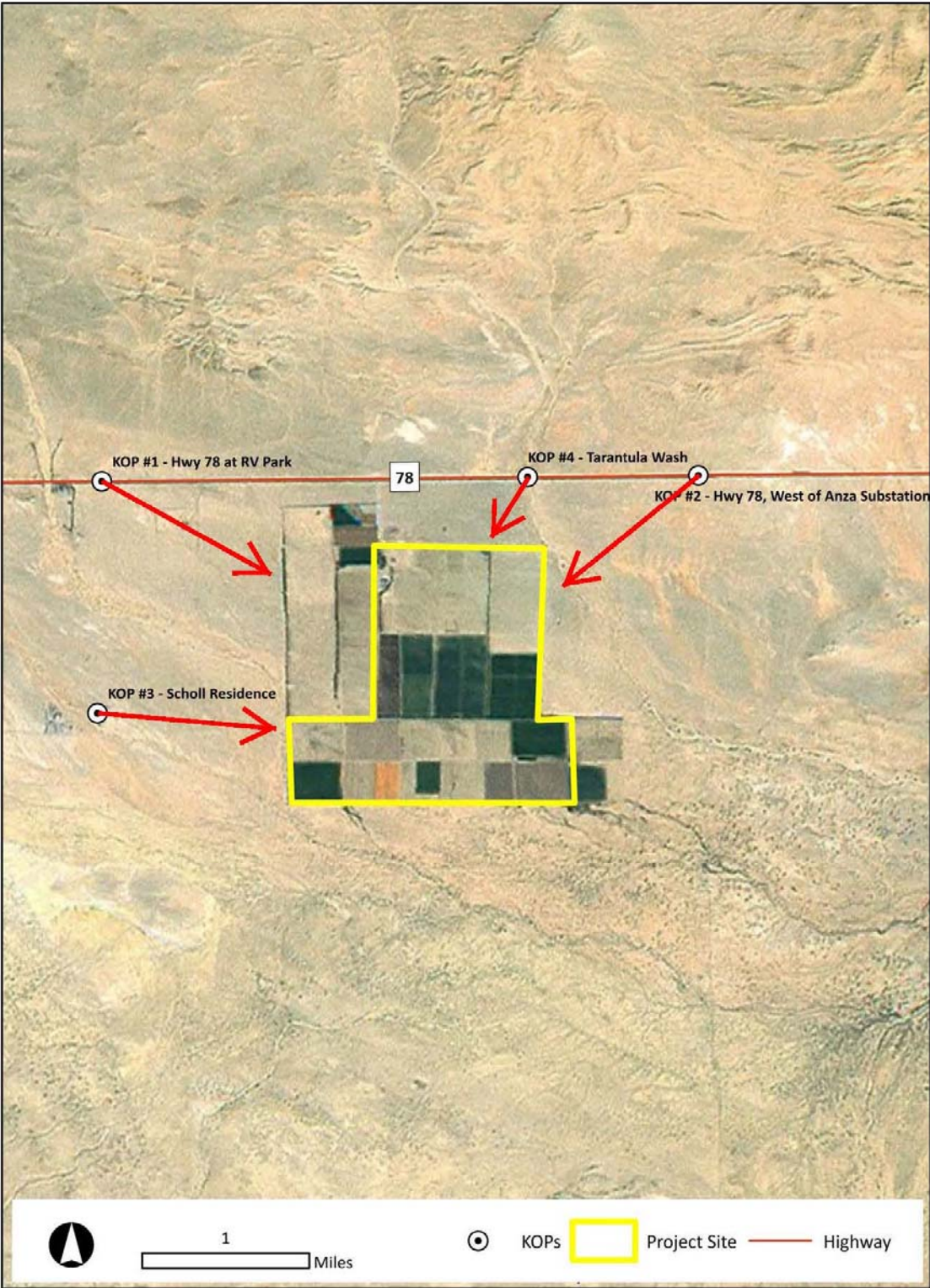
Descriptions of the KOPs are as follows:

**KOP #1:** View looking southeast towards the solar farm complex from Blu-In RV park along the south side of SR 78. The Blu-In is located approximately 1.85 miles from the northwestern boundary of Lot 6 of the solar farm complex (existing conditions depicted in top photo of **Figures 4.1-2a** and **4.1-2b**).

**KOP#2:** View looking southwest towards Project area from the north side of SR 78. Existing 12.5 kV IID distribution line is visible in foreground (existing conditions depicted in top photo of **Figures 4.1-3a** and **4.1-3b**).

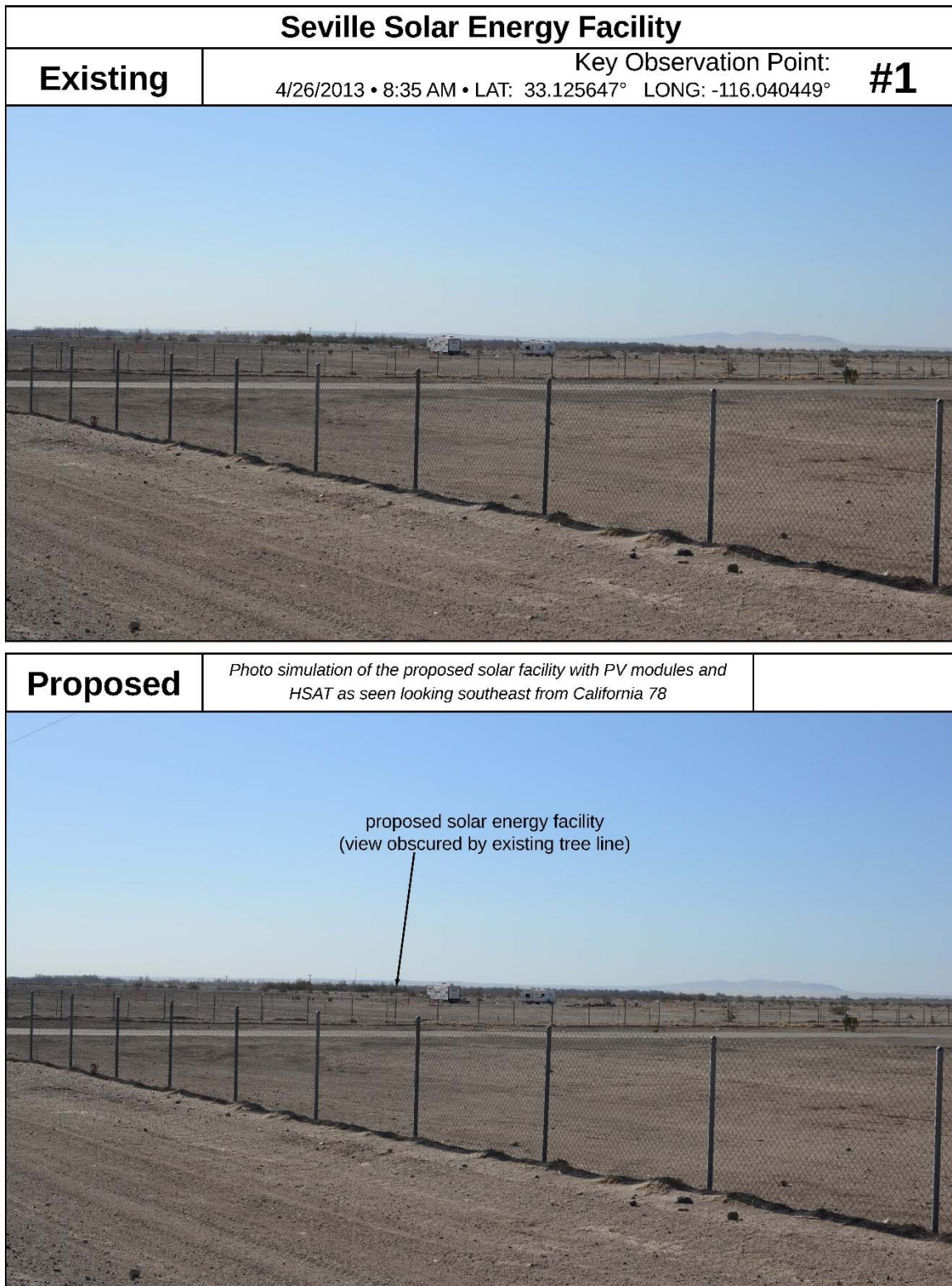
**KOP #3:** View looking east at the solar farm complex from Scholl Residence, the closest residential site from which the solar farm complex may be visible. The Scholl residence is located slightly over one mile west of the solar farm complex's Lot 1 western boundary (existing conditions depicted in top photo of **Figures 4.1-4a** and **4.1-4b**).

