

## C.15 Visual Resources

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The Visual Resources section describes the scenic and aesthetic impacts to the landscape that are associated with the construction and operation of the Project. Situated in northern Los Angeles County, the proposed Antelope-Pardee 500-kV Transmission Project would remove an existing, visually prominent 66-kV transmission line that was constructed in the 1930s, and would replace it with a new 500-kV transmission line in the same right-of-way for most of the 25.6-mile route.

The Project would begin at the Antelope Substation, located on the high desert plain of the Antelope Valley at the western edge of Lancaster, then would cross the steep mountains and canyons of the Angeles National Forest (ANF), and terminate at the Pardee Substation in the City of Santa Clarita. Such varied terrain and landscape characteristics are accompanied by many potentially sensitive viewing opportunities by residents, recreational travelers on local roads, and back-country recreationists.

The study area for the visual resource analysis was defined by numerous viewpoints – travel routes, use areas and water bodies – from which sensitive receptors would see the Project. Accumulating the “seen areas” from each of these viewpoints defines the Project viewsheds. Viewsheds would be extensive, given the considerable heights (2-3 times taller than existing towers) and lighter colors (dulled galvanized steel) of the proposed 500-kV tower structures. The viewpoints from which sensitive receptors would see the Project and that define the study area include the following travel routes, use areas and water bodies:

- From the north, the California Poppy Trail, Northside Trail, Avenues J, K and L, and 90<sup>th</sup> & 110<sup>th</sup> Streets in Lancaster, Lake Elizabeth Road, and residences in unincorporated portions of the County;
- From the west, San Francisquito Canyon Road, Spunky Campground, and Spunky Canyon Road;
- From the east, Lake Elizabeth Road, Bouquet Reservoir, Bouquet Canyon Road, Zuni and Streamside Campgrounds, Texas Canyon Work Center, Los Cantillos Environmental Center, and Vasquez Canyon Road;
- From the south, Copper Hill Road, Rye Canyon Road, Cliffie Stone Trail, and numerous streets, shopping centers and residential neighborhoods in the City of Santa Clarita;
- From the utility corridor, the Saugus Del Sur Backcountry Discovery Trail.

### C.15.1 Affected Environment

The baseline studies for visual resources were coordinated with the land use and recreation studies to ensure that the visual sensitivity analyses were correct and current, including the locations of sensitive receptors such as residences, schools, churches, campgrounds, parks, and other highly used or highly sensitive locations. The baseline conditions also incorporated new visual resource issues or sensitive areas that were identified during the scoping process.

#### C.15.1.1 Visual Resource Methodology by Geographic Areas

The Project would include federal lands administered by USDA Forest Service, and cross private lands under the jurisdiction of Los Angeles County and the Cities of Lancaster and Santa Clarita. The multi-jurisdictional nature of the Project required a highly integrated, dual-faceted approach to the visual analysis. Specifically, on National Forest System Lands (NFS lands) the visual analysis compared predictions of future visual conditions with the Scenic Integrity Objectives (SIOs) in the 2005 Angeles National Forest Land Management Plan (Forest Plan) and Scenery Management System (SMS). Scenic integrity is defined as the state of naturalness or, conversely, the state of disturbance created by human activities or alteration. Integrity is stated in degrees of deviation from the existing landscape character.

For non-National Forest System (non-NFS) lands, the visual analysis used the Visual Sensitivity/Visual Change (VS/VC) method to assess the visual effects of the Project on existing landscapes. This dual methodology approach was necessary because the SMS analysis must be used for NFS lands, but SMS classifications with established management objectives cannot be applied on private lands (non-NFS lands). For non-NFS lands, VS/VC criteria were ascertained from the Los Angeles County General Plan and the Cities of Lancaster and Santa Clarita General Plans, all of which have criteria for visual resource management. The County has designated several roads as Priority Two Scenic Highways, indicating a high sensitivity for scenic integrity of landscapes.

While these two methodologies – SMS and VS/VC – are similar in several respects, there are some differences, as explained below. The approach of this visual analysis was to seamlessly integrate the methodologies so that the overall presentation of information, analysis, and conclusions are consistent and easy for the reader to understand and follow.

The visual resource analysis included a combination of information review, agency consultation, field reconnaissance, seen area analysis, analysis of aerial photographs and topographic maps, on-site photography, data mapping, computerized modeling, computerized visual simulation, and data evaluation. Observer positions were analyzed for their potential to display typical or worst-case visual effects of the Project to the scenic and aesthetic landscape. From dozens of potential observer positions, and in consultation with CPUC and Forest Service personnel, 14 locations were selected as Key Observation Positions (KOPs) for detailed analysis of the Project, and 14 additional KOPs were selected for detailed analysis of alternatives. KOPs were established at significant viewpoints, regardless of whether they were located on private or public lands. At each KOP, photographs were taken with a Canon-20D digital camera equipped with the 18-55mm zoom lens set at a “normal” focal length. When printed on 11x17-paper, each photograph appears “life-size” when held approximately 18-inches from the eye. From among the photographs taken, the best was selected to represent the view from each KOP. Computerized visual simulations were prepared using AutoCAD and 3D-Studio software to create accurate, computerized depictions showing the visual effects of the Project. In the Affected Environment section, the existing visual situation is described in detail for each of the 28 KOPs. Using the computerized visual simulations, predicted future visual effects of the Project for each KOP are described in the Environmental Consequences section. A map of Key Observation Positions is presented at the end of the Visual Resource Section.

### **Visual Sensitivity/Visual Change Methodology**

The VS/VC methodology used to analyze the Project included a characterization of the visual sensitivity of existing landscapes and the characteristics of existing visual changes apparent in the landscape. At each KOP, existing conditions of the landscape and viewing circumstances were described, leading to a conclusion about the viewpoint’s overall visual sensitivity.

Visual sensitivity consists of three components: visual quality, viewer concern, and viewer exposure. The description of visual quality notes the existing built structures and landscape features that contribute to overall visual quality. Viewer concern can be described as the personal expectations for the landscape that are held by the viewing public. These concerns were elicited during scoping. Viewer concern is often reflected in public policy documents that identify landscapes of special concern (vista points or ridgelines) or roadways with special scenic status (scenic highways). Viewer exposure also affects a landscape’s overall visual sensitivity. Landscapes that have very low viewer exposure (based on landscape visibility, the viewing distance, the number of people who view the landscape, or the duration of time that the landscape can be viewed) will tend to be less

sensitive to overall visual change in the context of human experience of visual impacts. Landscapes with higher viewer exposure are more sensitive to overall visual changes.

Project-induced visual change was determined for each KOP based on field studies of anticipated visual contrast, project dominance, and the potential for view blockage of higher quality landscape features. Project-induced visual change can result from aboveground facilities, vegetation removal, landform modification, component size or scale relative to existing landscape characteristics, and the placement of project components relative to developed features. The experience of visual change can also be affected by the degree of available screening by vegetation, landforms, and structures; distance from the observers; atmospheric conditions; and angle of view.

Computerized visual simulations were prepared to aid in the assessment of visual change and overall impact significance, which was arrived at by evaluating the extent of visual change in the context of the existing visual sensitivity. The KOP analyses were thoroughly documented and summarized in tabular format.

For the North Area and South Area (non-NFS lands), in order to accommodate the various State, county and city regulations presented later in this section (see C.15.2, Regulatory Framework), the visual analysis used a single methodology to determine the degree of impact significance. Visual impact significance is a function of two factors – overall visual sensitivity and visual change (VS/VC). Table C.15-1 illustrates the general relationship between visual sensitivity and visual change. This table was used primarily as a consistency check between individual KOP evaluations. Determinations of visual sensitivity and visual change were based primarily on analyst experience and site-specific circumstances.

The relationships presented in Table C.15-1 are intended as a guide only, recognizing that site-specific circumstances may warrant a different conclusion. However, it is reasonable to conclude that lower visual sensitivity ratings combined with lower visual change ratings will generally correlate well with lower degrees of impact significance when viewed. Conversely, higher visual sensitivity ratings combined with higher visual change ratings will tend to result in higher degrees of visual impact occurring at the site.

Implicit in this rating methodology is the acknowledgment that for a visual impact to be considered significant, two conditions generally exist: (1) the existing landscape is of reasonably high quality and is relatively valued by viewers; and (2) the perceived incompatibility of one or more elements or characteristics of the Project tends toward the high extreme, leading to a substantial reduction in visual quality.

### **USDA Forest Service Methodology**

In 1995, the Forest Service updated their nationwide Visual Management System and renamed it the Scenery Management System (SMS) (USDA, 1995). In 2005, the Forest Service implemented the SMS by adopting Scenic Integrity Objectives (SIOs) for its lands in the Forest Plan. The purpose of the SMS is to methodically inventory, manage and monitor aesthetic and scenic resources on National Forest System lands.

In the Angeles National Forest, the visual resource analysis used this Forest Service methodology to evaluate the Project and its effects on landscape aesthetics. The Project was analyzed using the SMS to ascertain compliance with the Forest Plan for all NFS lands that would be crossed by the proposed Project or its alternatives.

**Table C.15-1. General Guidance for Review of Visual Impact Significance for Non-NFS Lands**

Visual Sensitivity	Visual Change				
	Low	Low to Moderate	Moderate	Moderate to High	High
Low	Not Significant <sup>1</sup>	Not Significant	Adverse but Not Significant <sup>2</sup>	Adverse but Not Significant	Adverse but Not Significant
Low to Moderate	Not Significant	Adverse but Not Significant	Adverse but Not Significant	Adverse but Not Significant	Adverse and Potentially Significant <sup>3</sup>
Moderate	Adverse but Not Significant <sup>2</sup>	Adverse but Not Significant	Adverse but Not Significant	Adverse and Potentially Significant	Adverse and Potentially Significant
Moderate to High	Adverse but Not Significant	Adverse but Not Significant	Adverse and Potentially Significant	Adverse and Potentially Significant	Significant <sup>4</sup>
High	Adverse but Not Significant	Adverse and Potentially Significant <sup>3</sup>	Adverse and Potentially Significant	Significant <sup>4</sup>	Significant

<sup>1</sup>Not Significant – Impacts may or may not be perceptible but are considered minor in the context of existing landscape characteristics and view opportunity.

<sup>2</sup>Adverse but Not Significant – Impacts are perceived as negative but do not exceed environmental thresholds.

<sup>3</sup>Adverse and Potentially Significant – Impacts are perceived as negative and may exceed environmental thresholds depending on project and site-specific circumstances.

<sup>4</sup>Significant – Impacts with feasible mitigation may be reduced to levels that are not significant or avoided all together. Without mitigation, significant impacts would exceed environmental thresholds.

The objective of the Forest Service SMS is to manage NFS lands to attain the highest possible quality of landscape aesthetics and scenery commensurate with other appropriate public uses, costs, and benefits. The Forest Service SMS uses Desired Landscape Character (DLC) and Scenic Integrity Objectives (SIOs) to evaluate, manage, and monitor landscape aesthetics and scenery. DLC expresses the highest quality goal for a given landscape. SIO represents the minimum level of visual quality to which any landscape should be subjected, in other words, the minimum acceptable visual quality that is achieved by the maximum level of acceptable change. The following paragraphs describe the key components of the Scenery Management System.

**Desired Landscape Character (Maximum Level)**

With regard to attaining the highest possible quality, the 2005 Angeles Forest Land Management Plan established statements of Desired Landscape Character. DLC expresses the maximum level of desired condition for a given landscape. It captures the function of the landscape to be maintained and the landscape character and attributes that visitors have come to appreciate and expect to see. Combined, the elements of DLC and SIO succinctly capture the landscape’s sense of place. The desired landscape character represents the sustainable image pursued by the Forest Service for each landscape place.

**Scenic Integrity Objectives (Minimum Level)**

In order to define the degrees of deviation from the natural landscape character that may occur at any given time, the Forest Service uses Scenic Integrity Objectives. SIOs represent the minimum levels of scenic integrity to which landscapes are to be managed. All land management activities, including the Project, must ensure that these minimum levels are achieved. The 2005 Forest Plan allows for a temporary (up to 3 years), one-level underachievement of the SIOs, provided a commensurate amount of landscape restoration is undertaken in priority areas to compensate for this short-term underachievement. Because the life of the proposed 500-kV transmission line Project is greater than three years, the temporary SIO underachievement clause is not applicable.

Scenic integrity objectives were established and mapped in the 2005 Land Management Plan for Southern California Forests, Angeles National Forest Strategy, of which there are five. Additionally, there is a level of landscape alteration that is excessive, where human-caused deviations are extremely dominant. This level of scenic integrity is to be used for inventory purposes only, and is never used as a management objective. This level of scenic integrity is useful for inventorying existing visual conditions or for predicting future scenic conditions of proposed projects. Table C.15-2 presents the five Scenic Integrity Objectives, with definitions for each Scenic Integrity Level.

<b>Table C.15-2. Scenic Integrity Objectives and Definitions for NFS Lands</b>	
<b>Scenic integrity Objective (SIO)</b>	<b>Definition of Scenic Integrity Levels</b>
<b>Very High SIO</b>	Landscapes where the valued landscape character “is” intact with only minute if any visual deviations. The existing landscape character is expressed at the highest possible level.
<b>High SIO</b>	Landscapes where the valued landscape character “appears” intact. Visual deviations (human-made structures) may be present but must repeat the form, line, color, texture, and pattern common to the landscape character so completely and at such a scale that they are not evident.
<b>Moderate SIO</b>	Landscapes where the valued landscape character “appears slightly altered.” Noticeable deviations must remain visually subordinate to the landscape character being viewed.
<b>Low SIO</b>	Landscapes where the valued landscape character “appears moderately altered.” Visual deviations (human-made structures) begin to dominate the valued landscape character being viewed but they borrow valued attributes such as size, shape, edge effect and pattern of natural openings, vegetative type changes or architectural styles outside the landscape being viewed. They should not only appear as valued character outside the landscape being viewed but compatible or complimentary to the character within.
<b>Very Low SIO</b>	Landscapes where the valued landscape character “appears heavily altered.” Visual deviations (human-made structures) may strongly dominate the valued landscape character. They may not borrow from valued attributes such as size, shape, edge effect and pattern of natural openings, vegetative type changes or architectural styles within or outside the landscape being viewed. However, visual deviations (human-made structures) must be shaped and blended with the natural terrain (landforms) so that elements such as unnatural edges, roads, landings, and structures do not dominate the composition.
<b>For Inventory and Scenic Effect Prediction Purposes Only</b>	
<b>Unacceptably Low Scenic Integrity<sup>1</sup></b>	Landscapes where the valued landscape character being viewed appears extremely altered. Visual deviations (human-made structures) are extremely dominant and borrow little if any form, line, color, texture pattern or scale from the landscape character. Landscapes of this level of integrity need rehabilitation. This level should only be used to inventory existing integrity. It must not be used as a management objective.

<sup>1</sup> According to the SMS, there is a level of landscape alteration that is excessive, where deviations are extremely dominant. This level of scenic integrity is to be used for inventory purposes only – it must not be used as a management objective. This level of scenic integrity is useful for inventorying the existing 66-kV transmission line facilities, and for possible use in predicting future scenic integrity of proposed projects and activities.  
Source: USDA, 1995.

**Landscape Places**

The Angeles National Forest has been divided into a series of geographical units called “Places.” Each place has its own “landscape character.” Landscape character is described as an overall visual and cultural impression

of landscape attributes, the physical appearance and cultural context of a landscape that gives it an identity and “sense of place.” Each place has a theme, setting, desired condition and program emphasis.

- Theme - refers to images of the landscape that can be defined with a brief set of physical, visual or cultural attributes that encapsulate the sense of place.
- Setting - provides a description of the landscape character of the Place.
- Desired Condition - paints a picture of what the Place could be as the national forest implements activities to move toward the overall forest-wide desired conditions.
- Program Emphasis - identifies priority activities the national forest will emphasize in the next three to five years.

The proposed Project would cross two places in the Angeles National Forest: the narrow band of the Liebre-Sawmill Place to the north and the Santa Clara Canyons Place further south. (Alternative 5 would cross portions of the Soledad Front Country Place, which is discussed in Section C.15.10, for KOP 5-8.) The following statements of theme, setting, desired condition and program emphasis that make up “desired landscape character” are excerpts from the Forest Plan (see Figure C.15-1 – Scenic Integrity Objective Map).

### **Liebre-Sawmill Place**

**“Theme:** The Liebre-Sawmill Place functions year-round as a low elevation open space for Los Angeles and Antelope Valley residents. It portrays a sense of remoteness due to its steepness and minimal use. Major drainages that flow into the Antelope Valley are focal points for water-based recreation and link the Mojave Desert to the Liebre Mountains. This desert interface landscape includes portals from the Antelope Valley to the Angeles National Forest as well as the northern entry point for the Pacific Crest Trail (PCT) (also known as the Pacific Crest National Scenic Trail [PCNST]) into southern California. It is one of the “Key Places” representing the most picturesque national forest locations, containing its own landscape character.”

**“Setting:** The Liebre-Sawmill Place rises up from the Mojave Desert at elevations from approximately 3,500 feet up to 5,500 feet, reflecting a transition from the desert floor to the forest. The paths (roads and trails) through this landscape lead visitors to dramatic desert panoramas and rugged fault-zone background views. The San Andreas Fault Zone defines the lower elevation edge to the north. The higher elevation edge is marked by a series of peaks and ridges. Northern aspects include steep to very steep slopes with sharp- to rounded-summits and narrow canyons. The action of the San Andreas Fault greatly affects this landscape including the presence of historic sag ponds, such as Lake Hughes and Elizabeth Lake. Canyons have steep rocky sides and are littered with large boulders. Year-round water is available only in the largest creeks.”

“The cultural landscape of the Liebre-Sawmill Place ranges between semi-primitive and a modified natural appearance. Heritage resources reflect a span of human use in the area from Native American inhabitation to early Forest Service and Civilian Conservation Core activities. Hiking, backpacking, equestrian use, bicycling, mountain biking, hunting, and OHV use are the predominate activities. The Pacific Crest Trail follows an east-west course through the entire Place. Recreation uses and water extraction authorizations constitute the majority of the special- uses for the area. Other human influences exist within the Place and can create strong visual contrasts within the landscape including road cuts, utility corridors and intensively used areas.”

**“Desired Condition:** The Liebre-Sawmill Place is valued as a desert-interface landscape and is identified as a ‘key place’ for the attractiveness of its landscape and is maintained as a natural-appearing landscape that functions as year-round open space for Los Angeles and Antelope Valley residents. The valued landscape attributes to be preserved over time are the dramatic desert panoramas and rugged fault-zone background views,

the marked transition of plant communities from desert to mixed sage, black oak, pine and juniper at higher elevations, visitor access to free-flowing water in drainages, and the undeveloped appearance of the landscape showing little visible human influence on the natural setting.”

**“Program Emphasis:** The management emphasis is expected to focus on forest health, particularly on oak mortality and spotted owl habitat protection. It will also focus on those activities that maintain and promote the sense of remoteness and minimal use. The PCT is managed to maintain spectacular vistas and a route through semi-deciduous oak forest. Use by recreationists, as well as limited urban and forest infrastructure, will be that which is sustainable, sympathetic to the natural setting and integrity, and has minimal effects to species of management concerns and their habitat. Intensive management of the Back Country Discovery Trail will be implemented. The national forest will focus on open space protection and boundary management in anticipation of adjacent development (USDA, 2005a).

### **Santa Clara Canyons**

**“Theme:** The Santa Clara Canyons Place function year-round as a low elevation remote open space for the greater Los Angeles area and the Antelope Valley. Major drainages that flow into the Santa Clara River are focal points for water-based recreation. The Santa Clara River links the national forest to the Pacific Ocean. This canyon landscape offers visitors access to remote and semi-primitive experiences. The Pacific Crest National Scenic Trail is a portion of the Place. It is one of the ‘Key Places’ representing the most picturesque national forest locations, containing its own landscape character.”

**“Setting:** The Santa Clara Canyons rise up from the Santa Clara River Basin at elevations starting at about 1,200 feet and reaching up to 5,000 feet. The paths (roads and trails) through this landscape lead visitors to dramatic canyon panoramas and rugged mountain background views.”

“The southern aspect includes steep to very steep ridges with sharp to rounded summits, and deep narrow canyons. The lower elevation edge is marked by the urban interface with the community of Santa Clarita. The higher elevation edge is marked by a series of peaks and ridges. The steeper reaches of slopes are barren and show evidence of erosion. Canyons have steep rocky sides with large boulders. There are major north-south trending drainages such as San Francisquito and Bouquet Canyons. Two man-made lakes exist on the borders of this area (Bouquet Reservoir and Castaic Lake).”

“The cultural landscape of the Santa Clara Canyons generally ranges between semi-primitive to modified-natural appearance. Human influence is most apparent in the developed and dispersed recreation facilities and roads, leaving the majority of the landscape subject only to ecological change. Developed recreation sites are limited, focusing mainly on remote camping and day-use facilities along the canyon bottoms. Dispersed recreation is the emphasis including hiking, backpacking, equestrian, bicycling, mountain biking, hunting, and OHV. OHV opportunities exist in designated areas.”

“A variety of special-use authorizations exist in this Place that range from electronic sites to recreation residence tracts to shooting areas. The Place supports multiple-uses that are valuable to the public. Historic mining has occurred in this Place. Mining operations are active in the Place, and stone quarries are present. Many of the utility service infrastructures that support the greater Los Angeles urban area, including the Los Angeles Aqueduct, are present within the landscape.”

**“Desired Condition:** The Santa Clara Canyons Place is identified as a ‘key place’ for its natural-appearing and pastoral landscape that functions as a remote Back Country open space. The valued landscape attributes to be preserved over time are the dramatic canyon panoramas and rugged mountain background views, oak

woodlands, a well-defined age class mosaic in chaparral, and the pastoral qualities of grazing activities, which is important to the interpretation to the examples of important Native American history and historic mining.”

**“Program Emphasis:** The management emphasis is expected to focus on community protection, recreation use, and urban and forest infrastructure that is sustainable, sympathetic to the natural setting and integrity, and has minimal effects to species of management concern and their habitat, as well as heritage resources. Heritage resources will be protected through the development of management plans designed to reduce the effect of impacting uses and authorizations. The national forest will focus on protection of open space and boundary management in anticipation of future adjacent development. Forest health in terms of water quality and quantity will be managed to provide for forest ecosystem needs and in-stream flows necessary to support surface and subsurface resources. An unclassified roads/trails decommissioning plan will be developed and implemented” (USDA, 2005b).

### **Future Visual Conditions**

Computerized visual simulations were prepared for KOPs viewing Angeles National Forest landscapes in order to aid in the assessment of SIO achievement. Using the visual simulations, a comparison was made for predicted future levels of scenic integrity and the definitions for SIOs. Next, the overall impact significance was determined by evaluating the degree of deviation between the future visual conditions and the SIOs. The KOP analyses are documented and summarized in tabular format at the end of this report in Table C.15-21, similar to the documentation of the VS/VC methodology applied for non-NFS lands.

#### **C.15.1.2 Geographic Areas**

The Antelope Pardee 500-kV Transmission Project would span a wide variety of landscapes. These range from flat valley floors with agricultural fields near the Antelope Substation in Northern Los Angeles County, to the remote landscapes of the Angeles National Forest, to rapidly developing suburban landscapes in Santa Clarita. To facilitate the visual resource analysis in these widely varied landscapes, and to accommodate differences in regulatory jurisdictions described above, the route was divided into three geographic areas:

- **North Area.** Extending from Mile 0.0 to 5.7, the North Area starts at the Antelope Substation and terminates at the northeastern boundary of the Angeles National Forest. In the North Area, the Project crosses flat landscapes of Antelope Valley, the California Aqueduct, and low, rolling hills of Portal Ridge and San Andreas Rift Zone west of the town of Leona Valley. Vegetation in the North Area is either low-growing herbaceous plants or short, wind-blown, evergreen shrubs and trees. Jurisdictions traversed in the North Area include the Cities of Lancaster and Palmdale, plus the Antelope Valley area of unincorporated Los Angeles County. The Visual Sensitivity/Visual Change methodology is appropriate for analysis of visual resources of landscapes in the North Area, up to the ANF boundary.
- **Center Area.** The Center Area is entirely within the Angeles National Forest, and is subject to the jurisdiction of the USDA Forest Service. Extending from Mile 5.7 to 18.6 for the proposed Project and Alternatives 1 and 3; Mile 5.7 to Mile 19.7 for Alternative 2; Mile 5.7 to Mile 18.8 for Alternative 4, the Center Area originates on NFS lands at the northeastern boundary of the ANF Santa Clara/Mojave Rivers Ranger District, and terminates at the southern boundary of NFS lands in Haskell Canyon, adjacent to the City of Santa Clarita. Some sensitive vantage points occur outside of NFS lands and look into the Forest. Landforms in the Center Area are generally steep, mountainous terrain with deep canyons and rounded ridgetops. Vegetation varies from low-growing chaparral, chemise, sage and grasses to groves of live oak and black oak trees. The Forest Service Scenery Management System is appropriate for analysis of visual resources on NFS lands in the Center Area.
- **South Area.** The South Area originates at the southern boundary of NFS lands in Haskell Canyon and terminates at the Pardee Substation. Extending from Mile 18.6 to 25.6, the Project traverses jurisdictions of unincorporated Los Angeles County and the City of Santa Clarita. Landscapes vary from gently



sloping landforms with suburban developments to steep, barren hillsides. Vegetation ranges from native grasses to non-native street trees, shrubs, and manicured lawns. The Visual Sensitivity/Visual Change methodology is appropriate for analysis of visual resources in the South Area.

### **North Area (Mile 0.0 to 5.7)**

This portion of the Project would include expansion of the Antelope Substation and new transmission towers T-114 (near the Substation) through T-90 (near the ANF boundary). In the North Area, there are many opportunities for extensive, panoramic views of the high desert and agricultural fields of Antelope Valley and the Mojave Desert further north. Roads in this area are primarily two-lane, paved county roads providing access to agricultural fields, many of which are extensions of Lancaster city streets. Many roads that provide viewpoints of the Project are included in the Los Angeles County Scenic Highways Element, adopted in 1974 by the Los Angeles County Board of Supervisors. It lists the following roads that would be crossed by the Project in the North Area as Priority 2 County Scenic Highways – Avenue K, 110<sup>th</sup> Street, Johnson Road, and Lake Elizabeth Road (County of Los Angeles, 1974). The purpose of the Scenic Highway Element is to establish and protect scenic highways in Los Angeles County by identifying and evaluating a system of existing roads that traverse areas of scenic beauty and interest. Each spring, thousands of people drive these North Area roads, stop and walk in the open fields, viewing and photographing the California poppies that bloom with great profusion. The Antelope Valley California Poppy State Reserve is located approximately three miles northwest of the Antelope Substation, and the California Poppy Trail follows Johnson Road and 110<sup>th</sup> Street. California poppies are not limited to the Reserve, but extend to the right-of-way of the Project and beyond.

Specific areas of concern include Avenue K, 110<sup>th</sup> Street, Johnson Road, the California Aqueduct, Portal Ridge, San Andreas Rift Zone, and Lake Elizabeth Road. Based on field reconnaissance, it was determined that the California Aqueduct was not regarded as a scenic resource, that the Project would not affect the visual resources of the Aqueduct, and that the Aqueduct was not visually evident from county roads. It was also determined that views of the proposed Project from the east end of Johnson Road would be similar to those experienced at the south end of 110<sup>th</sup> Street, and that these viewpoints could be combined. Views of the proposed Project from existing dirt roads and the Northside Trail on Portal Ridge and in the Rift Zone are on private ranch lands, and not available to the general public. Because of the rolling terrain in Leona Valley, views from Lake Elizabeth Road are constrained to middleground and foreground viewing distances. Therefore, three Key Observation Positions (KOPs) were selected to represent the visual impacts that would occur along the proposed Project route in the North Area. A detailed visual analysis of the existing setting was conducted at each representative KOP, which included: 110<sup>th</sup> Street at Johnson Road (KOP 1); Avenue K (KOP 2); and Lake Elizabeth Road (KOP 3).

The location of each of these KOPs is shown on Figure C.15-2. The results of the visual analysis are summarized in at the end of this report. A discussion of the visual setting for each KOP is presented in the following paragraphs.

#### **KOP 1 – 110th Street at Johnson Road**

Key Observation Position 1 was established on 110<sup>th</sup> Street near its connection to Johnson Road (each a Priority 2 County Scenic Highway), looking northeast toward the Antelope Substation (see Figure C.15-2, Key Observation Positions Map and Figure C.15-3A, Existing Visual Conditions for KOP 1 at the end of the Visual Resource Section). The existing condition photograph is the same as the “No Project/Action Alternative” for KOP 1, and this is consistent for all KOPs. This location was selected to generally characterize the existing landscape in the North Area. Both the proposed 500-kV transmission line and the Antelope Substation expansion, which would occur at the south side of the existing substation, are visible from this KOP. New

towers T-105 through T-114 would be visible from this vantage point. The high desert of Antelope Valley, the Mojave Desert and the El Paso Mountain Range are in the background. Views from county roads in this vicinity encompass a predominantly natural-appearing landscape setting with limited development other than the existing roads, a few scattered ranches, substation and electric transmission lines.

**Visual Quality: moderate.** The predominant visual elements are the horizontal lines of the valley plains and the nearly horizontal line created by the background mountain ranges. Near the Antelope Substation, vegetation is generally low, dry grass and scrub or agricultural fields. The existing 66-kV transmission line is a prominent feature and draws attention in the foreground. It creates discordant vertical lines and angular forms in this predominantly horizontal, panoramic landscape. In the middleground, the existing Antelope Substation and a multitude of transmission lines running northwest to southeast create additional discordant vertical lines. Colors in the landscape include bright orange poppies in spring, green sage and grasses in winter, spring and early summer, and tan grasses in summer and autumn. The existing 66-kV towers, built in the 1930s, have weathered to a dark-brown color that is visually evident and draws attention when viewed against the blue sky or against the tan landscape. The existing electric transmission lines diminish the scenic integrity of this landscape, reducing what would otherwise be a high level of visual quality, especially when viewed in springtime with poppies in bloom. The landscape viewed from KOP 1 experienced a wildfire in July 2005, and the dark green trees on the right side of this photograph were burned, and some have been sawn down, further exposing the existing transmission line.

**Viewer Concern: high.** Visitors enjoy the predominantly natural setting with distant, panoramic sightlines to the Antelope Valley, Mojave Desert and El Paso Mountains. The widely scattered ranches have predominantly horizontal structures (one or two story buildings) and predominantly horizontal windbreaks of low-growing trees and evergreen shrubs. The character of the existing transmission line contrasts with the panoramic open-space landscape. Although residents and visitors also accept the existing electric transmission infrastructure, any increase in industrial character visible from the county scenic highways, or blockage of views by tower structures, would be perceived by viewers as an adverse visible change.

**Viewer Exposure: high.** Because there is no landscape screening by landforms or vegetation, the proposed Project would be highly visible in the foreground and middleground of views from KOP 1. Because the wildfire in July 2005 killed trees in the right side of this photograph, more visual penetration would be apparent from KOP 1. Although the duration of view would be extended, the number of potential viewers would be relatively low, except in spring when the poppies bloom and the number of viewers is high.

**Overall Visual Sensitivity: moderate-to-high.** For visitors to Antelope Valley in general and KOP 1 specifically, the moderate visual quality, high viewer concern, and high viewer exposure lead to a moderate-to-high overall visual sensitivity of the visual setting and viewing characteristics.

### **KOP 2 – Avenue K**

Key Observation Position 2 was established on Avenue K (a Second Priority County Scenic Highway) just west of the existing 66-kV transmission line and about one mile from the Antelope Substation, looking southwest toward Portal Ridge (see Figure C.15-4A, Existing Visual Conditions for KOP 2). Views from county roads in this vicinity encompass a predominantly natural-appearing landscape setting with limited development other than scattered existing ranches, windbreaks, roads on a one-mile grid, and the California Aqueduct, which is visible as a faint horizontal line to the left of the foreground 66-kV transmission tower. The location for KOP 2 was selected to generally characterize the existing landscape in the North Area, as the landscape changes from the flat valley floor of Antelope Valley to the rolling hills of Portal Ridge and the San Andreas Rift Zone. New towers T-106 through T-99 of the proposed 500-kV transmission line would be visible from this vantage point.

The skyline ridge constrains views to foreground and middleground distances while looking in this direction. This view is looking across the Brunet Ranch. The San Andreas Rift Zone is out of view beyond the skyline of Portal Ridge.

**Visual Quality: low to moderate.** The landscape visible from KOP 2 is substantially natural-appearing, consisting of a foreground with grass- and poppy-covered fields, to a middleground mosaic of grass- and shrub-covered rolling hills that create enclosure for the view, and a ranch with windbreak in the foreground, creating a focal point. Additional focal points are the existing 66-kV transmission towers and conductors that cross over Avenue K and lead the eye to the top of Portal Ridge. The existing 66-kV towers create strong vertical and diagonal lines that contrast against the horizontal plane of agricultural fields and the gently rolling landforms of Portal Ridge. The dark brown transmission towers blend in with dark green colors of the scattered trees and shrubs on Portal Ridge, but stand out when backlit on the skyline or when light-tan grasses create a backdrop. On the hills, existing vegetation is mottled in appearance with many hues of green contrasting with the grass-covered foothills and valley floor. The landscape exhibits a moderate degree of intactness and coherence of form and character with substantial visual variety. However, this harmony of form and character is somewhat degraded by the prominent industrial form and character of the existing transmission line, which attracts attention, creates a striking contrast to the one-story ranch house, diminishes the scenic integrity of the existing landscape, and reduces what would otherwise be a moderate level of visual quality to a low- to moderate-level.

**Viewer Concern: high.** Visitors enjoy the predominantly natural setting with panoramic sightlines to Portal Ridge and its foothills. The existing ranch with its one story buildings and predominantly horizontal windbreaks of low-growing trees and evergreen shrubs is characteristic and typical of the area. The vertical and linear character of the existing transmission line contrasts with the natural-appearing, panoramic landscape with its predominantly horizontal open-spaces, and although residents and visitors accept the existing 66-kV electric transmission infrastructure, any increase in industrial character visible from the county scenic highways or blockage of views would be perceived by viewers as an adverse visible change.

**Viewer Exposure: high.** Because there is no screening by landforms or vegetation, the proposed Project would be highly visible in the foreground and middleground as seen from KOP 2. Although the duration of view would be extended, the number of potential viewers would be relatively low, except in spring when the poppies bloom and the number of viewers is high.

**Overall Visual Sensitivity: moderate-to-high.** For visitors to Antelope Valley in general and KOP 2 specifically, the moderate-to-low visual quality, high viewer concern, and high viewer exposure lead to a moderate-to-high overall visual sensitivity of the visual setting and viewing characteristics.

### **KOP 3 – Lake Elizabeth Road**

Key Observation Position 3 was established on Lake Elizabeth Road (a Second Priority County Scenic Highway) at a point where the existing 66-kV transmission line crosses over the road, looking southwest across the R-Ranch at Amargosa Creek (see Figure C.15-5A, Existing Conditions for Key Observation Position 3). This viewpoint was selected to characterize the existing landscape visible from Lake Elizabeth Road which is a highly used road connecting the towns of Leona Valley and Lake Elizabeth, and traversing parallel to the San Andreas Rift Zone, which is just north and behind this vantage point. The skyline is approximately two miles away, establishing this as a foreground and middleground distance zone. The existing 66-kV towers are dark brown and blend in with dark green colors of the scattered oak trees and chaparral shrubs, but stand out when backlit on the skyline or by bright green grasses or tan-colored shrubs. On the skyline, the left transmission line tower is outside the Angeles National Forest boundary on private land. The two existing towers (in the center and on the right) at the skyline are inside the Angeles National Forest on NFS lands, and therefore occur within

the Center Area, which is discussed below. New towers T-93 through T-88 of the proposed 500-kV transmission line would be visible from this vantage point at KOP 3.

**Visual Quality: moderate-to-high.** The landscape visible from Lake Elizabeth Road is predominantly natural-appearing, consisting of a foreground to middleground mosaic of grass-covered meadow bordering ranch fences and outbuildings, and sage- and tree-covered rolling hillsides that enframe the composition. The vegetation is mottled in appearance with many hues of dark- and medium-green contrasting with the tans of dried grasses and sages. The landscape exhibits a moderately high degree of intactness and coherence of form and character with substantial visual variety. However, this harmony of form and character is punctuated by the dark brown vertical lines and geometric forms of the existing 66-kV transmission line towers, some of which reflect sunlight and create glare. It is these built features with their inherent industrial character that diminish the scenic integrity of the existing landscape and reduce what would otherwise be a high level of visual quality, to a moderate-to-high level.

**Viewer Concern: high.** Drivers on Lake Elizabeth Road anticipate a predominantly natural setting with distant, panoramic sightlines focused by the long, narrow Leona Valley, which is created by the enclosure of Portal Ridge and San Andreas Rift on the north and Sawmill Mountains to the south. Any increase in visible industrial character or structural prominence, or blockage of views from Lake Elizabeth Road in general and KOP 3 in particular would be perceived by viewers as an adverse visible change. Therefore, viewer concern is high.

**Viewer Exposure: moderate-to-high.** The proposed 500-kV transmission line would be highly visible in the foreground and middleground as seen from KOP 3 and would attract attention from Lake Elizabeth Road and the R-Ranch. On the road, the number of viewers would be moderate and the duration of view to the transmission line would be moderate as the road has many curves and crosses many gently undulating hills. But the duration of view would be extended for residents at R-Ranch because of the static nature of the viewing circumstance.

**Overall Visual Sensitivity: moderate-to-high.** For travelers on Lake Elizabeth Road, the moderate-to-high visual quality, high viewer concern, and moderate-to-high viewer exposure lead to a moderate-to-high overall visual sensitivity of the visual setting and viewing characteristics.

### **Center Area (Mile 5.7 to 18.6)**

This portion of the proposed Project would include new towers T-89 through T-31. In the Center Area, the Forest Service has already determined the inherent scenic attractiveness, viewer concern levels, distance zones, sensitivity levels, and from these elements the Forest Service has developed Scenic Integrity Objectives. These elements of visual resource management are not available for non-NFS lands in either the North or South Areas, where the Visual Sensitivity/Visual Change methodology was used for this study. However, because the Forest Service has specific scenic management direction in the Forest Plan, the Forest Service SMS will be used for the analysis of visual resources in the Center Area. Visual resource factors that will be discussed in the Center Area include the SIOs and existing scenic integrity. Existing scenic integrity is defined as the current scenic condition of the landscape considering previous human alterations. Table C.15-3 displays the SIOs by Mile for the proposed Project (see Figure C.15-1 -- Scenic Integrity Objective Map).

<b>Table C.15-3. Scenic Integrity Objectives by Mile for the Proposed Project</b>		
<b>Proposed Project Mile</b>	<b>Scenic Integrity Objective</b>	<b>Definition</b>
5.7 to 15.9 16.0 to 17.6 17.9 to 18.6	High	Landscapes where the valued landscape character “appears” intact. Visual deviations (human-made structures) may be present but must repeat the form, line, color, texture, and pattern common to the landscape character so completely and at such a scale that they are not evident.
15.9 to 16.0 17.6 to 17.9	Moderate	Landscapes where the valued landscape character “appears slightly altered.” Noticeable deviations must remain visually subordinate to the landscape character being viewed.

In the Center Area, views are constrained and enclosed by steep mountains and deep canyons where the proposed Project enters NFS lands from the north. From the Forest boundary to Spunky Canyon Road – the Liebre-Sawmill Place – there are widely scattered live-oak trees and dense chaparral shrubs that cover steep mountainsides and provide some vegetative and landform screening. In the northern portion of the Center Area, primitive gravel roads, firebreak roads, and trails (including the Pacific Crest National Scenic Trail) provide physical access and viewing opportunities, and the existing 66-kV transmission line is visually evident from many different vantage points.

From Spunky Canyon Road south to the extent of NFS lands at Mile 18.6 – the Santa Clara Canyons Place – vegetation is mostly grass and sagebrush on south-facing slopes and chaparral shrubs on north-facing slopes. Recent wildfires in this area of the Forest have eliminated all trees along the proposed Project route. In this area of the National Forest, vegetation provides little to no vegetative screening, and the existing 66-kV transmission line primarily is situated on ridgetops, as would be the proposed Project. Therefore, landform screening is lacking in many places, and the existing 66-kV transmission line is visually evident in many locations.

There are several paved roads that offer views into the Center Area, including Lake Elizabeth Road, Spunky Canyon Road, San Francisquito Canyon Road, Bouquet Canyon Road, and Vasquez Canyon Road, all of which are included as Second Priority in the County Scenic Highways Element (County of Los Angeles, 1974). The existing 66-kV transmission line is visible from numerous locations along each of the travel routes. Portions of the existing 66-kV line are visible from the Pacific Crest National Scenic Trail, Bouquet Reservoir, Deer Park OHV area, Del Sur Ridge Road, Quarry Road, Coarse Gold Road, Los Cantilles Environmental Center, and the district office of the ANF Santa Clara/Mojave Rivers Ranger District. Because of landform and vegetative screening, the existing transmission line is not visible from Spunky Campground, Streamside Campground, or Zuni Campground.

From these numerous possible viewpoints, five were selected to represent typical visual impacts or to characterize the reasonable worst-case visual impacts of the proposed Project. A detailed visual analysis of the existing setting was conducted at each of the five representative KOPs along this portion of the proposed route including: the Pacific Crest National Scenic Trail (PCT) (KOP 4), San Francisquito Canyon Road Southbound (KOP 5), Bouquet Reservoir (KOP 6), Bouquet Canyon Road Northbound (KOP 7), and Vasquez Canyon Road (KOP 8) (see Figure C.15-2, Key Observation Positions Map).

**KOP 3 – Visible NFS Lands**

In addition to the five KOPs described above, some NFS lands are visible on the skyline as seen from Lake Elizabeth Road (KOP 3). The entire visual environment of KOP 3 is discussed above (see Figure C.15-5A, Existing Conditions for KOP 3). The existing condition photograph is the same as the “No Project/Action Alternative” for KOP 3, and this is consistent for all KOPs. The two existing towers (in the center and on the right) at the skyline are numbers 20-2 and 19-8, and are inside the Angeles National Forest on NFS-lands, and

therefore are discussed here, in the Center Area. Existing tower 20-1, located between towers 20-2 and 19-8, is screened by topography. As stated above, new towers T-93 through T-88 of the proposed 500-kV transmission line would be visible from this vantage point at KOP 3.

**Scenic Integrity Objectives.** All of the NFS lands in view from KOP 3 (Lake Elizabeth Road) are within the Liebre-Sawmill Place. In the 2005 Forest Plan, the entire landscape in this vicinity is mapped as High SIO, where the management direction states that human activities should not be visually evident. Human-caused deviations may be present but must repeat the form, line, color, texture, and pattern common to the natural landscape character so completely and at such a scale that they are not evident.

**Existing Scenic Integrity: High, with Areas of Unacceptably Low.** NFS lands visible from Lake Elizabeth Road (KOP 3) are predominantly natural-appearing, consisting of a middleground of tree-covered skyline hillsides and rounded landforms that enframe the overall composition. The vegetation is medium-textured with many hues of dark- and medium-green colors. The landscape exhibits a high degree of intactness and coherence of form and character with substantial visual variety. However, this harmony of form and character is punctuated on the skyline by the dark brown vertical lines and geometric forms of the existing 66-kV transmission line towers, and a light tan vertical line, just to the right of the skylined towers. This tan line is a 10-foot to 12-foot wide dirt access road. Overall, the existing scenic integrity of this NFS landscape is high, with no deviations of form, line, color, texture, or scale. However, the tan access road and these two existing skylined towers, with their inherent industrial character, reduce certain areas of the existing landscape to levels of unacceptably low scenic integrity.

#### **KOP 4 – Pacific Crest Trail**

Key Observation Position 4 was established on the Pacific Crest National Scenic Trail (PCT), just west of the Spunky-Edison gravel road, looking southwest down Spunky Canyon toward existing towers 19-1 through 18-2, and toward proposed new towers T-82 through T-80. This viewpoint was selected to characterize the existing landscape visible to hikers and equestrians on the PCT in the vicinity of the proposed Project. Tan-colored soils are visible at the base of existing towers. This is evidence of the access roads that have been used to construct and maintain the existing transmission line (see Figure C.15-6A, Existing Conditions for KOP 4).

**Scenic Integrity Objectives.** All of the landscape in view from KOP 4 is within the Liebre-Sawmill Place. In the 2005 Forest Plan, the entire landscape in this vicinity is mapped as High SIO, where the management direction states that human activities should not be visually evident. Human-caused deviations may be present but must repeat the form, line, color, texture, and pattern common to the natural landscape character so completely and at such a scale that they are not evident.

The Pacific Crest Trail Association's April 2005 edition of the *PCT Communicator* featured an article "Protecting the PCT Experience" authored by Mike Dawson (2005), Trail Operations Director for PCTA. The article focuses on PCTA's policy regarding scenery. It describes that in October 2004, the PCTA's Board of Directors accepted the Scenery Management System as a primary method for delineating the PCT management corridor and defining acceptable management within that corridor. Since the SMS formally applies consideration of constituent preferences, this PCTA policy is useful information for program and project planning that might influence the PCT user's experience. The article quotes a PCTA resolution: "Further be it resolved, that the PCTA deems that the foreground zone defined by SMS combined with a minimum corridor width of 500 feet, should be used to define the primary PCNST management corridor, and that actions in the middleground should also meet the Scenic Integrity Objective for those lands. The minimum SIO assigned to lands within the foreground of the trail tread and clearly related viewpoints, campsites and water sources should be "High" as defined in the handbook, while the SIO of lands in the middleground should be a minimum of

“Moderate” as defined in the handbook.” The above SIO assignments are consistent with the Forest Plan. The article concludes, “Representatives of PCTA shall advocate such designations within planning documents affecting the PCT experience and shall use the SMS to judge whether management actions that are proposed are appropriate on public lands.” (*PCT Communicator*, April 2005)

**Existing Scenic Integrity: High, with Areas of Unacceptably Low.** The landscape visible from the PCT is predominantly natural-appearing, consisting of a foreground and middleground landscape with dense, dark green oak trees and chaparral shrubs on north-facing slopes and on south-facing slopes, a mosaic of chaparral and chemise shrubs scattered across steep hillsides. The natural landscape has a good coherence of form and character with substantial visual variety. The existing 66-kV transmission line was constructed in the 1930s, long before the advent of the Forest Service Visual Management System or the Scenery Management System. The natural landscape exhibits a high degree of intactness, or scenic integrity, except for a few distinct manmade features. These discordant features are (1) an existing firebreak on Jupiter Mountain that appears as an unnatural tan line slicing down from the top of a major ridgeline, (2) cut-slopes of the Spunky Canyon Road and the Spunky-Edison Road, and (3) industrial-style towers of three existing transmission lines with tall, geometric lattice towers. The three existing transmission lines are the 66-kV line that would be replaced by the proposed Project, and two 500-kV lines called Midway-Vincent No. 1 & 2. Access roads to the existing 66-kV towers are evident, but appear as natural openings and do not attract attention. When viewed for long durations in the foreground or middleground, as when hiking on the PCT, the existing transmission line towers are very evident as vertical, angular structures that create glare and contrast with natural landscape’s form, line, color, texture and scale. These discordant features distract from the harmony of the natural form and character of the landscape. From this view, built features strongly attract attention, especially the firebreak and transmission towers that are in the foreground or are silhouetted against the skyline. These discordant elements do not borrow form, line, color or texture from the natural-appearing landscape. The existing firebreak and transmission line towers meet the definition of unacceptably low inherent scenic integrity. The majority of this landscape view has high scenic integrity, but these few discordant features – the firebreak and transmission lines with their inherent industrial character – diminish certain areas of the existing landscape to levels of unacceptably low scenic integrity.

#### **KOP 5 – San Francisquito Canyon Road**

Key Observation Position 5 was established on San Francisquito Canyon Road, approximately 0.25 miles north of the Los Angeles Aqueduct Pipeline over-crossing of San Francisquito Canyon Road. This viewpoint was selected to characterize the existing landscape and the proposed Project visible from the west by travelers on this major north-south highway. From this KOP looking southeast toward Del Sur Ridge, visual access is gained toward existing towers 15-2 through 13-5, and toward proposed new towers T-65 through T-57. The vantage point is directly in front of the Los Angeles Aqueduct Pipeline (very visible) and directly under two existing 500-kV transmission lines that do not show in the photograph – Midway-Vincent No. 1 & 2. It is approximately 3 to 3.5 miles from this KOP to the ridgetop. Approximately 2.6 miles of Del Sur Ridge are visible as middleground (see Figure C.15-7A, Existing Visual Condition for KOP 5).

**Scenic Integrity Objectives.** All of the landscape in view from KOP 5 is within the Santa Clara Canyons Place. The valued landscape attributes to be preserved over time are the dramatic canyon panoramas and rugged mountain background views. In the 2005 Forest Plan, the entire visible landscape in this photograph is mapped as High SIO. Under High SIO, the scenery management direction allows for human activities, but they must repeat the form, line, color, texture, and pattern common to the natural landscape character so completely and at such a scale that they are not evident.