**KOP#4:** View looking southwest towards the Project area from Tarantula Wash. View is representative of what may be visible from OWSRVA (existing conditions depicted in top photo of **Figures 4.1-5a** and **4.1-5b**).



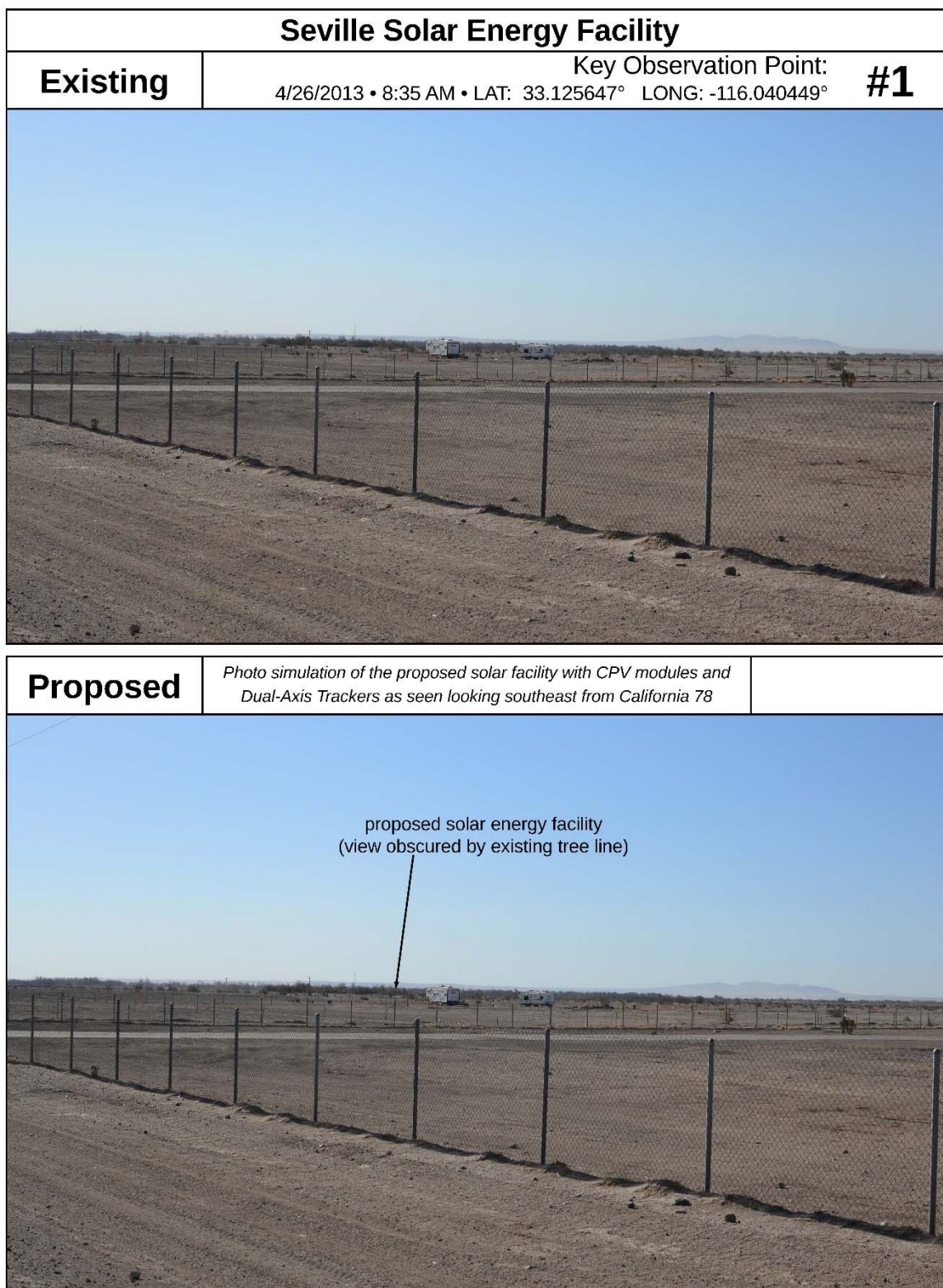
**FIGURE 4.1-1**  
**KOP LOCATION MAP**

## 4.1 AESTHETICS



Source: WWDC 2013.

**FIGURE 4.1-2A**  
**PV WITH HSAT LOOKING SOUTHEAST FROM SR 78**

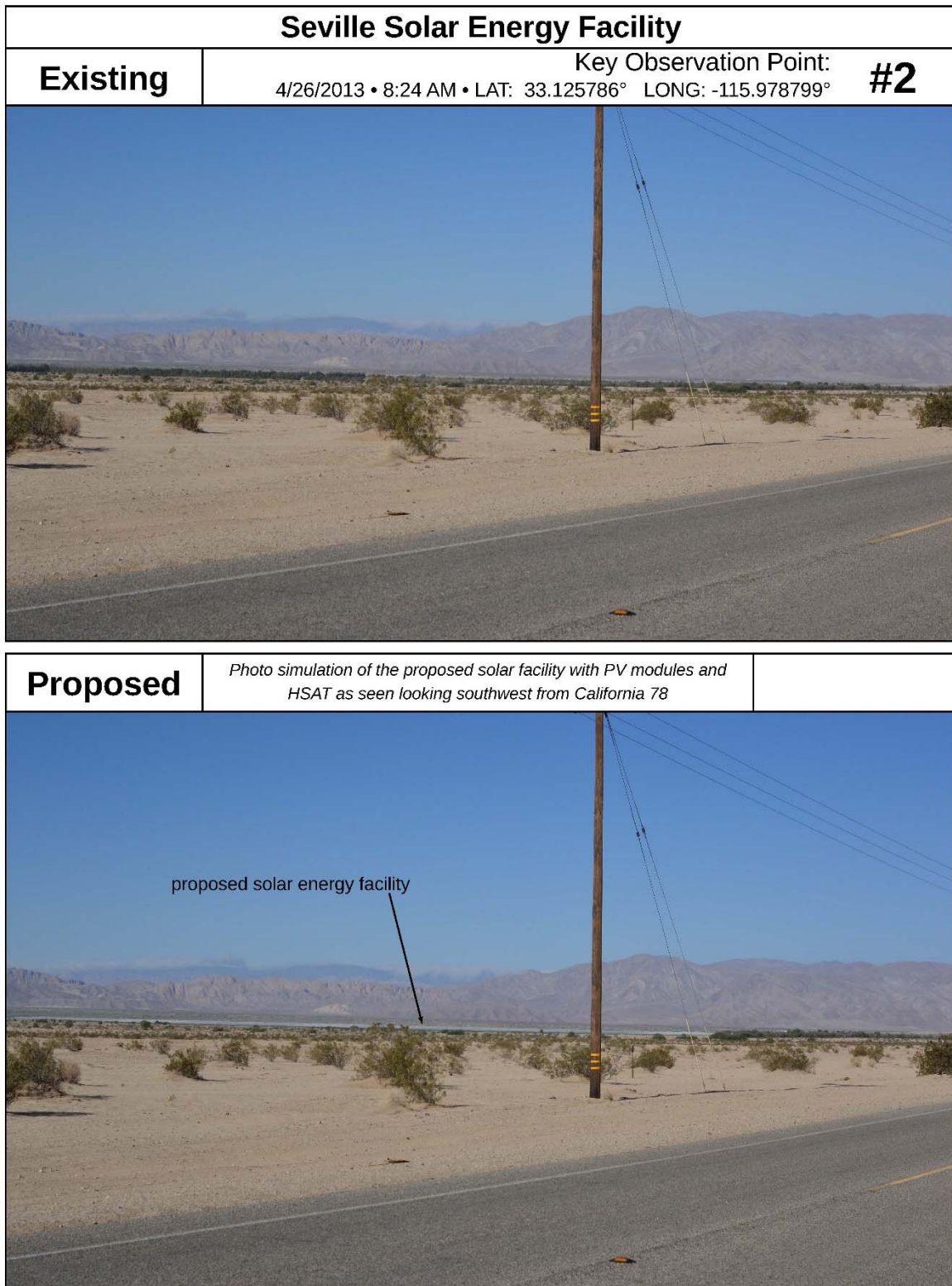


Source: WWDC 2013.