**Existing Scenic Integrity: High, with Areas of Unacceptably Low.** From KOP 5, the most predominant visual element is the Los Angeles Aqueduct Pipeline, which is a discordant white, unnatural diagonal line that reflects sunlight, creates glare and draws immediate attention of the viewer. Otherwise, National Forest System lands visible from the San Francisquito Canyon Road are predominantly natural-appearing, consisting of a foreground and middleground landscape that is visually intact, with a mosaic of scattered green shrubs, tan-colored dried grasses and tan-colored bare soils. In the canyon bottom, dense, dark green riparian trees are visible. Ridgetops and skylines are natural focal points in the landscape, as visual attention is drawn to them automatically, and the rounded, horizontal lines of Del Sur Ridge attract viewers' attention. The existing 66-kV transmission line towers are visible on the skyline, and they appear as an unnatural set of vertical lines and geometric forms that punctuate and interrupt the rolling, horizontal character of the ridgetop. In a few locations, cut-slopes of the Del Sur Ridge Road are visually apparent and attract attention. The existing transmission line towers on the skyline and the aqueduct pipeline attract viewers' attention and meet the definition of unacceptably low inherent scenic integrity because they do not borrow form, line, color or texture from the landscape character. However, the majority of this landscape view has high scenic integrity. But these few discordant features – the pipeline and skylined transmission towers with their inherent industrial character – diminish certain areas of the existing landscape to levels of unacceptably low scenic integrity. The existing 66-kV towers, built in the 1930s, have weathered to a dark-brown color that blends well with darker-colored chaparral and sage vegetation in the Forest. Only where the existing transmission towers are seen from middleground or background distances, and drop below the skyline and are not silhouetted, but have a medium- to dark-colored landscape behind them, do the existing 66-kV towers blend in with the natural-appearing landscape. Such is the case on the left side of this photograph, where one existing transmission line tower becomes “transparent” and is not visually evident. It meets the High SIO standards.

#### **KOP 6 – Bouquet Reservoir**

Key Observation Position 6 was established at the southeast end of Bouquet Dam, looking north over Bouquet Reservoir toward Jupiter Mountain and Spunky Canyon. This viewpoint was selected to characterize the existing landscape and the proposed Project visible by travelers on Bouquet Canyon Road at the turnout and vista point at Bouquet Reservoir. From this KOP, visual access is gained toward existing 66-kV towers 18-2 (on the skyline, right side of photograph) through 16-7, and toward proposed new towers T-80 through T-72. Three different existing transmission lines are visible from Bouquet Reservoir. The tower on the right skyline and the top of a tower in the center of the photograph are the 66-kV line that would be replaced by the proposed Project. The two skylined towers on the far left of the photograph are 500-kV towers of the Midway-Vincent No. 1 & 2 lines. The existing 66-kV line crosses this photo from right to left. Approximately three miles of 66-kV line are visible. Likewise, approximately three miles of the proposed Project would be visible from KOP 6 (see Figure C.15-8A, Existing Visual Condition for KOP 6).

**Scenic Integrity Objectives.** All of the landscape in view from KOP 5 is within the Santa Clara Canyons Place. In the 2005 Forest Plan, the entire visible landscape in this photograph is mapped as High SIO. Under High SIO, human activities should not be visually evident. Human activities may be present but must repeat the form, line, color, texture, and pattern common to the natural landscape character so completely and at such a scale that they are not visually evident.

**Existing Scenic Integrity: Moderate, with Areas of Unacceptably Low.** National Forest System lands visible from Bouquet Reservoir are predominantly natural-appearing, consisting of a foreground and middleground landscape that is visually intact, with a mosaic of dark green chaparral and gray green sagebrush, contrasted by the deep blue waters of the reservoir. There are scattered occurrences of tan-colored bare soils that give evidence to firebreaks on ridgetops and cutslopes from access road that lead to transmission line towers. In the



canyon bottom to the right, dense, dark green oak and cottonwood trees lead the viewers' eyes to light green willows at the shoreline. From KOP 6, the most predominant visual element is Bouquet Reservoir, which is fenced and gated to keep people and animals out of this domestic water supply. The existing 66-kV and 500-kV towers that show against the skyline appear as unnatural vertical lines and geometric forms and attract viewers' attention. They meet the definition of unacceptably low inherent scenic integrity because they do not borrow any form, line, color or texture from the characteristic landscape. However, all the existing dark brown, steel lattice towers of the 66-kV line that are not silhouetted against the skyline blend in with the mottled dark green and gray green vegetation in this landscape. This is the case for the majority of the existing 66-kV towers and lines seen from KOP 6. Tan-colored, angular lines in the dark green vegetation – access roads to existing towers, firebreaks, and dirt roads – create discordant visual elements that attract attention. The 500-kV conductors are white in color and reflect light, creating unnatural horizontal lines crossing the steep, dark-green canyons in this landscape. Tan-colored cutslopes of roads, firebreaks and transmission line access roads attract attention and create discordant visual elements that also meet the definition of unacceptably low inherent scenic integrity. With all of these discordant elements scattered throughout this landscape, the overall rating of scenic integrity is moderate. But these few discordant features – the transmission lines, towers and cutslopes – diminish certain areas of the existing landscape to levels of unacceptably low scenic integrity.

### **KOP 7 – Bouquet Canyon Road**

Key Observation Position 7 was established on Bouquet Canyon Road (a Second Priority County Scenic Highway) approximately 0.8 miles south of Big Oaks Restaurant, looking north toward Del Sur Ridge (see Figure C.15-9A, Existing Visual Condition for KOP 7). This viewpoint was selected to characterize the existing landscape visible from Bouquet Canyon Road which is a high-use two-lane road connecting the town of Leona Valley to the north with Santa Clarita to the south. Several campgrounds are located along Bouquet Canyon Road, but none of them offer a view to the proposed Project. Because of the narrow, curving nature of this road, set deep in the canyon bottom, there are only a handful of locations where the proposed Project would be visible, and this is one of the best examples. The skyline is approximately one mile away, establishing this as a foreground and middleground view. The existing riparian vegetation of cottonwood, sycamore and oak trees create a dramatic frame for this landscape view. Hillside vegetation is predominantly tan-colored grasses in the foreground and a mosaic of dark green chaparral mottled with gray-green sages and tan grasses. The three existing 66-kV towers on the skyline are numbers 13-3 through 13-5, and new towers T-56 and T-57 would be visible from KOP 7.

**Scenic Integrity Objectives.** All of the landscape in view from KOP 7 is within the Santa Clara Canyons Place. In the 2005 Forest Plan, this entire landscape is mapped as High SIO. Under High SIO, human activities should not be visually evident. Human activities may be present but must repeat the form, line, color, texture, and pattern common to the natural landscape character so completely and at such a scale that they are not visually evident.

**Existing Scenic Integrity: High, with Areas of Unacceptably Low.** This landscape in the Angeles National Forest is natural-appearing, consisting of a foreground and middleground landscape that is visually intact, with a mosaic of tan grasses covering steep canyons with a mosaic of dark green chaparral and gray green sagebrush. The existing 66-kV transmission towers are dark brown and blend in with dark green colors of the scattered oak trees and chaparral shrubs, but stand out when backlit on the skyline or when bright-green grasses or tan-colored shrubs are the backdrop. On the skyline, the tops of three existing 66-kV towers are visible. These towers are situated on the side-slope of Bouquet Canyon, closer to the viewer than the ridgetop. Note that the lower portions of these three dark-colored towers blend in with the landscape, and only become noticeable when they protrude above the skyline and are visible in silhouette. On the left of this photograph, there are three

distribution lines (skylined) and a wooden distribution pole in the center of this photograph that are not part of the existing 66-kV transmission line. The vertical lines and geometric forms of the existing 66-kV transmission line towers are discordant industrial forms in an otherwise natural-appearing landscape. The towers attract viewers' attention, especially when silhouetted against the sky, and meet the definition of unacceptably low inherent scenic integrity because they do not borrow form, line, color or texture from the landscape character. However, the majority of this landscape has high scenic integrity. But these few discordant features – the silhouetted transmission line towers with their inherent industrial character – diminish certain areas of the existing landscape to levels of unacceptably low scenic integrity.

### **KOP 8 – Vasquez Canyon Road**

Key Observation Position 8 was established on Vasquez Canyon Road (a Second Priority County Scenic Highway), approximately 0.25 miles east of the intersection with Bouquet Canyon Road. The entire foreground is private land outside the ANF, but the middleground and background is NFS Land administered by the ANF. From this vantage point, more than six miles of the Del Sur Ridge are visible in the background (see Figure C.15-10A, Existing Visual Condition for KOP 8). This viewpoint was selected to characterize the existing landscape visible from Vasquez Canyon Road, a high-use two-lane road that serves as a short cut between the Sierra Highway and Bouquet Canyon Road. From this KOP, looking from Vasquez Canyon Road to the north up Bouquet Canyon, twelve existing 66-kV towers are visible, appearing as contrasting vertical lines and angular, geometric forms silhouetted against the undulating, rounded, natural-appearing skyline. The existing towers are even more evident when viewed on-site, as compared to the image captured in this digital photograph. From KOP 8, the extent of the existing 66-kV transmission line that is visible is from existing tower 14-2 on the north through existing tower 8-4 on the south, which corresponds to new tower T-60 on the north through new tower T-35 on the south.

**Scenic Integrity Objectives.** All of the landscape in view from KOP 8 is within the Santa Clara Canyons Place. In the 2005 Forest Plan, this entire landscape is mapped as High SIO. Under High SIO, human activities should not be visually evident. Human activities may be present but must repeat the form, line, color, texture, and pattern common to the natural landscape character so completely and at such a scale that they are not visually evident.

**Existing Scenic Integrity: High, with Areas of Unacceptably Low.** National Forest System lands visible from Vasquez Canyon Road are predominantly natural-appearing, consisting of a middleground and background landscape that is visually intact, with a mosaic of tan grasses and dark green chaparral and gray green sagebrush covering steep canyons and rolling mountainside landforms. From KOP 8, the most predominant visual elements are the private ranch buildings and vegetation in the foreground; the second most predominant visual element is the skyline of Del Sur Ridge. Ridgetops and skylines are natural focal points in the landscape, as visual attention is drawn to them automatically, and the rounded, horizontal ridgetops of Del Sur Ridge attract viewers' attention. The existing 66-kV transmission line towers are visible on the skyline, and appear as an unnatural set of vertical lines and geometric forms that punctuate and interrupt the rolling, horizontal character of the ridgetop. In a few locations, cut-slopes of the Del Sur Ridge Road and Coarse Gold Road are visually apparent and attract attention. The existing transmission line towers meet the definition of unacceptably low inherent scenic integrity because they attract attention and do not borrow form, line, color, texture or scale from the landscape character. However, the majority of this landscape view has high scenic integrity. But these few discordant features with their inherent industrial character diminish certain areas of the existing landscape to levels of unacceptably low scenic integrity.

## South Area (Mile 18.6 to 25.6)

This portion of the proposed Project would include new transmission towers T-31 through T-1, and would terminate at the existing Pardee Substation in the City of Santa Clarita. In the South Area, there are hundreds of opportunities to view the proposed Project, as it would be visible from streets, neighborhoods, parks, schools, and commercial centers in unincorporated areas of Los Angeles County and portions of the City of Santa Clarita. The new and existing utility corridors traverse a mix of undeveloped, open space lands (mostly on ridgetops and along river valleys) or is adjacent to newly developed city streets, subdivisions, single-family and multi-family residential areas, commercial areas, parks and schools. The existing right-of-way crosses directly over one park: Mountain View Park on Seco Canyon Road.

The predominant visual elements in the South Area are the undulating horizontal lines of the ridgetops; steep, barren, tan hillsides; and densely developed, green, suburban neighborhoods. Numerous panoramic views are available to these tan-colored hillsides and ridgetops of bare soil and sparse grass/shrub vegetation. Contrasting with these stark hillsides and open spaces are suburban developments with deep green, culturally introduced street-tree plantings, residential landscapes, and lush green lawns at houses, parks and schools. While numerous arterial, collector and residential streets in Santa Clarita provide a multitude of viewing opportunities of the existing transmission lines, there are also many residential neighborhoods where existing trees and residential buildings provide visual screening that obscures the existing single-circuit 500-kV transmission line and towers.

From approximately Mile 18.6 to Mile 20.3, the Project would be constructed in a new 180-foot right-of-way in Haskell Canyon. From approximately Mile 18.6 to 19.5, the proposed Project would cross private land owned by the Veluzat Motion Picture Ranch, an active movie and television filming set. From Mile 19.5 to 20.3, the proposed Project would follow the existing LADWP transmission lines south in Haskell Canyon, which is predominantly open space with scattered, small, deteriorating residential structures and with dirt roads providing access.

From Mile 20.3 to 22.3, the proposed Project would replace existing single-circuit towers and conductors on the Pardee-Vincent 500-kV transmission line with taller 500-kV double-circuit towers and conductors.

From Mile 22.3 to the Project termination at Pardee Substation (Mile 25.6), the proposed Project would be constructed on double-circuit towers alongside the existing Pardee-Vincent 500-kV transmission line. Upon completion of construction, the existing 500-kV single-circuit towers would be removed. The existing single-circuit towers and one existing double-circuit tower are dominant and discordant visual elements in the landscape. Their position on ridgetops and skylines make them visually evident, and their angular, geometric forms and vertical lines contrast sharply with the horizontal skylines and hillsides that provide scenic backdrops to neighborhoods of Santa Clarita.

Specific areas of concern in the South Area include the visual effects of the transmission line as seen from the Veluzat Motion Picture Ranch, various residential neighbors, schools, parks, streets and highways. Based on field reconnaissance, it was determined that from numerous potential viewpoints to the proposed Project, six vantage points would be adequate to characterize and depict the worst-case visual effects in the South Area. These six locations were selected as Key Observation Positions, which included: Veluzat Motion Picture Ranch (KOP 9); North High Ridge Drive (KOP 10); Mountain View Park (KOP 11); Rio Norte Junior High School (KOP 12); North Park Elementary School and Chesebrough Park (KOP 13); and Copper Hill Road (KOP 14).

### KOP 9 – Veluzat Motion Picture Ranch

Key Observation Position 9 was established, looking north, at the “Main Street” in the Veluzat Motion Picture Ranch, an active movie and television set that is located within the National Forest boundary on private land.

Therefore, because this is non-NFS land, the VS/VC method is appropriate for analyzing the visual impacts of the proposed Project.

This landscape contains several “villages” with different rustic themes, plus natural-appearing landscapes with native oak trees and cottonwoods, and cultural landscaping such as palms, eucalyptus and pines. Veluzat Motion Picture Ranch roads are predominantly native soil, and several small streams carry water almost year-round. This view represents one of the worst-case scenarios of the visual impacts of the proposed Project on the Motion Picture Ranch, as the new transmission corridor would pass directly over the “Main Street.” The existing wooden utility poles visible in this photograph are movie-set features, and are not functional. The existing buildings are movie-set buildings (see Figure C.15-11A, Existing Conditions for KOP 9). This is an area where the new ROW turns and runs south, and the existing 66-kV ROW is approximately 0.5 miles north of this KOP. The existing 66-kV line is located beyond the tan ridge on the skyline of this photograph and is not visible from this vantage point, but would remain in place and in service, as noted below.

“The Saugus-Del Sur corridor contains several 66 kV lines through the length of the corridor. The 66 kV line in this corridor between Antelope and Del Sur is an integral part of the Antelope-Bailey 66 kV system used to serve customer load demand and as such will remain in service. There are multiple 66 kV lines within the Saugus-Del Sur corridor between Antelope and Saugus (south of Pardee). From Antelope through the forest area, the Antelope-Pole Switch 74 66 kV line is the line section that is proposed to be removed and replaced with a new 500 kV line initially energized at 220 kV. This line is used and useful and provides voltage support necessary for the existing wind generation currently connected in Tehachapi on the 66 kV network. Outside the forest area, the 66 kV infrastructure supporting the Antelope-Pole Switch 74 66 kV line also supports another 66 kV line that is an integral part of the Saugus 66 kV system used to serve customer load demand. As such, the infrastructure outside the forest area will remain in service.” (Nelson, 2005)

**Visual Quality: high.** The predominant visual elements are the tan, geometric adobe buildings of the movie set, dark green cottonwood, palm, eucalyptus and pine trees, and tan-colored dirt roads. The hillside behind these buildings is grass covered with a mottled texture of scattered gray-green sagebrush and coyote brush, contrasting against the blue sky. The entire landscape scene is within the foreground viewing distance, and many details are visible at this distance. There are no discordant visual elements in this landscape scene.

**Viewer Concern: high.** The Veluzat family is very concerned with the potential for severe visual impact to their Motion Picture Ranch that would be caused by the proposed Project. The Veluzat family expressed their high concern about the proposed Project during scoping.

**Viewer Exposure: high.** The number of viewers to this locale is high, and the duration of view is long, considering the active-status of the movie set. Because the proposed project would span directly over “Main Street,” there is no possible landform or vegetative screening, and the proposed Project would be visible in the foreground of KOP 9.

**Overall Visual Sensitivity: high.** For film-makers and TV-producers, the high visual quality, high viewer concern, and high viewer exposure lead to a high overall visual sensitivity of the visual setting and viewing characteristics of KOP 9.

### **KOP 10 – North High Ridge Drive**

Key Observation Position 10 was established at the upper end of North High Ridge Drive, a residential street that affords a panoramic view looking west-northwest across Haskell Canyon. This view is representative and characteristic of many views within the suburban neighborhoods of the Santa Clarita vicinity – from front yards,

streets and backyards – that look across suburban neighborhoods to natural open-space hillsides and ridgetops with industrial developments such as transmission lines and water tanks (see Figure C.15-12A, Existing Visual Conditions for KOP 10). This view shows an intersection of existing AC and DC transmission lines as they cross in Haskell Canyon, with the 1000-kV DC line proceeding downhill in Haskell Canyon (to the lower-left of this photograph). This is an area where the proposed Project new ROW would join the existing Pardee-Vincent 500-kV ROW. New towers T-22 through T-19 of the proposed double-circuit 500-kV transmission line would be visible from this vantage point, and existing single-circuit 500-kV towers 25-1 through 26-1 would be removed.

**Visual Quality: moderate.** The predominant visual elements are the brown and gray triangular rooftops, and light-colored walls of single-family residences in the Haskell Canyon area. Because these neighborhoods are recently constructed, trees have not matured and do not provide any screening of the structures or yards. Beyond the houses, mottled tan- and green-hillsides with vertical patches of bare, light-tan soil are visible in the middleground. Skyline ridgetops are fairly horizontal with somewhat angular lines, creating a strong focal point in this landscape, especially when viewed against the blue sky. The existing 500- and 1000-kV transmission lines are prominent features and draw attention in the foreground and middleground. Two tan-colored, low-profile water tanks are visible on the skyline ridge, and newly planted dark-green trees in front of the water tanks contrast with them. The existing transmission towers create discordant vertical lines and angular forms against the natural ridgetops of this panoramic landscape. The conductors are visually evident as horizontal lines, and appear dark when viewed against the sky, and appear white when viewed against dark-green vegetation. The existing electric transmission lines diminish the scenic integrity of this landscape, reducing what would otherwise be a high level of visual quality to a moderate level.

**Viewer Concern: high.** Residents enjoy the architecture and landscape architecture of Santa Clarita and its four different communities (the City of Santa Clarita encompasses the former communities of Canyon Country, Newhall, Saugus and Valencia). Viewer expectations include a clean environment with visually attractive neighborhoods and open space surroundings, and this high viewer concern is characteristic for all KOPs in the South Area (KOPs 10-14). As seen from KOP 10, the character of existing transmission lines contrasts with the panoramic open-space landscape and newly developed subdivisions. Although residents and visitors also accept the existing electric transmission infrastructure, any increase in industrial character visible from neighborhoods such as this one, or blockage of views caused by taller transmission line towers, would be perceived by viewers as an adverse visible change.

**Viewer Exposure: high.** Because there is no landform or vegetative screening, the proposed Project would be highly visible in the foreground and middleground of views from KOP 10. The duration of view would be extended from these neighborhoods, and the number of potential viewers would be high.

**Overall Visual Sensitivity: moderate-to-high.** For residents and visitors to neighborhoods in Santa Clarita and unincorporated Los Angeles County in general and KOP 10 specifically, the moderate visual quality, high viewer concern, and high viewer exposure lead to a moderate-to-high overall visual sensitivity of the visual setting and viewing characteristics.

### **KOP 11 – Mountain View Park**

Key Observation Position 11 was established at Mountain View Park, which is located on Seco Canyon Road north of Copper Hill Road. This vantage point was selected because it is the only location where the proposed Project would be constructed directly over a park and playground, thereby affecting visual resources. This view is looking west from inside Mountain View Park, across Seco Canyon Road, toward the existing 278-foot-tall double-circuit tower on the Pardee-Vincent 500-kV transmission line. This double-circuit tower would remain

in the proposed Project. This is a location where the existing Pardee-Vincent transmission lines turn from heading west to southwest, while other existing transmission lines continue westward. Existing transmission line conductors cross directly over this park and are very visible on the skyline in this foreground view. Park facilities include lush lawns, dark-green deciduous shade trees, picnic tables with grills, two playgrounds, restrooms, drinking fountains, and two paved parking lots. Playgrounds in this park are designated for use by children between two and five years old. The proposed Project would traverse Mountain View Park at approximately Mile 22.1, and existing towers 26-3 through 27-1 appear in this photograph (see Figure C.15-13A, Existing Conditions for KOP 11). New towers T-17 and T-15 of the proposed double-circuit 500-kV transmission line would be visible from this vantage point. Existing single-circuit 500-kV towers 26-3 and 27-1 would be removed, and the existing 278-foot-tall double-circuit “dead-end tower” would remain. The existing double-circuit tower is visible in photographs from both KOPs 11 and 12.

**Visual Quality: moderate-to-high.** The predominant visual elements at Mountain View Park are the shade trees with dark-green colors and coarse visual textures, set in a horizontal plane of green lawn, in front of hillsides mottled with low, green shrubs and tan grasses. The skyline is a focal point, drawing the viewer’s eye to the curving lines of the horizon. This park landscape exhibits a moderately high degree of intactness and coherence of form and character with substantial visual variety. However, this harmony of form and character is punctuated by the existing single-circuit and double-circuit transmission lines that cross this park overhead. The towers visually dominate this park landscape, with silver colors that reflect light and create glare, and highly contrasting vertical lines and angular forms that do not relate to, or repeat, the forms, lines, colors, or textures of the green lawns, green shade trees, or undulating, hillside landforms. It is these built features with their inherent industrial character that diminish the scenic integrity of the existing landscape and reduce what would otherwise be a high level of visual quality, to a moderate-to-high level.

**Viewer Concern: high.** Visitors enjoy the open space, shade trees and verdant lawns of Mountain View Park, especially as contrasted with the densely packed single-family residential neighborhoods along Seco Canyon Road. The character of the existing transmission lines contrasts with the lush-green, panoramic, open-space landscape of Mountain View Park. Although residents and visitors to the park also accept the existing electric transmission infrastructure, any increase in industrial character visible from the park or further blockage of views would be perceived by viewers as an adverse visible change.

**Viewer Exposure: high.** Because there is no landform or vegetative screening, the proposed Project would be highly visible in this foreground view from KOP 11. The duration of view would be extended for users who would be expected to visit the park for lengthy periods of time for play, picnics, or relaxation. The number of potential viewers would be high, leading to a high viewer exposure.

**Overall Visual Sensitivity: high.** For visitors to Mountain View Park in general and KOP 11 specifically, the moderate-to-high visual quality, high viewer concern, and high viewer exposure lead to a high overall visual sensitivity of the visual setting and viewing characteristics.

### **KOP 12 – Rio Norte Junior High School**

Key Observation Position 12 was established at Rio Norte Junior High School on Rio Norte Road, looking east-northeast across San Francisquito Canyon from the parking lot toward residential neighborhoods of Santa Clarita. This viewpoint was selected to characterize the existing landscape visible from the school, which is a highly used public gathering place. The undeveloped land in the foreground of this KOP is Newhall Ranch property and it is assumed that this land will be developed for commercial and residential uses in the future (see Figure C.15-14A, Existing Conditions for KOP 12). The skyline is approximately 1 to 1.5 miles away, establishing this as foreground and middleground distance zones. The existing transmission line towers are gray

to white in color, and they stand out on the skyline and contrast with the rose-pink sky colors of this summer evening photograph. New towers T-17 through T-11 of the proposed double-circuit 500-kV transmission line would be visible from this vantage point, and existing single-circuit 500-kV towers 26-3 through 27-5 would be removed. From Mile 22.3 (which is visible on the left side of this photograph) to the Project termination at Pardee Substation (Mile 25.6), the Project would be constructed alongside the existing Pardee-Vincent 500-kV transmission line on double-circuit towers. Upon completion of construction, the existing 500-kV single-circuit towers would be removed.

**Visual Quality: moderate-to-high.** The visual characteristics of this landscape include expansive views across San Francisquito Canyon to densely developed residential neighborhoods, with a backdrop of undulating, rounded hillsides and a predominant skyline. The hillsides and ridgetops are covered with tan grasses and widely scattered, low-growing, green shrubs. Two large water tanks are visible in the center of this scene. The residential structures are mostly two-story stucco buildings having triangular roofs covered with red tiles. These residences are framed with dark green shade trees above them on McBean Parkway, and with dark green riparian trees below them in San Francisquito Canyon. Cliffie Stone Trail is located in San Francisquito Canyon and is screened from view by the riparian vegetation. The bridge across the canyon creates a strong horizontal line, as does the parking lot in the immediate foreground. Several existing transmission lines are visible, some with tubular steel poles that create pronounced vertical lines and some with steel lattice towers that create discordant angular, geometric forms against the skyline. On the far left, the 278-foot-tall double-circuit tower on the skyline is the dead-end (turn) tower that was visible on the skyline from Mountain View Park (see KOP 11). This landscape exhibits a moderately high degree of intactness and coherence of form and character with substantial visual variety. However, this harmony of form and character is disrupted by the silhouetted vertical lines and geometric forms of the existing transmission line towers. It is these built features with their inherent industrial character that diminish the scenic integrity of the existing landscape and reduce what would otherwise be a high level of visual quality, to a moderate-to-high level.

**Viewer Concern: high.** Visitors, students, educators and residents use the Rio Norte Junior High School daily, and enjoy the open space and panoramic view across San Francisquito Canyon. The character of the existing transmission lines contrasts with the predominantly horizontal nature of the ridgetops and the curvilinear nature of the rolling hillsides. Although residents and visitors to the school also accept the existing electric transmission infrastructure, any increase in industrial character visible from the school or further blockage of views to the hillsides would be perceived by viewers as an adverse visible change.

**Viewer Exposure: high.** Because there is no landform or vegetative screening, the proposed Project would be highly visible in this foreground-middleground view from KOP 12. The duration of view would be extended for students and educators, who are expected to use the school facilities for lengthy periods of time, or for residents waiting to pick up students after school activities. The number of potential viewers would be high, leading to a high viewer exposure.

**Overall Visual Sensitivity: high.** For users of Rio Norte Junior High School in general and KOP 12 specifically, the moderate-to-high visual quality, high viewer concern, and high viewer exposure lead to a high overall visual sensitivity of the visual setting and viewing characteristics.

### **KOP 13 – North Park Elementary School and Chesebrough Park**

Key Observation Position 13 was established at North Park Elementary School, looking across Chesebrough Park toward San Francisquito Canyon. This vantage point was selected because it clearly shows the route of the proposed Project, which would follow existing transmission lines, crossing in front of the viewer, then turning away from the viewer toward Pardee Substation. This view is looking west from the school parking lot,

with an elevated view over the park and residential neighborhoods, toward “suspension towers” and “dead-end towers” on the skyline. This is a location where the existing transmission lines turn from southwest to west. Existing transmission line towers and conductors are very visible when they are silhouetted against the skyline in this foreground and middleground view. Park facilities include green lawns, dark green deciduous shade trees, a paved parking, skinned infield softball field, picnic shelters and pedestrian bridge over McBean Parkway near Sunset Hills Drive. The two existing transmission lines are coming from San Francisquito Canyon (right to left). On the left side of this photograph, they turn west, away from the viewer (see Figure C.15-15A, Existing Conditions for Key Observation Position 13). New towers T-10 through T-5 of the proposed double-circuit 500-kV transmission line would be visible from this vantage point, and existing single-circuit 500-kV towers 28-1 through 29-2 would be removed after completion of the double-circuit line.

**Visual Quality: moderate-to-high.** Looking west across Chesebrough Park from the parking lot of North Park Elementary School, this landscape is predominantly smooth-textured, horizontal green lawns with a backdrop of green shade trees with vertical forms of coarse-textured leaves. Vertical lines in this landscape include street and parking lot light standards in the park, plus two visible transmission lines with tubular steel poles and steel lattice towers that rise above undulating ridges, and silhouetted against skyline ridgetops covered with tan grasses and scattered green, low-growing shrubs.

**Viewer Concern: high.** Visitors, students, educators and residents use the North Park Elementary School daily, and enjoy the open space and panoramic views across Chesebrough Park. Visitors to the park enjoy the open space, shade trees and green lawns, especially as contrasted with the densely packed single-family residential neighborhoods along Sunset Hills Drive and McBean Parkway. The character of the existing transmission lines contrasts with the lush, green panoramic open-space landscape of the school and park. Although residents and visitors to the school and park also accept the existing electric transmission infrastructure, any increase in industrial character visible from the school or park or further blockage of views would be perceived by viewers as an adverse visible change.

**Viewer Exposure: high.** Because there is very little landform or vegetative screening, and because the viewer is elevated above Chesebrough Park, the proposed Project would be highly visible in this foreground and middleground view from KOP 13. The duration of view would be extended for users who would be expected to attend the school, or visit the park for lengthy periods of time for play or relaxation. The number of potential viewers would be high, leading to a high viewer exposure.

**Overall Visual Sensitivity: high.** For visitors to North Park Elementary School and Chesebrough Park in general and KOP 13 specifically, the moderate-to-high visual quality, high viewer concern, and high viewer exposure lead to a high overall visual sensitivity of the visual setting and viewing characteristics.

#### **KOP 14 – Copper Hill Road**

Key Observation Position 14 was established on Copper Hill Road just above (east) of the intersection with Alta Vista Avenue. The elevated nature of this vantage point affords a panoramic view looking southwest across the Santa Clara River Canyon. The proposed Project would be located on the right side of this view, partially screened by a small hill. This view is representative of many views along Copper Hill Road, where existing transmission lines parallel the roadway within the suburban neighborhoods of the Santa Clarita. On crests of hills such as this, panoramic views look across arterial and collector streets, past suburban neighborhoods and commercial developments, to natural open-space hillsides and ridgetops. The vantage point at KOP 14 is looking southwest from Copper Hill Road, across Alta Vista Avenue, toward the Pardee Substation. Note that the existing Pardee-Vincent transmission lines are on the far right side of this view, and that Magic Mountain Amusement Park is visible in the background as undulating white forms and one dominant red tower (see



Figure C.15-16A, Existing Visual Conditions for KOP 14). New towers T-4 through T-1 of the proposed double-circuit 500-kV transmission line would be visible from this vantage point, and existing single-circuit 500-kV towers 29-3 through 29-5 would be removed.

**Visual Quality: moderate-to-high.** Visual characteristics of this landscape are the gray colors of the asphalt and the strong horizontal plane of Copper Hill Road, strong vertical lines of street light standards and fences, scattered clumps of street tree canopies, and the massive silver-colored roof of the tan/brown Wal-Mart building in the center of the view. The light-colored superstructures at the Pardee Substation stand out as dominant vertical and horizontal lines, as seen against the backdrop of green tree canopies and tan mountain ranges in the background. The relatively undisturbed mountains in the background distance zone raise the overall visual quality of this scene to a moderate-to-high level.

**Viewer Concern: moderate-to-high.** Travelers along Copper Hill Road enjoy the panoramic views as they descend into the Santa Clara River Valley, especially the predominantly natural appearance of the distant, panoramic background mountains. The character of the existing suburban landscape, seen as foreground and middleground, with its vertical street lights, horizontal roofs, and visually dominant substation and amusement park structures, contrasts with the panoramic open-space landscape in the background. Although residents and visitors also accept the existing electric transmission infrastructure, any increase in industrial character visible from major streets such as Copper Hill Road or blockage of views would be perceived by viewers as an adverse visible change.

**Viewer Exposure: moderate.** Because there is partial screening by the small landform on the right, the proposed Project towers would be moderately visible in the foreground and would be more visible in the middleground of views from KOP 14, as the transmission line enters Pardee Substation. Although the duration of view would be brief, dependent upon speed of traffic, the number of potential viewers would be relatively high, leading to a moderate overall rating for viewer exposure.

**Overall Visual Sensitivity: moderate-to-high.** For people traveling along Copper Hill Road in general and KOP 14 specifically, the moderate-to-high visual quality, moderate-to-high viewer concern, and moderate viewer exposure lead to a moderate-to-high overall visual sensitivity of the visual setting and viewing characteristics.

## C.15.2 Regulatory Framework

### C.15.2.1 Federal

#### Forest Service Scenery Management System

The authority for the Forest Service to provide for management of landscape aesthetics and scenery within the National Forest System resides in numerous federal statutes and regulations, including the following:

- The Multiple-Use Sustained-Yield Act of 1960 (16 U.S.C. 528 (note)) authorizes and directs the Secretary of Agriculture “to develop and administer the renewable surface resources of the National Forests” with “harmonious and coordinated management of the various resources . . . with consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output.”
- The Forest and Rangeland Renewable Resources Planning Act of 1974, as amended by the National Forest Management Act of 1976 (16 U.S.C. 1601) directs the Secretary of Agriculture to prepare land management plans which provide for outdoor recreation and to develop and keep current a comprehensive inventory of all National Forest System, as well as state and private, lands and resources. The National Forest Management Act of 1976 (16

U.S.C. 1600 [note]) requires that the removal of trees, portions of trees, or forest products “be compatible with multiple use resource management objectives in the affected area.”

- The rules at Title 36 of the Code of Federal Regulations, Part 219, Subpart A, National Forest System Land and Resource Management Planning (36 CFR part 219, subpart A), include requirements for consideration, treatment, and protection of intangible resources such as scenery and aesthetics.
- The rules at Title 36 of the Code of Federal Regulations, Part 251, Subpart B, Special Uses (36 CFR part 251, subpart B), include requirements for permittees or holders to minimize damage to scenic and aesthetic values.
- The National Environmental Policy Act of 1969 (42 U.S.C. 4321) directs the Federal Government to “(2) assure for all Americans . . . healthful, productive, and aesthetically and culturally pleasing surroundings; (3) attain the widest range of beneficial uses of the environment without degradation, [or] risk to health . . .; (4) preserve important historic, cultural, and natural aspects” of our environment. It further directs agencies to “insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision-making which may have an impact on man’s environment.” This act directs agencies to develop methods and procedures “which will insure that [scenery and other] unquantified environmental amenities and values may be given appropriate consideration in decision-making along with economic and technical considerations.”
- The National Trails System Act of 1968 (16 U.S.C. 1241) authorizes the Secretary of Agriculture to administer and manage national scenic trails “for the conservation and enjoyment of the nationally significant scenic, historic, natural, or cultural qualities of the areas through which such trails may pass.”
- The Wild and Scenic Rivers Act of 1968 (16 U.S.C. 1271) directs the United States, in its administration of components of the national wild and scenic rivers system, to give primary emphasis to protecting “its aesthetic, [and] scenic . . . features.” The rules at Title 36 of the Code of Federal Regulations, Part 297, Wild and Scenic Rivers (36 CFR part 297), include requirements for the protection of scenic and natural values from the effects of any water resources project.

### **Angeles National Forest Land Management Plan (2005)**

The Forest Plan provides standards specific for Aesthetic Management in both Parts 2 and 3. These standards include:

- Scenic integrity objectives have been designated for all areas of the national forest. At the project level, all national forest activities are subject to review of the scenic integrity objectives.
- Forest-specific Design Criteria and Place-specific Standards
- ANF S1 - Pacific Crest Trail - Protect scenic integrity of foreground views as well as from designated viewpoints. Where practicable, avoid establishing nonconforming land uses within the viewshed of the trail (Liebre-Sawmill, Santa Clara Canyons, Soledad Front Country and Angeles High Country). (Part 2, p. 76)
- SD 2 - Wild and Scenic Rivers - Manage designated wild and scenic river segments to perpetuate their free-flowing condition and designated classifications, and to protect and enhance their outstandingly remarkable values and water quality. (p. 106)

In addition, Appendix B in Part 2 p. 113 of the Forest Plan provides strategies to emphasize progress towards achieving the desired conditions and goals for the Forest. Related to landscape aesthetics, the following are applicable to the Project:

- LM 1 - Landscape Aesthetics - Manage landscapes and built elements to achieve scenic integrity objectives:
- Use best environmental design practices (BEIG) to harmonize changes in the landscape and advance environmentally sustainable design solutions.
- Mitigate ground disturbance to maintain scenic integrity objectives.
- LM 2 - Landscape Restoration - Restore landscapes to reduce visual effects of nonconforming features:
- Prioritize landscape restoration activities in key places. Integrate restoration activities with other resource restoration.
- LM 3 - Landscape Character - Maintain the character of key places to preserve their intact nature and valued attributes:

- Maintain the integrity of the expansive, unencumbered landscapes and traditional cultural features that provide the distinctive character of the place.
- Promote the planning and improvement of infrastructure along federal and state scenic travel routes.
- Promote the consideration of key landscape character in other landscape analyses such as Fireshed.

In Part 3 p. 6 of the Forest Plan, in the section related to landscape aesthetics, the following standards are applicable to the Project:

#### Aesthetic Management Standards

- S9: Design management activities to meet the Scenic Integrity Objectives (SIOs) shown on the Scenic Integrity Objectives Map.
- S10: Scenic Integrity Objectives will be met with the following exceptions:
- Minor adjustments not to exceed a drop of one SIO level are allowable with the Forest Supervisor's approval.
- Temporary drops in more than one SIO level may be made during and immediately following project implementation providing they do not exceed three years in duration.

### **Bureau of Land Management Visual Resource Management System**

The authority for the Bureau of Land Management (BLM) to provide for management of landscape aesthetics and scenery within the public lands it administers resides in numerous federal statutes and regulations, including the following:

- Federal Land Policy and Management Act of 1976, 43 U.S.C. 1701 et. seq.;
- 1. Section 102 (a)(8). States that "...the public lands be managed in a manner that will protect the quality of the...scenic...values...."
- 2. Section 103 (c). Identifies "scenic values" as one of the resources for which public land should be managed.
- 3. Section 201 (a). States that "The Secretary shall prepare and maintain on a continuing basis an inventory of all public lands and their resources and other values (including...scenic values)...."
- 4. Section 505 (a). Requires that "Each right-of-way shall contain terms and conditions which will... minimize damage to the scenic and esthetic values...."
- B. National Environmental Policy Act of 1969, 43 U.S.C. 4321 et. seq.;
- 1. Section 101 (b). Requires measures be taken to "...assure for all American...esthetically pleasing surroundings...."
- 2. Section 102. Requires agencies to "Utilize a systematic, interdisciplinary approach which will ensure the integrated use of...Environmental Design Arts in the planning and decisionmaking...."
- Approved VRM objectives (classes) provide the visual management standards for the design and development of future projects and for rehabilitation of existing projects.

#### **C.15.2.2 State**

The California Environmental Quality Act (CEQA) was enacted in 1970. CEQA provides a process for determining a project's potential effect on the environment and developing measures to minimize those effects. California Public Resources Code, § 21060.5 states that "Environment means the physical conditions which exist within the area which will be affected by a proposed project, including land, air, water, minerals, flora, fauna, noise, objects of historic or aesthetic significance."

Chapter 1, § 21000 – Policy, of the California Environmental Quality Act states that the California Legislature finds and declares as follows:

- (a) The maintenance of a quality environment for the people of this state now and in the future is a matter of statewide concern.

- (b) It is necessary to provide a high-quality environment that at all times is healthful and pleasing to the senses and intellect of man.
- (c) There is a need to understand the relationship between the maintenance of high-quality ecological systems and the general welfare of the people of the state, including their enjoyment of the natural resources of the state.
- (d) The capacity of the environment is limited, and it is the intent of the Legislature that the government of the state take immediate steps to identify any critical thresholds for the health and safety of the people of the state and take all coordinated actions necessary to prevent such thresholds being reached.
- (e) Every citizen has a responsibility to contribute to the preservation and enhancement of the environment.
- (f) The interrelationship of policies and practices in the management of natural resources and waste disposal requires systematic and concerted efforts by public and private interests to enhance environmental quality and to control environmental pollution.
- (g) It is the intent of the Legislature that all agencies of the state government which regulate activities of private individuals, corporations, and public agencies which are found to affect the quality of the environment, shall regulate such activities so that major consideration is given to preventing environmental damage, while providing a decent home and satisfying living environment for every Californian.
- § 21001. Additional legislative intent.
- The Legislature further finds and declares that it is the policy of the state to:
  - (a) Develop and maintain a high-quality environment now and in the future, and take all action necessary to protect, rehabilitate, and enhance the environmental quality of the state.
  - (b) Take all action necessary to provide the people of this state with clean air and water, enjoyment of aesthetic, natural, scenic, and historic environmental qualities, and freedom from excessive noise.

Title 14, California Code of Regulations, Chapter 3 – Guidelines for Implementation of the California Environmental Quality Act states in Article 20 – Definitions:

- 15360. Environment – “Environment” means the physical conditions which exist within the area which will be affected by a proposed project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historical or aesthetic significance. The area involved shall be the area in which significant effects would occur either directly or indirectly as a result of the project. The "environment" includes both natural and man-made conditions.
- 15382. Significant Effect on the Environment – “Significant effect on the environment” means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.

Title 14. California Code of Regulations, Chapter 3 – Guidelines for Implementation of the California Environmental Quality Act, states in § 15126.2 Consideration and Discussion of Significant Environmental Impacts:

- (a) The Significant Environmental Effects of the Proposed Project. An EIR shall identify and focus on the significant environmental effects of the proposed project. In assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced. Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems, and changes induced in population distribution, population concentration, the human use of the land (including commercial and residential development), health and safety problems caused by the physical changes, and other aspects of the resource base such as water, historical resources, scenic quality, and public services.

Appendix G of the CEQA Guidelines asks the following four questions regarding aesthetics, which can lead to a determination of a significant visual impact:

- Would the project have a substantial adverse effect on a scenic vista?

- Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?
- Would the project substantially degrade the existing visual character or quality of the site and its surroundings?
- Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

### C.15.2.3 Local

Jurisdictions crossed by the proposed Project include Los Angeles County and the Cities of Lancaster and Santa Clarita.

#### County of Los Angeles

**Scenic Highways Element.** The California Government Code, § 65302(h) requires all city and county general plans to include a scenic highway element for the development, establishment and protection of scenic highways pursuant to the provisions of Article 2.5 (commencing with § 260) of Chapter 2 of Division 1 of the Streets and Highways Code. The Los Angeles County Board of Supervisors adopted the Scenic Highways Element of the General Plan in 1974 (County of Los Angeles, 1974). The purpose of this element is to establish and protect scenic highways in Los Angeles County by identifying and evaluating a system of existing roads that traverse areas of scenic beauty and interest. Stated in this Element, “It shall be the policy of Los Angeles County to:

1. Establish a countywide scenic highway system in urban and rural areas.
2. Encourage utilization of appropriate existing roads as scenic highways rather than the construction of new routes.
3. Protect and enhance esthetic resources within corridors of designated scenic highways.
4. Establish and maintain rural scenic highways to provide access to scenic resources and serve recreational users.
5. Establish and maintain urban scenic highways to provide access to interesting and esthetic manmade features, historical and cultural sites, and urban open space areas.
6. Provide a comprehensive scenic highway system which safely accommodates various forms of transportation compatible with scenic highway criteria and standards.
7. Develop and apply standards to regulate the quality of development within corridors of designated scenic highways.
8. Remove visual pollution from designated scenic highway corridors.
9. Require the development and use of esthetic design considerations for road construction, reconstruction or maintenance for all designated scenic highways.
10. Increase governmental commitment to the designation of scenic highways and protection of scenic corridors.
11. Encourage the fair distribution of social and economic costs and benefits associated with scenic highways.

**Los Angeles County General Plan Comprehensive Update and Amendment.** Los Angeles County is now preparing the General Plan Comprehensive Update and Amendment, with a vision for “Shaping the Future 2025.” According to the draft General Plan, the new Circulation Element will rescind the adopted Scenic Highway Element. In its place, a scenic highway sub-element will be added to the Circulation Element. This revision will eliminate most urban routes depicted on the adopted Scenic Highway Element, and will in turn focus on the scenic qualities present in rural routes. Relevant goals and policies, and revised procedural practices will be incorporated into this sub-element.

Relevant objectives and policies from the current Scenic Highway component of the Circulation Element will be incorporated as a sub-element of the updated Circulation Element. Following are goals and policies of the Draft Circulation Element.

#### GOALS

C-6: A scenic highway system that preserves and enhances natural resources within its corridors while serving the public through various transportation modes and access to recreational opportunities.

#### POLICIES

C-6.1 Provide a comprehensive scenic highway system, as shown on the Scenic Highway Plan that safely accommodates various forms of transportation and provides access to scenic resources.

C-6.2 Protect and enhance aesthetic resources within corridors of designated scenic highways.

In the Draft General Plan, as County policy, Circulation components include highways under the jurisdiction of Los Angeles County. Scenic highways are adopted by County policy, regardless of their regulating agency, in order to apply design standards and conditions to projects on surrounding County-regulated lands.

The draft Conservation and Open Space Element sets policy direction for the open space-related resources of Los Angeles County. These resources include land and water areas devoted to recreation, scenic beauty, conservation and use of natural resources, agriculture and mineral production. The Element's policies are based on the need to conserve natural amenities, protect against natural hazards and meet the public's desire for open space experiences. To protect areas of significant natural resources, the Element recommends the retention of these areas in non-urban or open space use. Special emphasis is placed on the protection of hillside character and Significant Ecological Areas (SEAs). A scenic objective in the Conservation and Open Space Element is "(16) Manage hillside development to preserve significant scenic features and major ridges."

**Antelope Valley Areawide General Plan.** The County Board of Supervisors adopted the Antelope Valley Areawide General Plan on December 4, 1986. Under Part V. Policy Statements, the general plan states (County of Los Angeles, 1986):

- Community Design
- Compatibility and Proximity of Urban Activities
- 62. Mitigate where possible undesirable impacts of adjacent land uses (i.e., noise interruption, visual intrusion, and airborne emissions) through utilization of appropriate buffers, building codes and standards.
- Relationship of Urban and Natural Environments
- 63. Carefully integrate physical land use development into the natural environmental setting.
- Physical Appearance/Community Image
- 65(b). Transmission lines should be located underground where feasible.
- Scenic Highways
- 93. Implement the County Scenic Highways Element (as amended) in stages as funds become available.

**Santa Clarita Valley Area Plan.** The Santa Clarita Valley Area Plan, adopted by the County Board of Supervisors on February 16, 1984 and updated December 6, 1990, states in the Community Design Element (County of Los Angeles, 1990):

#### Compatibility and Proximity of Urban Activities

- 1.1 Mitigate where possible undesirable impacts of development on adjacent land uses through utilization of appropriate buffers, building codes and standards.

#### Relationship of Urban and Natural Environments

- 2.1 Carefully integrate physical development in rural areas into the natural environment setting.

#### Physical Appearances – Community Image

- 3.2(b) Transmission lines should be located underground where feasible.

## City of Lancaster

**General Plan.** The City of Lancaster amended its General Plan on October 3, 1994. Part II of the General Plan is a Plan for the Natural Environment, including a section on Scenic Resources that states (City of Lancaster, 1994):

- Objective 3.8 Preserve and enhance important views within the City, and significant visual features which are visible from the City of Lancaster.
- Policy 3.8.1 Preserve views of surrounding ridgelines, slope areas and hilltops, as well as other scenic vistas.

Specific Actions:

- 3.8.1(a) Encourage creation of vistas and view corridors of community or neighborhood value during the development review process, through the siting of buildings to avoid blocking views and view corridors.
- 3.8.1(b) Through the implementation of the policies outlined in the Plan for Physical Development, ensure that the development of hillside lands is consistent with preserving their natural character.

## City of Palmdale

**General Plan.** The City of Palmdale amended its General Plan on January 25, 1993. The Environmental Resources Element, Part G, includes a section on Scenic Roadway Designations that states (City of Palmdale, 1993):

- The City shall protect scenic highways in the Planning Area. Scenic highways and roads have been identified in Policy ER 1.2.2 of Section 2. They include the Antelope Valley Freeway south of Avenue R, Barrel Springs Road, Tierra Subida Avenue, Sierra Highway (south of Avenue S), Elizabeth Lake Road, Pearblossom Highway, Bouquet Canyon Road, and Godde Hill Road. These roadways possess scenic qualities that have provided outdoor recreation experience to travelers and hikers.
- The City should apply to the State Scenic Highway Advisory Committee for State designation of these roadways.
- The City will establish design criteria for designated scenic highways that require specific design standards for nearby development. These standards could include the following: height limits to preserve view corridors, maintenance of roadside landscaping, limits on grading activities along highways, and the prohibition of overhead utility rights of way along scenic highways. In addition, a visual impact analysis may be required for developments within the overlay zone in order to preserve the visual qualities of scenic routes.

## City of Santa Clarita

**General Plan.** The City of Santa Clarita adopted its General Plan on June 26, 1991.

**Community Design Element.** The Community Design Element is one element of the City of Santa Clarita General Plan, and it states: “This element is a tool for the improvement and maintenance of the visual and aesthetic quality of the City and the planning area by identifying areas of concern as well as areas of exemplary aesthetic value. The Community Design Element will assist in guiding growth of future development in order to achieve the visual integrity of the city and the planning area.”

**Ridgeline Protection.** Under Ridgeline Protection, the Community Development Element states:

- “Ridgelines within the Valley are a significant design feature that should be protected. Development on significant ridgelines should be prohibited or severely limited. Significant ridgelines give the residents the feeling of protection and the country feeling. If these significant ridgelines are permitted to develop, with any intensity at all, this feeling will be lost forever. Major ridgelines should be identified and protected. In conjunction with significant ridgeline protection, consideration shall be given to the creation of a set of criteria to regulate development on hillsides adjacent to significant ridgelines and other prominent areas with the Valley.”

**Infrastructure.** Under Infrastructure, the Community Development Element states:

- Goal 11: To achieve a coordinated and efficient infrastructure system which is visually unobtrusive while designed to meet the current and future needs of the planning area.

- Policies:
  - 11.1 Encourage placement of transmission power lines and other mechanical equipment underground, where feasible, to maximize safety and minimize visual distraction.
  - 11.8 Examine the use of the land under high power transmission lines for landscaping, tree farms, additional safe recreation areas, and other appropriate feasible uses.
  - 11.9 Encourage single pole transmission towers and cellular poles, and avoid reinforced structural support bases.

**Santa Clarita Beautification Master Plan.** The City Council adopted the Santa Clarita Beautification Master Plan on December 11, 2001. Under Part C. Citywide Improvement Projects, the master plan states:

- 4. Utility Lines (Underground)
  - Description: This includes under-grounding all utility lines along primary and secondary corridors.
  - Assumptions: The City will periodically underground sections of roadways as grant money allows, however these grants cannot finance all work.
  - Quantity: Unknown
  - Estimated Budget: Approximately \$1 million/linear mile for lines below 66KV and \$3 million/ linear mile for higher voltage.

### **C.15.3 Significance Criteria**

An adverse visual impact occurs when: (1) a proposed action perceptibly changes existing or desired features of the physical environment so that they no longer appear to be fitting in the characteristic landscape; or (2) a proposed action introduces new features in the physical environment that are perceptibly uncharacteristic of, and discordant with, the subject landscape. Changes that seem uncharacteristic are those that appear out of place, discordant, or distracting, and do not repeat form, line, color, texture, pattern, or scale common to the valued landscape character being viewed. The degree of the visual impact depends upon how noticeable the adverse change may be, that is, the magnitude and extent of deviations from the existing visual conditions in the North and South Areas, or deviations from the Scenic Integrity Objectives in the Center Area. The noticeability of a visual impact is a function of the visual characteristics of proposed Project features, as compared to existing visual conditions, degree of visual contrast, and viewing conditions (distance, duration of view, angle of view, atmospheric conditions, etc).

For the entire Visual Resource Analysis, assessment of the likely visual impacts that would occur as a result of the proposed Project and alternatives was accomplished by establishing representative viewpoints from which to conduct a detailed analysis of the Project. At each of these Key Observation Positions (KOPs), photographs of existing conditions were taken, field analysis was performed, vantage points were established, distance zones were determined, and visibility conditions were noted. Also for each KOP, a computerized visual simulation was prepared with which to further evaluate the preliminary impact determination. A conclusion on initial impact significance was then reached. If a determination was made that the resulting impact would be significant, the impact situation was further evaluated against the application of feasible mitigation measures in an effort to reduce the visual impact to a less-than-significant level, if possible. A final conclusion on impact significance was then reached. The results of the visual analysis conducted for the proposed Project and each of the alternatives is presented in the Visual Analysis Summary tables provided in Table C.15-21 at the end of the Visual Resources section. Also provided at the end of the Visual Resources section are all Existing Setting Photographs and Visual Simulations for the Key Observation Positions.

For non-National Forest System lands, an assessment was made at each KOP of existing visual conditions, visual contrast, and project dominance, using the Visual Sensitivity/Visual Change methodology. Subsequently, a conclusion was reached regarding the extent of overall visual change. Taken together with the existing landscape's visual sensitivity, the level of probable visual impact significance was determined.



For the Center Area (National Forest System lands), the key factors considered in determining the degree of visual impact are compliance and consistency with the Scenic Integrity Objectives. Assessment of the likely visual impacts that would occur as a result of the proposed Project and alternatives was accomplished in like manner, by establishing representative KOPs from which to conduct a detailed analysis of the Project's physical impacts on the visual environment. At each of these KOPs, field analysis included assessment of existing scenic integrity and Scenic Quality Objectives using the Scenery Management System methodology. As in the North and South Areas, in the Center Area a computerized visual simulation was also prepared for each KOP, with which to further evaluate the preliminary impact determination. A conclusion on initial impact significance was then reached, using the standard limits of deviations determined by SIO definitions.

For Alternative 5, a similar assessment was made for public lands administered by the BLM; however it used the BLM –VRM System. The BLM and Forest Service systems for scenery management are very similar, and will be discussed in detail under Section C.15.10 – Alternative 5.

The Project would result in significant visual resource impacts if it would:

- Criterion VIS1: Have a substantial adverse effect on a scenic vista, or substantially degrade the existing visual character or quality of the site and its surroundings.
- Criterion VIS2: Conflict with ~~applicable~~ adopted city, county, State, or federal plans, policies, regulations, or standards applicable to the protection of visual resources.
- Criterion VIS3: Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.
- Criterion VIS4: Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway.

### **Methodology to Determine Significance by Geographic Areas**

Using the Visual Sensitivity/Visual Change (VS/VC) methodology for the North and South Areas (non-NFS lands), using the Scenery Management System (SMS) methodology for the Center Area (National Forest System lands), and using the Visual Resource Management System (VRM) methodology for BLM-administered lands, visual impacts are classified as:

- Class I = Significant, Unavoidable Impact.
- Class II = Significant, But Mitigable Impact.
- Class III = Less Than Significant, But Adverse.
- Class IV = Beneficial Impact.
- No Impact.

## **C.15.4 Applicant-Proposed Measures (APMs)**

### **Applicant-Proposed Measures**

Two Applicant-Proposed Measures (APMs) for visual resources were presented by SCE in the Proponent's Environmental Assessment (SCE, 2004). The following proposed APMs would be implemented as part of the proposed Project to minimize visual impacts during the construction and operational phases of the Project. This visual resource analysis assumes implementation of both APMs. In many cases, additional mitigation is proposed to reduce significant visual impacts of the proposed Project to less-than-significant levels.

- APM VIS-1. Construction APM
  - Debris removal.** During project construction, the work site would be kept clean of debris and construction waste. Material and construction storage areas would be selected to minimize views from public roads, trails and nearby residences.
- APM VIS-2. Operation APM
  - Spacing of towers next to the Pacific Crest Trail.** Where the proposed 500-kV transmission line route crosses the Pacific Crest National Scenic Trail north of Spunky Canyon Road, the transmission towers would be placed with a minimum setback of 300 feet from the trail.

### **C.15.5 Impact Analysis: Proposed Project/Action**

The proposed Antelope-Pardee 500-kV Transmission Project would remove a portion of an existing 66-kV transmission line that was constructed in the 1930s, and would replace it with a new 500-kV transmission line in the same right-of-way from Mile 1.1 to 18.6. A new ROW would be established from Antelope Substation to the existing 66-kV line (Mile 0.0 to approximately 1.1), and also in Haskell Canyon from Mile 18.6 to Mile 20.3. Beyond Mile 18.6, the existing 66-kV transmission line would remain in its current location.

The following section describes the proposed Project's impacts to visual resources as determined by the significance criteria listed in Section C.15.3 and, if necessary, provides mitigation measures that would serve to reduce potentially significant impacts to less-than-significant levels.

#### **Substantial adverse effect on a scenic vista, or substantial degradation of the existing visual character or quality of the site and its surroundings (Criterion VIS1)**

The following section provides an analysis of the proposed Project, and uses computerized visual simulations of the 14 KOPs. All 14 KOPs afford scenic vistas to the surrounding landscape and the simulations portray the effects the proposed Project would have on existing visual character of the site and its surroundings. This "effects prediction" analysis follows the format of Section C.15.1, Affected Environment, by dividing the analysis into geographic areas – North, Center, and South Areas.

#### **North Area (Mile 0.0 to 5.7)**

Visual impacts resulting from the proposed Project construction and operation between Antelope Substation and the Angeles National Forest boundary (Mile 0.0 to 5.7 – proposed towers T-114 through T-90) would primarily be experienced from county roadways and nearby residences. Beginning at the existing Antelope Substation, the proposed Project would add infrastructure electrical elements that would be visible from Avenue J, Avenue K, 90<sup>th</sup> Street, 110<sup>th</sup> Street, and Johnson Road. The substation would be expanded to the south by approximately 33 acres. At the substation, the Project's visual elements would appear as additional horizontal lines with construction of conductors, switchyard expansion and new fencing, and new vertical lines with construction of five tubular steel poles (TSPs) and racks. New transmission poles carrying conductors would exit the Antelope Substation to the south and turn west, crossing under an array of existing transmission lines that visually dominate the existing landscape when seen as foreground from Avenue K and 90<sup>th</sup> Street. After the first five TSPs, supports would change to lattice steel towers (LSTs) and those structures would continue to Mile 5.7, where the proposed Project would enter the Center Area (Angeles National Forest).

Existing 66-kV towers are approximately 60 to 95 feet tall and 16 to 27 feet wide, and most have weathered dark-brown color. New 500-kV TSPs and LSTs would be dull galvanized lattice steel angle members and would appear light-gray to silver in color. Compared to existing 66-kV towers, new single-circuit 500-kV towers would be approximately two- to three-times taller and four- to five-times wider, ranging from 113 to 178 feet tall and consistently 96-feet wide at the arms. Because detailed engineering designs have not been prepared by

SCE, all computerized visual simulations of lattice steel towers used a constant height and width – 144 feet tall and 96 feet wide. Compared to existing 66-kV towers, new towers also would be wider at the base, waist and top, and would have more pronounced vertical and angular lines and, therefore, they would create more visual contrast. The new 500-kV single-circuit towers would increase the magnitude of visual contrast of all elements (form, line, color, texture, and scale) by several times, as compared to the 66-kV existing towers.

***Impact V-1: Project infrastructure would alter the visual quality of landscape views as seen from 110th Street at Johnson Road (KOP 1).***

KOP 1 was established on 110<sup>th</sup> Street near its connection to Johnson Road (each a Second Priority County Scenic Highway), looking northeast toward the Antelope Substation. Figure C.15-3A presents the existing view from KOP 1, and the future view of the No Project/Action Alternative. Figure C.15-3B presents a visual simulation that depicts a 33-acre expansion of the Antelope Substation's southern perimeter, closest to the observer. Because of the extensive amount of existing electrical equipment at the substation, substation expansion would not create any discernable visual impacts as seen from KOP 1. Replacement of the existing 66-kV transmission line with the proposed Project's towers T-105 through T-114 would be visually evident from KOP 1. New towers would be located in the same ROW as existing towers, but in different locations and with longer spans. The increased height and width of new towers and longer spans gives the visual impression that new towers are located in a different ROW, but the ROW would not change.

Tower T-105 would replace an existing tower that is approximately 95 feet tall and 27 feet wide at the arms, with a new steel lattice structure that would be approximately 144 feet tall and 96 feet wide at the arms. New towers T-106 through T-111 would be similar in size and proportion to tower T-105, with proportional increases in height and width, as compared to existing towers. Additionally, five new tubular steel poles would be erected outside the Antelope Substation, each approximately 90 feet tall, to pass under the existing Midway-Mesa and Antelope-Vincent 220-kV transmission lines before transitioning to 500-kV lattice steel structures described above.

The increased size of new lattice structures would result in several adverse visual effects. Additional structure height would cause additional structure skylining (towers and conductors extending above the horizon line), particularly for tower T-105 where from some vantage points (such as illustrated in Figure C.15-3B), the existing structure only slightly extends above the horizon line, but the new structure would block more of the horizon. Increased tower height would also raise the conductors such that more of the background – Antelope Valley, the Mojave Desert and the Tehachapi Mountain Range – would be visually obstructed. The increased structure height and width would also cause increased structure prominence and create a visible increase in industrial character. As a result, visual contrast would be high and the proposed Project would appear co-dominant with the existing landscape features. The new and increased structure skylining and additional obstruction of the background would result in a high degree of view blockage.

Referring to Table C.15-1 General Guidance for Review of Visual Impact Significance, the overall visual change would be high and in the context of the existing landscape's moderate-to-high visual sensitivity, the resulting visual impact would be significant.

As a general rule, when transmission line structures are viewed from “immediate foreground” (0 to 300 feet) or “foreground” viewing distances (300 feet to ½ mile) from developed or urbanized sensitive receptor locations, such as residential areas, city parks, or pedestrian environments, tubular steel poles have a smaller visual impact than lattice steel towers, but could still be significant. Quite the contrary, lattice steel towers have a greater visual impact because of their large base area and geometric forms, especially when seen at these foreground

distances. The visual impact of lattice steel towers at foreground viewing distances definitely would be significant.

Conversely, as a general rule, when transmission line structures are seen in a “middleground” (½ to 4 miles) or a “background” setting (4 miles to horizon) and in a wildland setting, lattice steel towers have a smaller visual impact than tubular steel poles, but only if they have a landform backdrop and are not seen on the skyline in silhouette. With a landform backdrop, lattice towers in the middleground or background tend to become “visually transparent” if the colors of the structures match the colors of the landscape against which they are being viewed. This visual impact would not be as great, but could still be significant.

In contrast, silver-colored lattice towers set in a dark-green landscape would not be “visually transparent,” And therefore, this visual impact definitely would be significant.

It is not possible to make a steadfast generalization that will cover all cases and situations; therefore, decisions on which type of structure to use must be made on a case-by-case basis in order to blend the structures to the visual characteristics of the landscape.

Because there are residences immediately adjacent to the proposed Project in the vicinity of Johnsonville Road at 110<sup>th</sup> Street, and people would view the transmission line structures at “immediate foreground” and “foreground” viewing distances, visual impacts of lattice steel tower transmission structures can be reduced by using smaller footprint structures. Feedback from local residents near KOP 1, given to the Applicant (SCE), indicated a desire for tubular steel poles instead of lattice steel towers. Therefore, it is appropriate to use tubular steel poles in the vicinity of KOP 1. Because of the foreground viewing distances by sensitive receptors, it is important to (1) prohibit construction of new access/spur roads beyond existing access/spur roads; (2) minimize negative visual impacts of vegetative clearing; and (3) minimize negative visual impacts of excavated materials. Because new structures would be seen against the sky, it is important for visual resource reasons to coat the surfaces of all new structures with colors that match the sky. Implementation of Mitigation Measures V-1a (Use Tubular Steel Poles), V-1b (Construct, Operate, and Maintain with Existing Access Roads), V-1c (Dispose of Cleared Vegetation), V-1d (Dispose of Excavated Materials), and V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes) would reduce Impact V-1 for the proposed Project, as compared to the Project without mitigation. This would result in an improved visual environment, as compared to the proposed Project, and sensitive receptors at KOP 1 would perceive the proposed Project as a significant, but mitigable visual impact (**Class II**) because of the dramatic change from existing visual conditions. Some factors that result in this Class II impact are the following: taller and wider structures, new galvanized steel materials, vegetation removal, new earthwork disturbances, and larger, energized conductors.

### ***Mitigation Measures for Impact V-1***

**V-1a Use Tubular Steel Poles.** In locations designated by the CPUC and Forest Service, to reduce significant visual impacts as seen from sensitive receptor locations, SCE and its Contractors shall eliminate lattice steel towers from the ~~proposed~~ Project, and substitute tubular steel poles in the locations where indicated to reduce visual impacts and where deemed technically feasible and where reliability will not be compromised. SCE and its Contractors shall provide documentation submit site plans, topographic screening studies, and visibility studies demonstrating where tubular steel poles would lessen visual impacts, and conversely, where lattice steel towers would blend in with a landform backdrop. To the extent that SCE and its contractors deem the use of tubular steel poles to be infeasible or to adversely impact reliability in a location where they would lessen visual impacts, SCE and its contractors shall provide documentation of such infeasibility or adverse impact on reliability. SCE shall consult with the visual specialist designated by the CPUC or Forest Service, as appropriate, to ensure that the objectives of this measure are achieved. SCE and its Contractors shall

submit these plans and studies to the CPUC, and as appropriate to the Forest Service, for review and approval at least ~~120~~90 days prior to the start of construction.

- V-1b Construct, Operate, and Maintain with Existing Access/Spur Roads.** In locations designated by the CPUC and Forest Service, the Applicant (SCE) shall remove existing transmission line towers and conductors using existing access roads and spur roads, and shall construct the new transmission line using existing access roads and spur roads. SCE shall consult with the visual specialist designated by the CPUC or Forest Service, as appropriate, to ensure that the objectives of this measure are achieved. SCE and its Contractors shall submit plans and construction drawings for access roads and spur roads, demonstrating compliance with this measure, to the CPUC and, as appropriate, to the Forest Service for review and approval at least 60 days prior to the start of construction.
- V-1c Dispose of Cleared Vegetation.** For areas where cleared vegetation would be visible from sensitive viewing locations, SCE and its Contractors shall dispose of cleared vegetation and woody material in a manner that is not visually evident and does not create visual contrasts. SCE and its Contractors shall submit a vegetation removal plan, demonstrating compliance with this measure, to the CPUC and, as appropriate, to the Forest Service for review and approval at least 60 days prior to the start of construction.
- V-1d Dispose of Excavated Materials.** For areas where excavated materials would be visible from sensitive viewing locations, SCE and its Contractors shall dispose of excavated materials (soil, rocks, and concrete, and reinforcing steel) in a manner that is not visually evident and does not create visual contrasts. SCE and its Contractors shall submit an Excavation Plan, demonstrating compliance with this measure, to the CPUC and, as appropriate, to the Forest Service for review and approval at least 60 days prior to the start of construction.
- V-1e Treat Surfaces with Appropriate Colors, Finishes, and Textures.** For all structures that are visible from sensitive viewing locations, the Applicant (SCE) shall apply surface coatings with appropriate colors, finishes, and textures to most effectively blend the structures with the visible backdrop landscape. For structures that are visible from more than one sensitive viewing location, if backdrops are substantially different when viewed from different vantage points, the darker color shall be selected, because dark colors tend to blend into landscape backdrops more effectively than lighter colors, which may contrast and produce glare. At locations where a lattice steel tower or tubular steel pole would be silhouetted against the skyline, non-reflective, light-gray colors shall be selected to blend with the sky. The transmission line conductors shall be non-specular and non-reflective, and the insulators shall be non-reflective and non-refractive. SCE shall consult with the visual specialist designated by the CPUC or Forest Service, as appropriate, to ensure that the objectives of this measure are achieved. SCE and its Contractors shall submit a Structure Surface Treatment Plan for the lattice steel towers, tubular steel poles, and any other visible structures, demonstrating compliance with this measure, to the CPUC and, as applicable appropriate, to the Forest Service for review and approval at least ~~120~~90 days prior to the start of construction.

Construction of the transmission line with tubular steel poles (TSPs) would result in greater permanent land disturbance, as compared to lattice steel towers (LSTs), at the approximate values given here (0.0013 acres/TSP vs. 0.00026 acres/LST).

***Impact V-2: Project infrastructure would alter the visual quality of landscape views as seen from Avenue K (KOP 2).***

KOP 2 was established on Avenue K (a Second Priority County Scenic Highway) just west of the existing 66-kV transmission line and about one mile southwest of the Antelope Substation, looking southwest toward Portal Ridge. Figure C.15-4A presents the existing view and the future view of the No Project/Action Alternative. Figure C.15-4B presents a computerized visual simulation that depicts the replacement of the existing 66-kV

transmission line with the proposed Project's 500-kV towers T-106 through T-99. The most visible of the proposed structures along this portion of Avenue K would be tower T-106, which would replace an existing lattice steel structure that is approximately 95 feet tall and 27 feet wide at the arms with a new steel lattice structure that would be approximately 144 feet tall and 96 feet wide at the arms. Even though new tower T-106 would be set back further from the road, its increases height and width would create an adverse change in scale which would result in several adverse visual effects. The substantial increase in structure size would cause additional focus on the skylined structures. Increased arm width would spread the conductors further along the horizon, which would make them more prominent (depending on viewing position, lighting circumstances, and time of day). The increased structure size would also cause a significant increase in structure prominence and industrial character when viewed from Avenue K and from nearby residences. As a result, visual contrast would be moderate-to-high and the proposed Project would appear co-dominant with the existing land and vegetative forms. The increased structure skylining and additional obstruction of the background sky by the towers and conductors would result in a moderate degree of view blockage.

Referring to Table C.15-1, General Guidance for Review of Visual Impact Significance, the overall visual change would be moderate-to-high and in the context of the existing landscape's moderate-to-high visual sensitivity, the resulting visual impact would be significant.

Because there are residences immediately adjacent to the proposed Project in the vicinity of Avenue K, people would view the transmission line structures at "immediate foreground" and "foreground" viewing distances. Visual impacts of the proposed Project lattice steel tower transmission structures can be reduced by using tubular steel poles in the vicinity of KOP 2. Feedback from local residents near KOP 2, given to the Applicant (SCE), indicated a desire for tubular steel poles instead of lattice steel towers and a slight modification of route alignment to avoid existing landscape gardens. Therefore, because of the foreground viewing distances by sensitive receptors, it is important to (1) prohibit construction of new access/spur roads beyond existing access/spur roads; (2) minimize negative visual impacts of vegetative clearing; and (3) minimize negative visual impacts of excavated materials. Because the new structures would be seen against the sky, it is important for visual resource reasons to coat the surfaces of all new structures with colors that match the sky. Therefore, it is appropriate to use tubular steel poles in the vicinity of KOP 2. (See simulation of tubular steel poles at Figure C.15-4C.) Implementation of Mitigation Measures V-1a (Use Tubular Steel Poles), V-1b (Construct, Operate, and Maintain with Existing Access Roads), V-1c (Dispose of Cleared Vegetation), V-1d (Dispose of Excavated Materials), and V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes) would reduce Impact V-2 for the proposed Project, as compared to the Project without mitigation. This would result in an improved visual environment, as compared to the proposed Project, and sensitive receptors at KOP 2 would perceive the Project as a significant, but mitigable visual impact (**Class II**) because of the change from existing visual conditions. Some factors that result in this Class II impact are the following: taller and wider structures, new galvanized steel materials, vegetation removal, new earthwork disturbances, and larger, energized conductors in close proximity to a residence.

***Impact V-3: Project infrastructure would alter the visual quality of landscape views as seen from Lake Elizabeth Road (KOP 3).***

KOP 3 was established on Lake Elizabeth Road (Second Priority County Scenic Highway) looking southwest from across the R-Ranch at Amargosa Creek. Figure C.15-5A presents the existing view to the southwest from KOP 3, and the future view of the No Project/Action Alternative. Figure C.15-5B presents a computerized visual simulation showing replacement of the existing dark-brown 66-kV transmission line towers with the proposed Project's 500-kV towers T-93 through T-88. New towers would be 144 feet tall and structural arms would be 96 feet wide, as compared to existing towers that are approximately 75 feet tall and 21 feet wide at the

arms. The increase in structure height and width would result in an increase in the degree of structure prominence compared to the existing transmission line which traverses the landscape in the center of the line of sight. Visual contrast of the larger vertical, complex structures would range from moderate-to-high in a landscape that is dominated by horizontal to rolling natural landforms, and is largely a result of the structures' increased size and silver-gray color in contrast with the backdrop of darker green vegetation. The color contrast caused by the sun's reflection off the structures would depend on ambient lighting conditions and time of day. The Project description provided by SCE indicates that unequal length legs would be used for towers on hilly or mountainous terrain, thereby reducing the amount of cuts and fills at each tower location, but vegetation would be removed at each tower site (SCE, PEA, 2004). Access roads and clearings for towers would stand out in the dark green vegetation, and would draw viewers' eyes to each tower, further increasing visual contrast and discordance. The accumulation of all these visual contrasts would create significant, unavoidable impacts to the visual resource (**Class I**).

Three new towers would be silhouetted against the skyline. The tower furthest left would be on private land, north of the Angeles National Forest boundary (which occurs at Mile 5.7 of the proposed Project). The center and right towers would be located on NFS lands, and Forest Service SIOs would apply to these last two towers.

Landscapes seen from this vantage point encompass both private and federally administered (NFS) lands, and therefore, two methods are used to analyze visual impacts – the VS/VC method on private lands and the FS-Scenery Management System on NFS lands.

**VS/VC Method on Non-NFS Lands.** At this viewing distance, foreground and middleground, the structures on private lands would be dominant in scale to the landforms and vegetative patterns of this landscape. The increased structure height and width would also cause increased structure prominence and a visible increase in industrial character in this pastoral landscape. As a result, visual contrast would be moderate-to-high and the proposed Project would appear co-dominant with the existing landscape features. The new and increased structure skylining and additional obstruction of the middleground would result in a moderate-to-high degree of view blockage.

Referring to Table C.15-1, General Guidance for Review of Visual Impact Significance, the overall visual change would be moderate-to-high and in the context of the existing landscape's moderate-to-high visual sensitivity, the resulting visual impact would be significant.

Because there are residences immediately adjacent to the proposed Project in the vicinity of Lake Elizabeth Road, and people would view the transmission line structures at "immediate foreground" and "foreground" viewing distances, it is appropriate to use tubular steel poles in the vicinity of KOP 3. Outside the National Forest boundary (on non-NFS lands), implementation of Mitigation Measures V-1a (Use Tubular Steel Poles), V-1b (Construct, Operate, and Maintain with Existing Access Roads), V-1c (Dispose of Cleared Vegetation), V-1d (Dispose of Excavated Materials), and V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes) would reduce Impact V-3 for the proposed Project, as compared to the Project without mitigation. Information received from the Applicant (SCE) indicates that the local land owner at KOP 3 is not pleased with the existing 66-kV line and towers on his property, and is not happy about the prospect of new, larger towers and conductors. Implementation of above-mentioned mitigation measures would result in an improved visual environment, as compared to the proposed Project, but sensitive receptors at KOP 3 would still perceive the Project as a significant, unavoidable visual impact (**Class I**) because of the dramatic changes from existing visual conditions. Some factors that result in this Class I impact are the following: resistance to encroachment on pastoral setting of ranch, taller and wider structures, new galvanized steel materials, vegetation removal, new earthwork disturbances, and larger, energized conductors in close proximity to a residence.

### **Center Area (Mile 5.7 to 18.6)**

Visual impacts resulting from the proposed Project construction and operation between Mile 5.7 and 18.6, NFS lands within the Angeles National Forest (proposed towers T-89 through T-31) would be experienced from many different vantage points – the Pacific Crest Trail, several county roadways, Bouquet Reservoir, and nearby seasonal recreation residences. Existing 66-kV towers would be removed from Mile 5.7 to 18.6, and new 500-kV lattice steel towers (LSTs) would be constructed within the same utility corridor through the National Forest. The existing 66-kV towers are approximately 60 feet to 90 feet tall and 16 feet to 21 feet wide at the arms, and most towers have weathered (rusted) to a dark-brown color. New single-circuit 500-kV LSTs would be dull galvanized steel and would appear light-gray to silver in color. New towers would be 96 feet wide at the arms, and range in height from 113 feet to 178 feet tall, depending on terrain crossed and length of spans. In the Center Area, towers T-89 through T-31 would be the same size and proportion to the towers in the North Area, with proportional increases in height and width of new towers as compared to existing towers. New towers would be wider at the base, waist and top, and would have more pronounced vertical and angular lines. Therefore, they would create more visual contrast. The new 500-kV single-circuit lattice steel towers would increase the magnitude of visual contrast of all visual elements – form, line, color, texture, and scale – by several times, as compared to the 66-kV existing towers.

**SMS on NFS Lands.** Following is a discussion of NFS lands visible from KOP 3 (Impact V-3), using the Forest Service Scenery Management System (SMS).

**Scenic Integrity Objectives on NFS Lands.** Most of the ridgeline landscape in view from KOP 3 is within the Angeles National Forest. This is the Liebre-Sawmill Place, and in the 2005 Forest Plan, the entire landscape in this vicinity is mapped as High SIO, where the management direction states that human activities should not be visually evident. Human-caused deviations may be present but must repeat the form, line, color, texture, and pattern common to the natural landscape character so completely and at such a scale that they are not evident.

Because two proposed Project towers (on the right in Figure C.15-5B) are on NFS lands, have an industrial character, and do not repeat form, line, color, or texture of the characteristic landscape, they meet the definition of Unacceptably Low Scenic Integrity (see Table C.15-2). Under the proposed Project, the taller and wider lattice steel towers, access roads, and expanded ROW would adversely affect this scenic vista, and substantially degrade the existing visual character of the National Forest System lands.

Although the proposed Project is in compliance with the Forest Plan, one objective of the Forest Plan in managing non-recreation special uses is to manage these uses while preserving open space and natural settings. The proposed Project, along with Alternatives 3 and 4, has the greatest adverse impact on open space and natural settings on NFS lands. The Project description provided by SCE indicates that unequal length legs would be used for towers on hilly or mountainous terrain, thereby reducing the amount of cuts and fills at each tower location, but vegetation would be removed at each tower site (SCE, PEA, 2004). The proposed Project would remove existing 66-kV towers and conductors, but would not remove existing reinforced concrete foundations. Additionally, the proposed Project would retain the crane pads (“benching”) after construction is completed. Leaving these foundations and crane pads on NFS lands would have an adverse impact to preserving open space and natural settings in this area. The Road Story provides the location of proposed new access and spur roads. Some roads would be located on bedrock which would cause permanent scarring to the landscape and have a long-term adverse effect on the natural landscape setting. Implementation of Mitigation Measure V-3a (Remove Existing Foundations, Rehabilitate, and Re-Vegetate Tower Sites), V-3b (Remove, Rehabilitate, and Re-Vegetate Crane Pads), and V-3c (Avoid Locating New Roads in Bedrock) would lessen these impacts as compared to the proposed Project without mitigation.



- V-3a Remove Existing Foundations, Rehabilitate, and Re-Vegetate Tower Sites.** Existing foundations shall be completely removed from NFS lands and shall be disposed of properly. All ground disturbances from the removal of the 66-kV line from NFS lands shall be restored to a near natural condition. SCE shall consult with the visual specialist designated by the CPUC or Forest Service, as appropriate, to ensure that the objectives of this measure are achieved. SCE shall include these areas in the Restoration and Revegetation Plan from Mitigation Measure B-1a (Provide Restoration/Compensation for Impacts to Native Vegetation Communities) and include appropriate erosion control and revegetation measures.
- V-3b Remove, Rehabilitate, and Re-Vegetate Crane Pads.** All crane pads (“benching”) on NFS lands shall be rehabilitated to a near natural condition after the construction is complete. SCE shall consult with the visual specialist designated by the CPUC or Forest Service, as appropriate, to ensure that the objectives of this measure are achieved. SCE shall include these areas in the Restoration and Revegetation Plan from Mitigation Measure B-1a (Provide Restoration/Compensation for Impacts to Native Vegetation Communities) and include appropriate erosion control and revegetation measures.
- V-3c Avoid Locating New Roads in Bedrock.** New access and spur road locations shall be designed to avoid bedrock cuts. All road cuts shall be located in soil material. Road construction designs shall be submitted to the CPUC for review and approval, and roads involving NFS lands shall be submitted to the Forest Engineer for review and approval, at least 180 days prior to the start of construction.

Implementation of Mitigation Measure V-3b (Remove, Rehabilitate, and Re-Vegetate Crane Pads) would be anticipated to result in long-term beneficial impacts to biological resources, geology, and hydrology through the restoration and improvement of existing conditions associated with access roads in the project area.

Ground-disturbing activity, including tower site preparation and construction, grading of new or improved access and spur roads (22 acres of permanent disturbance on NFS lands), tower removal, transportation, and the use or improvement of existing access roads has the potential to disturb vegetation, and therefore, has the potential to disturb natural vegetative patterns in the visual landscape. Construction impacts to vegetation and vegetative patterns also would occur throughout the Project area, including the direct removal of plants during the course of construction of new tower sites and crane pads, plus ROW clearing for stringing and splicing. Clearing and grading also would result in the alteration of soil conditions, including changes to the topography and drainage of a site such that a noticeable visual change would occur in the natural landscape character. Depending on the site specific topography, these visual impacts may extend beyond the ROW unless precautions are taken.

After implementation of Mitigation Measures V-3a (Remove Existing Foundations, Rehabilitate, and Re-Vegetate Tower Sites), V-3b (Remove, Rehabilitate, and Re-Vegetate Crane Pads), and V-3c (Avoid Locating New Roads in Bedrock), V-1a (Use Tubular Steel Poles), V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes), V-4a (Construct, Operate, and Maintain with Helicopters), V-4b (Dispose of Cleared Vegetation Off Site), and V-4c (Dispose of Excavated Materials Off Site), B-1a (Provide Restoration/Compensation for Impacts to Native Vegetation Communities), B-1b (No Activities will occur in Riparian Conservation Areas), R-4 (Permanent Closure and Re-Vegetation of Construction Roads), the Very Low SIO would be achieved by the proposed Project. As compared to the proposed Project without mitigation, this would result in an improved visual environment as seen from Lake Elizabeth Road, creating significant, unavoidable impacts to the visual resource (**Class I**) that would be three levels below the High Scenic Integrity Objective, achieving the Very Low SIO.

(See discussion for KOP 4, below, for further explanation of SIOs, rationale for using helicopters, and Class I visual impacts on NFS lands). The only possible mitigation for these visual impacts is relocation of the Project

to a corridor outside NFS lands. See Alternative 5 – Sierra Pelona Corridor, for analysis of an alternative which involves relocation of the transmission line to less-visible locations.

***Impact V-4: Project infrastructure would alter the scenic integrity and character of landscapes seen from the Pacific Crest National Scenic Trail (KOP 4).***

Key Observation Position 4 was established on the Pacific Crest Trail, looking southwest toward Jupiter Mountain. Figure C.15-6A presents the existing view from KOP 4 on the PCT and the future view of the No Project/Action Alternative. Figure C.15-6B presents a visual simulation that depicts the replacement of the existing 66-kV transmission towers with the proposed Project's 500-kV towers T-82 through T-80 (right to left in the simulation). Increased structure size would result in increased skylining of tower T-80. The increased structure size would also cause a noticeable increase in the degree of structure prominence because of the new skylining that would occur, similar to the existing Midway-Vincent 500-kV towers that are skylined on Jupiter Mountain to the right in this view. As a result, structural contrast caused by the larger, vertical, complex geometric structures would be high and the project would appear co-dominant with the existing natural landforms and vegetative patterns. The incremental change in structure size would also cause a moderate-to-high degree of view blockage of higher quality middleground and background features (vegetation and sky).

SCE's APM VIS-2 states "Where the proposed 500-kV transmission line route crosses the Pacific Crest National Scenic Trail north of Spunky Canyon Road, the transmission towers would be placed with a minimum setback of 300 feet from the trail." Volume 2 of the Proponent's Environmental Assessment, the Road Story, shows replacement of existing tower 19-2 with new tower T-83 (SCE, 2004), both of which are situated within a few feet of the PCT. Implementation of APM VIS-2 would mean elimination or relocation of new tower T-83, or creating the need for taller towers in locations T-82 (shown) and T-84 (not shown, behind the viewer). Implementation of this APM would cause tower T-82 to be even more dominant than shown in this visual simulation, as tower heights were consistently shown at 144 feet tall for single-circuit towers. Increased heights of towers T-82 and T-84 would further increase the visual impacts for PCT users, with increased discordance of scale and increased industrial character introduced into the landscape.

**Scenic Integrity Objectives.** All of the landscape in view from KOP 4 is within the Liebre-Sawmill Place and in the 2005 Forest Plan, the entire landscape in this vicinity is mapped as High SIO, where the management direction for scenery is for human activities that are not visually evident. Human-caused deviations may be present but must repeat the form, line, color, texture, and pattern common to the natural landscape character so completely and at such a scale that they are not evident. The Pacific Crest Trail Association endorsed and supported the High SIO in the April 2005 edition of the *PCT Communicator*.

**Future Scenic Integrity Levels.** The natural landscape exhibits a high degree of intactness, or scenic integrity, except for a few distinct features. These discordant features are (1) an existing firebreak on Jupiter Mountain that appears as an unnatural tan line slicing down the top of a major ridgeline, (2) cut-slopes of the Spunky Canyon Road and the Spunky-Edison Road, and (3) industrial-style towers of three existing transmission lines with tall, geometric lattice towers that are quite apparent. Because the new 500-kV transmission line lattice steel towers would be taller and wider than the existing 66-kV towers and would be built in the same utility corridor, the proposed Project would be more visible than the existing transmission line. The new towers proposed for the 500-kV transmission line would be dull galvanized steel, would appear light-gray to silver in color, and would create more visual contrast, light and glare. The new 500-kV towers would increase the magnitude of visual contrast of all elements (form, line, color, texture, and scale) by several times. The 500-kV towers and conductors would not borrow form, line, color, texture, pattern or scale common to the natural landscape character. The predicted scenic integrity level for the 500-kV transmission line meets the definition of

Unacceptably Low Scenic Integrity. Under the proposed Project, the taller and wider lattice steel towers, access roads, and expanded ROW would adversely affect scenic vistas of the PCT and would substantially degrade the existing natural landscape character and scenic quality of the trail, creating a landscape that would be four levels below the High Scenic Integrity Objective. As seen from the PCT, scenic integrity of foreground views and designated viewpoints would not be protected, and therefore, the proposed Project is in direct conflict with the Forest Plan. This would be a significant impact.

As a possible mitigation, the Forest Service suggested using tubular steel poles instead of lattice steel towers inside the National Forest boundary. Lattice towers must have annual or twice-annual maintenance because of loosening nuts and bolts, but tubular poles do not. Therefore, access roads would not be required for maintenance vehicle access to tubular pole sites. Tubular poles can be constructed with equipment brought in by helicopter, rather than wheeled equipment. The elimination of access roads and spur roads would eliminate visual contrasts that would be otherwise created by re-opening abandoned access roads or constructing new access roads, as would occur in the proposed Project.

To respond to this suggestion, a simulation was prepared for KOP 4 showing tubular steel poles instead of lattice steel towers (see Figure C.15-6C). Several visual resource reasons are apparent for recommending this visual mitigation. First, when viewed in immediate foreground and foreground viewing distances (0 to ½ mile), the narrow profile of tubular poles tend to draw less visual attention than the bulk and geometric forms of lattice steel towers (see Figures C.15-6A, C.15-6B, and C.15-6C). Pole sites accessed by helicopter would have less soil disturbance as compared to building access roads, spur roads, and laydown areas for assembly of the lattice towers, thereby reducing visual contrasts of cut and fill slopes, exposed soil, and possible switchback roads. Tubular poles do not have nuts and bolts that loosen and do not require repeated maintenance, thereby allowing vegetation to re-establish in the surrounding landscape, and visual contrasts in the landscape to “heal.”

Visual disadvantages of tubular poles are the shiny, reflective surfaces of the cylindrical forms in dark-green landscapes, contrasting vertical lines in an otherwise round-formed landscape, and visual interruption of the skyline at each pole. An additional visual contrast is the increased height of tubular poles. Poles have an increased height as compared to lattice towers because the lowest conductor must maintain a minimum distance to the ground, thereby increasing the overall height of poles, which arrays conductors in a vertical alignment. (Lattice steel towers array conductors in a horizontal alignment.)

Removal of existing, visually discordant lattice steel towers, elimination of proposed Project lattice steel towers, access and spur roads, and replacement with tubular steel poles placed by helicopter does not meet the strict definition of High Scenic Integrity Objective (activities must repeat the form, line, color, texture, and pattern common to the natural landscape character so completely and at such a scale that they are not evident). However, if the tubular poles were surface coated with colors selected to match the landscape backdrop, the resulting visual impacts would be much less than the proposed Project’s visual effects. By using tubular steel poles, form contrasts would be reduced, and scale contrasts would be reduced, as compared to existing lattice steel towers or proposed Project lattice towers with their geometric, angular forms and massive scale.

These mitigable visual impacts can be completely avoided only by relocating the proposed transmission line to a new utility corridor in a new, less visible location. Refer to discussions of Alternative 2 – East Mid-Slope Corridor and Alternative 5 – Sierra Pelona Corridor, which involve relocation of the transmission line to less-visible locations.

After implementation of Mitigation Measures V-3a (Remove Existing Foundations, Rehabilitate, and Re-Vegetate Tower Sites), V-3b (Remove, Rehabilitate, and Re-Vegetate Crane Pads), and V-3c (Avoid Locating New Roads in Bedrock), V-1a (Use Tubular Steel Poles), V-1e (Treat Surfaces with Appropriate Colors,

Textures, and Finishes), V-4a (Construct, Operate, and Maintain with Helicopters), V-4b (Dispose of Cleared Vegetation Off Site), and V-4c (Dispose of Excavated Materials Off Site), B-1a (Provide Restoration/Compensation for Impacts to Native Vegetation Communities), B-1b (No Activities will occur in Riparian Conservation Areas), R-4 (Permanent Closure and Re-Vegetation of Construction Roads), the Very Low SIO would be achieved by the proposed Project. As compared to the proposed Project without mitigation, this would result in an improved visual environment as seen from the PCT, but would still result in a significant, unavoidable impact (**Class I**) that would be three levels below the High Scenic Integrity Objective, achieving the Very Low SIO.

***Mitigation Measures for Impact V-4***

**V-1a**     **Use Tubular Steel Poles**

**V-1e**     **Treat Surfaces with Appropriate Colors, Textures, and Finishes**

**V-4a**     **Construct, Operate, and Maintain with Helicopters.** In the locations designated by the CPUC and Forest Service, SCE and its contractors shall remove existing 66-kV towers and conductors with helicopters, and shall construct the Project using helicopters to place the 500-kV structures and conductors. To minimize the visual impacts of road construction, SCE and its contractors shall access structures by walking or helicopter only, for construction, operation, and maintenance, in designated locations. SCE shall consult with the visual specialist designated by the CPUC or Forest Service, as appropriate, to ensure that the objectives of this measure are achieved. SCE shall submit plans and construction drawings for helicopter staging areas, access roads and spur roads to helicopter staging areas, and helicopter-pads and helispots, demonstrating compliance with this measure, to the CPUC and Forest Service for review and approval at least 120 days prior to the start of construction.

**V-4b**     **Dispose of Cleared Vegetation Off Site.** For areas where cleared vegetation would be visible from sensitive viewing locations, SCE and its Contractors shall dispose of cleared vegetation and woody material off-site and in a manner that is not visually evident and does not create visual contrasts. SCE and its Contractors shall submit a vegetation removal and disposal plan, demonstrating compliance with this measure, to the CPUC and Forest Service for review and approval at least 120 days prior to the start of construction.

**V-4c**     **Dispose of Excavated Materials Off Site.** For areas where excavated materials would be visible from sensitive viewing locations, SCE and its Contractors shall dispose of excavated materials (soil, rocks, concrete, and reinforcing steel) off-site in disposal areas off NFS-lands and at locations that do not create visual contrasts. These sites shall be pre-approved by the CPUC and Forest Service and any other applicable State, county, or city agencies. SCE and its Contractors shall submit an Excavation Plan, demonstrating compliance with this measure, to the CPUC and Forest Service for review and approval at least 120 days prior to the start of construction.

**Environmental Effects of Mitigation Measure V-4a**

The additional use of helicopters recommended in Mitigation Measure V-4a above would result in additional adverse effects as well as certain beneficial effects. These effects pertain primarily to noise, air pollutant emissions, off-highway vehicle use, erosion, and biological resources, as described below.

The increased use of helicopters during construction, operation, and maintenance would increase noise impacts to sensitive receptors located in the vicinity of the Project. As discussed in Section C.10, noise impacts from helicopter use would adversely affect sensitive receptors at various locations along the flight paths and tower construction sites, resulting in significant and unavoidable noise impacts.

The use of helicopters during construction and operation would decrease the number of miles of access and spur roads that would be constructed or improved on NFS lands. Any creation of new roads would contribute to a degradation of resources through unmanaged recreation (i.e., illegal OHV use) and would require the implementation of Mitigation Measure R-4 (Permanent Closure and Re-vegetation of Construction Roads) to reduce impacts to a less-than-significant level (Impact R-4). Mitigation Measure V-4a would further minimize the potentially significant Class II impacts associated with Impact R-4.

Additional use of helicopters during the transmission tower construction would result in increased engine emissions, particularly NO<sub>x</sub> and CO emissions. The increased use of helicopters during construction would reduce the overall fugitive particulate (PM<sub>10</sub> and PM<sub>2.5</sub>) emissions due to the assumed reduction in unpaved road traffic required to bring supplies to the tower construction sites. The fugitive dust emission reduction quantity would be based on the remoteness of the towers being constructed and the total reduction in the unpaved vehicle miles traveled. However, the equipment particulate emissions, which are of much higher health impact concern than unpaved road dust emissions, would increase in areas closer to populations due to greater activity at the helipads and staging/steel assembly areas. Therefore, an increase in helicopter-based construction would worsen the existing regional NO<sub>x</sub> emission Class I impacts, potentially create new regional CO and VOC Class I impacts, and potentially create new localized significance threshold Class I impacts to sensitive receptors located nearby the helipads and/or staging/steel assembly areas. Additionally, the regional fine particulate emission impact (PM<sub>2.5</sub>) potential for the Project would increase due to the increase in secondary particulate pollutants (specifically NO<sub>x</sub> and SO<sub>x</sub>). The use of helicopters for operation and maintenance are already considered as part of the Project description and any increase in their very limited use during operation and maintenance would not create the potential for significant air quality impacts. Implementation of Mitigation Measure V-4a would reduce the ability to fully implement Mitigation Measure A-1i (Reduction of helicopter emissions), which recommends limiting helicopter use to the extent feasible in order to reduce pollutant emissions.

Increased helicopter construction would increase overall construction fuel use disproportionately due to the very high fuel consumption needs for helicopters versus equivalent rolling stock needed to do the same work.

Helicopter construction would reduce erosion compared to the use of conventional construction equipment to construct foundations and erect transmission towers. Helicopter construction would avoid the need to build access roads to each tower site. Instead, equipment and materials would be carried to each tower site by helicopter. Helicopter also avoids the need to create a crane pad adjacent to each tower site for use in erecting each tower. The reduced land disturbance associated with helicopter construction would reduce erosion impacts.

Impacts to biological resources from the increased use of helicopters during construction would result in different types of impacts depending on the resource (i.e., vegetation or wildlife). Noise from increased helicopter use would be disruptive and could result in animals moving away from the work sites. Breeding birds and mammals may temporarily or permanently leave their territories to avoid continued helicopter operations activity, which could lead to reduced reproductive success and increased mortality. Increased noise from helicopters could also adversely affect nesting birds. Breeding birds, raptors, and other wildlife, including mule deer and mountain lion, may temporarily or permanently leave their territories to avoid construction activity, which could lead to reduced reproductive success and increased mortality. However, construction activities that involves the clearing and grading of new access/spur roads or pads for tower construction would result in similar short-term impacts to wildlife, but long-term impacts to the natural landscape character. Due to the linear nature of the project, helicopter activities, in most cases, would move frequently and occur within a limited section of the ROW, so noise would not continue for lengthy time periods at any one tower location. In addition, the regional abundance of habitat and short duration of helicopter usage at any one location, would

limit the potential disturbance from this activity. Any temporary noise impacts that may occur to wildlife species from helicopter construction are not expected to reduce the wildlife populations within or adjacent to the project area below self-sustaining levels; therefore, these impacts are considered less than significant with implementation of mitigation measures recommended in Section C.2.

The use of helicopters during construction would decrease the area disturbed from ground-disturbing activity, including tower pad preparation and grading of new or improved access and spur roads. The reduction of ground disturbance may also reduce the potential for impacts to both common and sensitive wildlife that may occur in the project area. The reduction of impacts to vegetation would also likely reduce the potential for the spread of noxious or invasive weeds and reduce loss of foraging habitat for wildlife on the ANF.