**FIGURE 4.1-2B**

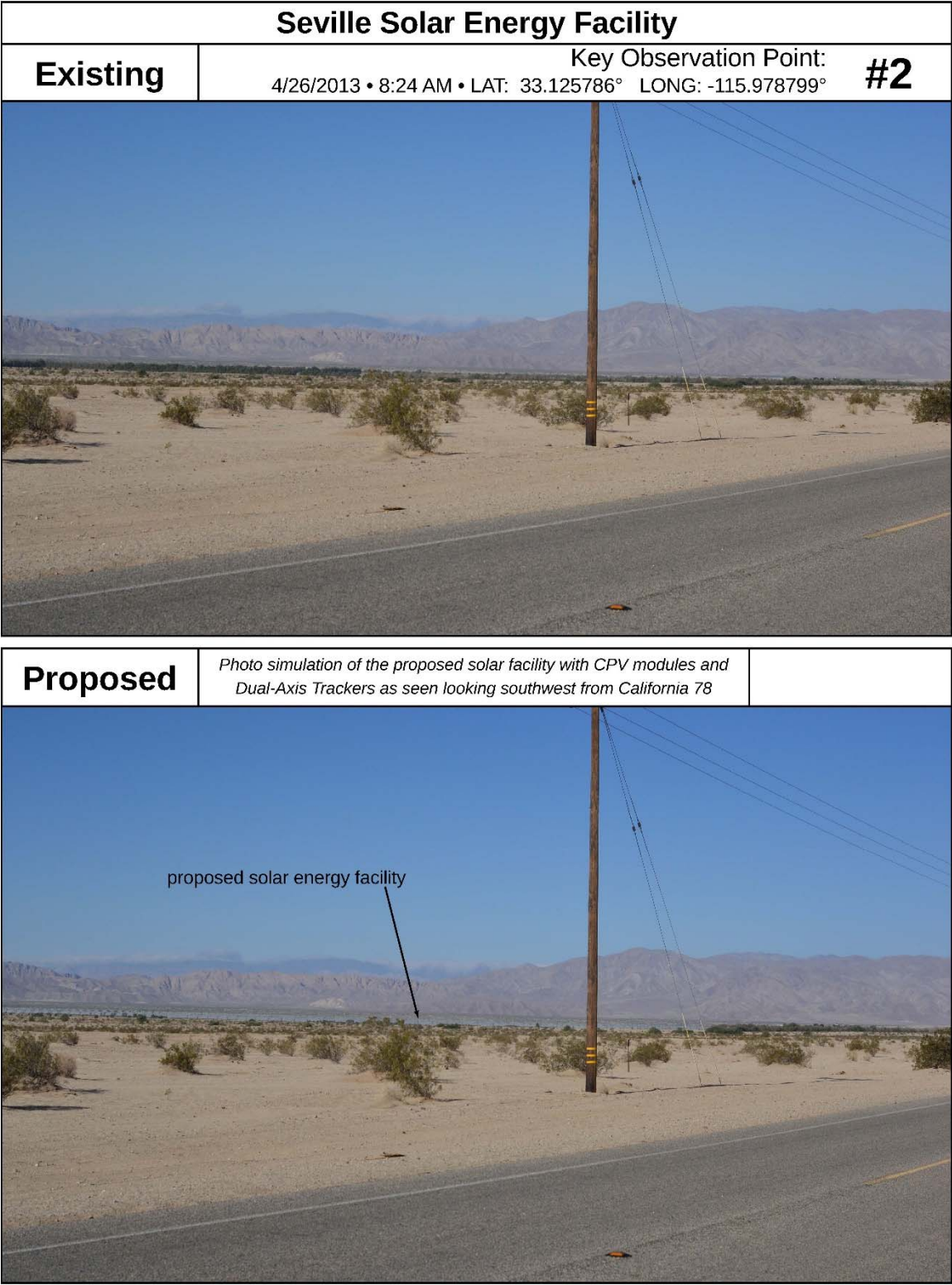
**KOP #1 - CPV WITH DUAL-AXIS TRACKERS LOOKING SOUTHEAST FROM SR 78**

## 4.1 AESTHETICS



Source: WWDC 2013.

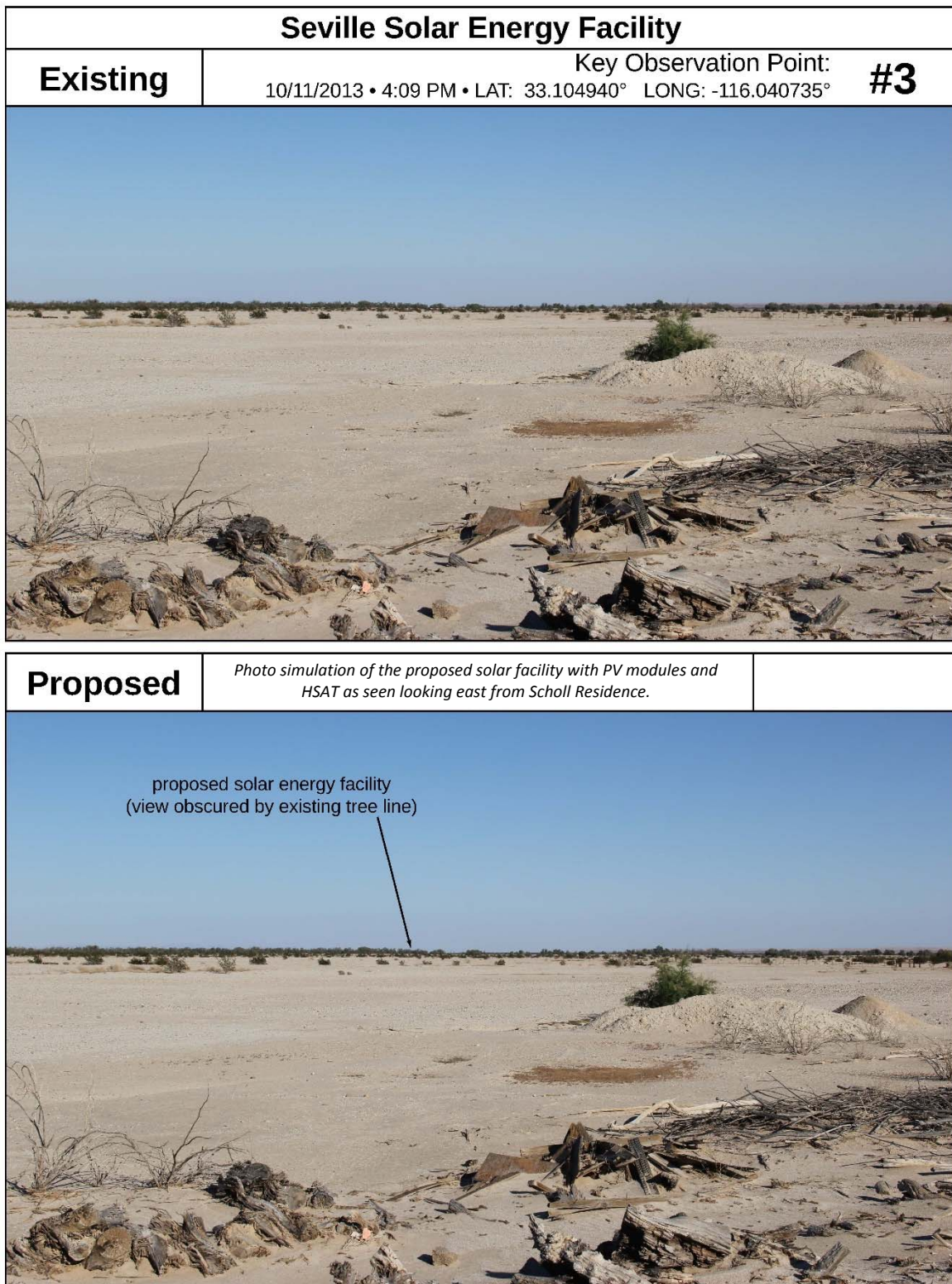
**FIGURE 4.1-3A**  
**KOP #2 - PV WITH HSAT LOOKING SOUTHWEST FROM SR 78**