***Impact V-5: Project infrastructure would alter the scenic integrity and character of landscapes seen from San Francisquito Canyon Road (KOP 5).***

Key Observation Position 5 was established on San Francisquito Canyon Road, approximately 0.25 miles north of the Los Angeles Aqueduct (aka Bouquet Pipeline) over-crossing of San Francisquito Canyon Road. Figure C.15-7A presents the existing view to the southeast from KOP 5, and the future view of the No Project/Action Alternative. Figure C.15-7B presents a computerized visual simulation depicting the replacement of the existing 66-kV towers 15-2 through 13-5 with the proposed Project's 500-kV towers T-65 through T-57. Existing towers are approximately 60 to 73 feet tall and 21 feet wide at the arms. New towers would be approximately 144 feet tall and 96 feet wide at the arms. The increase in structure size would result in increased skylining of towers T-65 through T-57, and would result in an increase in the degree of structure prominence. Compared to the existing transmission line on the ridgetop in the center of the line of sight, new towers and access roads would be more visually dominant. Visual contrast of the larger, complex structures with accentuated vertical lines and geometric forms would be more visually evident in a landscape that is dominated by horizontal to rolling natural landforms and natural vegetative patterns. Added color contrast – the new structures' silver-gray color contrasted against the darker green of the chaparral vegetation – compounds the visual contrasts of the transmission line towers. The color contrast caused by the reflection of the sun off the structures would depend on ambient lighting conditions and time of day. At this middleground viewing distance, the structures would be subordinate in scale to the more expansive landforms, but would attract attention because of their location on the skyline and their silhouetted, geometric forms.

**Scenic Integrity Objectives.** All of the landscape in view from KOP 5 is within the Santa Clara Canyons Place. In the 2005 Forest Plan, the entire visible landscape in this photograph is mapped as High SIO. Under High SIO, the scenery management direction is for human activities that are not visually evident. Human activities may be present but must repeat the form, line, color, texture, and pattern common to the natural landscape character so completely and at such a scale that they are not evident.

**Future Scenic Integrity Levels.** The new 500-kV towers would increase the magnitude of visual contrast of all elements (form, line, color, texture, and scale) by several times. The new 500-kV transmission line would dominate the valued landscape character, which is “an undeveloped, natural-appearing and pastoral landscape, showing little visible human influence.” The 500-kV towers and conductors would not borrow form, line, color, texture, pattern or scale common to the natural landscape character. Proposed 500-kV transmission line towers would be very visible on the skyline, and would appear as an unnatural set of vertical lines and geometric forms that punctuate and interrupt the rolling, horizontal character of the ridgetop. The existing cut-and-fill-slopes of the Del Sur Ridge Road would become more visually apparent and attract attention after clearing and grading operations during construction. The proposed transmission line towers, and especially the pipeline, would attract viewers' attention and meet the definition of unacceptably low inherent scenic integrity

because they would not borrow form, line, color or texture from the natural landscape character. However, the majority of this landscape view has high scenic integrity. But these few discordant features with their inherent industrial character – the pipeline and new skylined transmission towers – diminish certain areas of the existing landscape to levels of unacceptably low scenic integrity. Where the utility corridor drops below the skyline and new towers would not be silhouetted, there would be additional line, form and color contrasts created by the silver towers standing out against the medium- to dark-colored landscape behind them. Such is the case on the left side of this photograph, where the existing transmission line towers “become transparent” and are not visually evident, but the new towers would reflect light and be lighter in color and very visible. The predicted scenic integrity level for the 500-kV transmission line meets the definition of Unacceptably Low Scenic Integrity, four levels below the High Scenic Integrity Objective. This would be a significant impact.

As discussed for KOP 4, the removal of existing 66-kV lattice steel towers and conductors, elimination of proposed Project 500-kV lattice steel towers, access and spur roads, and replacement with 500-kV tubular steel poles placed by helicopter does not meet the strict definition of the High SIO. However, if the tubular steel poles were surface coated with colors and finishes selected to match the landscape backdrop, the resulting visual impacts would be much less than the proposed Project’s visual effects.

After implementation of Mitigation Measures V-3a (Remove Existing Foundations, Rehabilitate, and Re-Vegetate Tower Sites), V-3b (Remove, Rehabilitate, and Re-Vegetate Crane Pads), and V-3c (Avoid Locating New Roads in Bedrock), V-1a (Use Tubular Steel Poles), V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes), V-4a (Construct, Operate, and Maintain with Helicopters), V-4b (Dispose of Cleared Vegetation Off-Site), and V-4c (Dispose of Excavated Materials Off-Site), B-1a (Provide Restoration/Compensation for Impacts to Native Vegetation Communities), B-1b (No Activities will occur in Riparian Conservation Areas), R-4 (Permanent Closure and Re-Vegetation of Construction Roads), the Very Low SIO would be achieved by the proposed Project. This would result in an improved visual environment as seen from San Francisquito Canyon Road as compared to the proposed Project without mitigation, but would still result in significant, unavoidable visual impacts (**Class I**) that would be three levels below the High Scenic Integrity Objective, achieving the Very Low SIO.

These visual impacts can be completely avoided only by relocating the proposed transmission line to a new utility corridor in a new, less visible location. Refer to discussions of Alternatives 2 and 5, both of which involve relocation of the transmission line to less-visible locations.

***Impact V-6: Project infrastructure would alter the scenic integrity and character of landscapes seen from Bouquet Reservoir (KOP 6).***

Key Observation Position 6 was established at the southeast end of Bouquet Dam, looking north toward Jupiter Mountain and Spunky Canyon. Figure C.15-8A presents the existing view from KOP 6, and the future view of the No Project/Action Alternative. Figure C.15-8B presents a computerized visual simulation depicting the replacement of the existing lattice steel pole 66-kV transmission towers with the proposed Project’s 500-kV lattice steel towers T-80 through T-72 (right to left in the simulation). New towers would be approximately 144 feet tall and 96 feet wide at the arms, and the increase in structure size would result in increased skylining of tower T-80 on the right in this view. The increase in structure size would result in an increase in the degree of structure prominence compared to the existing transmission line from tower T-80 on the skyline, through the middleground slopes, down to Bouquet Reservoir. Access roads to each tower would draw viewers’ attention to the new towers, further increasing the discordance. Visual contrast of the larger, complex structures with accentuated silver-gray colors, vertical lines, and geometric forms would be more visually evident in a

landscape that is dominated by horizontal to rolling natural landforms and the horizontal, deep blue waterform of Bouquet Reservoir.

In the center of the photograph, one tower was simulated without any access roads; this tower would require helicopter construction without access by a spur road. (See Figure C.15-8B, which assumes that the spur road to this tower would be screened by topography.) The new structures' silver-gray color would contrast against the darker green of the chaparral vegetation. For all towers, the color contrast caused by the reflection of the sunlight off the structures would depend on ambient lighting conditions and time of day. At this middleground viewing distance and observer position, the structures would be subordinate in scale to the more expansive landforms, but would attract attention because of their location on the skyline, the contrasting tan access roads, and their silhouetted forms.

**Scenic Integrity Objectives.** All of the landscape in view from KOP 5 is within the Santa Clara Canyons Place. In the 2005 Forest Plan, the entire visible landscape in this photograph is mapped as High SIO. Under High SIO, human activities should not be visually evident. Human activities may be present but must repeat the form, line, color, texture, and pattern common to the natural landscape character so completely and at such a scale that they are not visually evident.

**Future Scenic Integrity: Moderate, with Areas of Unacceptably Low.** National Forest System lands visible from Bouquet Reservoir are predominantly natural-appearing, consisting of a foreground and middleground landscape that is visually intact, with a mosaic of dark green chaparral and gray green sagebrush, contrasted by the deep blue waters of the reservoir. There are scattered occurrences of tan-colored bare soils that give evidence to firebreaks on ridgetops and cutslopes from access road that lead to transmission line towers. In the canyon bottom to the right, dense, dark green oak and cottonwood trees lead the viewers' eyes to light green willows at the shoreline. From KOP 6, the most predominant visual element is Bouquet Reservoir, which is fenced and gated to keep people and animals out of the domestic water supply. The new 500-kV towers would be visible on the skyline and also would stand out against the dark green vegetation as silver, unnatural vertical lines and geometric forms. There would be new tan-colored, angular lines in the dark green vegetation – access roads to new towers, in addition to existing firebreaks, and dirt roads – and these would create discordant visual elements that would attract more attention. The 500-kV conductors would be white in color and would reflect some light, creating unnatural horizontal lines crossing the steep, dark green canyons in this landscape. All new 500-kV towers would attract viewers' attention and meet the definition of unacceptably low inherent scenic integrity because they would not borrow any form, line, color or texture from the natural landscape character, and would be of an industrial character in this natural-appearing landscape. With all of these discordant elements scattered throughout this landscape, the overall rating of scenic integrity is moderate. But these few discordant features with their inherent industrial character – the transmission line towers and cutslopes – diminish certain areas of the existing landscape to levels of unacceptably low scenic integrity. The resulting visual impact of the proposed Project would be four levels below the High Scenic Integrity Objective. This would be a significant impact.

As discussed for KOP 4 and 5, removal of existing 66-kV lattice steel towers, elimination of proposed Project lattice steel towers, access and spur roads, and replacement with tubular steel poles placed by helicopter does not meet the strict definition of the High SIO. However, if the tubular poles were surface coated with colors, textures, and finishes selected to match the landscape backdrop, the resulting visual impacts would be much less than the proposed Project's visual effects. (See simulation at Figure C.15-8C.) Color, form, and scale contrasts would be reduced, as compared to existing lattice towers or proposed Project lattice towers. These visual impacts can be completely avoided only by relocating the proposed transmission line to a new utility corridor in



a new, less visible location. Refer to discussions of Alternatives 2 and 5, both of which involve relocation of the transmission line to less-visible locations.

After implementation of Mitigation Measures V-3a (Remove Existing Foundations, Rehabilitate, and Re-Vegetate Tower Sites), V-3b (Remove, Rehabilitate, and Re-Vegetate Crane Pads), and V-3c (Avoid Locating New Roads in Bedrock), V-1a (Use Tubular Steel Poles), V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes), V-4a (Construct, Operate, and Maintain with Helicopters), V-4b (Dispose of Cleared Vegetation Off-Site), and V-4c (Dispose of Excavated Materials Off-Site), B-1a (Provide Restoration/Compensation for Impacts to Native Vegetation Communities), B-1b (No Activities will occur in Riparian Conservation Areas), R-4 (Permanent Closure and Re-Vegetation of Construction Roads), the Very Low SIO would be achieved by the proposed Project. This would result in an improved visual environment as seen from Bouquet Reservoir, as compared to the proposed Project without mitigation, but would still result in a significant, unavoidable impact (**Class I**) that would not achieve the High Scenic Integrity Objective, but would be three levels below, achieving the Very Low SIO.

These visual impacts can be completely avoided only by relocating the proposed transmission line to a new utility corridor in a new, less visible location. Refer to discussions of Alternatives 2 and 5, both of which involve relocation of the transmission line to less-visible locations.

***Impact V-7: Project infrastructure would alter the scenic integrity and character of landscapes seen from Bouquet Canyon Road (KOP 7).***

Key Observation Position 7 was established on Bouquet Canyon Road (a Second Priority County Scenic Highway), approximately 0.8 miles south of Big Oaks Restaurant, looking north toward Del Sur Ridge. Figure C.15-9A presents the existing view from KOP 7, and the future view of the No Project/Action Alternative. Figure C.15-9B presents a computerized visual simulation depicting the replacement of the existing 66-kV transmission line towers on the skyline, numbers 13-3 through 13-5, with the proposed Project's 500-kV towers T-56 and T-57 (left to right in the simulation). The new towers would be 144 feet tall, as compared to existing towers that are approximately 60 feet tall. The increase in structure size would result in increased skylining of the tops of towers T-56 and T-57 in the center of this view, and would result in an increase in the degree of structure prominence compared to the existing transmission line. Visual contrast of the larger structures with accentuated silver-gray colors, vertical lines and geometric forms would be more visually evident in this landscape which is dominated by horizontal to rolling natural-appearing landforms. Color contrasts against the darker green of the chaparral vegetation and grass-covered hillsides, and would compound the visual effects of the new towers. The color contrast caused by the reflection of the sun off the structures would depend on ambient lighting conditions and time of day, and for this simulation, glare was not a factor because of the time of day. At this foreground and middleground viewing distance, new structures would be dominant in scale to the enclosed and enframed landscape.

**Scenic Integrity Objectives.** All of the landscape in view from KOP 7 is within the Santa Clara Canyons Place. In the 2005 Forest Plan, this entire landscape is mapped as High SIO, and under this management direction, human activities should not be evident. Human activities may be present but must repeat the form, line, color, texture, and pattern common to the natural landscape character so completely and at such a scale that they are not evident.

**Future Scenic Integrity: High, with Areas of Unacceptably Low.** This landscape in the Angeles National Forest is natural-appearing, consisting of a foreground and middleground landscape that is visually intact, with a mosaic of tan grasses covering steep canyons with a mosaic of dark green chaparral and gray green sagebrush. The proposed 500-kV transmission towers would stand out against the tan-colored grasses and dark green

chaparral slopes. On the skyline, tops of two new towers would be visible, and because the base of these towers would be situated on the side-slope of Bouquet Canyon, closer to the viewer than the ridgetop, more of the industrial structures would be visually evident. The new towers would attract viewers' attention, especially when silhouetted against the sky, and would meet the definition of unacceptably low inherent scenic integrity because they do not borrow form, line, color or texture from the natural landscape character. However, the majority of this landscape has high scenic integrity. But these few discordant features with their inherent industrial character – the silhouetted transmission line towers – would diminish certain areas of the existing landscape to levels of unacceptably low scenic integrity. The resulting visual impact of the proposed Project would be four levels below the High Scenic Integrity Objective. This would be a significant impact.

As discussed for KOP 4, 5, and 6, removal of existing 66-kV lattice steel towers, elimination of proposed Project lattice steel towers, access and spur roads, and replacement with tubular steel poles placed by helicopter does not meet the strict definition of the High SIO. However, if the tubular poles were surface coated with colors selected to match the landscape backdrop, the resulting visual impacts would be much less than the proposed Project's visual effects. Color, form, and scale contrasts would be reduced, as compared to existing lattice towers or proposed Project lattice towers. These mitigable visual impacts can be completely avoided only by relocating the proposed transmission line to a new utility corridor in a new, less visible location. Refer to discussions of Alternatives 2 and 5, both of which involve relocation of the transmission line to less-visible locations.

After implementation of Mitigation Measures V-3a (Remove Existing Foundations, Rehabilitate, and Re-Vegetate Tower Sites), V-3b (Remove, Rehabilitate, and Re-Vegetate Crane Pads), and V-3c (Avoid Locating New Roads in Bedrock), V-1a (Use Tubular Steel Poles), V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes), V-4a (Construct, Operate, and Maintain with Helicopters), V-4b (Dispose of Cleared Vegetation Off Site), and V-4c (Dispose of Excavated Materials Off Site), B-1a (Provide Restoration/Compensation for Impacts to Native Vegetation Communities), B-1b (No Activities will occur in Riparian Conservation Areas), R-4 (Permanent Closure and Re-Vegetation of Construction Roads), the Very Low SIO would be achieved by the proposed Project. This would result in an improved visual environment as seen from Bouquet Canyon Road, as compared to the proposed Project without mitigation, but would still result in a significant, unavoidable impact (**Class I**) that would not achieve the High Scenic Integrity Objective, but would be three levels lower, achieving the Very Low SIO.

These visual impacts can be completely avoided only by relocating the proposed transmission line to a new utility corridor in a new, less visible location. Refer to discussions of Alternatives 2 and 5, both of which involve relocation of the transmission line to less-visible locations.

***Impact V-8: Project infrastructure would alter the scenic integrity and character of landscapes seen from Vasquez Canyon Road (KOP 8).***

Key Observation Position 8 was established on Vasquez Canyon Road (a Second Priority County Scenic Highway), approximately 0.25 miles east of the intersection with Bouquet Canyon Road. The entire foreground is private land outside the ANF, but the middleground and background is NFS Land administered by the ANF. From this vantage point, more than 6 miles of Del Sur Ridge are visible in the background. Figure C.15-10A presents the existing view from KOP 8, and the future view of the No Project/Action Alternative. Figure C.15-10B presents a computerized visual simulation showing the replacement of the existing 66-kV transmission line with the proposed Project's 500-kV transmission towers. From KOP 8, the extent of the existing 66-kV transmission line that is visible is from existing tower 14-2 on the north (right) through existing tower 8-4 on the south (left), which corresponds to new tower T-60 on the north through new tower T-35 on the south. Towers

silhouetted against the skyline would be the most visible of the proposed structures along Del Sur Ridge, although some towers would be constructed midslope nearer Bouquet Canyon. Increased prominence of access roads and increased size of new structures would result in several adverse visual effects. The substantial increase in structure height would cause additional structure skylining and would raise the conductors further above the horizon, making them more visually prominent. The increased structure size would also cause a significant increase in structure prominence and industrial character when viewed from Vasquez Canyon Road. As a result, the proposed Project would attract attention and would be very visually evident.

**Scenic Integrity Objectives.** All of the landscape in view from KOP 8 is within the Santa Clara Canyons Place. In the 2005 Forest Plan, this entire landscape is mapped as High SIO, and under that management direction, human activities should not be evident. Human activities may be present but must repeat the form, line, color, texture, and pattern common to the natural landscape character so completely and at such a scale that they are not evident.

**Future Scenic Integrity: High, with Areas of Unacceptably Low.** National Forest System Lands visible from Vasquez Canyon Road are predominantly natural-appearing, consisting of a middleground and background landscapes that are visually intact, with a mosaic of tan grasses and dark green chaparral and gray green sagebrush covering steep canyons and rolling mountainside landforms. From KOP 8, the most predominant visual elements are the private ranch buildings and vegetation in the foreground, and the second most predominant visual element is the skyline of Del Sur Ridge. The proposed 500-kV transmission line structures would attract more attention than the existing transmission line structures, especially when located on a skyline ridge such as Del Sur, because their vertical lines and angular forms would not repeat the curvilinear lines and rolling forms of the characteristic landscapes in the Santa Clara Canyons Place. The new 500-kV transmission line would be very visually evident, would attract attention, and would not meet the High SIO in this viewshed. The resulting visual impact of the proposed Project would be four levels below the High Scenic Integrity Objective. This would be a significant impact.

As discussed for KOP 4, 5, 6, and 7, removal of existing lattice steel towers, elimination of proposed Project lattice steel towers, access and spur roads, and replacement with tubular steel poles placed by helicopter does not meet the strict definition of the High SIO. However, if the tubular poles were surface-treated with colors selected to match the landscape backdrop, or the sky, the resulting visual impacts would be much less than the proposed Project's visual effects. Color, form, and scale contrasts would be reduced, as compared to existing lattice towers or proposed Project lattice towers. These mitigable visual impacts can be completely avoided only by relocating the proposed transmission line to a new utility corridor in a new, less visible location. Refer to discussions of Alternatives 2 and 5, both of which involve relocation of the transmission line to less-visible locations.

After implementation of Mitigation Measures V-3a (Remove Existing Foundations, Rehabilitate, and Re-Vegetate Tower Sites), V-3b (Remove, Rehabilitate, and Re-Vegetate Crane Pads), and V-3c (Avoid Locating New Roads in Bedrock), V-1a (Use Tubular Steel Poles), V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes), V-4a (Construct, Operate, and Maintain with Helicopters), V-4b (Dispose of Cleared Vegetation Off-Site), and V-4c (Dispose of Excavated Materials Off-Site), B-1a (Provide Restoration/Compensation for Impacts to Native Vegetation Communities), B-1b (No Activities will occur in Riparian Conservation Areas), R-4 (Permanent Closure and Re-Vegetation of Construction Roads), the Very Low SIO would be achieved by the proposed Project. This would result in an improved visual environment as seen from Vasquez Canyon Road, as compared to the proposed Project without mitigation, but would still result in a significant, unavoidable impact (**Class I**) that would not achieve the High Scenic Integrity Objective, but would be three levels below, achieving the Very Low SIO.

Table C.15-4 displays locations where Mitigation Measure V-4a (Construct, Operate, and Maintain with Helicopters) would be applied to the proposed Project. Approximate miles are also given to generally orient the reader to the Center Area inside the ANF boundary. Miles and number of towers are approximate, based on estimates derived from preliminary design concepts and are subject to change as the design is finalized.

<b>Use Helicopter Only</b>			<b>OK to Use Access Roads</b>		
From Mile	To Mile	Estimated Number of Structures	From Mile	To Mile	Estimated Number of Structures
5.7	9.1	18	9.1	9.7	2
9.7	10.1	1	10.1	10.5	2
10.5	13.2	13	13.2	13.3	1
13.3	14.7	7	14.7	15.9	5
15.9	16.4	2	16.4	18.6	7
<b>Total Structures</b>		<b>41</b>	<b>Total Structures</b>		<b>17</b>

Note: These are approximate numbers and miles based on estimates derived from preliminary design concepts. Numbers and miles are subject to change as the design is finalized.

### **South Area (Mile 18.6 to 25.6)**

At Mile 18.6 the proposed Project would exit NFS lands and enter the Veluzat Motion Picture Ranch (the ANF south boundary is located at approximately Mile 19.5 and includes private in-holding lands). Visual impacts resulting from the proposed Project (towers T-30 through T-1) construction and operation between Mile 18.6 and 25.6, within unincorporated areas of Los Angeles County and the City of Santa Clarita would primarily be experienced from viewers at the motion picture ranch, on the multitude of city streets and highways, residential areas, parks, schools and trails in open space areas. From Mile 18.6 to Mile 20.3, the Project would be constructed in a new 180' right-of-way in Haskell Canyon. From Mile 20.3 to 22.3, the Project would replace existing single-circuit towers on the Pardee-Vincent 500-kV transmission line with taller double-circuit towers. The proposed Project would terminate at the Pardee Substation at Mile 25.6. The new double-circuit 500-kV towers would be taller and slightly narrower (ranging from 175 to 220 feet tall and 75 feet wide) than the existing 500-kV single-circuit towers (ranging from 113 to 178 feet tall and 96 feet wide). From Mile 22.3 to the Project termination at Pardee Substation, the proposed Project would be constructed alongside the existing Pardee-Vincent 500-kV transmission line on double-circuit towers. Upon completion of construction, the existing 500-kV single-circuit towers would be removed. The new double-circuit 500-kV single-circuit towers would increase the magnitude of visual contrast of all elements (form, line, color, texture, and scale), as compared to the existing single-circuit 500-kV existing towers. Existing 66-kV towers would remain in place from Mile 18.6, heading to the southwest.

### ***Impact V-9: The Project would alter the visual quality of landscape views as seen from Veluzat Motion Picture Ranch (KOP 9).***

Key Observation Position 9 was established in the Veluzat Motion Picture Ranch, an active movie and television set that is located on private land inside the National Forest Boundary. This view is looking north at "Main Street." The proposed Project would construct a new 500-kV single-circuit tower on the tan skyline ridgetop in the center of this photograph, and the conductors would pass directly overhead in this view. Figure C.15-11A presents the existing view from KOP 9, and the future view of the No Project/Action Alternative. Figure C.15-11B presents a computerized visual simulation depicting the new transmission line and tower. Tower T-28 is the only tower visible in this simulation. It would be approximately 144 feet tall and 96 feet wide, and its industrial character would dominate a scene that is otherwise natural-appearing. The placement of this tower would result in several adverse visual effects, including destruction of the rustic setting for filming and introduction of

industrial landscape character. Additionally, the new structure's height would cause skylining (extending above the horizon line), which would potentially disrupt the landscape setting for other filming locations on the property. The structure's size and scale would dominate. As a result, visual contrast would be high and the proposed Project would appear out of place with the existing landscape setting. The new structure skylining and additional obstruction of the backdrop ridgeline would result in a high degree of view blockage.

Because KOP 9 is located on private property, Forest Service SIOs do not apply, and the VS/VC method of impact assessment is applicable. Referring to Table C.15-1 General Guidance for Review of Visual Impact Significance, the overall visual change would be high and in the context of the existing landscape's high visual sensitivity, the resulting visual effects would be significant, unavoidable impacts (**Class I**). No mitigation is available that would reduce this impact to less-than-significant levels while leaving the towers (T-28 and others in this alignment from Mile 18.6 to 19.3) in approximately the same locations on the Veluzat Ranch. Only a relocation of the proposed transmission line would avoid this significant visual impact. Implementation of Mitigation Measure V-9 would result in no change in existing visual conditions as seen from KOP 9. Please refer to discussions of Alternative 4 – Haskell Canyon Re-Route, and Alternative 5 – Sierra Pelona Corridor, both of which involve relocation of the transmission line to less-visible locations away from the Motion Picture Ranch.

#### ***Mitigation Measures for Impact V-9***

**V-9 Relocate Transmission Line Off-Site.** SCE and its Contractors shall relocate the transmission line off the site of the Veluzat Motion Picture Ranch.

#### ***Impact V-10: Project infrastructure would alter the visual quality of landscape views as seen from North High Ridge Drive (KOP 10).***

Key Observation Position 10 was established at the upper end of North High Ridge Drive, a residential street that affords a panoramic view looking west-northwest across Haskell Canyon. This view is representative of many views within the suburban neighborhoods of the Santa Clarita vicinity – from front yards, streets and back yards – that look across suburban neighborhoods to natural open-space hillsides and ridgetops with numerous developments such as transmission lines and water tanks. Approximately 1.7 miles of the route in this vicinity would be constructed in a new 180-foot ROW that parallels the LADWP ROW along Haskell Canyon. The proposed Project would proceed down Haskell Canyon at a mid-slope elevation, entering this view from the right, would turn and span across Haskell Canyon, then follow the alignment of large towers that are situated on the skyline ridges in the center of this view, and proceed to the skyline left of the two existing water tanks.

Figure C.15-12A presents the existing view to the west from KOP 10, and the future view of the No Project/Action Alternative. Figure C.15-12B presents a computerized visual simulation depicting the replacement of the existing single-circuit 500-kV transmission line with the proposed Project's double-circuit 500-kV transmission line. New towers T-22 through T-19 of the proposed double-circuit 500-kV transmission line would be constructed on the sites of existing single-circuit 500-kV towers 25-1 through 26-1 (which would be removed). The new double-circuit 500-kV towers would be taller and slightly narrower (ranging from 175 to 220 feet tall and 75 feet wide) than the existing 500-kV single-circuit towers (ranging from 113 to 178 feet tall and 96 feet wide). Visual simulations for KOPs 10 through 14 used a consistent height of 200 feet for all double-circuit towers. The increased height of the structures would result in several noticeable adverse visual effects. Additional structure height would cause additional structure skylining (extending above the horizon line) and a further elevating of the conductors above the background horizon line, potentially increasing their visibility when viewed from residences and roadways (depending on light conditions and time of day). The increased structure height would also cause increased structure prominence, and a change in scale of the towers

in proportion to the residential neighborhoods scale. Increased tower heights would block the views of the background sky and skyline ridges. Residential viewers in this neighborhood would likely consider any increase in visible industrial character, transmission line structural prominence, or view blockage of the background sky and ridges an adverse visual change. The resulting visual contrast would be moderate-to-high. The proposed Project would appear to dominate existing landscape features and the skyline.

Referring to Table C.15-1, General Guidance for Review of Visual Impact Significance, the overall visual change would be moderate-to-high and in the context of the existing landscape's moderate-to-high visual sensitivity, the resulting visual impact would be significant.

Because there are residences immediately adjacent to the proposed Project in the vicinity of North High Ridge Drive, and people would view the transmission line structures at "immediate foreground" and "foreground" viewing distances, it is appropriate to use double-circuit tubular steel poles in the vicinity of KOP 10. (See discussion of TSPs and LSTs at Impact V-1 [110th Street at Johnson Road] and simulation at Figure C.15-12C.) Implementation of Mitigation Measures V-1a (Use Tubular Steel Poles), V-1b (Construct, Operate, and Maintain with Existing Access Roads), V-1c (Dispose of Cleared Vegetation), V-1d (Dispose of Excavated Materials), and V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes) would reduce Impact V-10 for the proposed Project, as compared to the proposed Project without mitigation. This would result in an improved visual environment, as compared to the proposed Project, but would still result in a significant, unavoidable visual impact (**Class I**) because of increased structure prominence and skyline blockage as seen from North High Ridge Drive.

Significant visual impacts of these tall double-circuit structures (both lattice steel towers and tubular steel poles) would be further reduced by constructing a second single-circuit transmission line parallel to the existing single-circuit transmission line in this same corridor. Refer to discussions of Alternative 3, which involves construction of a second single-circuit transmission line between Haskell Canyon and Pardee Substation, and leaving the existing single-circuit transmission line in place and in service in this location, as proposed by the Applicant.

***Impact V-11: Project infrastructure would alter the visual quality of landscape views as seen from Mountain View Park (KOP 11).***

Key Observation Position 11 was established at Mountain View Park, which is located on Seco Canyon Road north of Copper Hill Road. This vantage point was selected because it is the only location where the proposed Project would be constructed directly over a park and playground, thereby affecting visual resources, recreation, and land uses. Looking west across Seco Canyon Road to Mountain View Park, the proposed Project would be a double-circuit line at this point and would cross directly overhead to the skyline, where it would turn to the left. The tallest tower on the skyline is existing double-circuit dead-end tower that is 278 feet tall, and is visible from both KOP 11 and 12, and from numerous locations throughout the surrounding neighborhoods.

Figure C.15-13A presents the existing view to the west from KOP 11, and the future view of the No Project/Action Alternative. Figure C.15-13B presents a computerized visual simulation depicting the replacement of two existing single-circuit 500-kV transmission towers with the proposed Project's double-circuit 500-kV towers T-17 (closest tower in the simulation) and T-16. The new double-circuit structures would be taller and slightly narrower (ranging from 175 to 220 feet tall and 75 feet wide) than the existing 500-kV single-circuit towers (ranging from 113 to 178 feet tall and 96 feet wide). The increase in the height of the structures would result in several noticeable adverse visual effects. Additional structure height would cause additional structure skylining and a further elevating of the conductors above the horizon line, potentially increasing their visibility when viewed from the park and surrounding residential neighborhoods. The resulting visual contrast

would be high and the proposed Project would appear dominant over the existing park landscape features. The increased structure skylining and additional obstruction of the sky by structures and conductors would result in a high degree of view blockage.

Referring to Table C.15-1 General Guidance for Review of Visual Impact Significance, the overall visual change would be high and in the context of the existing landscape's high visual sensitivity, the resulting visual impact would be significant.

Because this park and numerous residences are immediately adjacent to the proposed Project in the vicinity of Mountain View Park, and people would view the transmission line structures at "immediate foreground" and "foreground" viewing distances, it is appropriate to use double-circuit tubular steel poles in the vicinity of KOP 11. (See discussion of TSPs and LSTs at Impact V-1 (110th Street at Johnson Road) and simulation at Figure C.15-13C.) Implementation of Mitigation Measures V-1a (Use Tubular Steel Poles), V-1b (Construct, Operate, and Maintain with Existing Access Roads), V-1c (Dispose of Cleared Vegetation), V-1d (Dispose of Excavated Materials), and V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes) would reduce Impact V-11 of the proposed Project. This would result in an improved visual environment, as compared to the proposed Project, but would still result in a significant, unavoidable visual impact (**Class I**) because of increased structure prominence and skyline blockage as seen from Mountain View Park.

Adverse visual impacts of these new, tall, double-circuit structures (both lattice steel towers and tubular steel poles) would be further reduced by constructing a second single-circuit transmission line parallel to the existing single-circuit transmission line in this location. Refer to discussions of Alternative 3, which involves construction of a second single-circuit transmission line between Haskell Canyon and Pardee Substation, and leaving the existing single-circuit transmission line in place and in service at this location.

***Impact V-12: Project infrastructure would alter the visual quality of landscape views as seen from Rio Norte Junior High School (KOP 12).***

Key Observation Position 12 was established at Rio Norte Junior High School on Rio Norte Road, looking east-northeast across San Francisquito Canyon from the parking lot toward residential neighborhoods of Santa Clarita. Figure C.15-14A presents the existing view to the west from KOP 12, and the future view of the No Project/Action Alternative. Figure C.15-14B presents a computerized visual simulation showing the replacement of the existing single-circuit 500 kV transmission line with the proposed Project's double-circuit 500-kV transmission line. New towers T-17 through T-11 of the proposed double-circuit 500-kV transmission line would be constructed alongside existing single-circuit 500-kV towers, which would be removed after construction. The new double-circuit 500-kV towers would be taller and slightly narrower (varying from 175 to 220 feet tall and 75 feet wide) than the existing 500-kV single-circuit towers that vary from 113 to 178 feet tall and 96 feet wide. The increase in the height of the structures would result in several noticeable adverse visual effects. Additional structure height would cause additional structure skylining and a further elevating of the conductors above the background horizon line, increasing their visibility when viewed from the school, residences and roadways. The increased structure height would also cause increased structure prominence, and a dwarfing of residential structures, leading to a discordance of scale. The resulting visual contrast would be high and the proposed Project would appear dominant when compared with the existing urban landscape features. The increased structure skylining and additional obstruction of the ridgeline backdrop by structures and conductors would result in a moderate-to-high degree of view blockage.

Referring to Table C.15-1 General Guidance for Review of Visual Impact Significance, the overall visual change would be high and in the context of the existing landscape's high visual sensitivity, the resulting visual impact would be significant.

Because this school looks across San Francisquito Canyon to the proposed Project, and numerous residences are immediately adjacent to the proposed Project in this vicinity, and people would view the transmission line structures at “immediate foreground,” “foreground,” and “middleground” viewing distances, it is appropriate to use double-circuit tubular steel poles in the vicinity of KOP 12. Implementation of Mitigation Measures V-1a (Use Tubular Steel Poles), V-1b (Construct, Operate, and Maintain with Existing Access Roads), V-1c (Dispose of Cleared Vegetation), V-1d (Dispose of Excavated Materials), and V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes) would reduce Impact V-12 of the proposed Project. This would result in an improved visual environment, as compared to the proposed Project, but would still result in a significant, unavoidable visual impact (**Class I**) because of increased structure prominence and skyline blockage as seen from Rio Norte Junior High School.

Additionally, adverse visual impacts of these tall double-circuit structures (both lattice steel towers and tubular steel poles) would be further reduced by constructing a second single-circuit transmission line parallel to the existing single-circuit transmission line in this location, in lieu of constructing taller double-circuit towers. Refer to discussions of Alternative 3, which involves construction of a second single-circuit transmission line between Haskell Canyon and Pardee Substation, not constructing the double-circuit line, and leaving the existing single-circuit transmission line in place and in service.

***Impact V-13: Project infrastructure would alter the visual quality of landscape views as seen from North Park Elementary School and Chesebrough Park (KOP 13).***

Key Observation Position 13 was established at North Park Elementary School, looking across Chesebrough Park toward San Francisquito Canyon. This vantage point was selected because it shows the route of the proposed Project, which follows existing transmission lines, crossing in front of the viewer and turning away toward Pardee Substation. Figure C.15-15A presents the existing view to the west from KOP 13, and the future view of the No Project/Action Alternative. Figure C.15-15B presents a visual simulation that depicts construction of the proposed Project’s double-circuit 500-kV towers and removal of existing single-circuit 500-kV transmission towers. New towers T-10 through T-5 of the proposed double-circuit 500-kV transmission line would be visible from this vantage point, and existing single-circuit 500-kV towers 28-1 through 29-2 would be removed. The new structures would be taller and slightly narrower (varying from 175 to 220 feet tall and 75 feet wide) than the existing 500-kV single-circuit towers that range from 113 to 178 feet tall and 96 feet wide. Additional structure height would cause additional structure skylining and a substantial increase in the distance conductors extend above the background horizon line, increasing their visibility when viewed from the school, park, residences and roadways. The increased structure height would also cause increased structure prominence, and a dwarfing of school, park, and residential structures, leading to a discordance of scale. The resulting visual contrast would be high and the proposed Project would appear dominant when compared with the existing urban landscape features. The increased structure skylining and additional obstruction of the ridgeline backdrop by structures and conductors would result in a high degree of view blockage.

Referring to Table C.15-1, General Guidance for Review of Visual Impact Significance, the overall visual change would be high and in the context of the existing landscape’s high visual sensitivity, the resulting visual impact would be significant.

People at North Park Elementary School look across Chesebrough Park toward the proposed Project and San Francisquito Canyon, and numerous residences are immediately adjacent to the proposed Project in this vicinity. People would view the transmission line structures at “immediate foreground,” “foreground,” and “middleground” viewing distances from KOP 13; therefore, it is appropriate to use double-circuit tubular steel poles in the vicinity of KOP 13. Implementation of Mitigation Measures V-1a (Use Tubular Steel Poles), V-1b



(Construct, Operate, and Maintain with Existing Access Roads), V-1c (Dispose of Cleared Vegetation), V-1d (Dispose of Excavated Materials), and V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes) would reduce Impact V-13 of the proposed Project. This would result in an improved visual environment, as compared to the proposed Project, but would still result in a significant, unavoidable visual impact (**Class I**) as seen from North Park Elementary School, looking across Chesebrough Park.

Additionally, implementation of Alternative 1 – Partial Undergrounding in Santa Clarita – would eliminate the visual contrast elements of new transmission towers and conductors as seen from KOP 13. See discussions of Alternative 1.

Likewise, adverse visual impacts of these tall double-circuit structures (both lattice steel towers and tubular steel poles) would be further reduced by constructing a second single-circuit transmission line parallel to the existing single-circuit transmission line in this location, in lieu of constructing taller double-circuit towers. Refer to discussions of Alternative 3, which involves construction of a second single-circuit transmission line between Haskell Canyon and Pardee Substation, not constructing the double-circuit line, and leaving the existing single-circuit transmission line in place and in service.

***Impact V-14: Project infrastructure would alter the visual quality of landscape views as seen from Copper Hill Road (KOP 14).***

Key Observation Position 14 was established on Copper Hill Road just above (east) of the intersection with Alta Vista Avenue. The elevated nature of this vantage point affords a panoramic view looking southwest across the Santa Clara River Canyon. The proposed Project would be located on the right side of this view, partially screened by a small hill. This view is representative of many views along Copper Hill Road, where an existing transmission line parallels the roadway within the suburban neighborhoods of the Santa Clarita. Figure C.15-16A presents the existing view to the west from KOP 14, and the future view of the No Project/Action Alternative. Figure C.15-16B presents a computerized visual simulation depicting replacement of the existing single-circuit 500-kV transmission line with the proposed Project's double-circuit 500-kV transmission line. New towers T-3 through T-1 of the proposed double-circuit 500-kV transmission line would be visible from this vantage point, and existing single-circuit 500-kV towers 29-3 through 29-5 would be removed. The new double-circuit 500-kV towers would be taller and slightly narrower (175 to 220 feet tall and 75 feet wide) than the existing 500-kV single-circuit towers (113 to 178 feet tall and 96 feet wide). The increased height of structures would result in several noticeable adverse visual effects, including additional structure skylining and a further elevating of the conductors above the background horizon line. The increased structure height would also cause increased structure prominence. Because of the backdrop of Pardee Substation and Magic Mountain Amusement Park, the visual contrast resulting from the proposed Project would be moderate and the proposed Project would appear co-dominant with the existing landscape features as viewed in this static photograph. However, when proceeding down Copper Hill Road, the increased height and prominence of the 200-foot-tall double-circuit towers would appear greater and the overall visual impact would be higher than shown in this static view. The new towers would attract attention and would become focal points that would visually dominate the view, rising above the street trees and low-rise buildings. The increased structure skylining and additional obstruction of the background sky by structures and conductors would result in a moderate-to-high degree of view blockage. The industrial character of the proposed double-circuit lattice steel towers would diminish the scenic integrity of the existing landscape and reduce the overall level of visual quality.

Referring to Table C.15-1, General Guidance for Review of Visual Impact Significance, the overall visual change would be moderate-to-high and in the context of the existing landscape's moderate-to-high visual sensitivity, the resulting visual impact would be "adverse and potentially significant."

People walking along or driving on Copper Hill Road look across this broad landscape toward the proposed Project and the backdrop of mountains. People would view the transmission line structures at “immediate foreground,” “foreground,” and “middleground” viewing distances from KOP 14; and therefore, it is appropriate to use double-circuit tubular steel poles in the vicinity of KOP 14. Implementation of Mitigation Measures V-1a (Use Tubular Steel Poles), V-1b (Construct, Operate, and Maintain with Existing Access Roads), V-1c (Dispose of Cleared Vegetation), V-1d (Dispose of Excavated Materials), and V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes) would reduce Impact V-14 of the proposed Project. This would result in an improved visual environment, as compared to the proposed Project, but would still result in a significant, unavoidable visual impact (**Class I**) because of the increased height of structures and structure prominence in the landscape.

Implementation of Alternative 1 – Partial Undergrounding in Santa Clarita – would eliminate visually contrasting elements of new transmission towers and conductors as seen from KOP 14. These visual impacts can be completely avoided by constructing the transmission line underground and relocating portions of the proposed transmission line in street rights-of-way. Implementation of Alternative 1 would maintain the existing visual conditions at KOP-14 and would result in no change from existing conditions. (See Figure C.15-16A – Existing Conditions at KOP-14). See discussions of Alternative 1, Partial Underground Alternative in Santa Clarita.

As an option to Alternative 1, Alternative 3 would involve construction of a second single-circuit transmission line between Haskell Canyon and Pardee Substation, not constructing the double-circuit line, and leaving the existing single-circuit transmission line in place and in service. Implementation of Alternative 3 would reduce the visual impacts of taller structures (either lattice steel towers or tubular steel poles), but would double the number of shorter, single-circuit, lattice steel towers. See discussions of Alternative 3: Single-circuit Towers between Haskell Canyon and Pardee Substation.

Because of the extensive amount of existing electrical equipment at the Pardee Substation, Project improvements (two new 220-kV circuit breakers and four new 220-kV disconnect switches) in the substation would not create any discernable visual impacts as seen from KOP 14.

***Impact V-15: The temporary visibility of construction activities and equipment involved with the Project would alter the visual quality of landscape views as seen from various vantage points throughout the Project area.***

Construction impacts on visual resources would result from the presence of equipment, materials, and work force at the substation sites, staging areas, and along the access roads and overhead transmission line route. Construction impacts on visual resources would also result from the temporary alteration of landforms and vegetation along the utility corridor. Vehicles, heavy equipment, helicopters, Project components, and workers would be visible during site clearing, grading, substation expansion and construction, structure erection, conductor stringing, cable placement, and site/ROW clean-up and restoration. Construction equipment and activities would be seen by various viewers in close proximity to the sites and utility corridor including adjacent and nearby residents, recreationists on trails and roads, motorists, and pedestrians. View durations would vary from brief to extended periods. Construction activities would be most visible for those elements of the proposed Project through residential neighborhoods and adjacent to major travel corridors such as the travel routes named in Section C.15-1.

The construction of the transmission line, modification of existing Antelope Substation, and use of construction staging areas would result in the visual intrusion of construction vehicles, helicopters, equipment, storage materials, and workers. However, Project construction is a relatively short-duration (projected timeframe of 13-

months), visual impact, as compared to the permanent structures that would be introduced into the landscape by the proposed Project.

The proposed Project's short-term impacts on visual conditions during construction would be significant and unavoidable (**Class I**), and there is no mitigation available to make vehicles, heavy equipment, helicopters, and other Project components less visible. Long-term visual impacts would be reduced to a less-than-significant, but adverse level (**Class III**) with the implementation of Mitigation Measures V-15a (Storage and Site Cleanup), V-15b (Recontouring and Restoration), and V-15c (Revegetation) as described below.

***Mitigation Measures for Impact V-15***

- V-15a Storage and Site Cleanup (Miles 0.0 to 25.6).** The Applicant (SCE) shall keep construction-related activity clean and inconspicuous by storing building materials and equipment within the proposed construction staging areas or generally away from public view and shall remove construction debris promptly at regular intervals.
- V-15b Recontouring and Restoration (Miles 0 to 25.6).** The Applicant (SCE) shall prepare and present to the CPUC, Forest Service (related to NFS lands), and other affected agencies a re-contouring and restoration plan at least 60 days prior to start of construction. The Applicant (SCE) shall re-contour and restore all disturbed or graded areas at the transmission line tower structures, pulling sites, staging areas, and substation expansion areas to provide a natural-appearing landform upon completion of construction.
- V-15c Revegetation (Miles 0 to 25.6).** The Applicant (SCE) shall prepare and present to the CPUC, Forest Service (related to NFS lands), and other affected agencies a revegetation plan at least 60 days prior to start of construction. The Applicant (SCE) shall re-vegetate all disturbed areas using approved methods commonly used in Los Angeles County, the Cities of Palmdale, Lancaster, and Santa Clarita, and the Angeles National Forest to restore the landscape's natural appearance to as near-natural appearance as possible.

**Conflict with applicable adopted city, county, State, or federal plans, policies, regulations, or standards applicable to the protection of visual resources (Criterion VIS2)**

***Impact V-16: The Project would conflict with adopted visual quality policies and objectives contained in Forest and local plans.***

Table C.15-5 provides an analysis of the proposed Project's consistency with applicable plans and policies discussed in Section C.15.2. As noted in the table, even with implementation of APM VIS-1 and VIS-2, the proposed Project would be inconsistent with existing plans, objectives, and policies for visual resources. This would be a significant impact. Therefore, additional mitigation measures for visual resources have been developed (V-1a through V-1d, V-3a through V-3c, V-4a through V-4c, V-9, V-15, and V-19). There are occasions when a reduction of tower height or the installation of vegetative screening (in close proximity to an observation position) would accomplish some level of visual impact reduction. However, for a transmission line of this scale, with 113- to 178-foot tall and 96-foot wide single-circuit lattice steel towers and 175- to 220-foot tall and 75-foot wide double-circuit lattice steel towers, there is relatively little opportunity to mitigate visual impacts to a level of insignificance. Mitigation measures would mitigate some of these visual impacts, but implementation of the proposed Project (Action) or any of the alternatives would result in significant, unavoidable impacts to visual resources and be in conflict with adopted visual quality policies and objectives contained in Forest and local plans, as enumerated below. Therefore, it is necessary to implement mitigation measures for plan and policy consistency.

As noted in the proposed Project description in Section B, a Forest Plan amendment would be required to amend the Scenic Integrity Objectives along the project route to ensure compliance with federal laws (NFMA, 16 USC 1600-1614, as amended) and regulation (36 CFR 219.10). Table C.15-2 shows the five Scenic Integrity Objectives, a definition for each Scenic Integrity Level, plus a level of scenic integrity used for inventory purposes only. To ensure consistency with management direction in the governing 2005 Forest Land Management Plan (Forest Plan), the proposed Project (Action) and alternatives would require several amendments to the Forest Plan regarding visual resources, scenic integrity, and management of PCT foreground views, including:

- Changing the Scenic Integrity Objectives along the existing or proposed utility corridor.
- Modifying the Forest Standard related to the Pacific Crest Trail (S1) specifically regarding this project only, as the proposed utility corridor and transmission line would adversely impact PCT foreground views.

Any proposed Forest Plan amendments pertaining to this Project will be included as part of the need for action and included in the appropriate alternatives analyzed in this document. The Forest Plan amendments must be completed before Special Use authorization(s) can be issued to SCE for the proposed Project or a Project alternative. A description of the Forest Plan amendments required to approve the proposed Project are described in Section A.5.2.

The CPUC encourages, but does not require SCE to comply with local plans and policies. Prior to start of construction, therefore, adherence to county and local planning goals, policies, and objectives for visual resources is not required.

The only feasible measures to mitigate visual impacts to a level of insignificance and complying with existing plans and policies (without amendments) are as follows: (1) relocation of aboveground structures to areas where topographic features would provide complete screening of these large, industrial structures; or (2) construction of underground structures in areas where no topographic features are present to provide screening. No other mitigation is available that would reduce these impacts to less-than-significant levels while leaving the transmission line in its proposed alignment from Mile 0.0 to 25.6. Only a relocation of the proposed transmission line would avoid these significant conflicts to visual policies and objectives.

Implementation of Mitigation Measures V-16a (Forest Plan Amendment), V-16b (Local Agency Approvals), and V-16c (Transmission Line Siting Study within the ANF) would reduce visual impacts associated with Impact V-16 to less-than-significant, but adverse (**Class III**) levels.