Source: WWDC 2013

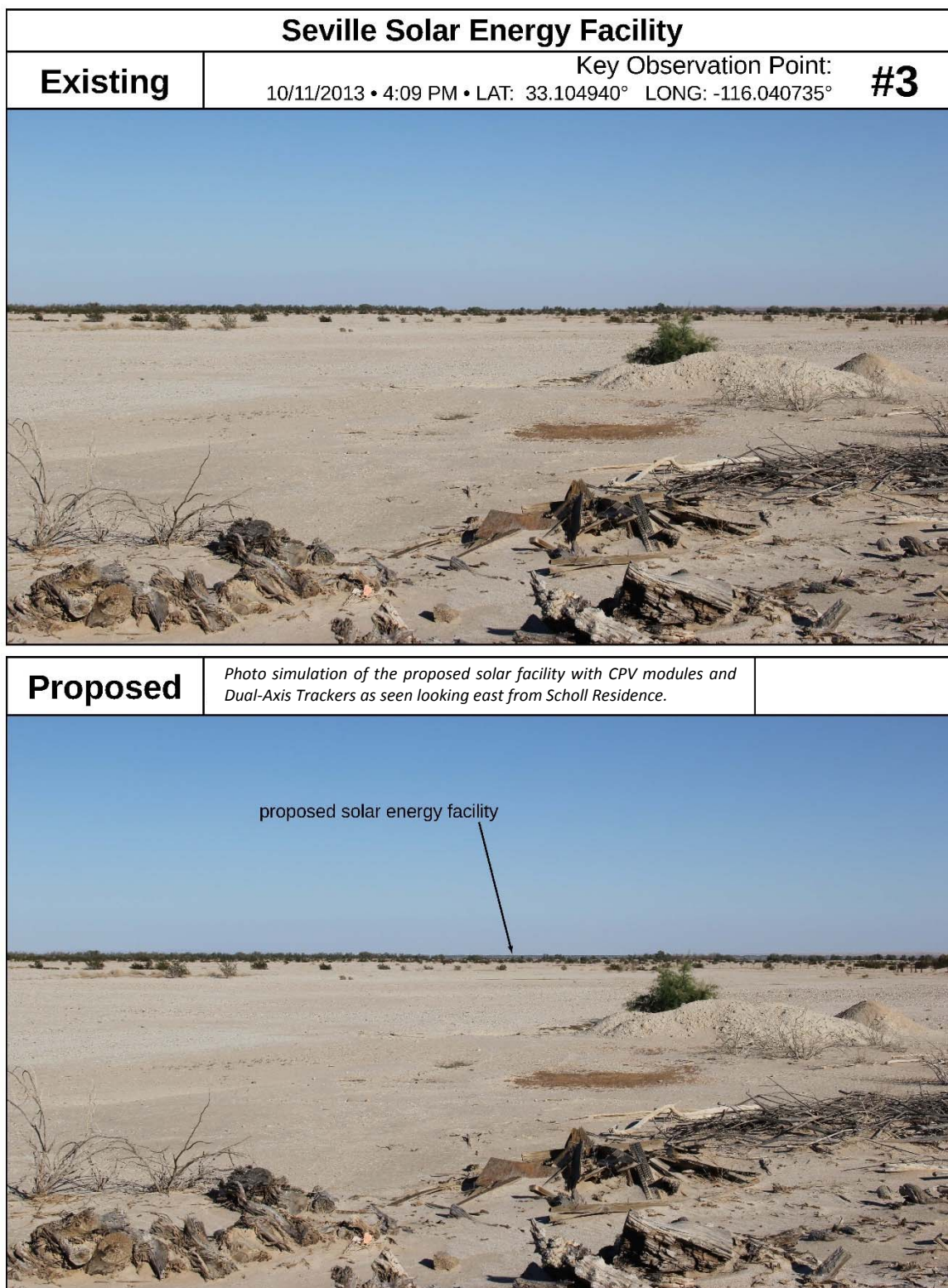
**FIGURE 4.1-3B**  
**KOP #2 - CPV WITH DUAL-AXIS TRACKERS LOOKING SOUTHWEST FROM SR 78**

## 4.1 AESTHETICS



Source: WWDC 2013.

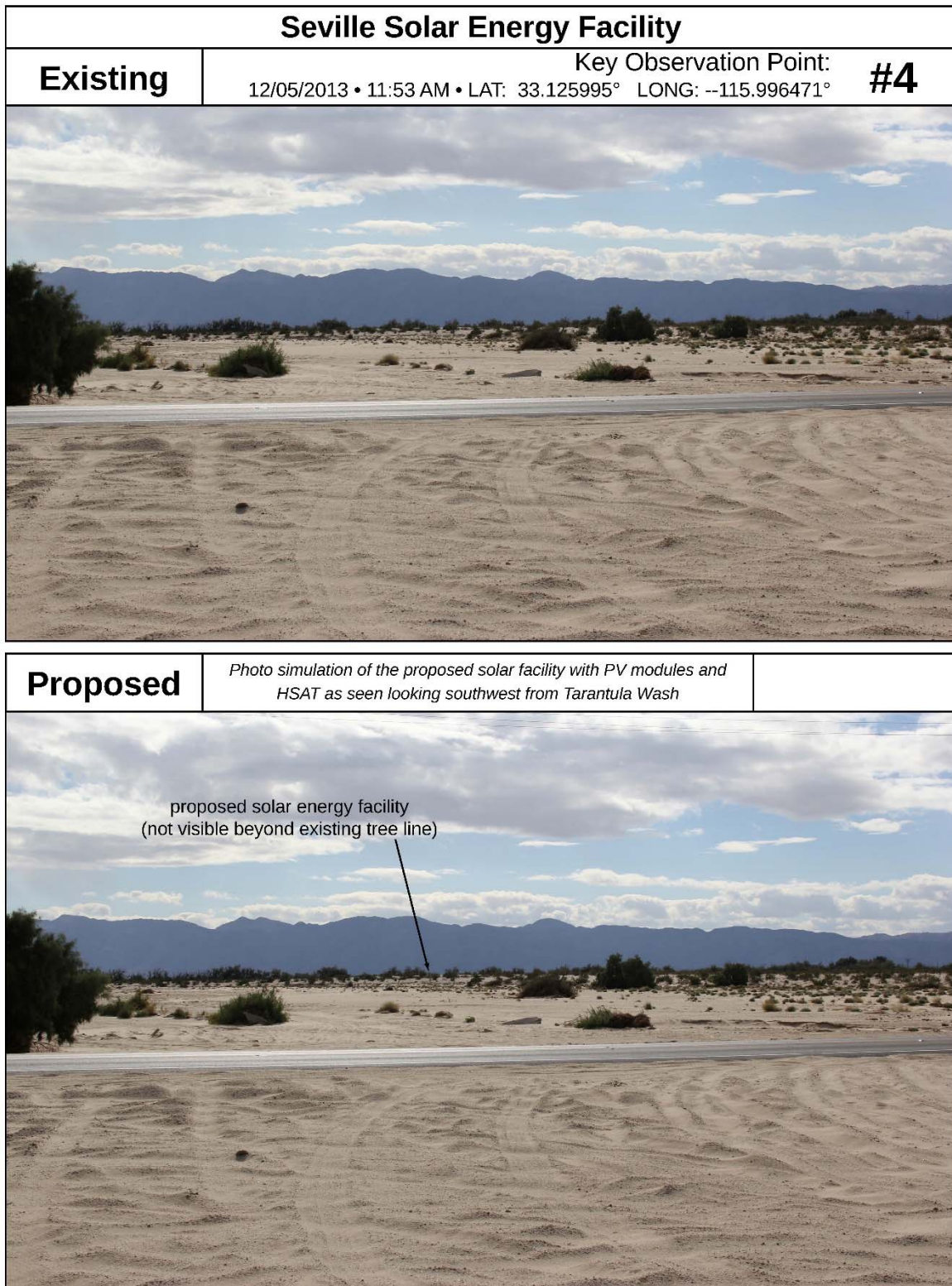
**FIGURE 4.1-4A**  
**KOP #3 - PV WITH HSAT LOOKING SOUTHEAST FROM SCHOLL PROPERTY**



Source: WWDC 2013.

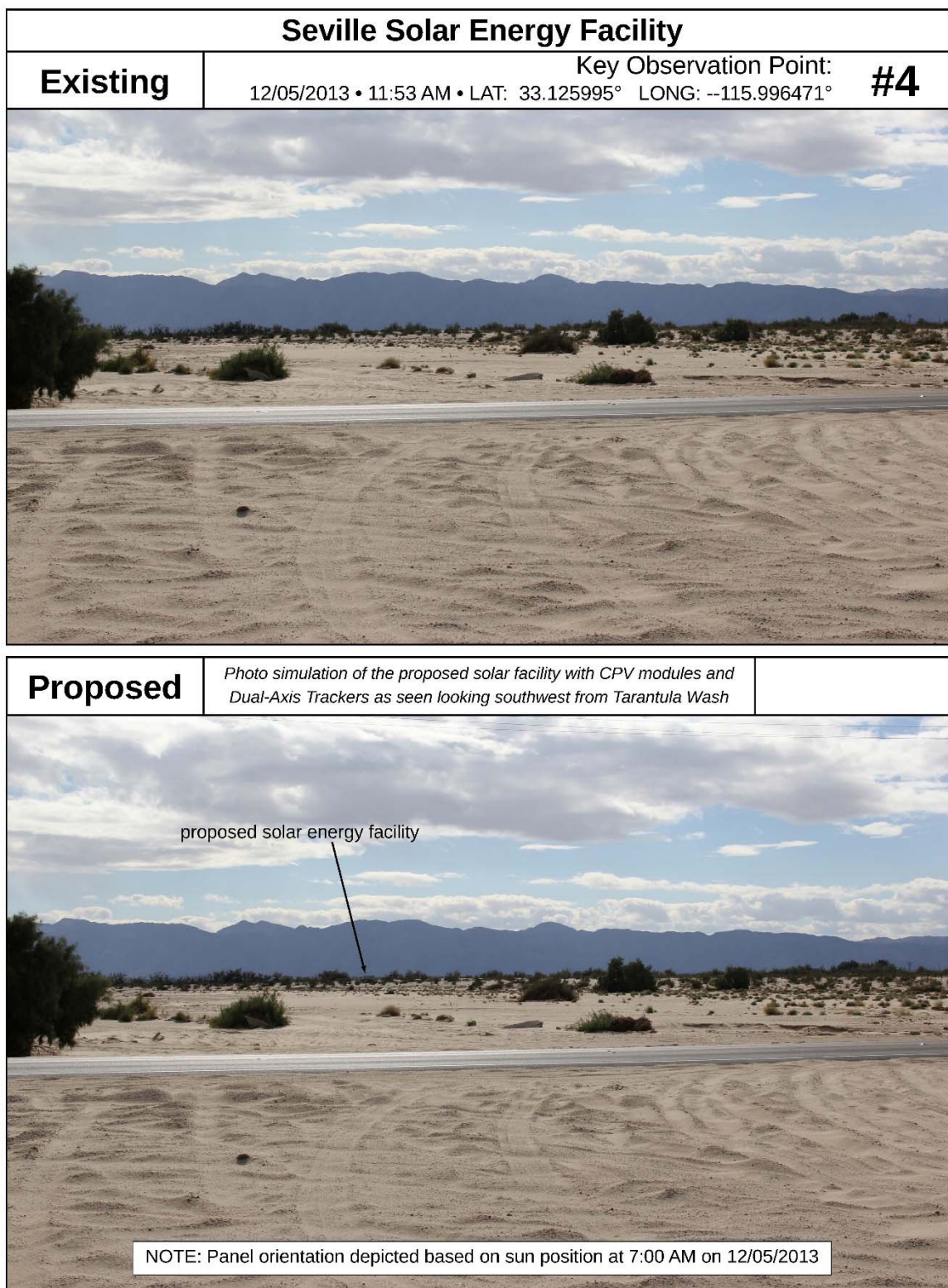
**FIGURE 4.1-4B**  
**KOP #3 - CPV WITH DUAL AXIS TRACKERS LOOKING SOUTHEAST FROM SCHOLL PROPERTY**

## 4.1 AESTHETICS



Source: WWDC 2013.

**FIGURE 4.1-5A**  
**KOP #4 - PV WITH HSAT LOOKING SOUTHWEST FROM TARANTULA WASH**



Source: WWDC 2013.

**FIGURE 4.1-5B**

**KOP #4 - CPV WITH DUAL AXIS TRACKERS LOOKING SOUTHWEST FROM TARANTULA WASH**

## 4.1 AESTHETICS

---

### 4.1.3 IMPACTS AND MITIGATION MEASURES

#### A. STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the following. CEQA Guidelines, as listed in Appendix G. The Project would result in a significant impact to visual resources if it would result in any of the following:

- a) Have a substantial adverse effect on a scenic vista.
- b) Substantially damage scenic resources, including, but limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.
- c) Substantially degrade the existing visual character or quality of the site and its surroundings.
- d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

#### B. ISSUES SCOPED OUT AS PART OF THE INITIAL STUDY

Criterion “b” was scoped out as part of the Initial Study because although the portion of SR 78 from the junction with SR 86 to the San Diego County line is eligible for future Scenic Highway Designation, SR 78 is not officially designated as a Scenic Highway. Therefore, no impact is identified with regard to impacting a state scenic highway and this issue is not discussed further in this EIR.

#### C. METHODOLOGY

In general, the potential aesthetic, light, and glare impacts associated with the solar farm complex site and transmission line segment on private land are evaluated on a qualitative basis. As noted above, the portion of the 92kV transmission on BLM land would be overbuilt above the existing 12.5 kV distribution line, and is not anticipated to result in a substantial change in the visual character or viewshed of the area. Therefore, this aspect of the Project is not further evaluated in this EIR. The evaluation of impacts are based on professional judgment; the existing aesthetic conditions (including presence of nighttime illumination and glare sources); analysis of the Imperial County General Plan goals and objectives related to visual resources; and the significance criteria established by CEQA.

#### **Visual Simulations**

Visual simulations were prepared by WW Design & Consulting, Inc. (WWDC) for each KOP. WWDC created three-dimensional scale models of the proposed solar farm complex based on the information provided for both the PV HSAT and CPV units with dual-axis trackers using Autodesk 3ds Max modeling and animation software. An in-software daylight system was created to simulate the sun location and strength at the longitude and latitude at the time the photographs were taken. Using the real world KOP/camera locations as a reference, virtual cameras were created in the scale model at the various KOP locations so the subsequent renders of the PV and CPV systems would exactly match the real world photographs. The focal lengths, aperture, exposure time and camera heights of the virtual cameras exactly matched the real world camera settings. Virtual photographs of the KOP locations were then rendered in Autodesk 3ds Max. The rendered KOP photographs were then composited with the corresponding real world KOP photograph counterparts in Adobe Photoshop to finish the simulated views of the project (WWDC 2013).

The Project proposes to use either thin film or crystalline solar photovoltaic (PV) technology modules mounted on fixed frames or horizontal single-axis tracker (HSAT) systems; concentrating photovoltaic

(CPV) systems mounted on a dual-axis tracking system; or a mix of all three technologies. PV modules mounted on fixed frames or HSAT systems could be as high as approximately 6 feet above the ground surface, while the overall height of a horizontal tracker is a maximum of 9 feet above the ground surface. As the current Project design proposes individual PV modules and HSAT, visual simulations from each KOP were modeled for individual PV modules to represent visual impacts for this technology (refer to bottom photo in **Figures 4.1-2a, 4.1-3a, 4.1-4a and 4.1-5a**).

The CPV dual-axis tracking structures would use single pole/mast-mounted panels that would be approximately 30 feet high at both sunrise and sunset, when the panels are rotated to point at the rising or setting sun. The 30-foot panel height at sunrise and sunset represents the tallest, or “worst case” height scenario. Further, because the CPV dual-axis system would be the tallest of the three options, this technology represents a worst-case visual scenario. Therefore, to be conservative in assessing impacts, visual simulations from each KOP were also modeled for CPV trackers to represent the worst-case visual impact (refer to bottom photo in **Figures 4.1-2b, 4.1-3b, 4.1-4b and 4.1-5b**).

### D. PROJECT IMPACTS AND MITIGATION MEASURES

#### Adverse Effect on Scenic Vista

**Impact 4.1.1** Implementation of the proposed Project would result in a minor alteration of views of the Project area from surrounding lands and SR 78. The Project area is not considered a scenic vista nor does it contain any outstanding aesthetic features. Moreover, views of the solar farm complex site would be obscured from the existing tree line. Therefore, adverse effects on a scenic vista are considered **less than significant**.

#### Construction

Visual impacts associated with construction activities would include, but not be limited to, heavy equipment (e.g., cranes, graders), staging and materials storage areas, and potential dust and exhaust. Construction activities would be temporary in nature and last over the course of several months. The Project area is not considered a scenic vista nor does it contain any outstanding aesthetic features. Moreover, views of the solar farm complex site would be partially obscured by the existing tamarisk windbreak. Therefore, a **less than significant** impact to scenic vistas would occur during the construction of the proposed Project.

#### Operation

The solar farm complex site consists of flat land previously used for agricultural activities that is reverting to open desert. The Project area is in a rural, sparsely populated portion of Imperial County and is not within in a designated scenic vista. Likewise, the Imperial County General Plan does not designate the Project area as an important visual resource (Imperial County 2008). The northern extent of the solar farm complex site is located approximately one-half mile south of SR 78. While there are no panoramic scenic views in the Project area, the Santa Rosa Mountains to the northwest, the Fish Creek Mountains to the south, and the Vallecito Mountains to the west and southwest all would still remain visible even with introduction of the proposed Project (see KOP #2 and #4: **Figures 4.1-3a and 4.1-3b and 4.1-5a and 4.1-5b**).