### ***Mitigation Measures for Impact V-16***

- V-16a Forest Plan Amendment (Miles 5.7 to 18.6).** SCE shall obtain all necessary and applicable approvals and permits from the USDA Forest Service, including any required Forest Plan amendments, and shall submit said approvals and permits to the CPUC at least 60 days prior to construction.
- V-16b Local Agency Approvals (Miles 0.0 to 25.6).** SCE shall obtain all necessary and applicable approvals and permits from the Los Angeles County and affected local agencies, and shall submit said approval(s) and permits to the CPUC at least 60 days prior to construction.
- V-16c Transmission Line Siting Study within the ANF (~~Miles 0.0 to 25.6~~).** SCE and its Contractors shall prepare an additional siting study that provides a detailed analysis of the least visually impacting location for a new 500-kV transmission line within the ANF to ultimately connect the from Antelope Substation to the Pardee Substation (~~Mile 0.0 to 25.6~~). SCE and its Contractors shall relocate aboveground structures to areas where topographic features would provide complete screening of

these large, industrial structures, as feasible, and shall relocate the transmission line underground in areas where no topographic features are present to provide screening. SCE and its Contractors shall provide this siting study to the CPUC and Forest Service, and any other affected agencies, at least 180 days prior to construction.

<b>Table C.15-5. Consistency with Applicable Visual Resource Plans and Policies</b>			
<b>Agency Regulating Land Use</b>	<b>Regulation</b>	<b>Is Proposed Project Consistent?</b>	<b>Method of Consistency</b>
USDA Forest Service, Pacific Southwest Region, Angeles National Forest	Angeles National Forest Land and Resources Management Plan (Unless Amended)		
	Scenery Management System. Design management activities to meet the Scenic Integrity Objectives (SIOs) shown on the Scenic Integrity Objectives Map. Would the Project meet High Scenic Integrity Quality Objective from Mile 5.7 to 15.9 and from Mile 16.0 to 17.6 and from Mile 17.9 to 18.6?	Yes (Conditional upon approval of Forest Plan amendment)	The proposed Project would be very visually evident from KOPs 3, 4, 5, 6, 7, and 8, all of which are NFS lands with a High SIO, and where, with implementation of mitigation measures, the Very Low SIO would be achieved by the proposed Project. Therefore, from Mile 5.7 to 15.9 and 16.0 to 17.6, to ensure consistency with management direction in the governing 2005 Forest Land Management Plan (Forest Plan), the proposed Project (Action) would require several amendments to the Forest Plan. With an amendment to the Forest Plan to change Scenic Integrity Objectives along the existing or proposed utility corridor to "Very Low SIO," the Project would be consistent with the Forest Plan policies and regulations.
		Yes	From Mile 17.9 to 18.6, because of topographic screening, the proposed Project would not be visible from sensitivity level one travel routes, use areas or water bodies and, therefore, with implementation of mitigation measures, would meet the High Scenic Integrity Objective.
	Scenery Management System. Design management activities to meet the Scenic Integrity Objectives (SIOs) shown on the Scenic Integrity Objectives Map. Would the Project meet Moderate Scenic Integrity Quality Objective from Mile 15.9 to 16.0 and from Mile 17.6 to 17.9?	Yes (Conditional upon approval of Forest Plan amendment)	The proposed Project would be located in a Moderate SIO area from Mile 15.9 to 16.0. New single-circuit transmission towers and conductors would be very visible with discordant visual elements from Mile 15.9 to 16.0, achieving the Very Low SIO with implementation of mitigation measures. Therefore, from Mile 15.9 to 16.0, to ensure consistency with management direction in the governing 2005 Forest Land Management Plan (Forest Plan), the proposed Project (Action) would require several amendments to the Forest Plan. With an amendment to the Forest Plan to change Scenic Integrity Objectives along the existing or proposed utility corridor to "Very Low SIO," the Project would be consistent with the Forest Plan policies and regulations.
		Yes	From Mile 17.6 to 17.9, because of topographic screening, the proposed Project would not be visible from sensitivity level one travel routes, use areas or water bodies and, therefore, would meet the Moderate Scenic Integrity Objective
	Temporary drops in more than one SIO level may be made during and immediately following project implementation providing they do not exceed three years in duration. Would Project meet this criterion?	Yes (Conditional upon approval of Forest Plan amendment)	The visual effects of the transmission line would exceed three years in duration, and would be more than one level below the High SIO. Therefore, from Mile 5.7 to 18.6, to ensure consistency with management direction in the governing 2005 Forest Land Management Plan (Forest Plan), the proposed Project (Action) would require several amendments to the Forest Plan. With an amendment to the Forest Plan to change Scenic Integrity Objectives along the existing or proposed utility corridor to "Very Low SIO," the Project would be consistent with the Forest Plan policies and regulations, and therefore, this criterion would be met.
	Protect scenic integrity of Pacific Crest Trail foreground views as well as from designated viewpoints. Where practicable, avoid establishing nonconforming land uses within the viewshed of the trail (Liebre-Sawmill, Santa Clara Canyons, and Soledad Front Country). Would Project meet this criterion?	Yes (Conditional upon approval of Forest Plan amendment)	The visual effects of the transmission line would diminish the scenic integrity of foreground views of the PCT. The transmission line would establish a new, non-conforming land use within the viewshed of the PCT. To ensure consistency with management direction in the governing 2005 Forest Land Management Plan (Forest Plan), the proposed Project (Action) would require several amendments to the Forest Plan. With an amendment to the Forest Plan to modify the Forest Standard related to the Pacific Crest Trail (S1) specifically regarding only this project, the proposed utility corridor and transmission line would not adversely impact the foreground views.

<b>Table C.15-5. Consistency with Applicable Visual Resource Plans and Policies</b>			
<b>Agency Regulating Land Use</b>	<b>Regulation</b>	<b>Is Proposed Project Consistent?</b>	<b>Method of Consistency</b>
USDI Bureau of Land Management, California Desert District	Approved VRM objectives (classes) provide the visual management standards for the design and development of future projects and for rehabilitation of existing projects. Would Project meet this criterion?	Yes	The proposed Project does not cross public lands administered by the BLM.
Los Angeles County	Scenic Highways Element, Article 3. Protect and enhance esthetic resources within corridors of designated scenic highways.	Yes	County of Los Angeles Scenic Highways Element includes the following roads as Second Priority: Avenue K, 110th Street, Johnson Road, Lake Elizabeth Road, Spunky Canyon Road, San Francisquito Canyon Road, Bouquet Canyon Road, and Vasquez Canyon Road. The proposed Project, as seen from these scenic highways, would not enhance or protect the esthetic resources of the landscape. (See visual simulations for KOPs 1, 2, 3, 5, 7, and 8.) SCE shall obtain all necessary and applicable approvals from affected local agencies. The CPUC encourages, but does not require SCE to comply with local plans and policies.
	Scenic Highways Element, Article 4. Establish and maintain rural scenic highways to provide access to scenic resources and serve recreational users.	Yes	The proposed Project adversely affects the scenic resources that would be seen from County Scenic Highways, all of which serve recreational users. (See visual simulations for KOPs 1, 2, 3, 5, 7, and 8.) SCE shall obtain all necessary and applicable approvals from affected local agencies. The CPUC encourages, but does not require SCE to comply with local plans and policies.
	Scenic Highways Element, Article 5. Establish and maintain urban scenic highways to provide access to interesting and esthetic manmade features, historical and cultural sites, and urban open space areas.	Yes	The proposed Project adversely affects the scenic resources that would be seen from these County Urban Scenic Highways in the vicinity of Lancaster and Santa Clarita, and would detract from the interesting and esthetic manmade features currently present in the landscape. (See visual simulations for KOPs 1, 2, 3, 5, 7, and 8.) SCE shall obtain all necessary and applicable approvals from affected local agencies. The CPUC encourages, but does not require SCE to comply with local plans and policies.
Los Angeles County	Antelope Valley Areawide General Plan, A Component of the Los Angeles County General Plan (Adopted December 4, 1986)		
	Community Design, Policy 62. Mitigate where possible undesirable impacts of adjacent land uses (i.e., noise interruption, visual intrusion, and airborne emissions) through utilization of appropriate buffers, building codes and standards.	Yes	Within the unincorporated Los Angeles County areas of Antelope Valley, the proposed Project would create undesirable visual intrusions and visual impacts as seen from residences, streets and roads. Utilization of appropriate buffers (vegetative screening, further set-backs, etc.) or building codes, or standards would not be effective in mitigating the visual intrusions. (See visual simulations for KOPs 1, 2, and 3). SCE shall obtain all necessary and applicable approvals from affected local agencies. The CPUC encourages, but does not require SCE to comply with local plans and policies.
	Relationship of Urban and Natural Environments, Policy 63. Carefully integrate physical land use development into the natural environmental setting.	Yes	The proposed Project would be constructed in the same right-of-way as the existing 66-kV transmission line that was constructed in 1930s, and therefore does not demonstrate that it was carefully integrated into the natural environmental setting, but rather was superimposed upon the current physical landscape. SCE shall obtain all necessary and applicable approvals from affected local agencies. The CPUC encourages, but does not require SCE to comply with local plans and policies.
	Physical Appearance/ Community Image, Policy 65(b). Transmission lines should be located underground where feasible.	Yes	The proposed Project is not an underground transmission line, and it has been determined that it is technically feasible to construct an underground transmission line in the Antelope Valley area. SCE shall obtain all necessary and applicable approvals from affected local agencies. The CPUC encourages, but does not require SCE to comply with local plans and policies.

<b>Table C.15-5. Consistency with Applicable Visual Resource Plans and Policies</b>			
<b>Agency Regulating Land Use</b>	<b>Regulation</b>	<b>Is Proposed Project Consistent?</b>	<b>Method of Consistency</b>
Los Angeles County	Santa Clarita Valley Area Plan, A Component of the County of Los Angeles General Plan (Updated December 6, 1990)		
	Compatibility and Proximity of Urban Activities. Policy 1.1 Mitigate where possible undesirable impacts of development on adjacent land uses through utilization of appropriate buffers, building codes and standards.	Yes	Within the unincorporated Los Angeles County areas of Santa Clarita, the proposed Project would create undesirable visual intrusions and visual impacts as seen from residences, streets and roads. Utilization of appropriate buffers (vegetative screening, further set-backs, etc.) or building codes, or standards would not be effective in mitigating the visual impacts. (See visual simulation for KOPs 10, 11, and 12). SCE shall obtain all necessary and applicable approvals from affected local agencies. The CPUC encourages, but does not require SCE to comply with local plans and policies.
	Relationship of Urban and Natural Environments, Policy 2.1. Carefully integrate physical development in rural areas into the natural environment setting.	Yes	The proposed Project would be located through the Veluzat Motion Picture Ranch in Haskell Canyon, a rural area with a natural environment setting. Visual effects of the proposed would greatly detract from the motion picture set. (See visual simulation for KOP 9). SCE shall obtain all necessary and applicable approvals from affected local agencies. The CPUC encourages, but does not require SCE to comply with local plans and policies.
	Physical Appearances – Community Image, Policy 3.2(b) Transmission lines should be located underground where feasible.	Yes	The proposed Project is not an underground transmission line, and it has been determined that it is technically feasible to construct an underground transmission line in the Santa Clarita area. SCE shall obtain all necessary and applicable approvals from affected local agencies. The CPUC encourages, but does not require SCE to comply with local plans and policies.
City of Lancaster	The City of Lancaster amended its General Plan on October 3, 1994.		
	Plan for the Natural Environment, Objective 3.8 Preserve and enhance important views within the City, and significant visual features which are visible from the City of Lancaster.	Yes	The proposed Project does not enhance important views within the City and does not enhance significant visual features which are visible from the City of Lancaster. (See visual simulations for KOPs 1 and 2). SCE shall obtain all necessary and applicable approvals from affected local agencies. The CPUC encourages, but does not require SCE to comply with local plans and policies.
	Policy 3.8.1(a) Encourage creation of vistas and view corridors of community or neighborhood value during the development review process, through the siting of buildings to avoid blocking views and view corridors.	Yes	The proposed Project does not encourage creation of vistas and view corridors of community or neighborhood value. Through the siting of transmission line structures and substation expansion, the proposed Project does not avoid blocking views and view corridors. SCE shall obtain all necessary and applicable approvals from affected local agencies. The CPUC encourages, but does not require SCE to comply with local plans and policies.
	Policy 3.8.1(b) Through the implementation of the policies outlined in the Plan for Physical Development, ensure that the development of hillside lands is consistent with preserving their natural character.	Yes	The proposed Project does not protect hillside lands from disruption of their natural character. SCE shall obtain all necessary and applicable approvals from affected local agencies. The CPUC encourages, but does not require SCE to comply with local plans and policies.

<b>Table C.15-5. Consistency with Applicable Visual Resource Plans and Policies</b>			
<b>Agency Regulating Land Use</b>	<b>Regulation</b>	<b>Is Proposed Project Consistent?</b>	<b>Method of Consistency</b>
City of Santa Clarita	City of Santa Clarita General Plan (Amended June 1991)		
	Community Design Element, Ridgeline Protection. Ridgelines within the Valley are a significant design feature that should be protected. Development on significant ridgelines should be prohibited or severely limited.	Yes	The proposed Project would not protect ridgelines within the Santa Clarita Valley Area, and the addition of 200-foot tall towers would create substantial visual encroachments upon existing ridgelines. (See visual simulations for KOPs 10, 11, 12, 13, and 14). SCE shall obtain all necessary and applicable approvals from affected local agencies. The CPUC encourages, but does not require SCE to comply with local plans and policies.
	Community Development Element, Infrastructure, Policy 11.1 Encourage placement of transmission power lines and other mechanical equipment underground, where feasible, to maximize safety and minimize visual distraction.	Yes	The proposed Project is not an underground transmission line, and it has been determined that it is technically feasible to construct an underground transmission line in the Santa Clarita area. SCE shall obtain all necessary and applicable approvals from affected local agencies. The CPUC encourages, but does not require SCE to comply with local plans and policies.
	Policy 11.8 Examine the use of the land under high power transmission lines for landscaping, tree farms, additional safe recreation areas, and other appropriate feasible uses.	Yes	The proposed Project is consistent with this policy because the policy does not mandate the use of corridors for landscaping, tree farms, additional safe recreation areas, etc. The development of these other uses within a utility corridor would be initiated by the local agency and could be established by others after construction of the Project. SCE shall obtain all necessary and applicable approvals from affected local agencies. The CPUC encourages, but does not require SCE to comply with local plans and policies.
Policy 11.9 Encourage single pole transmission towers and cellular poles, and avoid reinforced structural support bases.	Yes	The proposed Project is not a single pole transmission line, but rather has 200-foot tall double-circuit lattice steel towers in the Santa Clarita area. It has been determined that it is technically feasible to construct a transmission line with tubular steel poles with implementation of Mitigation Measures V-1a through V-1e. SCE shall obtain all necessary and applicable approvals from affected local agencies. The CPUC encourages, but does not require SCE to comply with local plans and policies.	

**Creation of a new source of substantial light or glare that would adversely affect day or nighttime views in the area (Criterion VIS3)**

***Impact V-17: The Project would create a new source of substantial glare that would alter daytime views in the area.***

The Federal Aviation Administration (FAA) considers a structure to be an obstruction to air navigation if it is of a height greater than 500 feet above ground level (AGL) at the site of the object. At five miles this height reduces to 400 ft. AGL; four miles, 300 ft. AGL; three miles, 200 ft. AGL. Greater restrictions apply when a tower is closer than three nautical miles from an airport. If the FAA determines that a tower is an obstruction to air navigation, then obstruction marking (alternating aviation orange and aviation white paint) and/or lighting (red lights or white lights) would be required (14 CFR Part 77, § 77.23 Standards for determining obstructions.) Because the proximity of the proposed Project to airports is greater than distances specified above, the proposed Project would have no new sources of light that would affect nighttime views and, therefore, there would be no nighttime lighting visual impacts.

However, new lattice steel towers would be constructed of dull galvanized angle steel. During certain times of day and from certain viewing angles and distances, the new towers and conductors would reflect sunlight, create glare, and draw attention of viewers. Please refer to Figures C.15-4A, C.15-5A, C.15-6A, and C.15-13A for examples of glare created by sunlight reflecting off existing transmission line structures. New steel structures



that have not weathered or rusted will create more glare than existing structures that have weathered and rusted. In order to minimize reflected light that would cause glare, it is important to create structures with colored, non-reflective, textured surfaces. Implementation of Mitigation Measures V-1e (Treat Surfaces with Appropriate Colors, Finishes, and Textures) and V-17a (Use Only Non-Specular and Non-Reflective Conductors and Insulators) would reduce overall visual contrast such that the glare effects of the proposed Project would be less than significant, but adverse (**Class III**).

***Mitigation Measures for Impact V-17***

**V-17a Use Only Non-Specular and Non-Reflective Conductors and Insulators.** The Applicant (SCE) shall use only non-specular and non-reflective conductors, and the insulators shall be non-reflective and non-refractive. The Applicant (SCE) shall submit samples of these materials to the CPUC and Forest Service for review and approval at least 120 days prior to the start of construction.

**Substantial damage to scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway (Criterion VIS4)**

The proposed Project is not visible from the Angeles Crest Highway, which is the only State scenic highway in the vicinity of the Project. None of the alternatives investigated by this EIR/EIS is visible from the Angeles Crest Highway. Therefore, there is no impact to visual resources of a State scenic highway, and no mitigation is required. Criterion VIS4 will be dropped from further discussion throughout the remainder of the Visual Resources Report.

**Summary of Impacts for the Proposed Project**

From the following vantage points, the proposed Project with mitigation measures would have significant, but mitigable visual impacts (**Class II**): 110<sup>th</sup> Street at Johnson Road (KOP 1); Avenue K (KOP 2) (See Figure C.15-2, Key Observation Positions Map).

Significant, unavoidable impacts (**Class I**) would occur under the proposed Project to the physical, visual elements of the landscape, as seen from Lake Elizabeth Road (KOP 3); the Pacific Crest National Scenic Trail (PCT) (KOP 4); San Francisquito Canyon Road (KOP 5), Bouquet Reservoir (KOP 6), Bouquet Canyon Road (KOP 7), Vasquez Canyon Road (KOP 8); the Veluzat Motion Picture Ranch (KOP 9); North High Ridge Drive (KOP 10); Mountain View Park (KOP 11); Rio Norte Junior High School (KOP 12); North Park Elementary School and Chesebrough Park (KOP 13); and Copper Hill Road (KOP 14).

Significant, unavoidable visual impacts (**Class I**) would occur under the proposed Project due to the temporary visibility of construction activities and equipment (Impact V-15).

Less-than-significant, but adverse (**Class III**) visual impacts would occur by: 1) overall visual contrasts created by glare effects (Impact V-17) under the proposed Project with mitigation; and 2) conflicts with existing visual quality policies and objectives contained in Forest and local plans (Impact V-16).

**C.15.6 Alternative 1: Partial Undergrounding of Antelope-Pardee Transmission Line**

This alternative closely follows the route of the proposed Project but has portions of the 500-kV line buried (see Section B.4-1 for a description and illustrations of Alternative 1). The partial undergrounding of Antelope-Pardee 500-kV transmission line would occur in two locations: (1) on Del Sur Ridge from approximately Mile 11.0 to 15.0; and (2) in Santa Clarita from approximately Mile 22.7 to 25.6. On Del Sur Ridge, two transition stations would be required, one at each end of the undergrounding segment. In Santa Clarita, two transition

stations would be required, one at approximately MP 22.7 near San Francisquito Canyon Road and another inside the Pardee Substation.

Each transition station would occupy approximately 2- to 3-acres of land, and the site of each station would be graded to a level condition, necessitating cuts and fills in the mountainous terrain of Del Sur Ridge and in the hilly terrain of Santa Clarita. (A two-acre site is an area approximately 300-feet by 300-feet. A three-acre site is an area approximately 360-feet by 360-feet.) The 500-kV conductors would be buried in trenches, and the area of disturbance would be approximately 85 feet wide on Del Sur Ridge and approximately 2 lanes wide in city streets. Import of construction materials (concrete, cable, splicing infrastructure, and thermal backfill) would necessitate wider access roads to and on Del Sur Ridge than those necessary for overhead transmission line construction. Excess excavated soil would be spoiled, if not used for fill slopes. All of these activities for underground transmission lines would have visual resource consequences that are different than overhead transmission lines.

### **C.15.6.1 Affected Environment**

The multi-jurisdictional nature applies for Alternative 1, the same as for the proposed Project. Therefore, the same highly integrated, dual-faceted approach was used for the visual analysis of Alternative 1. Specifically, on National Forest System lands the visual analysis compared predictions of future visual conditions with the Scenic Integrity Objectives (SIOs). Outside of NFS lands, the visual analysis used the Visual Sensitivity/Visual Change (VS/VC) method to assess the visual effects of the proposed Project on existing landscapes.

The study area for the visual resource analysis of Alternative 1 would be the same as the proposed Project because the undergrounding portions are in the vicinity of the proposed Project. The viewpoints from which sensitive receptors would see different visual effects of Alternative 1, as compared to the proposed Project, are the following travel routes and use areas: San Francisquito Canyon Road (KOP 5); Bouquet Canyon Road (KOP 7), Vasquez Canyon Road (KOP 8); Rio Norte Junior High School (KOP 12), North Park Elementary School and Chesebrough Park (KOP 13); and Copper Hill Road (KOP 14) (see Figure C.15-2, Key Observation Positions Map).

Alternative 1 would be identical to the proposed Project when viewed from 110<sup>th</sup> Street at Johnson Road (KOP 1), Avenue K (KOP 2), Lake Elizabeth Road (KOP 3), the Pacific Crest National Scenic Trail (KOP 4), Bouquet Reservoir (KOP 6), Veluzat Motion Picture Ranch (KOP 9), North High Ridge Drive (KOP 10), and Mountain View Park (KOP 11).

### **C.15.6.2 Impacts and Mitigation Measures**

#### **Substantial adverse effect on a scenic vista, or substantial degradation of the existing visual character or quality of the site and its surroundings (Criterion VIS1)**

The following section provides an analysis of Alternative 1, and employs revised computerized visual simulations of three of the six-affected KOPs – KOPs 5, 8, and 12. (See Figures C.15-7C, C.15-9C and C.15-14C.) These three KOPs afford the most critical scenic vistas of the transition stations and visual effects of the underground portions in relation to the surrounding landscape. The simulations portray the effects Alternative 1 would have on existing visual character of the site and its surroundings. This “effects prediction” analysis follows the format of Section C.15.1, Affected Environment, by dividing the analysis into geographic areas – North, Center, and South Areas.

### North Area (Mile 0.0 to 5.7)

Between Antelope Substation and the Angeles National Forest boundary (Mile 0.0 to 5.7 – proposed towers T-114 through T-90), Alternative 1 would be identical to the proposed Project (overhead single-circuit lattice steel towers). Therefore, visual impacts resulting from implementation of Alternative 1 would be identical to the proposed Project in the North Area (Impacts V-1, V-2, and V-3 are **Class I**). The same mitigation measures are applicable for Alternative 1 and the proposed Project in the North Area – Mitigation Measures V-1a through V-1e, resulting in significant, but mitigable (**Class II**) visual impacts for V-1 and V-2, but resulting in **Class I** for V-3.

### Center Area (Mile 5.7 to 18.6)

Visual impacts resulting from implementation of Alternative 1 would be the same as the proposed Project on NFS lands between Mile 5.7 and 11.0, and then again the same from Mile 15.0 to 18.6.

Visual impacts and mitigation measures are the same for National Forest System lands viewed from KOP 3 (Lake Elizabeth Road – Impact V-3), KOP 4 (Pacific Crest Trail – Impact V-4), and KOP 6 (Bouquet Reservoir – Impact V-6). Alternative 1 would be identical to the proposed Project (**Class I**), with or without mitigation. Implementation of Mitigation Measures would result in a slightly better visual condition, as compared to Alternative 1 without mitigation, as seen from KOPs 3, 4, and 6. See Figures C.15-5B, C.15-6, and C.15-8B for simulations of the proposed Project and Alternative 1 as viewed from these KOPs.

From Mile 11.0 to 15.0, Alternative 1 would differ with construction and operation of two transition stations on Del Sur Ridge, one at each end of the undergrounding portion. Visually, the underground portion would appear to be a level road approximately 85-foot wide for this 4-mile section on Del Sur Ridge. Each of the two new transition stations would occupy a newly leveled area approximately 2- to 3-acres in size. There would be an 8-foot high chain link fence surrounding the transition station, two small buildings, and arrays of electrical equipment inside the fence. Each transition station would create visual contrasts with natural landscape character elements – form, line, color, texture, and scale – and would result in industrial appearing features in a natural-appearing landscape. These would be significant visual impacts.

Because system failures would be more difficult to identify in underground portions, the 4-mile section of undergrounding would not be re-contoured, but would be left in a graded, level condition. System failures would result in re-excavation to replace underground cables. This earth-form leveling would create unnatural landforms, and potential re-excavation would destroy revegetation efforts, and create significant visual disruptions in the natural-appearing landscape.

As seen from KOP 5 – San Francisquito Canyon Road – the northern transition station at Mile 11.0 and portions of the underground section from Mile 11.0 to 15.0 would be visible (see Figure C.15-2 Key Observation Positions Map). Figure C.15-7A presents the existing view to the southeast from KOP 5, and Figure C.15-7C presents a computerized visual simulation depicting the transition station and undergrounding of Alternative 1. Alternative 1 would substantially degrade the scenic integrity and character of landscapes seen from KOP5 – San Francisquito Canyon Road (Impact V-5) and would create significant visual impacts (**Class I**). New single-circuit lattice steel towers would lead to the transition station, where conductors would lead to a large A-frame structure, then to switches, breakers, rigid-buses, cable terminations, and reactors. The tallest feature in the transition station would be approximately 115 feet tall (100-foot-tall A-frame with 15-foot-tall masts) which would be visually dominant elements on the skyline. The north transition station would have the overall appearance of an electrical substation. The increased industrial character and structure size would result in increased skylining at the north transition station, and would result in an increase in the degree of structure

prominence. Compared to the existing transmission line on the ridgeline in the center of the line of sight, the 500-kV lattice steel towers, transition station, earthwork leveling for the transition station, and earthwork leveling for the underground portion would be more visually dominant than existing 66-kV towers and existing access roads. Visual contrast of the larger, complex structures with accentuated vertical lines and geometric forms would be more visually evident in a landscape that is dominated by horizontal to rolling natural landforms and natural vegetative patterns. Added color contrast – the new structures’ silver-gray color contrasted against the darker green of the chaparral vegetation – compounds the visual contrasts of the transmission line towers leading to the transition station. The color contrast caused by the reflection of the sun off the structures would depend on ambient lighting conditions and time of day. At this middleground viewing distance, the structures would be subordinate in scale to the more expansive landforms, but would attract attention because of their location on the skyline, their silhouetted, geometric forms, and the soil color contrasts created by such extensive excavation and grading. Figure C.15-7C depicts an estimation of the extensive grading of cuts and fills for the underground portion and one of the transition stations on Del Sur Ridge as seen from KOP 5 on San Francisquito Canyon Road. Because no construction drawings have been prepared for Alternative 1, it is impossible to know the exact extent and location of this grading. However, the underground portion must remain on a relatively level gradient and would include a leveled ROW approximately 85 feet wide, necessitating substantial cuts and fills (without construction drawings, it is impossible to estimate the earthwork involved).

The new 500-kV towers leading to the north transition station, plus the earthwork grading required for the transition station and underground conductors would create visual contrast of all elements (form, line, color, texture, and scale). The new 500-kV transmission line would dominate the valued landscape character, which is “an undeveloped, natural-appearing and pastoral landscape, showing little visible human influence.” The majority of this landscape view has high scenic integrity. The 500-kV towers and conductors, transition station, and underground portion would not borrow form, line, color, texture, pattern or scale common to the natural landscape character. The transition station and 500-kV transmission line towers would be very visible on the skyline, and would appear as an unnatural set of vertical lines and geometric forms that punctuate and interrupt the rolling, horizontal character of the ridgetop. The existing cut- and fill-slopes of the Del Sur Ridge Road would become more visually apparent and attract attention after clearing and grading operations for the 85-foot wide underground corridor. Landform modifications for the transition station and 85-foot wide level area for the underground conductors would create significant visual contrasts. The proposed transmission line towers and transition station would attract viewers’ attention and meet the definition of unacceptably low inherent scenic integrity because they would not borrow form, line, color or texture from the natural landscape character. These new discordant features of Alternative 1, with their inherent industrial character (new skylined transmission towers and transition station) would diminish certain areas of the existing landscape to levels of unacceptably low scenic integrity. Where the utility corridor drops below the skyline and new towers would not be silhouetted, there would be additional line, form and color contrasts created by the silver towers standing out against the medium- to dark-colored landscape behind them. Such is the case on the left side of this photograph, where the existing 66-kV transmission line towers “become transparent” and are not visually evident. But the new towers would reflect light and be lighter in color and very visible. The predicted scenic integrity level for Alternative 1 meets the definition of Unacceptably Low Scenic Integrity. The resulting visual impact of Alternative 1 would be a significant, unavoidable impact (**Class I**) for Impact V-5, as it would be four levels below the High Scenic Integrity Objective. No mitigation measures are feasible to reduce these visual impacts to an acceptable level, while at the same time leaving the underground portion of the Project in the alignment proposed by Alternative 1. These significant visual impacts can be avoided only by relocating the proposed

transmission line to a new utility corridor in a new, less visible location. Refer to discussions of Alternatives 2 and 5, which involve relocation of the transmission line to less-visible locations.

Alternative 1 would result in significant, unavoidable (**Class I**) visual impacts that would be greater than the proposed Project, because of the significant amount of earthwork required for the transition stations and the undergrounding of conduits and cables, as seen from KOP 5 on San Francisquito Canyon Road.

As seen from KOP 7 – Bouquet Canyon Road (Impact V-7) – existing 66-kV towers and conductors would be removed and the underground portion of Alternative 1 on top of Del Sur Ridge would not be seen from this vantage point. Implementation of Mitigation Measure V-3a (Remove Existing Foundations, Rehabilitate, and Re-Vegetate Tower Sites), V-3b (Remove, Rehabilitate, and Re-Vegetate Crane Pads), and V-3c (Avoid Locating New Roads in Bedrock) would lessen these impacts as compared to the proposed Project without mitigation. Therefore, Alternative 1 would have a beneficial effect (**Class IV**) as seen from KOP 7 because existing, visually discordant 66-kV transmission structures would be removed and infrastructure of Alternative 1 would be screened by topography.

As seen from KOP 8 – Vasquez Canyon Road (Impact V-8) – Alternative 1 would substantially degrade the scenic integrity and character of the existing landscape (**Class I**). The southern transition station at Mile 15.0 and portions of the underground section from Mile 11.0 to 15.0 would be visible from Key Observation Position 8 on Vasquez Canyon Road. From this vantage point, more than 6 miles of Del Sur Ridge are visible in the background, including the underground portion and several miles of proposed 500-kV towers to the south. Figure C.15-10A presents the existing view from KOP 8, and Figure C.15-10C presents a computerized visual simulation showing the southern transition station and undergrounding from Mile 15.0 to 11.0 and an estimation of the extensive grading of cuts and fills for the underground portion. Because no construction drawings have been prepared for Alternative 1, it is impossible to know the exact extent and location of this grading; however, the underground portion must remain on a relatively level gradient and would include a leveled ROW approximately 85 feet wide, necessitating substantial cuts and fills.

Because undergrounding of 500-kV transmission lines is only feasible on relatively flat terrain, it is technically impossible to underground the transmission line further to the south on the entirety of Del Sur Ridge. Therefore, towers remain silhouetted against the skyline from Mile 15.0 to approximately Mile 17.0 and would be the most visible of the proposed structures along Del Sur Ridge. Increased prominence of access roads and increased earthwork grading for the 85-foot wide undergrounding portion would result in significant, adverse visual effects. The new 500-kV towers leading away from the southern transition station and the extensive earthwork required for the transitions station and undergrounding activities would create visual contrast of all elements (form, line, color, texture, and scale). The new transition station and 500-kV transmission towers would dominate the valued landscape character, which is “an undeveloped, natural-appearing and pastoral landscape, showing little visible human influence.” The transition station, undergrounding and 500-kV towers and conductors would not borrow form, line, color, texture, pattern or scale common to the natural landscape character. The transition station and 500-kV transmission line towers would be very visible on the skyline, and would appear as an unnatural set of vertical lines and geometric forms that punctuate and interrupt the rolling, horizontal character of the ridgetop. The existing cut- and fill-slopes of the Del Sur Ridge Road would become more visually apparent and attract attention after clearing and grading operations for the 85-foot wide, level, underground corridor. The predicted scenic integrity level for Alternative 1 meets the definition of Unacceptably Low Scenic Integrity. The resulting visual impact of Alternative 1 at Vasquez Canyon Road, KOP 8 (Impact V-8), would be a significant, unavoidable impact (**Class I**) as it would be four levels below the High Scenic Integrity Objective. No mitigation measures are feasible to reduce these visual impacts to an acceptable level, while at the same time leaving the underground portion of the Project in the alignment

proposed by Alternative 1. These significant visual impacts can be avoided only by relocating the proposed transmission line to a new utility corridor in a new, less visible location. Refer to discussions of Alternatives 2 and 5 which involve relocation of the transmission line to less-visible locations.

Table C.15-6 displays locations where Mitigation Measure V-4a (Construct, Operate, and Maintain with Helicopters) would be applied to Alternative 1, by estimates made from aerial photos, topographic maps, and correlation to the PEA Segment 1, Volume 2 (The Road Story). Approximate miles are given to generally orient the reader to the Center Area inside the ANF boundary. Miles and number of towers are approximate, based on estimates derived from preliminary design concepts and are subject to change as the design is finalized.

<b>Use Helicopter Only</b>			<b>OK to Use Access Roads</b>		
From Mile	To Mile	Estimated Number of Structures	From Mile	To Mile	Estimated Number of Structures
5.7	9.1	18	9.1	9.7	2
9.7	10.1	1	10.1	10.5	2
10.5	11.0	2	15.0	15.9	6
15.9	16.4	2	16.4	18.6	7
<b>Total Structures</b>		<b>23</b>	<b>Total Structures</b>		<b>17</b>

Note: These are approximate numbers and miles based on estimates derived from preliminary design concepts. Numbers and miles are subject to change as the design is finalized.

### **South Area (Mile 18.6 to 25.6)**

Visual impacts resulting from construction and operation of Alternative 1 would be the same as the proposed Project between Mile 18.6 and 20.3, and different from Mile 20.3 to 25.6. New 500-kV single-circuit towers and conductors would be constructed in Haskell Canyon from Mile 18.6 to 20.3. From Mile 20.3 to 22.3, Alternative 1 would build a new single-circuit 500-kV line parallel and adjacent to the existing single-circuit Pardee-Vincent 500-kV line (similar to Alternative 3 in this location). An existing 278-foot-tall double-circuit tower would remain at Mile 22.3 near Mountain View Park. From Mile 22.3 to 22.7, Alternative 1 would construct one new single-circuit lattice steel tower alongside the existing Pardee-Vincent 500-kV transmission line. At Mile 22.7, a new transition station would be constructed near the existing ROW. From Mile 22.7 to 25.6, Alternative 1 would construct an underground 500-kV transmission line under two lanes of county roads and city streets, terminating at a new transition station inside the Pardee Substation. Upon completion of construction of Alternative 1, the existing Pardee-Vincent 500-kV single-circuit towers would remain in place and in service from Mile 20.3 to 25.6, which is different than the proposed Project, in which this line would be removed. The additional transmission line with single-circuit towers and conductors and the new transition station, combined with the existing single-circuit 500-kV and 220-kV transmission lines in this vicinity, would increase the number of visually contrasting, industrial structures in the landscape, and would create more elements with contrasting form, line, color, texture, and scale.

As seen from KOP 9 – the Veluzat Motion Picture Ranch – Alternative 1 would be identical to the proposed Project (Impact V-9, **Class I**). (See Figure C.15-2 Key Observation Positions Map and Figure C.15-11B Visual Simulation for KOP 9).

As seen from KOP 10 – North High Ridge Drive – Alternative 1 would be identical to the proposed Project (Impact V-10, **Class I**). (See Figure C.15-2 Key Observation Positions Map and Figure C.15-12B Visual Simulation for KOP 10.)

As seen from KOP 11 – Mountain View Park – Alternative 1 would be identical to the proposed Project (Impact V-11, **Class I**). Therefore, visual impacts would be as described for the proposed Project. (See Figure C.15-2 Key Observation Positions Map and Figure C.15-13B Visual Simulation for KOP 11).

As seen from KOP 12 – Rio Norte Junior High School (Impact V-12) – Alternative 1 would alter the visual quality of landscape views in two completely different ways. First, from this vantage point, the transition station would be visible in the middleground, and a new single-circuit tower leading to the transition station would also be visible between the transition station and the existing 278-foot tall dead-end tower. The visibility of the transition station and new tower would result in an adverse visual effect. The transition station would be partially screened from view by an existing grove of trees, thereby lessening the visual contrast of the transition station, which would appear like a substation to many passers-by. The resulting visual contrast would be high and the transition station in Alternative 1 would appear dominant when compared with the existing urban landscape features.

Secondly, because the transmission line in Alternative 1 would be underground from Mile 22.7 to 25.6, new, taller, double-circuit towers of the proposed Project would not be constructed near the residential neighborhoods along San Francisquito Canyon and visible from KOP 12. Therefore, Alternative 1 would result in no visual changes beyond Mile 22.7 as seen from Rio Norte Junior High School (KOP 12). However, under Alternative 1, the absence of double-circuit towers from Mile 22.7 to 25.6 would eliminate the visual impacts that would have occurred with the proposed Project. There would be no increased structure skylining and no additional obstruction of the ridgeline backdrop by structures and conductors that would have resulted in moderate-to-high degree of view blockage. Therefore, the addition of the undergrounding beyond the transition station into this landscape leads to no impact after construction.

Figure C.15-14C presents a computerized visual simulation of Alternative 1 without mitigation, showing the addition of a second single-circuit 500 kV transmission line leading to the new transition station at Mile 22.7. This view is looking east-northeast across San Francisquito Canyon from the parking lot of the Rio Norte Junior High School, and illustrates the negative and positive visual effects of Alternative 1.

Referring to Table C.15-1, General Guidance for Review of Visual Impact Significance, the overall visual change at and near the transition station would be high and in the context of the existing landscape's high visual sensitivity, the resulting visual impact would be significant. Because there are residences immediately adjacent to Alternative 1 in the neighborhoods seen from Rio Norte Junior High School, and people would view the transmission line structures at "immediate foreground," "foreground," and "middleground" viewing distances, it is appropriate to use tubular steel poles in the vicinity of KOP 12, leading to the transition station.

Implementation of Mitigation Measures V-1a (Use Tubular Steel Poles), V-1b (Construct, Operate, and Maintain with Existing Access Roads), V-1c (Dispose of Cleared Vegetation), V-1d (Dispose of Excavated Materials), V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes), and V-12 (Establish Evergreen Vegetative Screen) would reduce Impact V-12 for Alternative 1. This would result in an improved visual environment, as compared to the proposed Project or Alternative 1 without mitigation, but would still result in a significant, unavoidable visual impact (**Class I**).

### ***Mitigation Measure for Impact V-12***

**V-12 Establish Evergreen Vegetative Screen.** The Applicant (SCE) shall establish an evergreen vegetative screen of sufficient height for immediate visual screening in front of the transition station at Mile 22.7. The Applicant (SCE) shall submit a screening plan for the transition station and any other visible structures, demonstrating compliance with this measure, to the CPUC and other affected agencies for review and approval at least 60 days prior to the start of construction.

As seen from KOP 13 – North Park Elementary School and Chesebrough Park – after construction activities of Alternative 1 were completed, and road reconstruction/re-paving was completed, views would be identical to existing views (see Figure C.15-15A Existing Conditions at KOP 13 and Figure C.15-2 Key Observation Positions Map). No additional mitigation measures are necessary for visual resources.

Similarly, after construction activities of Alternative 1 were completed, the views from KOP 14 on Copper Hill Road to the Pardee Substation would be identical to existing views (see Figure C.15-16A Existing Conditions at KOP 14 and Figure C.15-2 Key Observation Positions Map). No additional mitigation measures are necessary for visual resources.

### **Construction Activity Impacts**

The temporary visibility of construction activities and equipment associated with Alternative 1 would substantially degrade the visual quality of landscape views as seen from various vantage points throughout the Project area (Impact V-15). Impacts to visual resources would result from the presence of equipment, helicopters, materials, and work force at the substation sites, transition stations, staging areas, in city streets and county roads, and along the access roads and overhead transmission line route. Construction impacts on visual resources would also result from the temporary alteration of landforms and vegetation along the utility corridor. Vehicles, heavy equipment, helicopters, Project components, and workers would be visible during site clearing, grading, substation expansion and construction, transition station construction, vault construction, structure erection, conductor stringing (overhead), cable placement, trenching and backfilling (underground), and site/ROW clean-up and restoration. Construction equipment and activities would be seen by various viewers in close proximity to the sites and utility corridor including adjacent and nearby residents, recreationists on trails and roads, pedestrians, and motorists on public streets. View durations would vary from brief (a week or less) to extended periods (10 to 27 months). Construction activities would be most visible for those elements of Alternative 1 through residential neighborhoods and adjacent to major travel corridors such as the travel routes named in Section C.15-1.

Construction of the overhead transmission line, modification of existing Antelope Substation, plus construction of three transition stations, four miles of underground construction on Del Sur Ridge, 2.9 miles of underground construction in Santa Clarita, and use of construction staging areas would result in the visual intrusion of construction vehicles, helicopters, equipment, storage materials, and workers. Despite the fact that project construction would be a relatively short-duration visual impact (projected timeframe of 27-months), as compared to the permanent structures that would be introduced into the landscape by Alternative 1, this impact would be significant.

The short-term visual impacts during construction (Impact V-15) of Alternative 1 would be significant and unavoidable (**Class I**), and there is no mitigation available to make vehicles, heavy equipment, helicopters, and other Project components less visible during construction. Long-term visual impacts of construction activities would be reduced to a less-than-significant level (**Class II**) with the implementation of Mitigation Measures V-12 (Establish Evergreen Vegetative Screen), V-15a (Storage and Site Cleanup), V-15b (Recontouring and Restoration), and V-15c (Revegetation).

### **Conflict with Policies and Objectives**

Alternative 1 would not conflict with existing visual quality policies and objectives contained in Forest and local plans (Impact V-16) after amendment of the Angeles National Forest Land Management Plan (Forest Plan), except in one occurrence as noted below in Table C.15-7. As with the proposed Project, Alternative 1 includes an amendment to the Forest Plan that would modify the SIOs along the proposed route on NFS lands to ensure



consistency between the Forest Plan and this Alternative. Table C.15-7 provides an analysis of the consistency of Alternative 1 with applicable plans and policies discussed in Section C.15.2. As noted in the table, even with implementation of APM VIS-1 and VIS-2, Alternative 1 would be inconsistent with existing plans, objectives, and policies for visual resources, thereby requiring additional mitigation measures for visual resources (V-1a through V-1d, V-4a through V-4c, V-9, V-12, V-15, and V-19).

There are occasions when a reduction of tower height or the installation of vegetative screening (in close proximity to an observation position) would accomplish some level of visual impact reduction. However, for a transmission line of this scale, with 113- to 178-foot tall and 96-foot wide single-circuit towers and 175- to 220-foot tall and 75-foot wide double-circuit towers, underground portions that must be leveled to a width of approximately 85 feet, and transition stations that occupy 2 to 3 acres of land that must be leveled, there is relatively little opportunity to mitigate visual impacts to a level of insignificance.

Alternative 1 would have the same conflicts with applicable plans and policies as the proposed Project, set forth in Table C.15-5 (above), except for those shown in Table C.15-7 below.

<b>Table C.15-7. Consistency with Applicable Visual Resource Plans and Policies</b>			
<b>Agency Regulating Land Use</b>	<b>Regulation</b>	<b>Is Alt. 1 Consistent?</b>	<b>Method of Consistency</b>
USDA Forest Service, Pacific Southwest Region, Angeles National Forest	Angeles National Forest Land and Resources Management Plan (Unless Amended)		
	Scenery Management System. Would Alternative 1 meet High Scenic Integrity Quality Objective from Mile 5.7 to 15.9 and from Mile 16.0 to 17.6?	<b>No</b>	Alternative 1 would be very visually evident from KOPs 5 and 8, which look onto NFS lands with a High SIO. From Mile 11.0 to 15.0, Alternative 1 would achieve the Unacceptably Low Level of scenic integrity, even with implementation of mitigation measures. This level of modification to the natural landscape character is not acceptable and a Forest Plan amendment would not be possible to lower the SIOs to this level.
		Yes (Conditional upon approval of Forest Plan amendment)	From Mile 5.7 to 11.0, 15.0 to 15.9, and 16.0 to 17.6, Alternative 1 would be very visible and would achieve the Very Low SIO even with implementation of mitigation measures. Therefore, from Mile 5.7 to 11.0, 15.0 to 15.9, and 16.0 to 17.6, to ensure consistency with management direction in the governing 2005 Forest Land Management Plan (Forest Plan), Alternative 1 would require several amendments to the Forest Plan. With an amendment to the Forest Plan to change Scenic Integrity Objectives along the existing or proposed utility corridor to "Very Low SIO" from Mile 5.7 to 11.0, 15.0 to 15.9, and 16.0 to 17.6, Alternative 1 would be consistent with the Forest Plan policies and regulations.
	Scenery Management System. Would Alternative 1 meet Moderate Scenic Integrity Quality Objective from Mile 15.9 to 16.0 and from Mile 17.6 to 17.9?	Yes (Conditional upon approval of Forest Plan amendment)	From Mile 15.9 to 16.0, new single-circuit transmission towers and conductors of Alternative 1 would be very visible with discordant visual elements, and would achieve the Very Low SIO. Therefore, from Mile 15.9 to 16.0, to ensure consistency with management direction in the governing 2005 Forest Land Management Plan (Forest Plan), Alternative 1 would require an amendment to the Forest Plan. With an amendment to the Forest Plan to change Scenic Integrity Objectives along the existing or proposed utility corridor to "Very Low SIO" from Mile 15.9 to 16.0, Alternative 1 would be consistent with the Forest Plan policies and regulations.
	Yes	Because of topographic screening, Alternative 1 structures would not be visible from sensitivity level one travel routes, use areas or water bodies and, therefore, would meet the Moderate Scenic Integrity Objective from Mile 17.6 to 17.9.	

<b>Table C.15-7. Consistency with Applicable Visual Resource Plans and Policies</b>			
<b>Agency Regulating Land Use</b>	<b>Regulation</b>	<b>Is Alt. 1 Consistent?</b>	<b>Method of Consistency</b>
Los Angeles County	Antelope Valley Areawide General Plan, A Component of the Los Angeles County General Plan (Adopted December 4, 1986)		
	Physical Appearance/ Community Image, Policy 65(b). Transmission lines should be located underground where feasible.	Yes	Alternative 1 is a partial underground transmission line on Del Sur Ridge and in the City of Santa Clarita. However, Alternative 1 has no proposed undergrounding section in Antelope Valley area even though it has flat terrain where it is technically feasible to construct an underground transmission line. SCE shall obtain all necessary and applicable approvals from affected local agencies. The CPUC encourages, but does not require SCE to comply with local plans and policies.
Los Angeles County	Santa Clarita Valley Area Plan, A Component of the County of Los Angeles General Plan (Updated December 6, 1990)		
	Physical Appearances – Community Image, Policy 3.2(b) Transmission lines should be located underground where feasible.	Yes	Where it is technically feasible to construct an underground transmission line in the Santa Clarita area, Alternative 1 would be an underground transmission line.

Implementation of Mitigation Measure V-16a (Forest Plan Amendment), AV-16b (Local Agency Approvals), and V-16c (Transmission Line Siting Study within the ANF) would reduce visual impacts associated with Impact V-16 to less-than-significant, but adverse (**Class III**) levels, except for Alternative 1-Mile 11.0 to 15.0, where the resulting scenic integrity would achieve an “Unacceptably Low” level that cannot be mitigated to a “Very Low” SIO level, and would result in a significant, unavoidable (**Class I**) impact to visual resources.

**New Source of Substantial Light or Glare**

At the four transition stations, new sources of light (Criterion VIS-3) would adversely affect nighttime views as seen from sensitive receptor locations, specifically KOPs 5 (San Francisquito Canyon Road), 8 (Vasquez Canyon Road), and 12 (Rio Norte Junior High School). Each transition station would need to have outdoor and indoor lighting; however, the outdoor lighting would not have to be on all the time. Lighting would be switched on when SCE employees or contractors were working in the station. At the entrance gate, SCE may propose motion-activated lighting to illuminate the locked gate at night. Motion-activated lighting can be triggered by animals as well as maintenance vehicles, and therefore, would create adverse lighting effects in the nighttime landscape even when no maintenance vehicle is present. Presence of nighttime lights at the two transition stations on Del Sur Ridge would be unusual and visually incongruous with the dark, unlit landscape of the ridge, as no other source of light is present. SCE may propose to illuminate the entire station in case of nighttime emergency repair, maintenance, or other reasons. Standard illumination of the entire 2- to 3-acre transition station and motion-activated-lighting would create strong visual impacts.