The nearest residential structure is located slightly over one mile west-northwest of the solar farm complex site’s proposed Lot 1 western boundary (i.e. the Scholl Residence; KOP #3, **Figure 4.1-4a and Figure 4.1-4b**). While this closest residence would experience minor changes in views to the east as a result of the introduction of the solar farm complex, views would not be altered substantially. Instead, only a small portion of the CPV modules (if this technology were used on Lot 1 instead of PV modules)

## 4.1 AESTHETICS

---

would be visible above the existing tamarisk windbreak along the western boundary of the solar farm complex site (refer to **Figure 4.1-4b**). The next nearest occupied structures, at the Blu-In RV Park, are located approximately 1.85 miles west of the northwestern boundary of proposed Lot 6 of the solar farm complex site (KOP #1). As shown in **Figure 4.1-2a** and **Figure 4.1-2b**, views of the proposed Project would be obscured from view by the existing tamarisk windbreak from this observation point. As noted above, the Project area does not possess any unique aesthetic or scenic qualities. In addition, distant views of the surrounding mountain ranges from the closest residence would not be obstructed (KOP #3). Therefore, adverse effects on a scenic vista during operation of the proposed Project are considered **less than significant**.

### **Reclamation**

Reclamation would involve decommissioning the solar farm complex site at the end of the Project's useful life. Activities would include dismantling and removal of structures and infrastructure on the solar farm complex site. The IID-owned facilities (IID switchyard and 92 kV transmission line on the Property; 92 kV transmission line with underbuilt 12.5 kV distribution line; 12.5 kV distribution line system constructed on the Property; and the IID Anza Substation modifications) would not be decommissioned until IID determined that these improvements were no longer needed and could be retired and removed. The roads constructed on Lot B to access each of the parcels created under the major subdivision and all of the water wells would not be decommissioned or reclaimed. However, because the Project area does not possess any unique aesthetic or scenic qualities, and distant views of the surrounding mountain ranges from the closest residence would not be obstructed by the remaining IID facilities, roads, and well, no adverse effects on a scenic vista would occur in association with reclamation. Upon completion of reclamation, the solar farm complex site would be reclaimed to approximate the existing idle farmland. **No impact** to a scenic vista would occur based on reclaiming the solar farm complex site to its existing condition.

### **Mitigation Measures**

None required.

### **Significance After Mitigation**

Not applicable.

### **Degrade Existing Visual Character or Quality of the Site**

**Impact 4.1.2** The proposed Project would convert former agricultural fields reverting to open desert to a solar farm complex. In addition, the Project would overbuild a 92 kV transmission line and modify the existing Anza Substation. While the Project would alter the overall character of the area, it would not substantially degrade the existing visual character or quality of the area. Therefore, this impact is considered **less than significant**.

### **Construction**

#### **Solar Farm Complex**

Short-term visual impacts would occur in association with construction of the proposed Project. These would include but not be limited to heavy equipment (e.g., cranes, graders), staging and materials storage areas, and potential dust and exhaust plumes. The nearest residential structure is located slightly over one mile west-northwest of the Project's proposed Lot 1 western boundary (Scholl Residence; KOP #3). Due to the set-back of the residence (over a mile) and the intervening tamarisk windbreak, views from

the residence east towards the solar farm complex would not be substantially affected during construction. The next-nearest occupied structures, at the Blu-In RV Park, are located approximately 1.85 miles west of the northwestern boundary of proposed Lot 6 of the Project site (KOP #1). As shown in **Figures 4.1-2a** and **Figure 4.1-2b**, views of the proposed Project would be obscured from view by the existing tree line from this observation point. Therefore, views from the Blu-In RV Park would not be substantially affected during construction.

Likewise, travelers along SR 78 and off-road vehicle users to the north and west of the solar farm complex site may also experience some visual changes associated with construction activity. However, as with the residences to the west, views of the proposed Project site are partially obstructed by the presence of tamarisk windbreaks extending north-south through the Property within Lot 7 as well as east-west along the northern boundary of Lots 5 and 7 (refer to Figure 2.0-4 in the Project Description to see where the windbreaks are located). Existing east-west windbreaks along the northern boundary of Lots 2 and 3, along with north-south windbreaks along the western boundary of Lots 4 and 5, and north-south windbreaks within the boundaries of Lots 4 and 5 would be removed as part of the Project. However, removal of these windbreaks would occur within the interior of the site, and therefore would not affect views from off-site viewpoints. In addition, as various aspects of construction are completed (e.g., grading), the corresponding equipment would be eliminated from view. While heavy equipment and construction activity may present a visual nuisance, it is temporary and does not represent a permanent change in views. Therefore, impacts associated with degrading the visual character or quality of the site for travelers and residents is considered **less than significant**.

### Transmission Line

The transmission line overbuild and new poles associated with modifications of the Anza Substation would be the tallest features of the proposed Project. The proposed transmission line would result in extending the height of the existing IID 12.5 kV distribution line pole to 65 feet (refer to **Figure 2.0-9** in Chapter 2.0, Project Description). In addition, up to four new poles approximately 70 feet in height may be required to accommodate the proposed modifications, including replacement of two existing wooden poles. Because the substation and transmission line are existing features, the overbuild and proposed substation modifications are not anticipated to be noticeable or dramatically alter view of this portion of the Project area. In both cases, existing uses would be expanded with similar equipment (i.e. lines, poles, switch and breaker bank). Therefore, **less than significant impacts** would occur with regard to substantially degrading the existing visual character or quality of the Project area as a result of construction of the transmission line.

### **Operation**

### Solar Farm Complex

The proposed Project would alter the existing visual character of the area by placing a solar farm complex on land previously used for agriculture that is in the process of reverting to open desert. Of the Project area's 2,440 acres, approximately 1,181 acres would be converted to accommodate the solar farm complex. An additional 55 acres of the Property would be developed with access roads, gen-tie corridors and substations. The IID 92 kV transmission line is estimated to disturb 2.3 acres and the modifications to the Anza Substation would add 0.24 acres to the existing facility. In total approximately 1,238 acres would be visually changed by the Project.

The major generation equipment that would be installed on the solar farm complex site includes PV modules on HSAT up to nine feet in height or 30 foot high CPV dual-axis trackers, inverters, transformers and gen-tie lines. The Project would also introduce up to five substations on Lot D, and water tanks and

## 4.1 AESTHETICS

---

five O&M buildings disbursed throughout solar farm complex site. Six foot high security fencing would be installed around the perimeter of each development lot at the commencement of construction.

Development of the solar farm complex with the proposed PV panels with a HSAT tracking system, or potential CPV panels with a dual axis tracking system, would create noticeable changes to area views. As shown in **Figures 4.1-2a** and **Figure 4.1-2b** (KOP #1), the solar farm complex site is obscured by the existing tamarisk windbreak from the viewpoint of the Blu-In RV Park. As a result, travelers driving eastbound on SR 78 would not be able to clearly see the solar farm complex. As shown in **Figure 4.1-3a** and **Figure 4.1-3b** (KOP #2), the Project area would be visible to travelers looking southwest along SR 78 under either panel configuration. As shown in the visual simulations, the scale of the Project would appear low-profile based on the distance of SR 78 from KOP #2. While visible, the Project would not be a dominant foreground feature nor would it obstruct views of the Vallecito Mountains in the background. It is also important to note that the duration of time the site would be visible would be very short as motorists would travel quickly along SR 78. The change in use would appear industrial, but would not displace or damage any outstanding aesthetic feature unique to the area or the County as a whole. As previously mentioned, views of the solar farm complex would be partially obstructed by the presence of tamarisk windbreaks extending north-south through Lot 7 as well as east-west along the northern boundary of Lots 5 and 7. Thus, impacts associated with degrading the visual character or quality of the site for travelers for the long-term would be considered **less than significant**.

While a former agricultural land and open desert are not considered significant or unique visual resources, both represent undeveloped open space with minimal man-made features (i.e. the solar farm complex site is essentially vacant with several out buildings, an above-ground diesel fuel storage tank within a concrete block secondary containment structure, a covered material storage area, a truck weigh scale and shed, and two residences). The introduction of the solar farm complex would change the existing appearance of the area with rows of PV and/or CPV solar panels across approximately 1,181 acres of the 2,440 acre Allegretti Farms property. An additional 55 acres of the Property would be disturbed by the required access roads, gen-tie corridors and substations. The IID 92 kV transmission line is estimated to disturb 2.3 acres. The IID 92 kV transmission line is estimated to disturb 2.3 acres and the modifications to the Anza Substation would add 0.24 acres to the existing facility. Overall Project acreage would total approximately 1,238 acres.

Generally, CEQA considers visual impacts from public viewpoints rather than from private property. However, residents are considered to be a highly sensitive viewer group because of the long periods of time spent in personal residences, and the strong feelings attached to their homes. The solar farm complex, if developed with nine-foot high PV units with HSAT trackers, would be mostly obscured as viewed from the nearest (Scholl) residence by set-back distance (slightly over one mile) as well as tamarisk windbreaks (KOP #3; **Figure 4.1-4a**). Development of the solar farm complex site with CPV structures extending up to 30 feet in height would be more noticeable from the Scholl residence (KOP #3; **Figure 4.1-4b**) due to the higher profile of this technology. However, even the CPV panels would be partially obscured by the setback and windbreaks, lessening the visibility and intensity of the change. The proposed six-foot fencing would be obscured by distance under either panel configuration scenario. Given that the proposed Project would not be dominant, overbearing or obstruct the landscape or horizon when viewed from the residences to the west, long-term visual impacts to residents are considered **less than significant**.

The areas north of SR 78 and west of the solar farm complex are used by off-road vehicle riders for recreational purposes. As such, visual simulations looking southwest towards the site from Tarantula Wash (KOP #4) were prepared. **Figure 4.1-5a** demonstrates that the proposed solar farm complex site would be obstructed by the existing tree line if developed with PV modules and HSAT. **Figure 4.1-5b** illustrates that a small portion of the solar farm complex would be visible if developed with CPV modules

with Dual-Axis Trackers. Given the limited visibility of the Project under either scenario, as well as the limited duration of time the site would be viewed, a **less than significant** long-term visual change is anticipated to occur with regard to off-road recreational vehicle users.

### Transmission Line

The tallest Project features would be the transmission line poles associated with the 92 kV transmission line along the alignment and at the Anza Substation. As described above, the overbuild of the transmission line would be at a height of 65 feet and up to four new poles approximately 70 feet in height may be required to accommodate the modifications at the Anza Substation. In both cases, existing uses would be expanded with similar equipment (i.e. lines, poles, switch and breaker bank) that would not drastically alter views. Therefore, **less than significant impacts** would occur to off-road vehicle users with regard to substantially degrading the existing visual character or quality of the site as a result of the transmission line overbuild and modifications to the Anza Substation.

### **Reclamation**

Reclamation would involve decommissioning the solar farm complex site at the end of the Project's useful life. Activities would include dismantling and removal of structures and infrastructure on the solar farm complex site. The IID-owned facilities (IID switchyard and 92 kV transmission line on the Property; 92 kV transmission line with underbuilt 12.5 kV distribution line; 12.5 kV distribution line system constructed on the Property; and the IID Anza Substation modifications) would not be decommissioned until IID determined that these improvements were no longer needed and could be retired and removed. The roads constructed on Lot B to access each of the parcels created under the major subdivision and all of the water wells would not be decommissioned or reclaimed. However, because the Project area does not possess any unique aesthetic or scenic qualities, reclamation of the solar farm complex site to approximate the existing idle farmland would have a **less than significant impact** with regard to degrading the visual character or quality of the area.

### Mitigation Measures

None required.

### Significance After Mitigation

Not applicable.

### **New Source of Substantial Light or Glare**

**Impact 4.1.3** The Project proposes to use non-reflective PV or CPV panels which are not anticipated to create substantial glare to surrounding areas. In addition, the Project's lighting system will be designed to provide minimum illumination. Therefore, impacts associated with creation of substantial light and glare are considered **less than significant**.

### **Construction**

Short-term sources of lighting would be introduced to the Project area during construction as part of site security, storage and staging areas. Construction lighting would be directed on-site and would incorporate shielding as necessary to minimize illumination of the night sky and potential impacts to surrounding viewers (refer to Table 2.0-6, Applicant Proposed Measures Included as Part of Proposed Seville Solar Farm Complex).

Construction is not anticipated to result in major sources of glare other than vehicle windshields or reflection that may occur off of metallic surfaces (e.g. PV panel support structures) while being installed. Thus, new sources of light and glare associated with construction of the Project would result in a **less than significant impact**.

## 4.1 AESTHETICS

---

### **Operation**

#### Light

The solar farm complex site was formerly actively farmed and is now idle and in the process of reverting to open desert. Two residences located in the northeast corner of Lot 5 may create residential light (when occupied). Auxiliary facilities located on each solar energy project lot could include security lighting. The Applicant has indicated that operational Project lighting would be directed on-site and would incorporate shielding as necessary to minimize illumination of the night sky and potential impacts to surrounding viewers (refer to Table 2.0-6, Applicant Proposed Measures Included as Part of Proposed Seville Solar Farm Complex).

The Project PV and CPV modules are specifically designed to absorb light, rather than reflect it. While the Project would introduce some nighttime light, it would be designed to avoid a substantial change in illumination in the existing night sky environment. Thus, new sources of light associated with long-term operation and maintenance of the Project would result in a **less than significant impact**.

#### Glare

A “Solar Glare Hazard Analysis” (included as **Appendix L** of this EIR) was prepared for the Project by Good Company (2013). The analysis was prepared to determine the potential for glare from the proposed Project. The calculations in the analysis are based on the Solar Glare Hazard Analysis Tool (SGHAT) methodology and tool, developed by Sandia National Laboratory for the U.S. Department of Energy.

The following points highlight and describe the variables within SGHAT adjusted for this analysis:

- **Elevation:** height of the panel. Multiple scenarios were modeled to gauge differences between glare potential from the bottom to the top of the panels, depending on design and panel size.
- **Orientation:** direction the panel is facing. Depending on the type of panel (fixed, single-axis, dual-axis) different orientations in degrees off of due north were used to signal orientation. For example, 90° represents due east, 180° is due south and 270° is due west.
- **Tilt:** angle of the panels. For example, fixed-tilt panels are set at 25° off the horizon.
- **Reflectivity:** amount of light reflected. SGHAT uses 10 percent reflectivity as a default. This variable can be reduced to 2 percent to demonstrate the effects of using the proposed anti-reflective coatings or textured glass.

One particular benefit of SGHAT for this analysis is its capability of calculating solar glare potential given different elevations and topography. The proposed solar farm complex site is located just below sea level and there are potential observation points in the surrounding area that are between 100 and 225 feet in elevation, which makes elevation and impact on solar reflection very important.

SGHAT is current unable to measure single or dual-axis tracking. However, according to the SGHAT user manual, dual-axis tracking will not significantly contribute to stray light reflections unless the technology is not operating properly because the array is constantly pointed toward the sun. To overcome this limitation, the horizontal single-axis and dual-axis alternatives were assessed by adjusting the panel orientation and tilt in the SGHAT tool to the direction that the panels would be pointed at various times throughout the day (Good Company 2013).

PV modules are designed to absorb as much light as possible to maximize efficiency. In addition, PV modules use anti-reflective coatings to decrease reflection and increase conversion efficiency. The time and duration of any potential reflections from the panels are determined by the orientation of the panels

and the position of the observer in relation to the panels. All PV solar projects, regardless of the type of mounting structure, orient the panels perpendicular to the sun or as close to perpendicular as much time as much of the time as possible to maximize solar absorption and energy output. This results in the panels being oriented towards the sun as much as possible throughout the day and the course of the year as the position of the sun changes in the sky. This orientation towards the sun results in the portion of incoming light that is reflected to be directed back into the sky because light is reflected from a flat surface at an angle equal to that of the incoming light.

The Solar Glare Hazard Analysis presented the following conclusions regarding potential glare impacts that could occur as a result of Project implementation (Good Company, 2013):

- **Fixed-tilt PV arrays** do present glare issues to the residences due west of the solar farm complex site for short intervals (15 to 30 minutes) of potential after-image glare at sunrise and sunset in non-winter months (mid-March through October). The arrays do not present glare issues to other surrounding ground-level observation points.
- **HSAT PV arrays** do not present glare issues to surrounding ground-level observation points.
- **Dual-axis tracking CPV arrays** do not present glare issues to surrounding ground-level observation points.

Based on these conclusions, if HSAT PV arrays or dual-axis tracking CPV arrays are used, glare-related impacts to surrounding observation points would be **less than significant**.