Referring to Table C.15-1 General Guidance for Review of Visual Impact Significance, the overall visual change to the nighttime landscape would be high and in the context of the existing landscape’s high visual sensitivity at KOPs 5 (San Francisquito Canyon Road), 8 (Vasquez Canyon Road), and 12 (Rio Norte Junior High School), the resulting visual impacts would be significant. Implementation of mitigation measures V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes), V-17a (Use Only Non-Specular and Non-Reflective Conductors and Insulators), V-17b (Use Magnetic Coils at Entrance Gate) and V-17c (Use Only Low-Level, Directional, Shielded Lighting), and V-17d (Only Perform Maintenance Activities During Daylight Hours) would reduce visual impacts to a less-than-significant, but adverse level (**Class III**). (When lights are on

at nighttime, such as during emergency repair situations, there would be a noticeable aura or glow at each transition station when viewed from a distance, even with implementation of these mitigation measures [Class I]).

### ***Mitigation Measures for Impact V-17 at Transition Stations***

- V-17b Use Magnetic Coils at Entrance Gate.** Instead of motion-activated lighting, the Applicant (SCE) shall install magnetic coils, or other technology, in the entrance road to each transition station to activate low-level, directional lighting at the locked entrance gate.
- V-17c Use Only Low-Level, Directional, Shielded Lighting.** In order to illuminate equipment areas within the transition stations, the Applicant (SCE) shall install only low-level, directional, shielded lighting sufficient to limit spill-over glare and nighttime sky-lighting. The brightness of station lighting shall be kept relatively low.
- V-17d Only Perform Maintenance Activities During Daylight Hours.** The Applicant (SCE) shall perform routine maintenance and repair activities only during daylight hours, thus eliminating the need for nighttime lighting of the transition stations.

### **Summary of Impacts for Alternative 1**

From the following vantage points, Alternative 1 would have the same significant, but mitigable visual impacts (Class II) as the proposed Project with mitigation measures: 110<sup>th</sup> Street at Johnson Road (KOP 1); Avenue K (KOP 2) (See Figure C.15-2, Key Observation Positions Map).

Significant, unavoidable impacts (Class I) would occur under Alternative 1 as seen from Lake Elizabeth Road (KOP 3); the Pacific Crest National Scenic Trail (PCT) (KOP 4); San Francisquito Canyon Road (KOP 5), Bouquet Reservoir (KOP 6), Bouquet Canyon Road (KOP 7), Vasquez Canyon Road (KOP 8); the Veluzat Motion Picture Ranch (KOP 9); North High Ridge Drive (KOP 10); Mountain View Park (KOP 11); and Rio Norte Junior High School (KOP 12).

From the following vantage points, Alternative 1 would have beneficial visual impacts (Class IV) as compared to the proposed Project with mitigation measures: Rio Norte Junior High School (KOP 12 – see discussion); North Park Elementary School and Chesebrough Park (KOP 13); and Copper Hill Road (KOP 14).

Significant, unavoidable visual impacts (Class I) would occur under Alternative 1 due to: 1) the temporary visibility of construction activities and equipment (Impact V-15).

Less-than-significant, but adverse (Class III) visual impacts would occur from conflicts with existing visual quality policies and objectives contained in Forest and local plans (Impact V-16)

Overall visual contrasts created by new sources of light at transition stations (Impact V-17) under Alternative 1 with mitigation would be less than significant, but adverse level (Class III). Overall visual contrasts created by glare effects (Impact V-17) under Alternative 1 with mitigation also would be less than significant, but adverse (Class III).

## **C.15.7 Alternative 2: Antelope-Pardee East Mid-Slope**

Alternative 2 would follow the same general route as the proposed Project, but would relocate most of the towers off the top of Del Sur Ridge in the Angeles National Forest (ANF) (see Section B.4 for description and illustration of Alternative 2). One of the purposes of Alternative 2 is to respond to the Forest Service request to minimize visual resource impacts by relocating the 500-kV single-circuit lattice steel towers off ridgetops, such

as on Del Sur Ridge. Lattice steel towers that are located on sideslopes, so that towers have a dark landscape backdrop, tend to make the towers blend in and become less contrasting visual elements. Conversely, lattice steel towers that are skylined on top of ridges are much more visually evident. To reduce the visibility of towers on ridges, the new alignment would fall outside of the boundaries of the 1,000-foot width of the existing Saugus-Del Sur utility corridor. To avoid impacts associated with construction of access and spur roads in steep terrain, it is proposed that many of the towers proposed mid-slope on NFS lands would be installed using helicopters.

Alternative 2 would cross the PCT further east than the proposed Project, and would cross Bouquet Canyon Road twice in the vicinity of Bouquet Reservoir. All of these crossings were chosen for Alternative 2 after careful analysis of “seen areas” in order to reduce visual resource impacts. Alternative 2 would be located east of Bouquet Reservoir, as compared to the proposed Project which is located directly on the western shore of the reservoir. Alternative 2 would traverse the eastern face of Del Sur Ridge, mid-slope between the ridgetop and canyon bottom. The height of new lattice steel towers would generally range between 113 and 178 feet, depending on slope severity. The height of towers would increase with slope severity in order to maintain minimum clearance between conductors and the ground. The distance of the new transmission line alignment from the proposed route on Del Sur Ridge would also depend on slope severity, as gradual slopes would require the transmission line to shift farther downhill than steep slopes in order to prevent skylining of towers on the ridge, as seen from below.

### **C.15.7.1 Affected Environment**

The affected environment for Alternative 2 is the same as described for the proposed Project. Alternative 2 affects primarily National Forest System Lands and therefore the visual analysis compared predictions of future visual conditions with the Scenic Integrity Objectives (SIOs).

The study area for the visual resource analysis of Alternative 2 would be the same as the proposed Project because the East Mid-Slope re-routing portions are in the same vicinity as the proposed Project. The viewpoints from which sensitive receptors would see different visual effects of Alternative 2 (those that differ from the proposed Project) include the following travel routes and use areas: the Pacific Crest National Scenic Trail (KOP 4); San Francisquito Canyon Road (KOP 5); Bouquet Reservoir (KOP 6); Bouquet Canyon Road (KOP 7); and Vasquez Canyon Road (KOP 8) (see Figure C.15-2, Key Observation Positions Map).

Alternative 2 would be identical to the proposed Project (and Alternative 1) when viewed from 110th Street at Johnson Road (KOP 1), Avenue K (KOP 2), Lake Elizabeth Road (KOP 3), Veluzat Motion Picture Ranch (KOP 9), North High Ridge Drive (KOP 10), Mountain View Park (KOP 11), Rio Norte Junior High School (KOP 12), North Park Elementary School and Chesebrough Park (KOP 13), and Copper Hill Road (KOP 14).

### **C.15.7.2 Impacts and Mitigation Measures**

The following section provides a visual analysis of Alternative 2, and employs revised computerized visual simulations of 2 of the 14 KOPs. These 2 KOPs afford the most critical scenic vistas of Del Sur Ridge. The simulations portray the effects that Alternative 2 would have on existing visual character of the site and its surroundings. This “effects prediction” analysis follows the format of Section C.15.1, Affected Environment, by dividing the analysis into geographic areas – North, Center, and South Areas.

**North Area (Mile 0.0 to 5.7)**

Between Antelope Substation and the Angeles National Forest boundary (Mile 0.0 to 5.7 – proposed towers T-114 through T-90) Alternative 2 on non-NFS lands would be identical to the proposed Project (overhead single-circuit lattice steel towers). Therefore, visual impacts on non-NFS lands in the North Area (and as seen from KOPs 1, 2, and 3) resulting from implementation of Alternative 2 would be the same as the proposed Project (Impacts V-1, V-2, and V-3 are Class I without mitigation). The same mitigation measures are applicable for Alternative 2 and the proposed Project in the North Area – Mitigation Measures V-1a through V-1e, resulting in significant, but mitigable (Class II) visual impacts for V-1 and V-2, but resulting in Class I visual impacts for V-3.

**Center Area (Mile 5.7 to 19.7)**

Visual impacts resulting from implementation of Alternative 2 would be different from (proposed Project) Mile 5.7 to 17.5, and between (proposed Project) Mile 17.5 to 18.6 they would be the same as the proposed Project. At Mile 5.7, Alternative 2 would leave the existing 66-kV utility corridor and head south over Leona Divide, then cross over the PCT and Bouquet Canyon Road, both of which have sensitive receptors. South of Bouquet Canyon Road and on the lower slopes of Sierra Pelona Ridge, Alternative 2 would turn west and cross over Bouquet Canyon Road again, then turn southwest and be located at a mid-slope location approximately half-way between the top of Del Sur Ridge and the bottom of Bouquet Canyon. Because of the narrow canyon walls and the twisting nature of the road, very few viewing opportunities exist that would look uphill to the midslope location. Alternative 2 would cross over the top of Del Sur Ridge in a saddle that is well screened by topography. Alternative 2 would then proceed into the Haskell Canyon drainage and would be completely screened by topography to the ANF boundary.

Because Alternative 2 would be in a different alignment than the proposed Project or Alternatives 1, 3, 4, or 5, it would encounter different Scenic Integrity Objectives by Mile. Table C.15-8 displays the SIOs by Mile for Alternative 2 (see Figure C.15-1 – Scenic Integrity Objective Map). Alternative 2-Mile 18.7 reconnects to the proposed Project (PP) at PP-Mile 17.6, as displayed in Table C.15-8.

Alternative 2 Mile	Scenic Integrity Objective	Definition
5.7 to 5.8, 6.15 to 8.1 8.6 to 10.4, 10.7 to 12.7 12.8 to 17.8, 18.0 to 18.3, 18.5 to 18.7 (= PP 17.6) PP-Mile 17.9 to 18.6	High	Landscapes where the valued landscape character “appears” intact. Visual deviations (human-made structures) may be present but must repeat the form, line, color, texture, and pattern common to the natural landscape character so completely and at such a scale that they are not evident.
5.8 to 6.15, 12.7 to 12.8 17.8 to 18.0, PP-Mile 17.6 to 17.9	Moderate	Landscapes where the valued landscape character “appears slightly altered.” Noticeable deviations must remain visually subordinate to the landscape character being viewed.

New single-circuit 500-kV lattice steel towers would be the same as described for the proposed Project and Alternative 1. If visible, these new towers would create visual contrasts with natural landscape character elements – form, line, color, texture, and scale – and would appear as industrial features in a natural-appearing landscape. This contrast would be especially evident if the towers and conductors were viewed at a foreground viewing distance (0 to ½ mile) or if the towers were viewed against the skyline. If the towers were viewed with a dark landscape as a backdrop and were finished in darker colors, the visual contrasts would be less evident.

Alternative 2 would substantially degrade the scenic integrity and character of landscapes seen from the Pacific Crest National Scenic Trail (Impact V-4). Although Alternative 2 would cross the PCT in a different location

further to the east, the visual effects of the transmission line would be similar to those shown and described for KOP 4; the visual impacts would just be relocated to another portion of the Angeles National Forest landscape. See the description of KOP 4 for the proposed Project for detailed analysis of these visual impacts. See Figure C.15-6B for a simulation of lattice steel towers as viewed in the foreground from the PCT.

The new 500-kV lattice steel towers and conductors would dominate the valued landscape character, which is “an undeveloped, natural-appearing and pastoral landscape, showing little visible human influence.” The industrial character of 500-kV lattice steel towers and conductors would not borrow form, line, color, texture, pattern or scale common to the natural landscape character. At the PCT crossing, the predicted scenic integrity level for the Alternative 2 500-kV transmission line meets the definition of Unacceptably Low Scenic Integrity. The resulting visual impact of Alternative 2 would be four levels below the High Scenic Integrity Objective. Alternative 2 would adversely affect scenic vistas of the PCT and would substantially degrade the existing natural landscape character and scenic quality of the trail. This would be a significant impact.

As discussed for KOP 4 in the proposed Project, because of foreground views from the PCT, it is appropriate to use tubular steel poles within ½ mile of the trail (i.e., from Alternative 2-Mile 6.4 to 7.7). With implementation of Mitigation Measures V-3a (Remove Existing Foundations, Rehabilitate, and Re-Vegetate Tower Sites), V-3b (Remove, Rehabilitate, and Re-Vegetate Crane Pads), and V-3c (Avoid Locating New Roads in Bedrock), V-1a (Use Tubular Steel Poles), V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes), V-4b (Dispose of Cleared Vegetation Off-Site), and V-4c (Dispose of Excavated Materials Off-Site), B-1a (Provide Restoration/ Compensation for Impacts to Native Vegetation Communities), B-1b (No Activities will occur in Riparian Conservation Areas), R-4 (Permanent Closure and Re-Vegetation of Construction Roads), the Very Low SIO would be achieved by Alternative 2 for Impact V-4 because structures would be skylined. This would result in an improved visual environment as seen from the Pacific Crest Trail, as compared to the proposed Project or Alternative 1, but would still result in a significant, unavoidable impact (**Class I**) that would be three levels below the High Scenic Integrity Objective, instead achieving the Very Low SIO.

As seen from KOP 5 on San Francisquito Canyon Road (Impact V-5), Alternative 2 would have a substantial beneficial effect on a scenic vista and substantially improve the existing visual character and quality of the site and its surroundings because this Alternative would not be visible from KOP 5. The new 500-kV transmission line would be relocated onto the east side of Del Sur Ridge, away from KOP 5, and existing 66-kV towers and conductors on Del Sur Ridge would be removed. Figure C.15-7A presents the existing view from KOP 5, and Figure C.15-7D presents a computerized visual simulation showing Alternative 2. The new 500-kV towers of Alternative 2 would not create contrasts of any visual elements (form, line, color, texture, and scale). The new 500-kV transmission line would not be visible from KOP 5 and removal of existing 66-kV transmission line and towers would improve the valued landscape character, which is “an undeveloped, natural-appearing and pastoral landscape, showing little visible human influence.” The predicted scenic integrity level for Alternative 2 meets the definition of High Scenic Integrity. The resulting visual effect of Alternative 2 would be a beneficial impact (**Class IV**), as it would meet the High Scenic Integrity Objective and would help rehabilitate an existing Unacceptably Low Scenic Integrity rating in certain portions of the landscape viewed from KOP 5 (Impact V-5), specifically those caused by the existing 66-kV transmission line in the landscape.

As seen from KOP 6 at Bouquet Reservoir (Impact V-6), Alternative 2 would substantially improve the scenic integrity and character of the landscape, as compared to the proposed Project. Under Alternative 2, only one tower and its conductors would be visible from Bouquet Reservoir, as the transmission line would be further to the east or behind the viewer. The only tower visible from KOP 6 would be skylined at the eastern (right) edge of Figure C.15-8A, as determined by a 3D-seen area analysis performed with a GIS-topographic model. The

remainder of towers in Alternative 2 would be screened by topography. However, even with this topographic screening, there would still be a significant visual impact caused by the transmission line, similar to Impact V-6, except at a different location. After implementation of Mitigation Measures V-3a (Remove Existing Foundations, Rehabilitate, and Re-Vegetate Tower Sites), V-3b (Remove, Rehabilitate, and Re-Vegetate Crane Pads), and V-3c (Avoid Locating New Roads in Bedrock), V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes), V-4b (Dispose of Cleared Vegetation Off-Site), and V-4c (Dispose of Excavated Materials Off-Site), B-1a (Provide Restoration/Compensation for Impacts to Native Vegetation Communities), B-1b (No Activities will occur in Riparian Conservation Areas), R-4 (Permanent Closure and Re-Vegetation of Construction Roads), the Low SIO would be achieved by Alternative 2 for Impact V-6, as the majority of the transmission line would be located in an area not visible from this vantage point. This would result in an improved visual environment as seen from Bouquet Reservoir, as compared to the proposed Project or Alternative 1. However, Alternative 2 would still result in a significant, unavoidable impact (**Class I**) to existing visual conditions that is two levels below the High SIO, achieving the Low SIO.

Additionally, some relocated towers and conductors would be skylined, especially as seen from Spunky Canyon Road and Upper Bouquet Canyon Road (further east of KOP 6 and not simulated) as the conductors cross overhead. Because of this skylining, the predicted scenic integrity level for the 500-kV transmission line meets the definition of Unacceptably Low Scenic Integrity because the relocated steel lattice tower structures and conductors that would be visible would not borrow form, line, color, texture, or scale from the natural-appearing landscape character. The resulting visual impact of Alternative 2 would be four levels below the High Scenic Integrity Objective. Without mitigation, Alternative 2 would adversely affect different scenic vistas seen from Spunky Canyon Road and Upper Bouquet Canyon Road and would substantially degrade the existing natural landscape character and scenic quality. This would be a significant impact, similar to Impact V-6, but at a different location. (Non-NFS lands do not have SIOs, approximately from Alternative 2-Mile 8.1 to 8.6.)

After implementation of Mitigation Measures V-3a (Remove Existing Foundations, Rehabilitate, and Re-Vegetate Tower Sites), V-3b (Remove, Rehabilitate, and Re-Vegetate Crane Pads), and V-3c (Avoid Locating New Roads in Bedrock), V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes), V-4b (Dispose of Cleared Vegetation Off-Site), and V-4c (Dispose of Excavated Materials Off-Site), B-1a (Provide Restoration/Compensation for Impacts to Native Vegetation Communities), B-1b (No Activities will occur in Riparian Conservation Areas), R-4 (Permanent Closure and Re-Vegetation of Construction Roads), the Low SIO would be achieved by Alternative 2 as seen from Spunky Canyon and Upper Bouquet Canyon Roads because of the landform backdrops and no new access roads. This would result in an improved visual environment as seen from Bouquet Canyon Road and Spunky Canyon Road, as compared to the Project without mitigation, but Alternative 2 would still result in a significant, unavoidable impact (**Class I**) to existing conditions viewed from Spunky Canyon Road and Upper Bouquet Canyon Road. (These views were not simulated).

As seen from KOP 7 on Bouquet Canyon Road (Impact V-7), Alternative 2 would have an adverse effect on the scenic integrity and character of landscapes. The scenic vista from Bouquet Canyon Road (KOP 7) would change significantly under Alternative 2. The existing 66-kV towers and conductors would be removed and in their place a new 500-kV transmission line would be constructed at a mid-slope location on the east side of Del Sur Ridge, closer to viewers at KOP 7. As determined by a 3D-seen area analysis performed with a GIS-topographic model, two lattice steel towers and conductors would be visible from KOP 7. The remainder of towers in Alternative 2 would be screened by topography. Because of this skylining, the predicted scenic integrity level for the 500-kV transmission line meets the definition of Unacceptably Low Scenic Integrity because the steel lattice tower structures and conductors that are visible would not borrow form, line, color, texture, or scale from the natural-appearing landscape character. The resulting visual impact of Alternative 2

would be four levels below the High Scenic Integrity Objective. Without mitigation, Alternative 2 would adversely affect scenic vistas of Bouquet Canyon Road and would substantially degrade the existing natural landscape character and scenic quality. This would be a significant impact.

After implementation of Mitigation Measures V-3a (Remove Existing Foundations, Rehabilitate, and Re-Vegetate Tower Sites), V-3b (Remove, Rehabilitate, and Re-Vegetate Crane Pads), and V-3c (Avoid Locating New Roads in Bedrock), V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes), V-4b (Dispose of Cleared Vegetation Off-Site), and V-4c (Dispose of Excavated Materials Off-Site), B-1a (Provide Restoration/Compensation for Impacts to Native Vegetation Communities), B-1b (No Activities will occur in Riparian Conservation Areas), R-4 (Permanent Closure and Re-Vegetation of Construction Roads), visual impacts would be reduced and because structures would be skylined, the Very Low SIO would be achieved by Alternative 2 for Impact V-7. This would result in an improved visual environment as seen from Bouquet Canyon Road, as compared to the Project without mitigation, but the increased structure prominence and skyline blockage would still result in a significant, unavoidable impact (**Class I**) to existing conditions that would be three levels below the High Scenic Integrity Objective.

As seen from KOP 8 on Vasquez Canyon Road (Impact V-8), Alternative 2 would have a substantial beneficial effect on a scenic vista, and would substantially improve the existing visual character or quality of the site and its surroundings. After implementation of Mitigation Measures V-3a (Remove Existing Foundations, Rehabilitate, and Re-Vegetate Tower Sites), V-3b (Remove, Rehabilitate, and Re-Vegetate Crane Pads), and V-3c (Avoid Locating New Roads in Bedrock), V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes), V-4b (Dispose of Cleared Vegetation Off-Site), and V-4c (Dispose of Excavated Materials Off-Site), B-1a (Provide Restoration/Compensation for Impacts to Native Vegetation Communities), B-1b (No Activities will occur in Riparian Conservation Areas), R-4 (Permanent Closure and Re-Vegetation of Construction Roads), the High SIO would be achieved by Alternative 2 as seen from Vasquez Canyon Road because of the landform backdrops and no new access roads. This would result in an improved visual environment as compared to the Project without mitigation. The scenic vista from Vasquez Canyon Road (KOP 8) would change significantly from the existing condition (and the No Project/Action Alternative) under Alternative 2. From this vantage point, more than 6 miles of Del Sur Ridge are visible in the background. Figure C.15-10A presents the existing view from KOP 8, and Figure C.15-10D presents a computerized visual simulation showing Alternative 2. All existing 66-kV towers, conductors, and foundations would be removed, and a new 500-kV transmission line would be constructed at a mid-slope location using helicopter construction. The lattice steel towers would be surface treated with colors to blend with the landform backdrop. Based on a GIS 3D-seen area analysis of topographic screening and proposed tower locations for Alternative 2, it was determined that, as seen from KOP 8, only four new lattice steel towers would not be completely screened by topography. These four towers would be 5 to 6 miles north of KOP 8, and would have a landform backdrop behind each tower. Additionally, the lower portions of each of these four towers would be partially screened by topography. Therefore, under Alternative 2 the Project would achieve the High SIO as seen from Vasquez Canyon Road at KOP 8, resulting in no adverse impact.

Removal of the existing 66-kV transmission line and towers on Del Sur Ridge would improve the valued landscape character, which is “an undeveloped, natural-appearing and pastoral landscape, showing little visible human influence. This would be a beneficial effect (**Class IV**).

Table C.15-9 displays locations where helicopters would be used to construct, operate, and maintain the Project as part of the Project Description, not as a visual mitigation measure. Miles and numbers of structures were determined by estimates made from aerial photos, topographic maps, and correlation to the PEA Segment 1, Volume 2 (The Road Story). Approximate miles are given to generally orient the reader to the Center Area



inside the ANF boundary. Miles and numbers of towers are approximate, based on estimates derived from preliminary design concepts and are subject to change as the design is finalized.

<b>Use Helicopter Only</b>			<b>OK to Use Access Roads</b>		
From Mile	To Mile	Estimated Number of Structures	From Mile	To Mile	Estimated Number of Structures
			5.6	5.7	1
5.7	6.4	2	6.4	6.5	1
6.5	8.1	7	8.1	9.6	9
9.6	10.5	5	10.5	10.7	2
10.7	12.7	8	12.7	13.0	3
13.0	16.5	15	16.5	18.6	13
<b>Total Structures</b>		<b>37</b>	<b>Total Structures</b>		<b>29</b>

Note: These are approximate numbers and miles based on estimates derived from preliminary design concepts. Numbers and miles are subject to change as the design is finalized.

### **South Area (Mile 18.6 to 25.6)**

Between the southern boundary of NFS lands in Haskell Canyon and the Pardee Substation (Mile 18.6 to 25.6 – proposed towers T-30 through T-1) Alternative 2 would be identical to the proposed Project (overhead single-circuit and double-circuit lattice steel towers). As seen from KOP 9 at the Veluzat Motion Picture Ranch (Impact V-9), Alternative 2 would be as described for the proposed Project and Alternative 1, significant, unavoidable visual impacts (**Class I**).

With implementation of mitigation measures described for the proposed Project in the South Area, visual impacts at KOPs 10, 11, 12, 13 and 14 resulting from implementation of Alternative 2 would be the same as the proposed Project (Impacts V-10, V-11, V-12, V-13, and V-14: **Class I**).

### **Construction Activity Impacts**

As seen from various vantage points throughout the Project area, the temporary visibility of construction activities and equipment associated with Alternative 2 (Impact V-15) would substantially degrade the visual quality of landscape views. Construction equipment and activities would be seen by various viewers in close proximity to the sites, existing and relocated utility corridor, including adjacent and nearby residents, recreationists on trails and roads, pedestrians, and motorists on public streets. View durations would vary from brief (a week or less) to extended periods (14 months). Construction activities would be most visible for those elements of Alternative 2 through residential neighborhoods and adjacent to major travel corridors such as the travel routes named in Section C.15-1.

Placement of new transmission structures by helicopter in the Angeles National Forest would result in the visual intrusion of construction vehicles, helicopters, equipment, storage materials, and workers. Despite the fact that project construction would be a relatively short-duration visual impact (projected timeframe of 14 months), as compared to the permanent structures that would be introduced into the landscape by Alternative 2, this impact would be significant.

The short-term visual impacts during construction (Impact V-15) of Alternative 2 would be significant and unavoidable (**Class I**), and there is no mitigation available to make vehicles, heavy equipment, helicopters, and other Project components less-visible during construction. Long-term visual impacts of construction activities

would be reduced to a less-than-significant level (**Class II**) with the implementation of Mitigation Measures V-15a (Storage and Site Cleanup), V-15b (Recontouring and Restoration), and V-15c (Revegetation).

**Conflict with Policies and Objectives**

Alternative 2 would not conflict with existing scenic integrity objectives and visual quality policies contained in Forest and local plans (Impact V-16) after amendment of the Angeles National Forest Land Management Plan (Forest Plan). As with the proposed Project and all alternatives, Alternative 2 includes an amendment to the Forest Plan that would modify the SIOs along the proposed route on NFS lands to ensure consistency between the Forest Plan and this Alternative. Alternative 2 would have the same conflicts with applicable plans and policies as the proposed Project, set forth in Table C.15-5, except for those described below in Table C.15-10. As noted in these tables, even with implementation of APM VIS-1 and VIS-2, Alternative 2 would be inconsistent with many existing plans, objectives, and policies for visual resources (**Class I**), especially within the Angeles National Forest, thereby requiring additional mitigation measures for visual resources (V-1a through V-1d, V-4a through V-4c, V-9, V-15, V-19). The only possible mitigation that would make the Project consistent with the Angeles Forest Management Plan is relocation of the transmission line outside of National Forest System lands or amendment of the Forest Plan.

Implementation of Mitigation Measures V-16a (Forest Plan Amendment), ~~V-16b (Local Agency Approvals), and V-16c (Transmission Line Siting Study)~~ and V-16b (Local Agency Approvals) would reduce visual impacts associated with Impact V-16 to less-than-significant, but adverse (**Class III**) levels. Because Alternative 2 was developed with the goal of reducing visual impacts by siting along a different alignment, and because Alternative 2 was developed using a “seen area” analysis of a topographic model, Mitigation Measure V-16c (Transmission Line Siting Study within the ANF) was in essence already implemented during the development of Alternative 2. Therefore, Mitigation Measure V-16c (Transmission Line Siting Study within the ANF) would not apply to Alternative 2.

Agency Regulating Land Use	Regulation	Is Alternative 2 Consistent?	Method of Consistency
USDA Forest Service, Pacific Southwest Region, Angeles National Forest	Angeles National Forest Land and Resources Management Plan (Unless Amended)		
	Scenery Management System. Would Alternative 2 meet High Scenic Integrity Quality Objective from Alt 2-Mile 5.7 to 5.8 6.15 to 8.1 8.6 to 10.4 10.7 to 12.7 12.8 to 17.8 18.0 to 18.3 18.5 to 18.7 (= PP 17.6) PP-Mile 17.9 to 18.6?	Yes (Conditional upon approval of Forest Plan amendment)	With implementation of mitigation measures, Alternative 2 would achieve the Low SIO from Mile 5.7 to 5.8, 6.15 to 6.4, 7.7 to 8.1, 8.6 to 10.4, 10.7 to 12.7, and 12.8 to 13.5 instead of the High SIO. From Mile 6.4 to 7.7, Alternative 2 with implementation of mitigation measures would achieve the Very Low SIO instead of the High SIO. From Mile 13.5 to 14.0, Alternative 2 with implementation of mitigation measures would achieve the Very Low SIO instead of the High SIO. Therefore, to ensure consistency with management direction in the governing 2005 Forest Land Management Plan (Forest Plan), Alternative 2 would require several amendments to the Forest Plan. With an amendment to the Forest Plan to change Scenic Integrity Objectives along the existing or proposed utility corridor to “Low SIO” and “Very Low SIO” as described above, Alternative 2 would be consistent with the Forest Plan policies and regulations.
		Yes	From Mile 14.0 to 17.8, 18.0 to 18.3, 18.5 to 18.7 (= PP 17.6), and PP-Mile 17.9 to 18.6, Alternative 2 with implementation of mitigation measures would achieve the High SIO.
Scenery Management System. Would Alternative 2 meet	Yes (Conditional upon	In Moderate SIO areas from Alternative 2-Mile 5.8 to 6.15, tops of 500-kV towers and conductors would be very visible from the PCT, and with implementation of mitigation measures would	

<b>Table C.15-10. Consistency with Applicable Visual Resource Plans and Policies</b>			
<b>Agency Regulating Land Use</b>	<b>Regulation</b>	<b>Is Alternative 2 Consistent?</b>	<b>Method of Consistency</b>
	Moderate Scenic Integrity Quality Objective from Alternative 2-Mile 5.8 to 6.15, 12.7 to 12.8?	approval of Forest Plan amendment)	meet the Low SIO. From Alternative 2-Mile 12.7 to 12.8, tops of towers and conductors would be visible from Bouquet Canyon Road and would meet the Low SIO with implementation of mitigation measures. Therefore, to ensure consistency with management direction in the governing 2005 Forest Land Management Plan (Forest Plan), Alternative 2 would require several amendments to the Forest Plan. With an amendment to the Forest Plan to change Scenic Integrity Objectives along the existing or proposed utility corridor to "Low SIO" as described above, Alternative 2 would be consistent with the Forest Plan policies and regulations.
	Scenery Management System. Would Alternative 2 meet Moderate Scenic Integrity Quality Objective from Alternative 2-Mile 17.8 to 18.0 and 18.3 to 18.6, and proposed Project-Mile 15.9 to 16.0 and 17.6 to 17.9?	Yes	Because of topographic screening, Alternative 2 structures would not be visible from sensitivity level one travel routes, use areas or water bodies and, therefore, would meet the Moderate Scenic Integrity Objective from Alternative 2-Mile 17.8 to 18.0 and 18.3 to 18.6, and proposed Project-Mile 15.9 to 16.0 and 17.6 to 17.9.
Los Angeles County	Scenic Highways Element, Article 3. Protect and enhance esthetic resources within corridors of designated scenic highways.	Yes	From the following listed County of Los Angeles Scenic Highways Element Second Priority Roads, Alternative 2 would enhance or protect the esthetic resources of the landscape: San Francisquito Canyon Road, lower portion of Bouquet Canyon Road below the reservoir, and Vasquez Canyon Road. As seen from these scenic highways, Alternative 2 would enhance and protect the esthetic resources of the landscape. (See Alternative 2 visual simulations for KOPs 5 and 8.)

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

Alternative 2 would create a new source of substantial glare that would adversely affect daytime views in the area (Impact V-17). Alternative 2 would have the same visual glare effects as the proposed Project, but in different locations along the realigned utility corridor. As seen from KOP 5 (San Francisquito Canyon Road), Alternative 2 would not produce glare because of its mid-slope location on the opposite side of Del Sur Ridge. Unlike Alternative 1, Alternative 2 would have no new sources of light that would affect nighttime views. Implementation of Mitigation Measures V-1e (Treat Surfaces with Appropriate Colors, Finishes, and Textures) and V-17a (Use Only Non-Specular and Non-Reflective Conductors and Insulators) would lead to a reduction in overall visual contrast such that the visual effects of Alternative 2 would be less than significant, but adverse (**Class III**).

### **Summary of Impacts for Alternative 2**

From the following vantage points, Alternative 2 would have the same significant, but mitigable visual impacts (**Class II**) as the proposed Project with mitigation measures: 110<sup>th</sup> Street at Johnson Road (KOP 1); Avenue K (KOP 2) (See Figure C.15-2, Key Observation Positions Map).

Significant, unavoidable impacts (**Class I**) would occur under Alternative 2 as seen from Lake Elizabeth Road (KOP 3); the Pacific Crest National Scenic Trail (PCT) (KOP 4) , Bouquet Reservoir (KOP 6), Bouquet Canyon Road (KOP 7), the Veluzat Motion Picture Ranch (KOP 9); North High Ridge Drive (KOP 10); Mountain View Park (KOP 11); Rio Norte Junior High School (KOP 12); North Park Elementary School and Chesebrough Park (KOP 13); and Copper Hill Road (KOP 14). Additionally, under Alternative 2, there would

be significant, unavoidable visual impacts (**Class I**) as seen from Spunky Canyon Road and Upper Bouquet Canyon Road, which are not analyzed as KOPs and are not simulated.

From the following vantage points, Alternative 2 would have beneficial visual impacts (**Class IV**) as compared to the proposed Project with mitigation measures: San Francisquito Canyon Road Southbound (KOP 5) and Vasquez Canyon Road (KOP 8).

Significant, unavoidable visual impacts (**Class I**) would occur under the proposed Project due to the temporary visibility of construction activities and equipment (Impact V-15).

Less-than-significant, but adverse (**Class III**) visual impacts would occur from conflicts with existing visual quality policies and objectives contained in Forest and local plans (Impact V-16).

Overall visual contrasts created by glare effects (Impact V-17) under Alternative 2 with mitigation would be less than significant, but adverse (**Class III**).

### **C.15.8 Alternative 3: Single-circuit Towers between Haskell Canyon and Pardee Substation**

This alternative is a slight variation of the proposed Project and would include constructing an additional single-circuit 500-kV transmission line on lattice steel towers between Haskell Canyon and Pardee Substation (Mile 20.3 to Mile 25.6), rather than constructing a double-circuit 500-kV transmission line on taller lattice steel towers and then removing an existing single-circuit 500-kV transmission line. The single-circuit towers would be built in the vacant position of the Pardee-Vincent 500-kV utility corridor (near the center of the utility corridor) from Haskell Canyon to Pardee Substation (see Section B.4.3 for a description and illustrations of Alternative 3).

#### **C.15.8.1 Affected Environment**

The affected environment for Alternative 3 is the same as the proposed Project because it would be constructed in the same utility corridor as the proposed Project. Alternative 3 is different from the proposed Project only in Santa Clarita from Mile 20.3 to 25.6. This alternative is the same as the proposed Project from Mile 0.0 to Mile 20.3. The study area for the visual resource analysis of Alternative 3 would be the same as the proposed Project because the new single circuit line would be placed in the same corridor as the proposed Project. The viewpoints from which sensitive receptors would see different visual effects of Alternative 3 (those that differ from the proposed Project) include the following travel routes and use areas: North High Ridge Drive (KOP 10); Mountain View Park (KOP 11); Rio Norte Junior High School (KOP 12); North Park Elementary School and Chesebrough Park (KOP 13); and Copper Hill Road (KOP 14) (see Figure C.15-2, Key Observation Position Map).

Alternative 3 would be identical to the proposed Project when viewed from 110th Street at Johnson Road (KOP 1), Avenue K (KOP 2), Lake Elizabeth Road (KOP 3), the Pacific Crest National Scenic Trail (KOP 4), San Francisquito Canyon Road (KOP 5), Bouquet Reservoir (KOP 6), Bouquet Canyon Road (KOP 7), Vasquez Canyon Road (KOP 8), and the Veluzat Motion Picture Ranch (KOP 9).

#### **C.15.8.2 Impacts and Mitigation Measures**

The following section provides an analysis of Alternative 3, and employs revised computerized visual simulations of two of the 14 KOPs: KOPs 10 and 11. (See Figures C.15-12D and C.15-13D.) These 2 KOPs afford characteristic views of two situations in Santa Clarita – one residential area view and one park view – in

relation to the existing landscape conditions and the No Project/Action Alternative (See Figures C.15-12A and C.15-13A.). From these new simulations and 14 simulations of the proposed Project, visual effects Alternative 3 are predicted. This “effects prediction” analysis follows the format of Section C.15.1, Affected Environment, by dividing the analysis into geographic areas – North, Center, and South Areas.

### **North Area (Mile 0.0 to 5.7)**

Between Antelope Substation and the Angeles National Forest boundary (Mile 0.0 to 5.7), Alternative 3 would be identical to the proposed Project. Therefore, visual impacts throughout the North Area resulting from implementation of Alternative 3 would be identical to the proposed Project and Alternatives 1 and 2: (Impacts V-1, V-2, and V-3 are Class I without mitigation). The same mitigation measures are applicable for Alternative 3 in the North Area – Mitigation Measures V-1a through V-1e – resulting in significant, but mitigable (Class II) visual impacts for V-1 and V-2, and significant, unavoidable (Class I) visual impacts for V-3.

### **Center Area (Mile 5.7 to 18.6)**

Alternative 3 would be identical to the proposed Project within the Center Area. Therefore, visual impacts throughout the Center Area (and as represented by KOPs 5, 6, 7, and 8) resulting from implementation of Alternative 3 would be the same as the proposed Project (Impacts V-4, V-5, V-6, V-7, and V-8 – Class I, with or without mitigation). The only possible mitigation that would make the Project consistent with the Angeles Forest Management Plan is relocation of the transmission line outside of NFS lands or a Forest Plan amendment.

Regarding Mitigation Measure V-4a (Construct, Operate, and Maintain with Helicopters), under Alternative 3, helicopter recommendations would be the same as the proposed Project (see Table C.15-4).

### **South Area (Mile 18.6 to 25.6)**

Visual impacts resulting from construction and operation of Alternative 3 would be the same as the proposed Project in Haskell Canyon between Mile 18.6 and 20.3, and different from Mile 20.3 to 25.6 in the existing Vincent-Pardee corridor. Starting at Mile 20.3, a separate, new 500-kV transmission line with single-circuit lattice steel towers and conductors would be constructed parallel and adjacent to the existing single-circuit Pardee-Vincent 500-kV line. An existing 278-foot-tall double-circuit tower would remain at approximately Mile 22.3.

The additional line of single-circuit 500-kV towers in Alternative 3 would reduce the visual prominence of the proposed Project because new single-circuit towers would be similar in height to the towers that currently exist in the corridor and shorter than the double-circuit towers in the proposed Project. However, this visual advantage would be somewhat offset by the fact that the utility corridor would contain two sets of single-circuit 500-kV lattice steel towers instead of a single set of double-circuit towers.

As seen from KOP 9, the Veluzat Motion Picture Ranch, and throughout the area from Mile 18.6 to 20.3, Alternative 3 would be identical to the proposed Project. Therefore, visual impacts represented by KOP 9 resulting from implementation of Alternative 3 would be the same as the proposed Project (Impacts V-9 – Class I, with or without mitigation). The only possible mitigation that would make the Project acceptable to the motion picture ranch is relocation of the transmission line outside of that property (see Mitigation Measure V-9).

KOP 10 at North High Ridge Drive was selected to be representative of views from all residential areas for analysis of Alternative 3. As seen from North High Ridge Drive at KOP 10 (Impact V-10), Alternative 3 would somewhat degrade the visual quality of landscape views. From this vantage point, the new 500-kV single-circuit

transmission line would be very visible in the foreground and middleground, and addition of this line would increase the total number of lines in the Pardee-Vincent Corridor from three to four. This increased number of lines would compound the visual effects of these industrial structures in this residential neighborhood. Figure C.15-12C presents a computerized visual simulation showing the additional single-circuit 500-kV transmission line of Alternative 3 adjacent to and north of the existing single circuit line. Two 220-kV lines are situated further south in the same corridor (Pardee-Vincent 500-kV line on the right, Pardee-Vincent No. 1 220-kV line in the center, and Pardee-Eagle Rock 220-kV line on the left). The new 500-kV single-circuit towers of Alternative 3 would vary from 113 to 178 feet tall and arms would be 96 feet wide. The increased number of structures would result in several noticeable adverse visual effects. Additional structures would compound the visual effects of the existing three lines, cause additional structure skylining, and increase the structural prominence when viewed from nearby residences and roadways, leading to a discordance of scale. The resulting visual contrast would be high and the new structures added to existing structures in Alternative 3 would appear dominant when compared with the existing suburban landscape features. There would be increased structure skylining and additional obstruction of the ridgeline backdrop by structures and conductors that would result in a high degree of view blockage.

Referring to Table C.15-1, General Guidance for Review of Visual Impact Significance, the overall visual change would be high and in the context of the existing landscape's high visual sensitivity, the resulting visual impact would be significant. Because there are residences immediately adjacent to Alternative 3, and people would view the transmission line structures at "immediate foreground," "foreground," and "middleground" viewing distances, it is appropriate to use tubular steel poles in the vicinity of KOP 10.

Implementation of Mitigation Measures V-1a (Use Tubular Steel Poles), V-1b (Construct, Operate, and Maintain with Existing Access Roads), V-1c (Dispose of Cleared Vegetation), V-1d (Dispose of Excavated Materials), and V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes) would reduce Impact V-10 for Alternative 3 as compared to the proposed Project with its taller, wider, double-circuit lattice steel towers. The resulting visual impact would be significant, but mitigable (**Class II**) because of the decreased skyline blockage in these residential neighborhoods.

KOP 11 at Mountain View Park was selected to be representative of views from parks and schools for analysis of Alternative 3. As seen from Mountain View Park at KOP 11 (Impact V-11), Alternative 3 would substantially degrade the visual quality of landscape views. From this vantage point, the new 500-kV single-circuit transmission line of Alternative 3 would be very visible in the immediate foreground and foreground distance zones. Addition of new towers and conductors immediately adjacent to the park would add to the visual clutter and industrial character that is so discordant on the skyline. This increased number of lines would compound the visual effects of these industrial structures in this residential neighborhood park. Figure C.15-12D presents a computerized visual simulation showing the additional single-circuit 500-kV transmission line of Alternative 3 adjacent to and north of the existing single-circuit line. The existing 500-kV single-circuit tower would remain in place in front of the existing 278-foot-tall double-circuit tower. Conductors of Alternative 3 would connect to vacant positions on this existing double-circuit tower.

Towers of Alternative 3 would range in height from 113 to 178 feet tall and 96 feet wide. The increased number of structures would result in several noticeable adverse visual effects at KOP 11 (Impact V-11), where visual effects would be as described above for Impact V-10. Additional towers and conductors would compound the visual effects of existing transmission lines, cause additional structure skylining, and increase the structural prominence when viewed from this park, aggravating the discordance of scale. The resulting visual contrast would be high and the new structures added to existing structures would appear dominant when compared with the existing features at Mountain View Park. There would be increased structure skylining and additional

obstruction of the ridgeline backdrop by structures and conductors that would result in a high degree of view blockage.

Referring to Table C.15-1 General Guidance for Review of Visual Impact Significance, the overall visual change would be high and in the context of the existing landscape's high visual sensitivity, the resulting visual impact would be significant. Because this park is heavily used by residents, and people would view the transmission line structures at "immediate foreground" and "foreground" viewing distances, it is appropriate to use tubular steel poles, specifically in the vicinity of KOP 11, and generally from Mile 20.3 to 25.6.

Implementation of Mitigation Measures V-1a (Use Tubular Steel Poles), V-1b (Construct, Operate, and Maintain with Existing Access Roads), V-1c (Dispose of Cleared Vegetation), V-1d (Dispose of Excavated Materials), and V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes) would reduce visual Impacts V-11 through V-14 for Alternative 3. This would result in a greatly improved visual environment, as compared to the proposed Project with its taller, wider, double-circuit lattice steel towers. The resulting visual impact would be significant, but mitigable (**Class II**) because of the decreased skyline blockage at Mountain View Park (Impact V-11).

As represented by analysis of KOPs 10 and 11, visual effects would be similar and adverse when seen from KOP 12 – Rio Norte Junior High School (Impact V-12), KOP 13 – North Park Elementary School and Chesebrough Park (Impact V-13), and KOP 14 – Copper Hill Road (Impact V-14). From these vantage points, Alternative 3 with mitigation would have the same significant, but mitigable visual impacts (**Class II**) as described above for North High Ridge Drive at KOP 10 (Impact V-10) and Mountain View Park at KOP 11 (Impact V-11). Therefore, at these locations, there would be significant, but mitigable visual impacts (**Class II**) because of the avoidance of taller double-circuit towers and the substitution of shorter tubular steel poles instead of lattice steel towers under Alternative 3: Rio Norte Junior High School (KOP 12 - Impact V-12); North Park Elementary School and Chesebrough Park (KOP 13 - Impact V-13); and Copper Hill Road (KOP 14 - Impact V-14) (See Figure C.15-2, Key Observation Positions Map).

### **Construction Activity Impacts**

Under Alternative 3, construction activities (Impact V-15) associated with the dismantling of the existing single-circuit 500-kV towers located between Mile 20.3 and 25.6 would not occur, and as a result, visual resource impacts associated with these activities would be eliminated. The short-term visual impacts during construction (Impact V-15) of Alternative 3 would be similar to the proposed Project, and would be significant and unavoidable (**Class I**). There are no mitigation measures available to make vehicles, heavy equipment, helicopters, and other Project components less-visible during construction. Long-term visual impacts of construction activities would be reduced to a less-than-significant level (**Class II**) with the implementation of Mitigation Measures V-15a (Storage and Site Cleanup), V-15b (Recontouring and Restoration), and V-15c (Revegetation).

### **Conflict with Policies and Objectives**

Alternative 3 would not conflict with existing visual quality policies and objectives contained in Forest and local plans (Impact V-16) after amendment of the Angeles National Forest Land Management Plan (Forest Plan). As with the proposed Project and all alternatives, Alternative 3 includes an amendment to the Forest Plan that would modify the SIOs along the proposed route on NFS lands to ensure consistency between the Forest Plan and this Alternative. Alternative 3 would have the same conflicts with applicable plans and policies as the proposed Project, set forth in Table C.15-5 (above), except for those described below in Table C.15-11. As noted in these tables, even with implementation of APM VIS-1 and VIS-2, Alternative 3 would be inconsistent

with many existing plans, objectives, and policies for visual resources, thereby requiring additional mitigation measures for visual resources (V-1a through V-1d, V-4a through V-4c, V-9, V-15, and V-19).

Implementation of Mitigation Measure V-16a (Forest Plan Amendment), AV-16b (Local Agency Approvals), and V-16c (Transmission Line Siting Study within the ANF) would reduce visual impacts associated with Impact V-16 to less-than-significant, but adverse (**Class III**) levels.

<b>Table C.15-11. Consistency with Applicable Visual Resource Plans and Policies</b>			
<b>Agency Regulating Land Use</b>	<b>Regulation</b>	<b>Is Alt. 3 Consistent?</b>	<b>Method of Consistency</b>
Los Angeles County	Santa Clarita Valley Area Plan, A Component of the County of Los Angeles General Plan (Updated December 6, 1990)		
	Compatibility and Proximity of Urban Activities. Policy 1.1 Mitigate where possible undesirable impacts of development on adjacent land uses through utilization of appropriate buffers, building codes and standards.	Yes (Conditional upon approval of local agencies)	Alternative 3 would be constructed in the same utility corridor as the proposed Project from Mile 20.3 to 25.6. Within the unincorporated Los Angeles County areas of Santa Clarita, Alternative 3 would create undesirable visual intrusions and visual impacts as seen from residences, streets and roads. Utilization of appropriate buffers (vegetative screening, further set-backs, etc.) or building codes or standards would not be effective in mitigating the visual impacts. (See visual simulation for KOPs 10 and 11 for Alternative 3).
City of Santa Clarita	City of Santa Clarita General Plan (Amended June 1991)		
	Community Design Element, Ridgeline Protection. Ridgelines within the Valley are a significant design feature that should be protected. Development on significant ridgelines should be prohibited or severely limited.	Yes (Conditional upon approval of local agencies)	Alternative 3 would not protect ridgelines within the Santa Clarita Valley Area, and the addition of another transmission line would create substantial visual encroachments upon existing ridgelines. (See visual simulations for KOPs 10 and 11 for Alternative 3).
	Community Development Element, Infrastructure, Policy 11.1 Encourage placement of transmission power lines and other mechanical equipment underground, where feasible, to maximize safety and minimize visual distraction.	Yes (Conditional upon approval of local agencies)	Alternative 3 is not an underground transmission line, and it has been determined that it is technically feasible to construct an underground transmission line in the Santa Clarita area.
	Policy 11.9 Encourage single pole transmission towers and cellular poles, and avoid reinforced structural support bases.	Yes (Conditional upon approval of local agencies)	Alternative 3 is not a single pole transmission line, but rather has single-circuit lattice steel towers that would range from 113- to 178 feet tall in the Santa Clarita area. It has been determined that it is technically feasible to construct a transmission line with tubular steel poles.