If fixed-tilt PV arrays are used, potential after-image glare at sunrise in non-winter months (mid-March through October) could occur to the residences due west of the solar farm complex site for short intervals (15-30 minutes). Neither HSAT PV arrays or dual-axis tracking CPV arrays would present glare issues to other surrounding ground-level observation points (Good Company 2013). Therefore, under the fixed-tilt PV array scenario, operation of the Project may create a new source of glare that would adversely affect views from residences located to the west when looking east towards the solar farm complex site at sunrise and sunset during winter months. Given the short duration (15 to 30 minutes) during which glare could occur, the setback distances of residences to the west (one mile or more), and the fact that the glare would not occur 365 days of the year, long-term visual changes associated with glare impacts are considered **less than significant**.

### ***Reclamation***

Reclamation would involve decommissioning the solar farm complex site at the end of the Project's useful life. Activities would include dismantling and removal of structures and infrastructure on the solar farm complex site. The IID-owned facilities (IID switchyard and 92 kV transmission line on the Property; 92 kV transmission line with underbuilt 12.5 kV distribution line; 12.5 kV distribution line system constructed on the Property; and the IID Anza Substation modifications) would not be decommissioned until IID determined that these improvements were no longer needed and could be retired and removed. The roads constructed on Lot B to access each of the parcels created under the major subdivision and all of the water wells would not be decommissioned or reclaimed. However, the presence of these residual facilities is not anticipated to create a source of substantial light and glare. The solar farm complex site would be reclaimed to approximate the existing idle farmland which does not generate any sources of light or glare. Thus, following reclamation, no impacts related to light or glare would occur.

### **Mitigation Measures**

None required.

### **Significance After Mitigation**

Not applicable.

## 4.1 AESTHETICS

---

### 4.1.4 CUMULATIVE SETTING, IMPACTS AND MITIGATION MEASURES

#### A. CUMULATIVE SETTING

The geographic scope for the cumulative setting for aesthetics, light, and glare encompasses lands within a 5-mile radius of the proposed Project site. In a broader context, the cumulative setting also includes large scale proposed, approved and reasonably foreseeable renewable energy projects identified in Table 3.0-1 in Chapter 3.0, Introduction to the Environmental Analysis and Assumptions Used. The only project in the cumulative list within 5-miles of the proposed Project is the Ocotillo Wells Solar Farm approximately 3.5 miles east along the San Diego-Imperial County border.

#### B. CUMULATIVE IMPACTS AND MITIGATION MEASURES

##### Cumulative Visual Impacts

**Impact 4.1.4** Implementation of the proposed Project, in conjunction with large scale proposed, approved and reasonably foreseeable renewable energy projects in the Imperial Valley and the Ocotillo Wells Solar Project west of the Project, would alter the visual character of the region, resulting in a change to public views as well as increased daytime glare and nighttime lighting levels. Such impacts are typically addressed on a project-by-project basis. Therefore, cumulative impacts to visual resources are considered **less than cumulatively considerable**.

##### Construction

Under cumulative conditions, existing views of the Project area would be altered in association with short-term construction activities. Construction of the proposed Project would result in temporary changes to the visual character of the Project area due to the presence of equipment, site clearing activities, installation of the solar farm complex facilities, overbuild of the 92 kV transmission line, and modifications to the Anza Substation. These visual changes would be **less than cumulatively considerable** due to their limited duration.

##### Operation

The proposed solar farm complex site currently consists of idle farmland that is reverting to open desert. Likewise, the proposed solar farm complex site is surrounded primarily by open desert. The OWSRVA is north of the Project area across SR 78. In the long-term, existing views of the Project area would be altered by the introduction of a solar farm complex to approximately 1,181 acres of idle farmland and an additional 55 acres of disturbed by the required access roads, gen-tie corridors and substations (as discussed under Impact 4.1.1 and 4.1.2). Another 2.3 acres of land would be associated with the transmission line and 0.24 acres would be needed for the Anza Substation modifications. However, the Project area and surrounding area within the geographic scope does not contain any unique or outstanding features with high aesthetic value. Likewise, the other solar project proposed within the geographic scope (Ocotillo Wells Solar Project) is not anticipated to damage or compromise any outstanding aesthetic features nor would it be visible to a large number of viewers. The Ocotillo Wells Solar Project is approximately 3.5 miles south of SR 78. As discussed in the "Visual Resources/Aesthetics Analysis Ocotillo Wells Solar Farm," (RBF 2013) the proposed project would be located on generally undeveloped lands just east of Spilt Mountain Road. The Ocotillo Wells Solar Project would not result in the introduction of features that would significantly detract from or contrast with the visual character of the Ocotillo Wells community by conflicting with visual elements or quality of an existing area. In addition, the Ocotillo Wells Solar Project would not result in the removal of or substantial adverse change of one or more features that contribute to the valued visual character or image of the Project area, including but not limited to designated landmarks, historic resources, trees, or rock outcroppings. Furthermore, the

Ocotillo Wells Solar Project would not substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from a public road, trails within an adopted County or State trail system, scenic vista or highway, or recreational area. The Ocotillo Wells Solar Project as designed would also not result in an inconsistency with any goals, standards, or policies related to visual resources as given in the County General Plan or other applicable regulations and ordinances. For the above reasons, no significant impacts on visual resources/aesthetics are anticipated to occur in association with implementation of the Ocotillo Wells Solar Project (RBF 2013).

The proposed Project, in combination with other large scale proposed, approved and reasonably foreseeable renewable energy projects identified in Table 3.0-1 in Chapter 3.0, Introduction to the Environmental Analysis and Assumptions Used, would contribute to cumulative changes to the character of the cumulative visual setting. However, the County of Imperial allows for development of the Project site with a solar farm complex with issuance of a Conditional Use Permit. In addition, the Project is not located in a highly scenic area nor would it substantially obstruct or degrade existing views.

The proposed 92 kV transmission line overbuild on BLM managed lands would not substantially degrade the character of the Project area or surrounding area because it is proposed to be overbuilt on an existing IID electricity transmission line within an existing ROW that has been developed with a number of overhead utility lines. As such, the overbuild represents an expansion of an existing use. Likewise, modifications to the Anza Substation would result in a 0.24 acre expansion of an existing facility. Therefore, the contribution of the proposed Project to cumulative visual setting impacts during the operation and maintenance phase would **be less than cumulatively considerable**.

PV or CPV panels would cover the majority of the solar farm complex site. The PV and CPV panels are non-reflective and materials proposed are not anticipated to cause light and glare. The exception would be winter-time glare for 15 to 30 minutes at sunrise and sunset viewed from the residences to the west of the solar farm complex site, if the Project were to use fixed-tilt PV arrays.

According to page 7 of the “Ocotillo Wells Solar Farm Project Conformance with Applicable Plans” (March 2013), the solar panels would be gray to black in color and highly absorptive. The materials used to construct the panels are designed to minimize the potential for reflection and retain as much of the solar spectrum as possible, thereby reducing glare. Additionally, based on technical evidence evaluating the reflectivity of PV and CPV solar panels, the proposed Ocotillo Wells Solar Project would not install highly reflective building materials that would result in a substantial increase in light or glare that would affect the surrounding area, or that would produce reflective light that would create adverse disability or discomfort glare. Therefore, the Ocotillo Wells Solar Project in combination with the proposed Project would result in a **less than cumulatively considerable** contribution to light and glare during the operation and maintenance phase.

Visual impacts are typically addressed on a project-by-project basis via mitigation such as screening, setbacks, use of earth tone colors, non-reflective building materials, landscaping, and downward or shielded lighting. All projects are required to comply with the County’s lighting ordinance to avoid excessive illumination and light spillage on adjacent properties. This west-central portion of Imperial County is largely undeveloped and unlit. The proposed Project would not incrementally add to existing conditions such that a significant cumulative impact would occur. Lighting proposed for the Project will be pointed downward and shielded to focus illumination on the desired areas only (see Table 2.0-6, Applicant Proposed Measures Included as Part of the Proposed Project). Therefore, the Project’s incremental contribution to cumulative visual impacts, including light and glare, is considered **less than cumulatively considerable** during the operation and maintenance phase.

## 4.1 AESTHETICS

---

### ***Reclamation***

Reclamation would entail removal of all Project area structural components, except those still in use by IID (92 kV transmission line and Anza Substation modifications) or required for parcel access as a result of the proposed Project subdivision (access road and wells). Under cumulative conditions, existing views of the Project area (primarily the solar farm complex site), would be altered in association with short-term reclamation activities. Reclamation of the proposed Project would result in temporary changes to the visual character of the Project area associated with the presence of equipment, structure removal and/or demolition, and reclamation of the Project area to approximate existing idle farmland. These visual changes would be **less than cumulatively considerable** due to their limited duration. Upon reclamation, the site would appear similar to its current condition but without any on-site structures.

### **Mitigation Measures**

None required.

### **Significance After Mitigation**

Not Applicable.