**New Source of Substantial Light or Glare**

Alternative 3 would create a new source of substantial glare that would adversely affect daytime views in the area (Impact V-17). In Alternative 3, transmission line towers and conductors would have the same visual glare effects as the proposed Project. Alternative 3 would have no new sources of light that would affect nighttime views. Implementation of Mitigation Measures V-1e (Treat Surfaces with Appropriate Colors, Finishes, and Textures) and V-17a (Use Only Non-Specular and Non-Reflective Conductors and Insulators) would lead to a reduction in overall visual contrast such that the visual effects of Alternative 3 would be less than significant, but adverse (**Class III**).



### Summary of Impacts for Alternative 3

From the following vantage points, Alternative 3 would have the same significant, but mitigable visual impacts (**Class II**) as the proposed Project with mitigation measures: 110<sup>th</sup> Street at Johnson Road (KOP 1); Avenue K (KOP 2) (See Figure C.15-2, Key Observation Positions Map).

Significant, unavoidable impacts (**Class I**) would occur under Alternative 3 with mitigation as seen from Lake Elizabeth Road (KOP 3); the Pacific Crest National Scenic Trail (PCT) (KOP 4); San Francisquito Canyon Road (KOP 5), Bouquet Reservoir (KOP 6), Bouquet Canyon Road (KOP 7), Vasquez Canyon Road (KOP 8); the Veluzat Motion Picture Ranch (KOP 9).

From the following vantage points, Alternative 3 with mitigation would have significant, but mitigable visual impacts (**Class II**): North High Ridge Drive (KOP 10); Mountain View Park (KOP 11); and Rio Norte Junior High School (KOP 12); North Park Elementary School and Chesebrough Park (KOP 13); and Copper Hill Road (KOP 14).

Significant, unavoidable visual impacts (**Class I**) would occur under Alternative 3 due to: 1) the temporary visibility of construction activities and equipment (Impact V-15).

Less-than-significant, but adverse (**Class III**) visual impacts would occur from conflicts with existing visual quality policies and objectives contained in Forest and local plans (Impact V-16).

Overall visual contrasts created by glare effects (Impact V-17) under Alternative 3 with mitigation would be less than significant, but adverse (**Class III**).

### C.15.9 Alternative 4: Antelope-Pardee Re-Routing of New ROW along Haskell Canyon

The purpose of Alternative 4 is to site the transmission line east of the Veluzat Motion Picture Ranch. Alternative 4 would be identical to the proposed Project from Mile 0.0 to 17.5 and 20.3 to 25.6. The only differences would occur from Mile 17.5 to Mile 20.3. This three-mile portion of Alternative 4 takes a different route through Haskell Canyon and would be constructed in a new utility corridor across existing open space NFS lands and a 0.3-mile section of private land. (See Section B.4.4 for a description and illustrations of Alternative 4).

#### C.15.9.1 Affected Environment

The affected environment for Alternative 4 is the same as the proposed Project from Mile 0.0 to 17.5 and 20.3 to 25.6 because it would be constructed along the same route as the proposed Project in these locations. Alternative 4 is different from the proposed Project only from Mile 17.5 to 20.3, where it would avoid traversing “Main Street” in the Veluzat Motion Picture Ranch. See Section C.15.1.2, KOP 9 for a description of existing visual resources at “Main Street” in the motion picture ranch.

The study area for the visual resource analysis of Alternative 4 has the same visual characteristics as the proposed Project because the new utility corridor is located only 0.6 miles east of the proposed utility corridor in Haskell Canyon.

The visual effects of Alternative 4 from Mile 17.5 to 20.3 would not be visible from any of the 14 KOPs used to analyze the proposed Project or Alternatives 1, 2, or 3. Therefore, a new KOP (4-1) was established, as described below, to analyze the existing landscape setting and potential impacts to visual resources (see Figure C.15-2, Key Observation Positions Map).

Alternative 4 would traverse NFS lands with steeply sloping, barren, grass-covered hillsides from Alternative 4-Mile 17.5 to 18.0 and 18.3 to 18.8. Table C.15-12 displays the Scenic Integrity Objectives by Mile for Alternative 4 (see Figure C.15-1 – Scenic Integrity Objective Map).

Alternative 4-Mile	Scenic Integrity Objective	Definition
5.7 to 15.9, 16.0 to 17.5 Alternative 4-Mile 17.5 to 17.6, and Alternative 4-Mile 18.3 to 18.8	High	Landscapes where the valued landscape character “appears” intact. Visual deviations (human-made structures) may be present but must repeat the form, line, color, texture, and pattern common to the natural landscape character so completely and at such a scale that they are not evident.
15.9 to 16.0, Alternative 4-Mile 17.6 to 18.0	Moderate	Landscapes where the valued landscape character “appears slightly altered.” Noticeable deviations must remain visually subordinate to the landscape character being viewed.

From Alternative 4-Mile 18.0 to 18.3, the new utility corridor would cross private (non-NFS) lands within the ANF boundary. From Alternative 4-Mile 18.8 to its connection to the existing Pardee-Vincent utility corridor, the new utility corridor would be located on private lands outside the ANF boundary. In this vicinity, suburban developments are present on flatter terrain to the south of the existing Pardee-Vincent utility corridor. Vegetation in the general area ranges from native grasses to non-native street trees, shrubs, and manicured lawns. The Visual Sensitivity/Visual Change methodology is appropriate for analysis of visual resources on NFS lands from Mile 18.0 to 18.3 and in the South Area (beyond Mile 18.8) because these are non-NFS lands.

The best viewpoint from which sensitive receptors would see the visual effects of Alternative 4 is located on Copper Hill Road west of Agajanian Drive, at KOP 4-1.

**KOP 4-1 – Copper Hill Road above Agajanian Drive**

Key Observation Position 4-1 was established on Copper Hill Road about ½-block west of the intersection with Agajanian Drive, looking northeast across roofs of single-family homes to undeveloped, steep hillsides on the east side of Haskell Canyon (see Figure C.15-17A, Existing Visual Conditions for KOP 4-1 at the end of the Visual Resource Section). This view is representative and characteristic of many views within the suburban neighborhoods of the Santa Clarita vicinity, from streets that look across suburban neighborhoods to natural open-space hillsides and ridgetops with industrial developments, such as these transmission lines.

Views from Copper Hill Road encompass a predominantly developed landscape with scattered occurrences of natural-appearing hillsides as a backdrop. Residential and neighborhood commercial development is extensive in this area. The Alternative 4 transmission line would cross this landscape from left to right, with towers situated on top of these undeveloped skyline ridges. At Mile 20.3, Alternative 4 would join the new double-circuit towers of the proposed Project. The transmission line would then cross this landscape from right to left, with long spans across Haskell Canyon.

**Visual Quality: moderate-to-high.** The landscape visible from KOP 4-1 is a mix of highly developed subdivisions in the foreground and a natural-appearing middleground of steep, grass-covered hillside. The only discordant elements in this landscape are the three sets of transmission lines that punctuate the sky and create view blockage (Pardee-Vincent 500-kV line on the left, Pardee-Vincent No. 1 220-kV line in the center, and Pardee-Eagle Rock 220-kV line on the right). The landscape exhibits a high degree of intactness and coherence of form and character with moderate visual variety. The scenic integrity of this existing landscape has a moderate level of visual quality. The predominant visual elements are the red-tile rooftops, and light-colored

walls of single-family residences along Copper Hill Road. Because these neighborhoods are recently constructed, trees have not matured and do not provide any screening of the structures or yards. Beyond the houses, steep, tan-hillsides with small, vertical patches of bare, light-tan soil are visible in the middleground. Skyline ridgetops are fairly horizontal with somewhat angular lines, creating a strong focal point in this landscape, especially when viewed against the blue sky. The existing 500-kV and 220-kV transmission lines are prominent industrial features and draw attention to the middleground. The existing transmission towers create discordant vertical lines and angular forms against the natural ridgetops of this panoramic landscape. The conductors are visually evident as horizontal lines, and appear dark when viewed against the sky, and appear white when viewed against darker hillsides. These existing transmission lines diminish the scenic integrity of this landscape, reducing what would otherwise be a high level of visual quality to a moderate-to-high level.

**Viewer Concern: high.** Residents enjoy the architecture and landscape architecture of Santa Clarita and its four different communities (the City of Santa Clarita encompasses the former communities of Canyon Country, Newhall, Saugus and Valencia). Viewer expectations include a clean environment with visually attractive neighborhoods and open space surroundings, and this high viewer concern is characteristic for all KOPs in the South Area (proposed Project KOPs 10-14 and Alternative 4 KOP 4-1). As seen from KOP 4-1, the character of existing transmission lines contrasts with the panoramic open-space landscape and newly developed subdivisions. Although residents and visitors also accept the existing electric transmission infrastructure, any increase in industrial character visible from neighborhoods such as this one, or blockage of views caused by taller transmission line towers, would be perceived by viewers as an adverse visual change.

**Viewer Exposure: high.** Because there is no landform or vegetative screening, single-circuit towers of Alternative 4 from Mile 17.5 to 20.3 and double-circuit towers of Alternative 4 from Mile 20.3 to 22.0 would be highly visible in the middleground of this view. The duration of view would be brief from Copper Hill Road, but extended from the nearby neighborhoods. The number of potential viewers would be high.

**Overall Visual Sensitivity: moderate-to-high.** For residents and visitors to neighborhoods in Santa Clarita and unincorporated Los Angeles County in general and KOP 4-1 specifically, the moderate-to-high visual quality, high viewer concern, and high viewer exposure lead to a moderate-to-high overall visual sensitivity of the visual setting and viewing characteristics.

### **C.15.9.2 Impacts and Mitigation Measures**

#### **Substantial adverse effect on a scenic vista, or substantial degradation of the existing visual character or quality of the site and its surroundings (Criterion VIS1)**

Analysis of Alternative 4 revisits Impact V-9 at the Veluzat Motion Picture Ranch and also employs a new KOP (4-1) on Copper Hill Road looking northeast across Haskell Canyon. KOP 4-1 was established on Copper Hill Road above Agajanian Drive, and it affords one of the most critical views of the differences with Alternative 4 from Mile 17.5 to 20.3. Figure C.15-17A shows the existing landscape setting and Figure C. 15-17B is a computerized visual simulation of Alternative 4 at KOP 4-1. From this new simulation and 14 simulations of the proposed Project, Alternative 4 “effects prediction” analysis follows the format of Section C.15.1, Affected Environment, by dividing the analysis into geographic areas – North, Center, and South Areas.

#### **North Area (Mile 0.0 to 5.7)**

Between Antelope Substation and the Angeles National Forest boundary (Mile 0.0 to 5.7), Alternative 4 would be identical to the proposed Project with overhead single-circuit lattice steel towers. Therefore, visual impacts throughout the North Area (and as represented by KOPs 1, 2 and 3) resulting from implementation of

Alternative 4 would be the same as the proposed Project and Alternatives 1, 2, and 3 (Impacts V-1, V-2, and V-3 – Class I without mitigation). The same mitigation measures are applicable for Alternative 4 in the North Area, resulting in significant, but mitigable (Class II) visual impacts for V-1 and V-2, and Class I visual impacts for V-3.

### **Center Area (Mile 5.7 to 18.8)**

Alternative 4 would be identical to the proposed Project from Mile 5.7 to 17.5 within the Angeles National Forest and different from Mile 17.5 to the extent of NFS lands at Alternative 4-Mile 18.8. Visual impacts throughout the Center Area (and as represented by KOPs 4, 5, 6, 7 and 8) resulting from implementation of Alternative 4 would be the same as the proposed Project (Impacts V-4, V-5, V-6, V-7, and V-8, Class I), and mitigation measures would be the same as the proposed Project.

The route of Alternative 4 crossing NFS lands has the following scenic integrity objectives: from Alternative 4-Mile 17.5 to 17.6 – High SIO; from Mile 17.6 to 18.0 – Moderate SIO; and from Mile 18.3 to 18.8 – High SIO. All of these NFS lands from Mile 17.5 to 18.8 are areas where there are no recreation roads or trails, and travel up Haskell Canyon is prohibited because of locked gates at the Veluzat Ranch. Because this area has little to no recreation use in this area, there are no foreground sensitive receptor locations on NFS lands in this portion of Alternative 4. The only vantage points from which this portion of Alternative 4 are nearby residential streets in Santa Clarita and unincorporated Los Angeles County. The ridgetops visible from KOP 4-1 these locations in general, and KOP 4-1 specifically, are a combination of NFS lands and private lands. Additionally, a small portion of Alternative 4 route, from Mile 17.5 to 17.6, is visible from Vasquez Canyon Road, KOP 8.

The new 500-kV lattice steel towers of Alternative 4 without mitigation would create contrasts of visual elements (form, line, color, texture, and scale) and some tower tops would be visible from nearby residential streets and Vasquez Canyon Road. Because of topographic screening and landform backdrops, this portion of Alternative 4 is not visible from any foreground sensitive receptor locations on the ground. Implementation of Mitigation Measures V-3b (Remove, Rehabilitate, and Re-Vegetate Crane Pads), and V-3c (Avoid Locating New Roads in Bedrock), V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes), V-4b (Dispose of Cleared Vegetation Off-Site), and V-4c (Dispose of Excavated Materials Off-Site) B-1a (Provide Restoration/Compensation for Impacts to Native Vegetation Communities), B-1b (No Activities will occur in Riparian Conservation Areas), R-4 (Permanent Closure and Re-Vegetation of Construction Roads), would result in improvements in the visual environment, as compared to implementation of Alternative 4 without mitigation. The predicted scenic integrity level for Alternative 4 with Mitigation Measures meets the definition of Very Low Scenic Integrity on NFS lands in this area. Therefore, from Mile 17.5 to 17.6 and from Mile 18.3 to 18.8, the High SIO would not be achieved and the future scenic integrity would be three levels below the SIO, achieving Very Low SIO. From Mile 17.6 to 18.0 the Moderate SIO would not be achieved and the future scenic integrity would be two levels below the SIO, achieving Very Low SIO. This would result in significant, unavoidable (Class I) visual impacts for Alternative 4 on NFS lands.

Regarding Mitigation Measure V-4a (Construct, Operate, and Maintain with Helicopters) in the Center Area, under Alternative 4, helicopter recommendations would be the same as the proposed Project (see Table C.15-4).

### **South Area (Mile 18.8 to 25.6)**

Visual impacts on private land, resulting from construction and operation of Alternative 4, would be different in Haskell Canyon from Alternative 4-Mile 18.0 to 18.3 and Mile 18.8 to 20.3, where the utility corridor would

be relocated, and the same as the proposed Project from Mile 20.3 to 25.6 in the existing Vincent-Pardee corridor. All new structures would be 500-kV double-circuit lattice steel towers from Mile 20.3 to 25.6.

As seen from KOP 9, the Veluzat Motion Picture Ranch (Impact V-9), Alternative 4 would re-route the transmission line 0.6-miles east of the Main Street and off the Main Street movie set. Because KOP 9 is located on private property, the VS/VC method of impact assessment is applicable. Referring to Table C.15-1, General Guidance for Review of Visual Impact Significance, there would be no visual change from existing conditions (**No Impact**) (see Figure C.15-11A Existing Visual Condition for KOP 9). No impacts would occur and no mitigation is necessary at KOP 9 for Alternative 4.

***Impact V-18: Project infrastructure would substantially degrade the visual quality of landscape views as seen from Copper Hill Road above Agajanian Drive (KOP 4-1).***

Key Observation Position 4-1 was established on Copper Hill Road just above and west of the intersection with Agajanian Drive. The elevated nature of this vantage point affords a panoramic view looking northeast across Haskell Canyon. In Alternative 4, the transmission line from Mile 20.3 to 22.0 would be located across the skyline of this view. Figure C.15-17B presents a computerized visual simulation depicting the new single-circuit 500-kV transmission line crossing the skyline from left to right and leading to the proposed Project's double-circuit 500-kV transmission line in the Vincent-Pardee corridor at Mile 20.3. Then the proposed Project's double-circuit towers and conductors cross this view from right to left, on their way to the Pardee Substation at Mile 25.6.

The new 500-kV single-circuit towers would be approximately 113 to 178 feet tall and 96 feet wide. The new double-circuit 500-kV towers would be taller and slightly narrower (175 to 220 feet tall and 75 feet wide) than the 500-kV single-circuit towers. Because there is no Road Story for this Alternative, access roads and spur roads to towers have not been shown in this simulation. However, access and spur roads would be constructed in Alternative 4 and would increase the visual impacts beyond those shown. The increased height of structures would result in several noticeable adverse visual effects, including additional structure skylining and a further elevating of the conductors above the middleground horizon line. The increased structure height would also cause increased structure prominence. Because of the backdrop of undeveloped hillsides and skylines, the visual contrast in this area resulting from Alternative 4 would be high. New towers would attract attention and would become focal points that would visually dominate the view, rising above the street trees and low-rise residential buildings. The increased structure skylining and additional obstruction of the sky by structures and conductors would result in a high degree of view blockage. The industrial character of the proposed lattice steel towers would diminish the scenic integrity of the existing landscape and reduce the overall level of visual quality.

Referring to Table C.15-1 General Guidance for Review of Visual Impact Significance, the overall visual change would be high and in the context of the existing landscape's moderate-to-high visual sensitivity, the resulting visual impact would be significant.

People walking along or driving on Copper Hill Road would have visual access to this broad landscape, looking toward Haskell Canyon, the backdrop of mountains, and Alternative 4. People would view the transmission line structures at "middleground" viewing distances from KOP 4-1. Because of these viewing distance and the visual sensitivity of this landscape, it is appropriate to use both single-circuit and double-circuit tubular steel poles in the vicinity of KOP 4-1. Implementation of Mitigation Measures V-1a (Use Tubular Steel Poles), V-1b (Construct, Operate, and Maintain with Existing Access Roads), V-1c (Dispose of Cleared Vegetation), V-1d (Dispose of Excavated Materials), and V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes) would reduce Impact V-18 for Alternative 4. This would result in an improved visual environment, as compared to the proposed Project, but would still result in significant, unavoidable visual impacts (**Class I**).

From Mile 20.3 to the Pardee Substation at Mile 25.6, Alternative 4 would be identical to the proposed Project. With implementation of mitigation measures described for the proposed Project in the South Area, visual impacts at KOPs 10, 11, 12, 13 and 14 resulting from implementation of Alternative 2 would be the same as the proposed Project (Impacts V-10, V-11, V-12, V-13, and V-14, **Class I**).

As an option to Alternative 4, Alternative 3 would involve construction of a second single-circuit transmission line between Haskell Canyon and Pardee Substation (Miles 20.3 to 25.6), not constructing the double-circuit line, and leaving the existing single-circuit transmission line in place and in service. Implementation of Alternative 3 would result in significant, but mitigable (**Class II**) visual impacts; however, Alternative 4 would result in significant, unavoidable (**Class I**) visual impacts from Mile 20.3 to 25.6.

**Construction Activity Impacts**

Under Alternative 4, short-term visual impacts during construction (Impact V-15) would be similar to the proposed Project, and would be significant and unavoidable (**Class I**). There are no mitigation measures available to make vehicles, heavy equipment, helicopters, and other Project components less-visible during construction. Long-term visual impacts of construction activities would be reduced to a less-than-significant level (**Class II**) with the implementation of Mitigation Measures V-15a (Storage and Site Cleanup), V-15b (Recontouring and Restoration), and V-15c (Revegetation).

**Conflict with Policies and Objectives**

Alternative 4 would not conflict with existing visual quality policies and objectives contained in Forest and local plans (Impact V-16) after amendment of the Angeles National Forest Land Management Plan (Forest Plan). As with the proposed Project and all alternatives, Alternative 4 includes an amendment to the Forest Plan that would modify the SIOs along the proposed route on NFS lands to ensure consistency between the Forest Plan and this Alternative. Alternative 4 would have the same conflicts with applicable plans and policies as the proposed Project, as shown in Table C.15-5 above, except for one. Table C.15-13 shows the only difference between the proposed Project and Alternative 4, specifically at the Veluzat Motion Picture Ranch. As noted in that table, even with implementation of APM VIS-1 and VIS-2, Alternative 4 would be inconsistent with many existing plans, objectives, and policies for visual resources, and therefore, additional mitigation measures (V-1a through V-1d, V-4a through V-4c, V-9, V-15, V-16, and V-19) were developed for visual resources.

<b>Table C.15-13. Consistency with Applicable Visual Resource Plans and Policies</b>			
<b>Agency Regulating Land Use</b>	<b>Regulation</b>	<b>Is Alternative 4 Consistent?</b>	<b>Method of Consistency</b>
Los Angeles County	Relationship of Urban and Natural Environments, Policy 2.1. Carefully integrate physical development in rural areas into the natural environment setting.	Yes	Alternative 4 would be located 0.6 miles east and away from "Main Street" of the Veluzat Motion Picture Ranch in Haskell Canyon.

Implementation of Mitigation Measure V-16a (Forest Plan Amendment), AV-16b (Local Agency Approvals), and V-16c (Transmission Line Siting Study within the ANF) would reduce visual impacts associated with Impact V-16 to less-than-significant, but adverse (**Class III**) levels.

**New Source of Substantial Light or Glare**

Alternative 4 would create a new source of substantial glare that would adversely affect daytime views in the area (Impact V-17). In Alternative 4, transmission line towers and conductors would have the same visual glare effects as the proposed Project. Alternative 4 would have no new sources of light that would affect nighttime

views. Implementation of Mitigation Measures V-1e (Treat Surfaces with Appropriate Colors, Finishes, and Textures) and V-17a (Use Only Non-Specular and Non-Reflective Conductors and Insulators) would lead to a reduction in overall visual contrast such that the visual effects of Alternative 4 would have significant, but mitigable (**Class II**) impacts.

#### **Summary of Impacts for Alternative 4**

From the following vantage points, Alternative 4 would have the same significant, but mitigable visual impacts (**Class II**) as the proposed Project with mitigation measures: 110<sup>th</sup> Street at Johnson Road (KOP 1); Avenue K (KOP 2) (See Figure C.15-2, Key Observation Positions Map).

Significant, unavoidable impacts (**Class I**) would occur under Alternative 4 with mitigation as seen from Lake Elizabeth Road (KOP 3); the Pacific Crest National Scenic Trail (PCT) (KOP 4); San Francisquito Canyon Road (KOP 5), Bouquet Reservoir (KOP 6), Bouquet Canyon Road (KOP 7), Vasquez Canyon Road (KOP 8); Copper Hill Road above Agajanian Drive (KOP 4-1); North High Ridge Drive (KOP 10); Mountain View Park (KOP 11); Rio Norte Junior High School (KOP 12); North Park Elementary School and Chesebrough Park (KOP 13); and Copper Hill Road (KOP 14).

From the following vantage point, Alternative 4 with mitigation would have beneficial visual impacts (**Class IV**) as compared to the proposed Project with mitigation measures: Main Street in the Veluzat Motion Picture Ranch (KOP 9).

Significant, unavoidable visual impacts (**Class I**) would occur under Alternative 4 due to: 1) the temporary visibility of construction activities and equipment (Impact V-15).

Less Than Significant, But Adverse (**Class III**) visual impacts would occur from conflicts with existing visual quality policies and objectives contained in Forest and local plans (Impact V-16).

Overall visual contrasts created by glare effects (Impact V-17) under Alternative 4 with mitigation would be less than significant, but adverse (**Class III**).

#### **C.15.10 Alternative 5: Antelope-Pardee 500-kV Sierra Pelona Corridor**

The original purpose of Alternative 5 was to locate the 500-kV transmission line off NFS lands and outside the Angeles National Forest. Alternative 5 would involve the construction of a new transmission line along a new route, completely separate from the proposed Project route from the Antelope Substation to Haskell Canyon (Mile 0.0 to 20.3). From Haskell Canyon to the Pardee Substation (Mile 20.3 to 25.6), Alternative 5 would be identical to the proposed Project. Because of its alignment south to the Vincent-Pardee corridor, then west in the corridor to the Pardee Substation, Alternative 5 is longer than any other alternative (see Section B.4-5 for a description and illustrations of Alternative 5). Alternative 5 would require the same modifications to the Antelope and Pardee Substations as are required for the proposed Project and described in Section B.2.1.2. Alternative 5 would also include the removal of 119 existing 66-kV towers from the Saugus-Del Sur utility corridor in the ANF, as would be done for the proposed Project. These towers are not located along this proposed route and would result in construction activities occurring in multiple areas. The removal of existing towers would result in beneficial effects to the visual resources of the Angeles National Forest.

### **C.15.10.1 Affected Environment**

Removal of 119 existing 66-kV towers from the Saugus-Del Sur utility corridor would occur in the same affected environment as the proposed Project (also the same as Alternatives 1, 3, and 4). The scenic integrity objectives for this portion of Alternative 5 are the same as the proposed Project (see Table C.15-2). Removal of the existing 66-kV line would be visible from KOPs 1 through 8.

Regarding the separate alignment of Alternative 5, it has its own mileages, separate and different from the proposed Project (PP). Starting at the Antelope Substation (Alternative 5-Mile 0.0), it would rejoin the proposed Project at Alternative 5-Mile 31.9 which equals proposed Project-Mile 20.3, and increase of 11.6 miles in overall length. Alternative 5 would begin at Antelope Substation and would head south across flat landscapes of Antelope Valley to the California Aqueduct, low, rolling hills of Portal Ridge and San Andreas Rift Zone. Vegetation in this area is either low-growing herbaceous plants or short, wind-blown, evergreen shrubs and trees. It would cross Lake Elizabeth Road west of the town of Leona Valley. To avoid directly impacting residential properties, Alternative 5 would be located just inside the ANF boundary instead of crossing a rural-residential subdivision near Leona Valley Road. Alternative 5 would then head east-southeast, parallel to Lost Valley Ranch Road, then turn south and cross Bouquet Canyon Road and Sierra Pelona Ridge in open space lands. Alternative 5 would parallel Letteau Canyon on a side-slope, in open space lands, then cross Agua Dulce Canyon and the Sierra Highway near the intersection of Anthony Road and several rural-residences. It would then continue south across open space, rolling hills, cross over Escondido Canyon Road, the Antelope Valley Freeway (SR-14), and the Pacific Crest Trail, where it would join the existing Vincent-Pardee utility corridor at Mile 18.8. Heading west, Alternative 5 would cross open space rolling hills, the Antelope Valley Freeway, Sierra Highway, Bouquet Canyon Road, and pass near subdivisions of Santa Clarita. Alternative 5 would re-join the proposed Project route at Mile 31.9, which is the proposed Project Mile 20.3, proceeding on the Pardee Substation at proposed Project Mile 25.6.

Alternative 5 would traverse lands under the jurisdiction of the Forest Service, BLM; the Cities of Lancaster, Palmdale, and Santa Clarita; and the unincorporated communities of Leona Valley, Agua Dulce, Forrest Park, and Bouquet Canyon in Los Angeles County.

Regarding NFS lands administered by the Forest Service, because Alternative 5 would be in a different alignment than the proposed Project or Alternatives 1, 2, 3, or 4, it would encounter different Scenic Integrity Objectives by Mile. Table C.15-14 displays the Forest Service Scenic Integrity Objectives by Mile for Alternative 5 (see Figure C.15-1 – Scenic Integrity Objective Map).

Specific areas of concern for Alternative 5 include Avenue K, Lake Elizabeth Road, Leona Valley Road, and Lost Valley Ranch Road (co-located with the Leona Valley Loop Trail). Other specific areas of visual concern include upper Bouquet Canyon Road, Sierra Highway at Anthony Road, Vasquez Rocks County Park, Escondido Canyon Road at State Highway 14 (Antelope Valley Freeway), the Pacific Crest Trail, and Antelope Valley Freeway at Agua Dulce Canyon Road. Finally Alternative 5 would cross Bouquet Canyon Road near Lily of the Valley Mobile Home Village, then pass by subdivisions at the east side of Santa Clarita, specifically near Shadow Valley Lane above Woodside Drive.

Because of these specific areas of visual concern and the separate alignment and length of Alternative 5, 13 additional Key Observation Positions (KOPs) were selected to represent the visual impacts that would occur along Alternative 5. A detailed visual analysis of the existing setting was conducted at each representative KOP, which included all of the above-mentioned landmarks.



<b>Table C.15-14. Alternative 5 Scenic Integrity Objectives</b>		
<b>Alternative 5 Mile</b>	<b>Scenic Integrity Objective</b>	<b>Definition</b>
Alternative 5-Mile 5.6 to 5.85	High	Landscapes where the valued landscape character “appears” intact. Visual deviations (human-made structures) may be present but must repeat the form, line, color, texture, and pattern common to the natural landscape character so completely and at such a scale that they are not evident.
Alternative 5-Mile 5.85 to 6.1	Moderate	Landscapes where the valued landscape character “appears slightly altered.” Noticeable deviations must remain visually subordinate to the landscape character being viewed.
Alternative 5-Mile 17.1 to 17.5 and 17.9 to 18.5	High	Landscapes where the valued landscape character “appears” intact. Visual deviations (human-made structures) may be present but must repeat the form, line, color, texture, and pattern common to the natural landscape character so completely and at such a scale that they are not evident. (Presumed SIO, not within ANF boundary and not covered by Forest Plan.)

The location of each of these KOPs is shown on Figure C.15-2, Key Observation Positions Map. A discussion of the visual setting for each KOP is presented in the following paragraphs.

Alternative 5 would be visible from KOP 1 on 110<sup>th</sup> Street near its connection to Johnson Road, looking northeast toward the Antelope Substation (Impact V-1). This view was not simulated, but would be similar to middleground towers that are smaller, yet visible, in Figure C.15-3B. Because there are residences in the vicinity of Johnsonville Road at 110<sup>th</sup> Street, and people would view the transmission line structures of Alternative 5 at middleground viewing distances, visual impacts of lattice steel tower transmission structures can be reduced by using tubular steel poles. Feedback from local residents near KOP 1, given to the Applicant (SCE), indicated a desire for tubular steel poles instead of lattice steel towers. Therefore, it is appropriate to use tubular steel poles in the vicinity of KOP 1. Because of the middleground viewing distances by sensitive receptors, it is important to (1) prohibit construction of new access/spur roads beyond existing access/spur roads; (2) minimize negative visual impacts of vegetative clearing; and (3) minimize negative visual impacts of excavated materials. Because new structures would not be seen against the skyline, but would have a landform backdrop of the Antelope Valley floor, it is important to coat the surfaces of all new structures with colors that match the valley floor. Implementation of Mitigation Measures V-1a (Use Tubular Steel Poles), V-1b (Construct, Operate, and Maintain with Existing Access Roads), V-1c (Dispose of Cleared Vegetation), V-1d (Dispose of Excavated Materials), and V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes) would reduce Impact V-1 for Alternative 5, as compared to the Project without mitigation. This would result in an improved visual environment, as compared to the proposed Project, and sensitive receptors at KOP 1 would perceive Alternative 5 as a significant, but mitigable visual impact (**Class II**).

**KOP 5-1 – Avenue K**

Key Observation Position 5-1 was established on Avenue K (a Priority 2 County Scenic Highway) about 1 mile southwest of the Antelope Substation, looking south toward Portal Ridge (see Figure C.15-18A, Existing Visual Conditions for KOP 5-1 at the end of the Visual Resource Section).

Views from county roads in this vicinity encompass a predominantly natural-appearing landscape setting with no development other than roads on a one-mile grid, windbreaks, widely scattered existing ranches, and the California Aqueduct, which is visible as a faint horizontal line in the center of the photograph. The location for KOP 5-1 was selected to generally characterize the existing landscape of Alternative 5 in the Antelope Valley, as the landscape changes from the flat valley floor to the rolling hills of Portal Ridge and the San Andreas Rift Zone. New towers of the Alternative 5 500-kV transmission line would be visible from this vantage point. The

skyline ridge constrains views to foreground and middleground distances while looking in this direction. The San Andreas Rift Zone is out of view beyond the skyline of Portal Ridge.

**Visual Quality: moderate.** The landscape visible from KOP 5-1 is natural-appearing, consisting of a foreground with grass- and poppy-covered fields, to a middleground mosaic of grass- and shrub-covered rolling hills that create enclosure and a backdrop for this view. On the hills, existing vegetation is mottled in appearance and contrasts with the grass-covered valley floor. The landscape exhibits a high degree of intactness and coherence of form and character with moderate visual variety. The scenic integrity of this existing landscape has a moderate level of visual quality. In spring, with poppies in bloom, this landscape would have a high level of visual quality.

**Viewer Concern: high.** Visitors enjoy the predominantly natural setting with panoramic sightlines to Portal Ridge and its foothills. The natural-appearing, panoramic landscape has a predominantly horizontal character and open-spaces offer long uninterrupted vistas that are visible from the county scenic highway. Any blockage of views, such as would occur with the new transmission line in Alternative 5, would be perceived by viewers as an adverse visible change.

**Viewer Exposure: moderate-to-high.** Because there is no screening by landforms or vegetation, Alternative 5 would be highly visible in the foreground and middleground as seen from KOP 5-1. Although the duration of view would be extended, the number of potential viewers would be relatively low, except in spring when the poppies bloom and the number of viewers is high.

**Overall Visual Sensitivity: moderate-to-high.** For visitors to Antelope Valley in general and KOP 5-1 specifically, the moderate visual quality, high viewer concern, and moderate-to-high viewer exposure lead to a moderate-to-high overall visual sensitivity of the visual setting and viewing characteristics.

### **KOP 5-2 – Lake Elizabeth Road**

Key Observation Position 5-2 was established on Lake Elizabeth Road (a Second Priority County Scenic Highway) at a point where Alternative 5 would cross over the road, looking west along the Rift Zone (see Figure C.15-19A, Existing Visual Conditions for KOP 5-2). This viewpoint was selected to characterize the existing landscape visible from Lake Elizabeth Road which is a highly used road connecting the towns of Leona Valley and Lake Elizabeth, and traversing parallel to the San Andreas Rift Zone. The skyline is approximately ½ mile away on the right and 3 to 4 miles away on the left, establishing this as a foreground and middleground distance zone. Existing wooden utility poles are dark brown and stand out when backlit on the skyline. Alternative 5 would cross Lake Elizabeth Road is approximately 0.9 miles west of KOP 5-2, therefore this crossing would be seen from a middleground viewing distance. Alternative 5 is described below, using the VS/VC methodology on non-NFS lands.

**Visual Quality: low-to-moderate.** The landscape visible from Lake Elizabeth Road is predominantly natural-appearing, consisting of a foreground to middleground mosaic of grass-covered hills with scattered ranchettes and windbreaks. Vegetation is mottled in appearance with many hues of tans of dried grasses and sages. The landscape exhibits a moderately high degree of intactness and coherence of form and character with substantial visual variety. However, this harmony of form and character is punctuated by the dark brown vertical lines of the existing wooden utility poles that diminish the quality of this view. It is these built features with their inherent industrial character that diminish the scenic integrity of the existing landscape and reduce what would otherwise be a moderate level of visual quality, to a low-to-moderate level.

**Viewer Concern: high.** Drivers on Lake Elizabeth Road anticipate a predominantly natural setting with distant, panoramic sightlines focused by the long, narrow Leona Valley, which is created by the enclosure of Portal Ridge and San Andreas Rift on the north and Sawmill Mountains to the south. Any increase in visible industrial character or structural prominence, or blockage of views from Lake Elizabeth Road in general and KOP 5-2 in particular would be perceived by viewers as an adverse visual change. Therefore, viewer concern is high.

**Viewer Exposure: moderate-to-high.** The proposed 500-kV transmission line of Alternative 5 would be highly visible in the foreground and middleground as seen from KOP 5-2 and would attract attention from Lake Elizabeth Road and various ranchettes in the vicinity. On the road, the number of viewers would be moderate and the duration of view to the transmission line would be moderate as the road has many curves and crosses many gently undulating hills. But the duration of view would be extended for residents of ranchettes because of the static nature of the viewing circumstance.

**Overall Visual Sensitivity: moderate-to-high.** For travelers on Lake Elizabeth Road, the low-to-moderate visual quality, high viewer concern, and moderate-to-high viewer exposure lead to a moderate-to-high overall visual sensitivity of the visual setting and viewing characteristics.

### **KOP 5-3 – Leona Valley Road**

Key Observation Position 5-3 was established on Leona Valley Road about 1 mile west of the Leona Valley School, looking west toward ranchettes on 107th Street West, with the Angeles National Forest as a backdrop in the middleground (see Figure C.15-20A, Existing Visual Conditions for KOP 5-3 at the end of the Visual Resource Section).

Views from Leona Valley Road encompass a predominantly natural-appearing landscape setting with very little development to the north (right side of this photograph) and houses, ranchettes, and orchards to the south (left side).

Under Alternative 5, the transmission line would cross this landscape from right to left, approximately 0.7 miles west of KOP 5-2. Alternative 5 would avoid traversing residential homes, and would be constructed west of and adjacent to ranchettes that are located along 107<sup>th</sup> Street West. However, it would be situated partially on private land in T6N, R14W, Section 11, and partially within the eastern boundary of the ANF in T6N, R14W, Section 14. Preliminary planning indicates that approximately four towers would be located on NFS lands. The northern two towers would be visible from KOP 5-3. As such, the visual analysis would use the VS/VC method to analyze private land and the Forest Service SMS to analyze the visual impacts on NFS lands.

**Visual Quality: moderate.** The landscape visible from KOP 5-3 is a rural, yet natural-appearing, landscape consisting of a foreground with grass-covered fields, developed ranchettes, and an undeveloped backdrop with a middleground mosaic of grass- and shrub-covered rolling hills (in the ANF) that create enclosure for this view. On the hills, existing vegetation is mottled in appearance and contrasts with the grass-covered valley floor. The landscape exhibits a high degree of intactness and coherence of form and character with moderate visual variety. The scenic integrity of this existing landscape has a moderate level of visual quality.

**Viewer Concern: high.** Visitors enjoy the predominantly rural setting with panoramic sightlines to Portal Ridge to the north and the Angeles National Forest to the west. The residents of Leona Valley enjoy the natural-appearing backdrop to their ranchettes, with panoramic vistas to the round landforms. Any blockage of views, such as would occur with the new transmission line in Alternative 5, would be perceived by viewers as an adverse visible change.

**Viewer Exposure: moderate-to-high.** Because there is no screening by landforms or vegetation, Alternative 5 would be highly visible in the foreground and middleground as seen from KOP 5-3. The duration of view would be extended from these rural residences, but the number of potential viewers would be relatively low, therefore the overall viewing exposure would be moderate-to-high.

**Overall Visual Sensitivity: moderate-to-high.** For residents and visitors to Leona Valley in general and KOP 5-3 specifically, the moderate visual quality, high viewer concern, and moderate-to-high viewer exposure lead to a moderate-to-high overall visual sensitivity of the visual setting and viewing characteristics.

**Scenic Integrity Objectives.** All of the NFS lands in view from KOP 5-3 are within the Liebre-Sawmill Place. In the 2005 Forest Plan, NFS lands directly ahead on Leona Valley Road are mapped as High SIO (Mile 5.6 to 5.85), where the management direction states that human activities should not be visually evident. Human-caused deviations may be present but must repeat the form, line, color, texture, and pattern common to the natural landscape character so completely and at such a scale that they are not evident. Further to the south (left), out of this view, NFS lands are mapped as Moderate SIO (Mile 5.85 to 6.1), where the management direction states that human activities and noticeable deviations must remain visually subordinate to the landscape character being viewed.

**Existing Scenic Integrity: High.** This Angeles National Forest landscape is natural-appearing, consisting of a middleground landscape that is visually intact, with dark-green vegetation covering steep canyons and rounded hillsides.

#### **KOP 5-4 – Lost Valley Ranch Road**

Traveling east-southeast from Leona Valley, Alternative 5 would travel north of and adjacent to ranchettes located along Lost Valley Ranch Road. Key Observation Position 5-4 was established on Lost Valley Ranch Road, looking southeast. This is a one-lane dirt road that is privately maintained. The road is co-located with the Leona Valley Loop Equestrian Trail. KOP 5-4 was located near the east end of the Road, as this vantage point affords the most critical view of the transmission line as it would cross over the road and trail (see Figure C.15-21A, Existing Visual Conditions for KOP 5-4).

Views from this private road encompass a predominantly natural-appearing landscape setting with no development other than the road and ranchettes further west (behind the camera's view in this photograph). The location for KOP 5-4 was selected to generally characterize the existing landscape of Alternative 5 in the Lost Valley, as the landscape changes from the narrow valley with enclosed views to the panoramic views of rolling hills at the east end of Leona Divide on the right to the Antelope Valley beyond. New towers of the Alternative 5 500-kV transmission line would be visible from this vantage point. The skyline ridge constrains views to foreground and middleground distances while looking in this direction.

**Visual Quality: low-to-moderate.** The landscape visible from KOP 5-4 is mostly natural-appearing, consisting of a foreground with grass- and scrub-brush-covered fields, to a middleground of rolling hills covered with grasses and brush that create enclosure and a backdrop for this view. Vegetation is non-distinctive in both foreground and middleground. The landscape exhibits a moderate-to-high degree of intactness and coherence of form and character with low-to-moderate visual variety, and the only discordant visual elements are the white storage boxes near the center of this view, in addition to wooden fence posts lining the dirt road. The scenic integrity of this existing landscape has a moderate level of visual quality.

**Viewer Concern: high.** Because this is a dead-end private dirt road, this view is mostly seen by local residents. They enjoy the predominantly natural setting with enclosed views. The valley is tucked away from

nearby developments in Leona Valley, Palmdale and Lancaster such that it feels like a “Lost Valley.” The natural-appearing landscape has an enclosed character and views up and down the road offer the only uninterrupted vistas. Each ranchette has a view across the valley to a natural-appearing hillside. Any blockage of views, such as would occur with the new transmission line in Alternative 5, would be perceived by viewers as an adverse visible change.

**Viewer Exposure: moderate-to-high.** Because there is no screening by landforms or vegetation, Alternative 5 would be highly visible in the foreground and middleground as seen from KOP 5-4. Although the duration of view would be extended, the number of potential viewers would be low, as only residents generally use this dirt road/trail.

**Overall Visual Sensitivity: moderate-to-high.** For residents of Lost Valley Ranch Road and visitors to the Leona Valley Loop Trail and specifically for KOP 5-4, the low-to-moderate visual quality, high viewer concern, and moderate-to-high viewer exposure lead to a moderate-to-high overall visual sensitivity of the visual setting and viewing characteristics.

### **KOP 5-5 – Upper Bouquet Canyon Road**

Key Observation Position 5-5 was established on Upper Bouquet Canyon Road (a Second Priority County Scenic Highway), approximately 1½ miles east of the ANF boundary, looking west toward Maple Canyon. Two 500-kV transmission lines cross the road in the middleground, the Midway-Vincent No. 1 and No. 2 lines. Views from Upper Bouquet Canyon Road display a predominantly natural-appearing middleground landscape setting with a paved, two-lane road, wooden utility poles, wooden fence posts, and widely scattered deciduous and evergreen trees. Small orchards and ranches are located along this section of road. The Alternative 5 transmission line would cross this landscape from right to left, with towers situated on open fields. One tower was off-set to avoid a newly constructed house on the north side of the road. On the left side of this photograph is the new development called Ritter Ranch. Alternative 5 would cross the western portion of Ritter Ranch, which is located within the City of Palmdale (see Figure C.15-22A, Existing Visual Conditions for KOP 5-5 at the end of the Visual Resource Section).

**Visual Quality: low-to-moderate.** The landscape visible from KOP 5-5 is a rural, yet natural-appearing, landscape consisting of a foreground with grass- and brush-covered fields, scattered orchards, a creek on the north side of the road, scattered ranchettes, and an undeveloped middleground backdrop with a mosaic of grass- and shrub-covered rolling foothills that create enclosure for this view. On the hills, existing vegetation is mottled in appearance and contrasts with the grasses and orchards nearer the road. The landscape exhibits a moderately high degree of intactness and coherence of form and character with moderate visual variety, except for the two existing 500-kV transmission lines that introduce an industrial character to this otherwise natural-appearing, rural landscape. However, this harmony of form and character is punctuated by the dark brown vertical lines and geometric forms of the two existing 500-kV transmission line towers and conductors. It is these built features with their inherent industrial character that diminish the scenic integrity of the existing landscape and reduce what would otherwise be a moderate level of visual quality, to a low-to-moderate level.

**Viewer Concern: high.** Visitors and residents enjoy the predominantly rural setting with panoramic sightlines to Sierra Pelona Ridge to the south (left) and the Leona Divide to the north (right). The residents of Upper Bouquet Canyon Road enjoy the natural-appearing backdrop to their ranchettes, with panoramic vistas to the round landforms in the middleground. Any blockage of views, such as would occur with the new transmission line in Alternative 5, would be perceived by viewers as an adverse visible change.

**Viewer Exposure: moderate-to-high.** Because there is no screening by landforms or vegetation, Alternative 5 would be highly visible in the middleground as seen from KOP 5-5. The duration of view would be extended from these rural residences, and the number of potential viewers would be moderate, therefore the overall viewing exposure would be moderate-to-high.

**Overall Visual Sensitivity: moderate-to-high.** For residents and visitors to Upper Bouquet Canyon Road in general and KOP 5-5 specifically, the low-to-moderate visual quality, high viewer concern, and moderate-to-high viewer exposure lead to a moderate-to-high overall visual sensitivity of the visual setting and viewing characteristics.

#### **KOP 5-6 – Sierra Highway at Anthony Road**

Upon exiting Ritter Ranch, Alternative 5 would continue south and would travel adjacent to or across a number of single-family residences and ranchettes located along Anthony Road and Hierba Road, north of Sierra Highway. Key Observation Position 5-6 was established on the Sierra Highway (a Second Priority County Scenic Highway) at Anthony Road, looking north toward the crest of Sierra Pelona Ridge (see Figure C.15-23A, Existing Visual Conditions for KOP 5-6). Views from the highway in this vicinity encompass a predominantly natural-appearing landscape setting with scattered existing horse ranches, and many single-family residences located on small- to large-acreages. The location for KOP 5-6 was selected to generally characterize the existing landscape in the vicinity of Sierra Highway, and to look at the most critical views of the landscape where Alternative 5 would be constructed near single-family homes. New towers and conductors of the proposed 500-kV transmission line would be visible in foreground, middleground, and background from this vantage point.

**Visual Quality: moderate-to-high.** The landscape visible from KOP 5-6 is substantially natural-appearing, consisting of a foreground with single-family homes and out-buildings, shade and evergreen trees, yard and corral fences, and wooden utility poles in the foreground. In the middleground, there is a mosaic of grass- and shrub-covered rolling foothills that lead the eye to the skyline ridge approximately three miles away. The narrow paved lane of Anthony Road leads the eye to the base of the foothills, creating a secondary focal point where the landscape trees meet the foothills. Additional focal points are the existing wooden utility poles and white fences. On Sierra Pelona Ridge, existing vegetation is mottled in appearance with many hues of tan and brown in this winter scene, contrasting with the evergreen trees in the foreground. The landscape exhibits a moderate degree of intactness and coherence of form and character with substantial visual variety. The scenic integrity of the existing landscape has a moderate-to-high level of visual quality.

**Viewer Concern: high.** Travelers along the Sierra Highway enjoy the predominantly rural landscape with its natural-appearing landscape backdrop of Sierra Pelona Ridge. Residents living at the existing ranches, with their one-story buildings, corrals, out-buildings, and scattered evergreen trees, enjoy the rural setting which is characteristic and typical of the area. The vertical and linear character of the existing utility poles creates a slight contrast with the natural-appearing, panoramic landscape with its predominantly horizontal open-spaces. Although residents and visitors accept the existing electric distribution lines, any increase in industrial character visible from the Sierra Highway or Anthony Road, or blockage of views by new transmission lines would be perceived by viewers as an adverse visible change.

**Viewer Exposure: high.** Because there is little screening by landforms or vegetation in the foreground and no screening by landforms or vegetation in the middleground, Alternative 5 would be highly visible from KOP 5-6. The duration of view would be extended for residents and fairly brief for travelers on the Sierra Highway. The number of potential viewers would be moderate for residents and high for travelers.

**Overall Visual Sensitivity: high.** For people traveling on the Sierra Highway in general, and KOP 5-6 specifically, the moderate-to-high visual quality, high viewer concern, and high viewer exposure lead to a high overall visual sensitivity of the visual setting and viewing characteristics.

### **KOP 5-7 – Vasquez Rocks County Park**

Key Observation Position 5-7 was established at the Vasquez Rocks County Park just west of the large gravel parking lot that is situated in the southeast corner of the park. This view is looking east toward a hillside which Alternative 5 would cross (see Figure C.15-24A, Existing Visual Conditions for KOP 5-7 at the end of the Visual Resource Section).

Views within the County Park are to massive, red rockforms that protrude at acute angles into the sky, creating dramatic focal points in the landscape. There are single-lane dirt roads, dirt parking areas, and several hiking trails in the park. The Pacific Crest Trail crosses through the park, and in the center of this photograph a group of equestrians is riding on the PCT. Views from the park encompass a predominantly natural-appearing landscape setting with rural-residential developments scattered throughout the vicinity. The unincorporated town of Agua Dulce (Sweet Water) is located approximately 1 mile northwest of this vantage point. The location for KOP 5-7 was selected to generally characterize the existing landscape where Alternative 5 would pass near the park and then cross the Antelope Valley Freeway, which runs northeast-southwest just beyond the skyline ridge. New towers of the Alternative 5 500-kV transmission line would be visible from this vantage point. The skyline ridge constrains views to foreground and middleground distances while looking in this easterly direction.

**Visual Quality: high.** The landscape visible from KOP 5-7 is natural-appearing, consisting of a foreground with dramatic red rockforms that create the primary focal point, contrasting with scattered, dark-green pinion pines that further emphasize the dramatic color and form of the rock outcrops. This foreground transitions to a middleground with a mosaic of grasses and sage-shrub covered rolling hills that create enclosure and a backdrop for this view. Red tile rooftops and white stucco walls of nearby residences create a secondary focal point in the landscape. The landscape exhibits a high degree of intactness and coherence of form and character with high visual variety. The scenic integrity of this existing landscape has a high level of visual quality, even with the scattered buildings that occupy the area outside the park.

**Viewer Concern: high.** Visitors enjoy the unique rockform landscape of Vasquez Rocks County Park, and many people climb to the tops of these large outcrops to view the surrounding landscape. The park's predominantly natural setting offers panoramic sightlines in all directions to scattered rural residential developments and to largely undeveloped landscapes beyond. The natural-appearing, panoramic landscape has a predominantly angular character and open-spaces offer long uninterrupted vistas that are visible from the county park. Any blockage of views, such as would occur with the new transmission line in Alternative 5, would be perceived by viewers as an adverse visible change.

**Viewer Exposure: high.** Because there is no screening by landforms or vegetation, Alternative 5 would be highly visible in the foreground and middleground as seen from KOP 5-7. The duration of view would be moderate-to-brief for most park visitors and PCT hikers and equestrian, but it would be extended for residents. The number of potential viewers would be high, considering the unique attributes of this park.

**Overall Visual Sensitivity: high.** For visitors to Vasquez Rocks County Park and the PCT in general and KOP 5-7 specifically, the high visual quality, high viewer concern, and high viewer exposure lead to a high overall visual sensitivity of the visual setting and viewing characteristics.

### **KOP 5-8 – Escondido Canyon Road at Antelope Valley Freeway**

Key Observation Position 5-8 was established on Escondido Canyon Road near the on-ramp to the Antelope Valley Freeway, looking southwest toward undeveloped private lands and public lands administered by the Angeles National Forest and BLM. (See Figure B.4-14 – Alternative 5 Alignment.) In this view, all public lands that would be crossed by Alternative 5 are administered by the Forest Service. The view from KOP 5-8 is looking toward the crossing of Alternative 5 over the Antelope Valley Freeway (State Highway 14). (See Figure C.15-25A, Existing Visual Conditions for KOP 5-8 at the end of the Visual Resource Section).

Views are to large tracts of undeveloped landscapes on both sides of the freeway, as seen from both Escondido Canyon Road and Antelope Valley Freeway in this vicinity. Non-NFS lands are on the north side of the freeway (right side of this photo), and NFS lands are on the south side (left side of photo). Landforms are very angular and easily seen because of the lack of tall vegetation in this landscape. Hillsides and mountainsides are covered with low-growing grasses, sage brush, and low-growing pinion pines. Small rock outcrops are evident on the skyline to the right of the freeway, and the transmission line would cross through the landscape in approximately this location. The location for KOP 5-8 was selected to generally characterize the existing landscape where Alternative 5 would cross over the freeway and then traverse the undeveloped NFS and BLM-lands. New towers of the Alternative 5 500-kV transmission line would be visible from this vantage point. Because this vantage point allows views to both private and public lands, it is appropriate to use both the VS/VC and Forest Service SMS methodologies. The following analysis discusses the VS/VC area first.

**Private Lands.** Following is a discussion of private lands visible from KOP 5-8, using the Visual Sensitivity/Visual Change (VS/VC) method.

**Visual Quality: high.** The landscape visible from KOP 5-8 is very natural-appearing consisting of a foreground, middleground, and a background that is devoid of development, except for the freeway. The horizontal, angular middleground landforms screen from view the existing Vincent-Pardee transmission line corridor. The horizontal, angular skyline ridges form a secondary focal point to the primary focal point, which is the contrasting light-gray colors, smooth textures of the freeway, and the fast-moving vehicles that draw viewers' attention when standing at this KOP. The landscape exhibits a high degree of intactness and coherence of form and character with moderate visual variety. The scenic integrity of this existing landscape has a high level of visual quality, even with the addition of the freeway, especially because the cutslopes and fill-slopes have Re-Vegetated and have a more natural appearance.

**Viewer Concern: moderate.** Travelers on Escondido Canyon Road and the Antelope Valley Freeway enjoy the undeveloped landscapes that are portrayed in this view, but the primary use on both of these thoroughfares is for commuting. Therefore, the concern with scenic attributes of the landscape may be moderate. The freeway and road offer views to the predominantly natural setting, and sight-lines are varied as the freeway curves through the steep, mountainous terrain, offering panoramic sightlines in all directions to largely undeveloped landscapes beyond. The natural-appearing, panoramic landscape has a predominantly angular character and open-spaces offer long uninterrupted vistas that are visible from the freeway and road. Any blockage of views, such as would occur with the new transmission line in Alternative 5, may be seen as an adverse visible change.

**Viewer Exposure: high.** Because there is no screening by landforms or vegetation, Alternative 5 would be highly visible in the middleground as seen from KOP 5-8. The duration of view would be brief for travelers on Escondido Canyon Road and the Antelope Valley Freeway. The number of viewers would be high, considering the volume of traffic on both the Escondido Canyon Road and the Antelope Valley Freeway.



**Overall Visual Sensitivity: moderate-to-high.** For travelers on Escondido Canyon Road and the Antelope Valley Freeway in general and KOP 5-8 specifically, the high visual quality, moderate viewer concern, and high viewer exposure lead to a moderate-to-high overall visual sensitivity of the visual setting and viewing characteristics.

**NFS Lands.** Following is a discussion of NFS lands visible from KOP 5-8, using the Forest Service Scenery Management System (SMS).

**Scenic Integrity Objectives for NFS Lands.** NFS lands in this view are located in the NW quarter of Section 31, T5N, R13W (see Figure B.4-14), and appear as a canyon beyond the freeway in this view. This landscape is within the Soledad Front Country Place and it functions as a scenic backdrop and transitional landscape between the rapidly urbanizing Mojave Desert and Los Angeles Basin. The Pacific Crest National Scenic Trail occurs on a portion of the Place, and is barely visible in the center of this photograph as a faint, horizontal line proceeding through the saddle in the middleground. Management direction in the Forest Plan indicates an intention to acquire additional private land in this vicinity for management of the Pacific Crest National Scenic Trail. In the 2005 Forest Plan, this plot of land is not mapped for SIOs, because this is a newly acquired tract. Nearby NFS lands in this vicinity are mapped as High SIO, where the management direction states that human activities should not be visually evident. Human-caused deviations may be present but must repeat the form, line, color, texture, and pattern common to the natural landscape character so completely and at such a scale that they are not evident. The Forest Service manages these newly acquired lands with the same SIO and direction.

**Existing Scenic Integrity: High.** The landscape visible from KOP 5-8 is natural-appearing, except for the freeway and its cut-and-fill slopes. The natural landscape has a good coherence of form and character with substantial visual variety. A complete description of existing scenic integrity is available (above) under the heading “Visual Quality.”

### **KOP 5-9 – Pacific Crest National Scenic Trail**

Key Observation Position 5-9 was established on the Pacific Crest National Scenic Trail on BLM-administered lands in T4N, R13W, SW ¼ Sec 5, at a point where the PCT crosses under the existing transmission lines in the Vincent-Pardee corridor. This view is looking northwest and was chosen because it is the direction that most hikers and equestrians would travel on the PCT, if they were making a journey from Mexico to Canada. This vantage point is almost half-way between the trailhead at Soledad Canyon and the trailhead at Vasquez Rocks County Park. (See Figure C.15-26A, Existing Visual Conditions for KOP 5-9 at the end of the Visual Resource Section). Landscapes seen from this vantage point encompass private, BLM, and NFS lands. (See Figure B.4-14 – Alternative 5 Alignment).

Views are to large tracts of completely undeveloped landscapes in all directions from the trail. Landforms are very softly rounded and heavily dissected, and easily seen because of the lack of tall vegetation in this landscape. Hillsides and mountainsides are covered with low-growing grasses and brush, and the only trees seen from the trail are dead, having been killed by a recent wildfire. The location for KOP 5-9 was selected to generally characterize the existing open landscape where Alternative 5 would traverse undeveloped NFS and BLM lands, enter this portion of the PCT viewshed, and then connect to the existing utility corridor. The transmission line would cross through the landscape from the hilltop on the right to a junction with the corridor that is screened by the hill on the left. New towers of the Alternative 5 500-kV transmission line would be visible from this vantage point.

Because this landscape includes private, BLM, and NFS lands, it is appropriate to analyze the visual effects using the Visual Sensitivity/Visual Change (VS/VC) method, the Bureau of Land Management Visual Resource Management (BLM-VRM) System, and the Forest Service Scenery Management System (SMS).

**Private Lands.** Following is a discussion of private lands visible from KOP 5-9, using the Visual Sensitivity/Visual Change (VS/VC) method.

**Visual Quality: high.** The landscape visible from KOP 5-9 is very natural-appearing, consisting of a foreground, middleground, and a background that is devoid of development, except for the transmission towers and conductors. The horizontal, rounded foreground and middleground landforms dominate the impression of this landscape, and the only discordant visual elements are the large, vertical lines and geometric forms of the lattice steel towers. The conductors create horizontal lines that bisect the middleground landforms, and appear almost white against the tan-colored mountainsides. The industrial character of the towers and conductors contrasts strongly against the natural-appearing landscape. The PCT is a faint, horizontal line that enters the view in this photograph from the left-center then proceeds across the view (under the horizontal line of the conductors) to almost the right side of the photograph. The PCT then crosses back to the left (still under the horizontal line of the conductors), until it disappears behind an intermediate ridgeline in the approximate center of this photograph. The dark shadow near the two visible lattice towers is an access road used for construction and maintenance of the line. This landscape exhibits a high degree of intactness and coherence of form and character with moderate visual variety. The scenic integrity of this existing landscape has a high level of visual quality, except for the utility corridor with its industrial character, which creates contrast and incoherence against the more natural-appearing, expansive landscape.

**Viewer Concern: high.** Cross-country travelers and day-users on the PCT enjoy the expansive views to undeveloped landscapes that are portrayed in this view. Their concern for scenic attributes of the landscape is expected to be high. The trail offers views to the predominantly natural setting, and sight-lines are varied as the trail switches back and forth and climbs up from Soledad Canyon to the south, or as it passes under the freeway if coming from the north. The trail offers panoramic sightlines in all directions to largely undeveloped landscapes beyond, except for views to the utility corridor. The natural-appearing, panoramic landscape has a predominantly rounded character and open-spaces offer long uninterrupted vistas that are visible from the PCT. Any blockage of views, such as would occur with the new transmission line in Alternative 5, may be seen as an adverse visible change.

**Viewer Exposure: moderate-to-high.** Because there is no screening by landforms or vegetation, Alternative 5 would be highly visible in the middleground as seen from KOP 5-9. The duration of view would be moderate for travelers on the PCT, as this section of trail can be traversed in part of a day. The number of viewers would be low, considering the volume of traffic that was evidenced on the trail during this site investigation in January, which should be a high-use season for this segment of the trail.

**Overall Visual Sensitivity: high.** For cross-country travelers and day-users on the PCT in general, and KOP 5-9 specifically, the high visual quality, high viewer concern, and moderate-to-high viewer exposure lead to a high overall visual sensitivity of the visual setting and viewing characteristics.

**BLM-Administered Lands.** Following is a discussion of BLM-administered lands visible from KOP 5-9, using the BLM-VRM System. The BLM-VRM System is very similar to the Forest Service Scenery Management System described above in Section C.15.1.1 and Table C.15-2. In the BLM-VRM System, there are four VRM classes (I-IV). Visual resource management classes are established by the BLM through the Resource Management Planning (RMP) process for all BLM-administered lands. These classes describe the different degrees of modification, or contrast, allowed to the basic elements of the landscape. BLM-VRM classes can be

arrived at from adopting the inventoried VRM classes, or by correlating VRM classes to BLM Resource Management Plan (RMP) classes. For KOP 5-9, VRM classes have been correlated to the RMP classes, and the adopted VRM class is III (Foote, 2006)

Table C.15-15 shows the four BLM-VRM classes and definitions.

<b>Table C.15-15. BLM Visual Resource Management Classes and Definitions</b>	
<b>VRM Class</b>	<b>Definition of Visual Resource Management Class</b>
<b>Class I</b>	The objective of this class is to preserve the existing character of the landscape. This class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention. (This classification is usually applied to wilderness areas, wild and scenic rivers, and other similar situations.)
<b>Class II</b>	The objective of this class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.
<b>Class III</b>	The objective of this class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.
<b>Class IV</b>	The objective of this class is to provide for management activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements.
<b>Rehabilitation Areas <sup>1</sup></b>	This classification is applied to areas where the natural character of the landscape has been disturbed to a point where rehabilitation is needed to bring it up to one of the four other classifications. The classification also applies to areas where there is potential to increase the landscape's visual quality. It would, for example, be applied to areas where unacceptable cultural modifications, such as human-made structures, have lowered scenic quality. It is often used as an interim classification until objectives of another class can be reached.

1. Rehabilitation Areas are sometimes referred to as VRM Class V.

**Contrast Rating.** The BLM uses a systematic process called the “contrast rating system” to analyze potential visual impacts of proposed projects and activities. The BLM Handbook 8431-1 says contrast rating primarily is intended to assist Bureau personnel who are not formally trained in the design-arts to apply the basic principles of design in the resolution of visual impacts. It is not intended to be the only means of resolving these impacts. It should be used as a guide, tempered by common sense, to ensure that every attempt is made to minimize potential visual impacts.

The basic philosophy underlying visual quality of a landscape depends on the visual contrast created between a project and the existing landscape. The contrast can be measured by comparing the project features with the major features in the existing landscape. The basic design elements of form, line, color, and texture are used to make this comparison and to describe the visual contrast created by the project. The assessment process provides a means for determining visual impacts and for identifying measures to mitigate these impacts.

**Contrast Rating (Degree of Contrast).** The rating is completed by determining the degree of contrast (i.e., strong, moderate, weak, or none) for each visual resource element (form, line, color, and texture). Table C.15-16 shows the general criteria and factors used by the BLM when rating the degree of contrast:

<b>Table C.15-16. BLM VRM Contrast Rating System and Definitions</b>	
<b>Degree of Contrast</b>	<b>Criteria</b>
None	The element contrast is not visible or perceived.
Weak	The element contrast can be seen but does not attract attention.
Moderate	The element contrast begins to attract attention and begins to dominate the characteristic landscape.
Strong	The element contrast demands attention, will not be overlooked, and is dominant in the landscape.

**Determining Whether BLM-VRM Objectives Are Met.** The BLM directs land managers to compare these contrast ratings with the objectives for the VRM class. For comparative purposes, the four levels of contrast (i.e., none, weak, moderate, and strong) roughly correspond with VRM classes I, II, III, and IV respectively. According to the BLM Manual Handbook, this means that a “strong” contrast rating may be acceptable in a class IV area, but probably would not meet VRM objectives for a class III area. In making these comparisons, the cumulative effect of all the contrast ratings must be considered. Certain combinations of ratings may indicate there is a stronger overall contrast than the individual ratings show. For example, several “moderate” ratings when viewed in combination may warrant an overall “strong” rating. This is a judgment determination, according to BLM directives.

**NFS Lands.** Following is a discussion of NFS lands visible from KOP 5-9 on the Pacific Crest Trail, using the Forest Service SMS.

**Scenic Integrity Objectives for NFS Lands.** NFS lands in this view are located in the SE quarter of Section 31, T5N, R13W, and include the mountaintop in the center of this view, but not the PCT. This landscape is within the Soledad Front Country Place. Similar to the area of NFS land seen from KOP 5-8, this plot of land is not mapped for SIOs in the 2005 Forest Plan, because this is a newly acquired tract. Nearby NFS lands in this vicinity are mapped as High SIO, where the management direction states that human activities should not be visually evident. Human-caused deviations may be present but must repeat the form, line, color, texture, and pattern common to the natural landscape character so completely and at such a scale that they are not evident. The Forest Service manages these newly acquired lands with the same SIO and direction.

**Existing Scenic Integrity: High, with Areas of Unacceptably Low.** The natural landscape visible from KOP 5-9 exhibits a high degree of intactness, or scenic integrity and is completely natural-appearing, except for a corridor of distinct manmade features. These discordant features are within the Vincent-Pardee utility corridor and include three transmission lines visible from on-the-ground to PCT travelers – the Pardee-Vincent 500-kV line on the north (visible in this photograph), the Pardee-Vincent No. 1 220-kV line in the center, and the Pardee-Eagle Rock 220-kV line on the south. The majority of this landscape view has high scenic integrity, but these few discordant features – the transmission lines with their inherent industrial character – diminish certain areas of the existing landscape to levels of unacceptably low scenic integrity.

**KOP 5-10 – Antelope Valley Freeway Eastbound**

Key Observation Position 5-10 was established at the Agua Dulce On-Ramp to the eastbound Antelope Valley Freeway, looking east-southeast toward undeveloped private lands. This view is looking toward the existing Vincent-Pardee utility corridor and three distinct transmission lines are visible (Pardee-Vincent 500-kV line on the left, Pardee-Vincent No. 1 220-kV line in the center, and Pardee-Eagle Rock 220-kV line on the right). (See Figure C.15-27A, Existing Visual Conditions for KOP 5-10 at the end of the Visual Resource Section).

There are views to large tracts of undeveloped landscapes on both sides of the freeway, but viewers’ attention is drawn to the south side because of the large rock outcrops and the transmission towers in this vicinity. Rockforms with tilted-bedding planes are very dominant focal points in this landscape; landforms are rounded

and easily seen because of the lack of tall vegetation in this landscape. The skyline forms a horizontal line that is a focal point, which further emphasizes the secondary focal point in this landscape, which is the industrial character of towers on the skyline. Hillsides and mountainsides are covered with low-growing grasses, sage brush, and low-growing pinion pines. A small ranchette is visible in the lower right of this photograph, and becomes a tertiary focal point while traveling along the freeway. Under Alternative 5, the existing single-circuit towers of the Pardee-Vincent 500-kV line would be removed, and in their place, taller double-circuit 500-kV towers would be constructed. The location for KOP 5-10 was selected to generally characterize the existing landscape where Alternative 5 would be visible from the eastbound freeway. New, taller towers of the Alternative 5 500-kV transmission line would be visible from this vantage point.

**Visual Quality: moderate-to-high.** The landscape visible from KOP 5-10 is very natural-appearing consisting of a foreground with dramatic rockforms and a rural residence, a middleground with dramatic skyline, and a view to background mountains behind the transmission line towers and conductors. The horizontal, rounded middleground landforms screen from view a major portion of the existing Vincent-Pardee corridor. The landscape exhibits a high degree of intactness and coherence of form and character with dramatic rock outcrops, interesting patterns of dark-green vegetation, and a scattered mosaic of shrubs on the skyline ridge, all creating a high degree of visual variety. The scenic integrity of this existing landscape has a high level of visual quality, except for the industrial character of the transmission line tower and conductors on the skyline, which lower the overall scene to a moderate-to-high level.

**Viewer Concern: moderate.** Travelers on the Antelope Valley Freeway enjoy the undeveloped landscapes that are portrayed in this view, but the primary use of this thoroughfare is for commuting. Therefore, the concern with scenic attributes of the landscape may be moderate. The freeway offers views to the predominantly natural setting and the existing utility corridor, and sight-lines are varied as the freeway curves through the steep, mountainous terrain, offering panoramic sightlines in all directions to largely undeveloped landscapes beyond. The natural-appearing, panoramic landscape has a predominantly rounded character and open-spaces offer long uninterrupted vistas that are visible from the freeway. Any blockage of skyline views, such as would occur with the new, taller double-circuit transmission line towers and conductors in Alternative 5, may be seen as an adverse visible change.

**Viewer Exposure: high.** Because there is no screening by landforms or vegetation, Alternative 5 would be highly visible in the middleground as seen from KOP 5-10. The duration of view would be brief for travelers on the Antelope Valley Freeway. The number of viewers would be high, considering the volume of traffic on the Antelope Valley Freeway.

**Overall Visual Sensitivity: moderate.** For travelers on the Antelope Valley Freeway eastbound in general, and for KOP 5-10 specifically, the moderate-to-high visual quality, moderate viewer concern, and high viewer exposure lead to a moderate overall visual sensitivity of the visual setting and viewing characteristics.

#### **KOP 5-11 – Antelope Valley Freeway Westbound at Agua Dulce Interchange**

Key Observation Position 5-11 was established at the Agua Dulce On-Ramp to the westbound Antelope Valley Freeway, looking west toward Santa Clarita, which is out of view, several miles away. This view is looking toward the crossing of Alternative 5 over the Antelope Valley Freeway. (See Figure C.15-28A, Existing Visual Conditions for KOP 5-11 at the end of the Visual Resource Section).

This landscape view is constrained by freeway cutslopes on both right and left sides of this photograph. Landforms of the cutslopes are very angular and easily seen because of the lack of re-vegetation, and create an enframing of the horizontal skyline in the middleground of this landscape. On the skyline, a grove of dark-

green evergreen trees forms a focal point, along with several cell phone towers, and the transmission line towers. The middleground hillside is covered with low-growing, tan-colored grasses that provide no vegetative screening for the taller, industrial utility structures. The location for KOP 5-11 was selected to generally characterize the existing landscape where Alternative 5 would cross over the westbound freeway. Two new, taller double circuit towers of Alternative 5 would replace two shorter single-circuit towers visible in this view: one on the right-side of the skyline and another in the center of the photograph (above the gold-colored SUV).

**Visual Quality: low-to-moderate.** The landscape visible from KOP 5-11 is modified heavily from its natural-appearing condition, with foreground cutslopes and six-lane freeway, and middleground utility structures that block views to the blue sky. The horizontal middleground landform screen from view the existing Vincent-Pardee transmission line corridor as it continues toward Santa Clarita. The horizontal skyline forms a strong focal point because of the axial view created by the alignment of the freeway, which has contrasting light-gray colors, smooth textures, and fast-moving vehicles that draw viewers' attention at this KOP. The landscape exhibits a moderate degree of intactness and coherence of form and character with low visual variety. The scenic integrity of this existing landscape has a low-to-moderate level of visual quality because of the freeway and especially the cutslopes that have sparse vegetation and an unnatural, geometric, pyramidal appearance.

**Viewer Concern: moderate.** Travelers on the Antelope Valley Freeway westbound enjoy the landscapes that are portrayed in this view, but the primary use on this thoroughfare is for commuting. Therefore, the concern with scenic attributes of the landscape may be moderate. The freeway offers views to the predominantly natural setting further east, but here the freeway encounters more industrial encroachment. Sight-lines are varied as the freeway curves through the steep, mountainous terrain, offering panoramic sightlines to landscapes that become more developed as the travelers get closer to Santa Clarita and the Interstate 5 corridor. This landscape has a predominantly angular character of the cutslopes and horizontal character of the skyline, and the open-spaces leading to this KOP offer long, uninterrupted vistas to the utility corridor crossing of the freeway. Any blockage of views to the skyline, such as would occur with the new double-circuit transmission line in Alternative 5, may be seen as an adverse visible change.

**Viewer Exposure: high.** Because there is no screening by landforms or vegetation, Alternative 5 would be highly visible in the middleground as seen from KOP 5-11. The duration of view would be brief for travelers on the Antelope Valley Freeway westbound, but the number of viewers would be high, considering the volume of traffic on the Antelope Valley Freeway.

**Overall Visual Sensitivity: moderate.** For travelers on the Antelope Valley Freeway in general and KOP 5-11 specifically, the low-to-moderate visual quality, moderate viewer concern, and high viewer exposure lead to a moderate overall visual sensitivity of the visual setting and viewing characteristics.

### **KOP 5-12 – Lily of the Valley Mobile Home Village**

Key Observation Position 5-12 was established on Lower Bouquet Canyon Road (a Second Priority County Scenic Highway), approximately 1 mile south of the ANF boundary, looking northwest toward the Vincent-Pardee transmission line corridor on the north side of the Lily of the Valley Mobile Home Village. Three transmission line towers are visible on the skyline behind the palm and pine trees: (Pardee-Vincent 500-kV line on the right, Pardee-Vincent No. 1 220-kV line in the center, and Pardee-Eagle Rock 220-kV line on the left). Views from Lower Bouquet Canyon Road display a predominantly rural-residential character with this mobile home village strongly dominating this view. Other views along this portion of Lower Bouquet Canyon Road look onto rural-residential and equestrian-oriented landscape. A large commercial orchard and seasonally pumpkin-patch is out of this view, but in the vicinity of KOP 5-12, and numerous small ranchettes are located along this section of road. The Alternative 5 transmission line would cross this landscape from right to left, with

one new double-circuit tower replacing the existing single-circuit 500-kV tower in this view. (See Figure C.15-29A, Existing Visual Conditions for KOP 5-12 at the end of the Visual Resource Section).

**Visual Quality: low-to-moderate.** The landscape visible from KOP 5-12 is a suburban landscape dominated by white and light-colored mobile homes, metal roofs, and exotic landscaping that create enclosure and an axial focal point to the middleground hillside at the back of this view. On the hillside, existing tan-colored grasses contrast with the dark-green palm, pine, and eucalyptus trees that partially screen the middleground hillside. The landscape exhibits a moderately low degree of intactness and coherence of form and character with a high degree of visual variety created by the small scale buildings, parked cars, paved road, dark-green lawn, shrubs, and trees of many varieties. The dominance of these built features, with their inherent visual clutter, draws attention away from the industrial character of the transmission line towers on the skyline. The overall scenic integrity of the existing landscape portrays a low-to-moderate level of visual quality.

**Viewer Concern: moderate.** Residents of the mobile home village experience the visual clutter of Lily of the Valley and also have visual access to the predominantly rural setting of the middleground hillside at the rear of the property. The number of viewers is moderate, and the duration of view is extended at the mobile home village. Other residents traveling along Lower Bouquet Canyon Road enjoy the undeveloped, natural-appearing hillsides in this vicinity as a backdrop to their ranchettes, with panoramic vistas to this and other rounded landforms in the middleground. On the road, the number of viewers is moderate-to-high, and the duration of view is brief. Any blockage of views (such as would occur with the new, taller, double-circuit towers in Alternative 5) would be perceived by viewers as an adverse visible change.

**Viewer Exposure: moderate.** Because of the dense screening by evergreen vegetation and mobile home structures, Alternative 5 would not be highly visible in the middleground as seen from KOP 5-12. The duration of view would be extended from these residences, and the number of potential viewers would be moderate, therefore the overall viewing exposure would be moderate.

**Overall Visual Sensitivity: moderate.** For travelers on Lower Bouquet Canyon Road in general, and for residents at the Lily of the Valley Mobile Home Village and KOP 5-12 specifically, the low-to-moderate visual quality, moderate viewer concern, and moderate viewer exposure lead to a moderate overall visual sensitivity of the visual setting and viewing characteristics.

### **KOP 5-13 – Shadow Valley Lane**

Key Observation Position 5-13 was established on Shadow Valley Lane approximately 1/2 block east of Woodside Drive, looking northwest across red-tile roofs and light-colored stucco walls of single-family homes to undeveloped, steep hillsides on the west side of Haskell Canyon (see Figure C.15-30A, Existing Visual Conditions for KOP 5-13 at the end of the Visual Resource Section). This view is representative and characteristic of many views within the suburban neighborhoods of the Santa Clarita vicinity, from streets that look across suburban neighborhoods to natural open-space hillsides and ridgetops with industrial developments, such as these transmission lines. Development is extensive in this area, and this neighborhood has established street trees and landscaping that has matured to create some screening-ability. The double-circuit towers of Alternative 5 would cross this landscape from right to left, with new double-circuit towers replacing existing single-circuit towers on these undeveloped skyline ridges.

**Visual Quality: moderate-to-high.** The landscape visible from KOP 5-13 is a combination of a highly developed subdivision in the foreground, industrial character transmission lines on foreground hillsides, and a natural-appearing middleground of steep, barren slopes and grass-covered hills. The discordant elements in this landscape are the three sets of transmission line towers and conductors that punctuate the sky and create view

blockage (Pardee-Eagle Rock 220-kV line on the left, Pardee-Vincent No. 1 220-kV line in the center, and Pardee-Vincent 500-kV line on the right). The landscape exhibits a high degree of intactness and coherence of form and character with moderate-to-high visual variety. The scenic integrity of this existing landscape has a moderate level of visual quality. The predominant visual elements are the red-tile rooftops, and light-colored stucco walls of single-family residences on Shadow Valley Lane. Because these neighborhoods are well established, street trees and landscaping has matured and provides screening of some houses and yards. Beyond the houses, steep, tan-hillsides with large, vertical patches of bare, light-tan soil are visible in the foreground and middleground. Skyline ridgetops are fairly horizontal to rounded landforms, creating a strong focal point in this landscape, especially when viewed against the blue sky. The existing 500-kV and 220-kV transmission lines are prominent industrial features and draw attention to the foreground and middleground hillsides. The existing transmission towers create discordant vertical lines and angular, geometric forms against the natural hillsides and ridgetops of this panoramic landscape. The conductors are visually evident as horizontal lines, and appear dark when viewed against the sky. These existing transmission lines diminish the scenic integrity of this landscape, reducing what would otherwise be a high level of visual quality to a moderate-to-high level.

**Viewer Concern: high.** Residents enjoy the architecture and landscape architecture of Santa Clarita. Viewer expectations include a clean environment with visually attractive neighborhoods and open space surroundings, and this high viewer concern is characteristic for all KOPs in the South Area (KOPs 10-14 and KOP 5-13). As seen from KOP 5-13, the character of existing transmission lines contrasts with the panoramic open-space landscape and this developed subdivision. Although residents and visitors also accept the existing electric transmission infrastructure, any increase in industrial character visible from neighborhoods such as this one, or blockage of views caused by taller double-circuit transmission line towers, would be perceived by viewers as an adverse visual change.

**Viewer Exposure: high.** Because there is no landform or vegetative screening, Alternative 5 double-circuit towers and conductors would be highly visible in this foreground view. The duration of view would be extended from this neighborhood and the number of viewers would be moderate.

**Overall Visual Sensitivity: high.** For residents and visitors to neighborhoods in Santa Clarita and unincorporated Los Angeles County in general and KOP 5-13 specifically, the moderate-to-high visual quality, high viewer concern, and high viewer exposure lead to a high overall visual sensitivity of the visual setting and viewing characteristics.

### **C.15.10.2 Impacts and Mitigation Measures**

The following section describes impacts to visual resources that would be caused by implementation of Alternative 5, as determined by the significance criteria listed in Section C.9.3.1. This section also provides mitigation measures that would serve to reduce potentially significant impacts to less-than-significant levels.

Alternative 5 would involve the construction of a new 500-kV transmission line in a new utility corridor, completely separate from the proposed Project utility corridor from the Antelope Substation at Mile 0.0, and proceeding southward, then westward for approximately 31.5 miles. In this southbound area, from Antelope Substation to the Vincent-Pardee Corridor, the 500-kV transmission line would be constructed on new single-circuit towers. New single-circuit towers would be the same as used for the proposed Project and other alternatives, and they would generally range from 113 to 178 feet, depending on slope severity. All simulations of Alternative 5 portray the towers at 144 feet tall and structural arms at 96 feet wide, the same as other simulations. At the Vincent-Pardee Corridor, Alternative 5 would turn west, and from here to the Pardee Substation, existing 500-kV single-circuit towers would be removed and new double-circuit towers would be



constructed in their place. At Haskell Canyon (proposed Project Mile 20.3), Alternative 5 would rejoin the proposed Project and proceed to the Pardee Substation (proposed Project Mile 25.6). In these last 5.3 miles, Alternative 5 would be identical to the proposed Project (existing single-circuit towers would be replaced with double-circuit towers). Because Alternative 5 would predominantly occupy a completely new utility corridor for approximately 31.5 miles, it has the least similarity to other alternatives.

**Substantial adverse effect on a scenic vista, or substantial degradation of the existing visual character or quality of the site and its surroundings (Criterion VIS1)**

Alternative 5 would involve removal of 119 existing towers and the existing 66-kV conductors from the Saugus-Del Sur utility corridor. This removal would be visually evident from KOPs 1, 2, 3, 4, 5, 6, 7, and 8, plus numerous other vantage points along the utility corridor from Mile 0.0 to 18.6. Removal of existing infrastructure would involve re-opening access and spur roads to the sites of existing lattice steel towers, many of which have revegetated to such a degree that they have “visually healed” and are no longer visually apparent. De-construction and removal of towers and lines would involve labor forces, trucks, and cranes to dismantle the infrastructure. Alternative 5 by definition, like the proposed Project, would remove existing 66-kV towers and conductors, but would not remove existing reinforced concrete foundations. Additionally, Alternative 5 would retain the crane pads (“benching”) after de-construction is completed. Leaving these foundations and crane pads on non-NFS and NFS lands would have an adverse impact to the landscape and its visual attributes, and would create new visual scars on the land.

For KOPs 1 and 2 on non-NFS lands, without mitigation these activities would create temporary visual disturbances and would leave permanent concrete footings in an abandoned utility corridor, thereby placing a long-term burden of intrusions in open space landscapes. Without mitigation, these visual effects would be adverse, but less than significant. Implementation of Mitigation Measures V-3a (Remove Existing Foundations, Rehabilitate, and Re-Vegetate Tower Sites) and V-3b (Remove, Rehabilitate, and Re-Vegetate Crane Pads), would lessen these impacts, as compared to Alternative 5 without mitigation, and would result in a Beneficial Effect (Class IV).

For non-NFS lands seen from KOP 3, without mitigation these de-construction activities would create the same short-term visual disturbances described above, plus access and spur roads would create long-term visual impacts on the steep hillsides above the R-Ranch along Amargosa Creek. The light-colored exposed soils on hillsides would contrast against the dark green vegetation as seen from Lake Elizabeth Road and nearby ranches. New openings in the evergreen chaparral vegetation and disturbed soils created by crane pads would create unnatural patterns in the landscape and additional soil color contrasts. Without mitigation, these visual effects would be significant. Implementation of Mitigation Measures V-3a (Remove Existing Foundations, Rehabilitate, and Re-Vegetate Tower Sites) and V-3b (Remove, Rehabilitate, and Re-Vegetate Crane Pads) would lessen these impacts, as compared to Alternative 5 without mitigation, and would result in a Beneficial Effect (Class IV).

For NFS lands seen from KOP 3, without mitigation these de-construction activities would create the same short-term and long-term visual disturbances described above. Additionally, inside the ANF there is greater possibility of encountering bedrock conditions as existing access and spur roads are reopened to provide access to existing tower sites. These visual impacts would be significant, but mitigable. Implementation of Mitigation Measure V-3a (Remove Existing Foundations, Rehabilitate, and Re-Vegetate Tower Sites), V-3b (Remove, Rehabilitate, and Re-Vegetate Crane Pads), V-3c (Avoid Locating New Roads in Bedrock), V-3d (Remove Existing Infrastructure with Helicopters), V-4b (Dispose of Cleared Vegetation Off-Site), V-4c (Dispose of Excavated Materials Off-Site), B-1a (Provide Restoration/Compensation for Impacts to Native Vegetation

Communities), B-1b (No Activities will occur in Riparian Conservation Areas), and R-4 (Permanent Closure and Re-Vegetation of Construction Roads), would lessen these impacts, as compared to Alternative 5 without mitigation, and would result in a Beneficial Effect (Class IV).

**V-3d Remove Existing Infrastructure with Helicopters.** In the locations designated by the CPUC and Forest Service, SCE and its contractors shall remove existing 66-kV towers, conductors, and other infrastructure materials with helicopters. To minimize the visual impacts of road construction, SCE and its contractors shall access structures by walking or helicopter only, for de-construction in designated locations. SCE shall consult with the visual specialist designated by the CPUC, or Forest Service as appropriate, to ensure that the objectives of this measure are achieved. SCE shall submit Removal Plans demonstrating compliance with this measure, to the CPUC and Forest Service for review and approval at least 120 days prior to the start of construction.

For NFS lands from Mile 5.7 to 18.6, and as seen from KOPs 4 through 8 and elsewhere in the Angeles National Forest, these same significant visual effects would occur without mitigation. With implementation of all the mitigation measures enumerated above for KOP 3, NFS lands and non-NFS lands inside the ANF would be visually rehabilitated and would result in a Beneficial Effect (Class IV).

For the new alignment of Alternative 5, new single-circuit and double-circuit 500-kV lattice steel towers would be the same as described for the proposed Project and all Alternatives. If visible, these new towers would create visual contrasts with natural landscape character elements – form, line, color, texture, and scale – and would appear as an industrial feature in the landscape. This contrast would be especially evident if the towers and conductors were viewed at a foreground viewing distance (0 to ½ mile) or if the towers were viewed against the skyline. If lattice towers were viewed with a dark landscape as a backdrop, visual contrasts would be less evident.

***Impact V-19: Project infrastructure would substantially degrade the visual quality of landscape views as seen from Avenue K (KOP 5-1).***

KOP 5-1 was established on Avenue K (a Second Priority County Scenic Highway) about 1 mile southwest of the Antelope Substation and about half-way between the existing 66-kV line on the west and the Magunden-Vincent utility corridor on the east. This view is looking south toward Portal Ridge. Figure C.15-18A presents the existing view and Figure C.15-18B presents a computerized visual simulation depicting new towers and conductors. Because there is no Road Story for this Alternative, access roads and spur roads to towers have not been shown in this simulation. However, access and spur roads would increase the visual impacts beyond those shown. Implementation of Alternative 5 would result in several adverse visual effects. The introduction of industrial structures of substantial size would create a new focal point in the landscape and would lead the eye to a new focal point on the skyline. There would be a considerable visual impact due to introduced structure prominence and industrial character when viewed from Avenue K. As a result, visual contrast would be moderate-to-high and the proposed Project would appear co-dominant with the existing landforms and vegetative patterns. Structure skylining and obstruction of the middleground sky by the towers and conductors would result in a moderate degree of view blockage. New access roads and spur roads would need to be constructed to tower locations from Avenue K to Avenue L. However, from Avenue L south to the crest of Portal Ridge there are existing agricultural access roads.

Referring to Table C.15-1, General Guidance for Review of Visual Impact Significance, the overall visual change would be moderate-to-high and in the context of the existing landscape's moderate-to-high visual sensitivity, the resulting visual impact would be significant. Because travelers on Avenue K would view the transmission line structures at immediate foreground, foreground, and middleground viewing distances, and

because most of these towers would be seen against the skyline from one vantage point or another, it is appropriate to use tubular steel poles in the vicinity of KOP 5-1. Implementation of Mitigation Measures V-1a (Use Tubular Steel Poles), V-1b (Construct, Operate, and Maintain with Existing Access Roads), V-1c (Dispose of Cleared Vegetation), V-1d (Dispose of Excavated Materials), V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes), and V-19 (Construct New Access and Spur Roads with Least Visual Disturbance) would reduce visual impacts of Alternative 5. This would result in an improved visual environment, as compared to Alternative 5 without mitigation, but would still result in significant, unavoidable visual impacts (Class I).

**V-19 Construct New Access and Spur Roads with Least Visual Disturbance.** In the locations designated by the CPUC, and Forest Service as appropriate, SCE and its contractors shall design new access and spur roads such that they are located in the least visually obtrusive locations, that they follow the lay of the land, that cut-and-fill slopes are minimized, vegetative patterns are protected or enhanced, and that the least number of roads are created. SCE shall consult with the visual specialist designated by the CPUC or Forest Service, as appropriate, to ensure that the objectives of this measure are achieved. The Applicant (SCE) shall construct and maintain access and spur roads to minimize visual contrasts of form, line, color, texture, and scale. The Applicant (SCE) shall submit plans and construction drawings for access roads and spur roads, demonstrating compliance with this measure, to the CPUC and other affected agencies for review and approval at least 60 days prior to the start of construction.

***Impact V-20: Project infrastructure would substantially degrade the visual quality of landscape views as seen from Lake Elizabeth Road (KOP 5-2).***

Key Observation Position 5-2 was established on Lake Elizabeth Road (a Second Priority County Scenic Highway) at a point where Alternative 5 would cross over the road, looking west along the Rift Zone. Figure C.15-19A presents the existing view to the southwest from KOP 5-2, Figure C.15-19B presents a computerized visual simulation showing the new transmission line for the proposed route of Alternative 5. Because there is no Road Story for this Alternative, access roads and spur roads to towers have not been shown in this simulation. However, access and spur roads would increase the visual impacts beyond those shown. The introduction of new lattice steel structures would result in an increase in the degree of structure prominence compared to the existing wooden distribution line which parallels the road in the center of the line of sight, and feeder lines that cross the field of view. Visual contrast of the larger angular, lattice structures would range from moderate-to-high in a landscape that is dominated by horizontal to rolling natural landforms. The structures' silver-gray color would contrast with the setting of tan grasses and darker green vegetation. The color contrast caused by the sun's reflection off the structures would depend on ambient lighting conditions and time of day. Access roads and clearings for towers would stand out in the dark green vegetation, and would draw viewers' eyes to each tower, further increasing visual contrast and discordance.

At this viewing distance (middleground), the structures would be dominant in scale to the landforms, vegetative patterns, and infrastructure of this landscape. The new structures' height and width would also cause increased structure prominence and a visible increase in industrial character in this pastoral landscape. As a result, visual contrast would be moderate-to-high and Alternative 5 would appear to dominate the existing landscape features. The new and increased structure skylining and additional obstruction of the middleground would result in a moderate-to-high degree of view blockage.

Referring to Table C.15-1 General Guidance for Review of Visual Impact Significance, the overall visual change would be moderate-to-high and in the context of the existing landscape's moderate-to-high visual sensitivity, the resulting visual impact would be significant.

Because there are residences in the vicinity of Alternative 5 on Lake Elizabeth Road and people would view the transmission line structures at foreground and middleground viewing distances, and because most of these towers would be seen against the skyline from one vantage point or another, it is appropriate to use tubular steel poles in the vicinity of KOP 5-2. Implementation of Mitigation Measures V-1a (Use Tubular Steel Poles), V-1b (Construct, Operate, and Maintain with Existing Access Roads), V-1c (Dispose of Cleared Vegetation), V-1d (Dispose of Excavated Materials), V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes), and V-19 (Construct New Access and Spur Roads with Least Visual Disturbance) would reduce visual impacts of Alternative 5. This would result in an improved visual environment, as compared to Alternative 5 without mitigation, but would still result in significant, unavoidable visual impacts (**Class I**).

***Impact V-21: Project infrastructure would substantially degrade the visual quality of landscape views as seen from Leona Valley Road (KOP 5-3).***

**Alternative 5 Off NFS Lands.** Key Observation Position 5-3 was established on Leona Valley Road about 1 mile west of the Leona Valley School, looking west, at a point approximately 0.7 miles away from where Alternative 5 would cross the mountainside in the middleground. Figure C.15-20A presents the existing view to the southwest from KOP 5-3, and Figure C.15-20B presents a computerized visual simulation showing the new Alternative 5 transmission line. Because there is no Road Story for this Alternative, access roads and spur roads to towers have not been shown in this simulation. However, access and spur roads would increase the visual impacts beyond those shown. The introduction of industrial structures of substantial size would create a new focal point in the landscape and would lead the eye to new focal points on the skyline. Visual contrast of the larger angular, lattice structures would range from moderate-to-high in a landscape that is dominated by horizontal valley floor and the rounded landforms of the mountainous backdrop. The structures' silver-gray color would contrast with the setting of tan grasses and darker green vegetation. The color contrast caused by the sun's reflection off the structures would depend on ambient lighting conditions and time of day.

At this middleground viewing distance, the structures would be dominant in scale to the landforms, vegetative patterns, and infrastructure of this landscape. The new structures' height and width would also cause increased structure prominence and a visible increase in industrial character in this pastoral landscape. As a result, visual contrast would be moderate-to-high and the transmission line would appear to dominate the existing landscape features. The new and increased structure skylining and additional obstruction of the mountains in the middleground would result in a moderate-to-high degree of view blockage.

Using the VS/VC method, and referring to Table C.15-1, General Guidance for Review of Visual Impact Significance, the overall visual change would be moderate-to-high and in the context of the existing landscape's moderate-to-high visual sensitivity and the resulting visual impact would be significant.

Because there are residences in the vicinity of Alternative 5 on Leona Valley Road, and people would view the transmission line structures at foreground and middleground viewing distances, and because most of these towers would be seen against the skyline from one vantage point or another, it is appropriate to use tubular steel poles in the vicinity of KOP 5-3. Implementation of Mitigation Measures V-1a (Use Tubular Steel Poles), V-1b (Construct, Operate, and Maintain with Existing Access Roads), V-1c (Dispose of Cleared Vegetation), V-1d (Dispose of Excavated Materials), V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes), and V-19 (Construct New Access and Spur Roads with Least Visual Disturbance) would reduce visual impacts of Alternative 5. This would result in an improved visual environment, as compared to Alternative 5 without mitigation, but would still result in significant, unavoidable visual impacts (**Class I**).

**Alternative 5 on NFS Lands.** From this vantage point, Alternative 5 would cross the dark-green mountains in the middleground. Figure C.15-20B presents a computerized visual simulation showing the new transmission

line on NFS lands. Because there is no Road Story for this Alternative, access roads and spur roads to towers have not been shown in this simulation. However, access and spur roads would increase the visual impacts beyond those shown. Visual contrast of the larger angular, lattice structures would be the same as described above for non-NFS lands. Access and spur roads would be constructed in the dark-green landscape, and bare soils of cut- and fill-slopes would be very visually evident. These contrasts would range from moderate-to-high in a landscape that is dominated by horizontal valley floor and the rounded landforms of the dark-green mountainous backdrop. The structures' silver-gray color would contrast with the setting of darker green vegetation. The color contrast caused by the sun's reflection off the structures would depend on ambient lighting conditions and time of day. Access roads, spur roads, and clearings for towers would stand out in the dark green vegetation, and would draw viewers' eyes to each tower, further increasing visual contrast and discordance.

Of the three towers that would be seen from KOP 5-3 (see Figure C.15-20B), the right tower and access/spur roads would be located on private land. The visual contrasts and impacts would be as described above. The resulting impacts would be significant, and implementation of mitigation measures V-1a through V-1e and V-39 would reduce visual impacts to significant, unavoidable visual impacts (**Class I**) as described above.

**Scenic Integrity Objectives.** In the 2005 Forest Plan, this entire visible landscape crossed by Alternative 5 on NFS land is mapped as High SIO (Alternative 5-Mile 5.6 to 5.85), where the management direction states that human activities should not be visually evident. Human-caused deviations may be present but must repeat the form, line, color, texture, and pattern common to the natural landscape character so completely and at such a scale that they are not evident. The NFS land obscured by the hills to the left are mapped as Moderate SIO (Alternative 5-Mile 5.85 to 6.1), where the management direction states that the valued landscape character may "appear slightly altered." Noticeable deviations must remain visually subordinate to the landscape character being viewed.

**Future Scenic Integrity: High, with Areas of Unacceptably Low SIO.** This landscape in the Angeles National Forest is natural-appearing, consisting of a middleground landscape that is visually intact, with dark-green vegetation covering rounded mountains and steep canyons. The proposed 500-kV transmission towers would stand out against the tan-colored grasses and dark green chaparral slopes. On this dark-green backdrop, two new lattice steel towers would be visible on NFS lands as seen from KOP 5-3. Access and spur roads would lead to each tower, and the cut- and fill-slopes would lead viewers' eyes to each tower. The new towers would attract viewers' attention, especially as the silver colors would contrast against the dark-green landscape, and would meet the definition of unacceptably low scenic integrity because they do not borrow form, line, color or texture from the landscape character. However, the majority of this landscape has high scenic integrity. But these few discordant features with their inherent industrial character – the new transmission line towers and access/spur roads– would diminish certain areas of the existing landscape to levels of unacceptably low scenic integrity. The resulting visual impact of Alternative 5 would be four levels below the High Scenic Integrity Objective. This would be a significant impact.

As discussed for the proposed Project (see Impact V-4), replacement of lattice steel towers with tubular steel poles placed by helicopter does not meet the strict definition of the High Scenic Integrity Objective. However, if the tubular poles were installed by helicopter and surface coated with colors selected to match the landscape backdrop, the resulting visual impacts would be much less than the visual effects of lattice steel towers installed with access/spur roads. Color, form, and scale contrasts would be reduced by using tubular steel poles, as compared to lattice steel towers.

For NFS land obscured by the hills to the left are mapped as Moderate SIO (Alternative 5-Mile 5.85 to 6.1), where the management direction states that the valued landscape character may “appear slightly altered,” the same visual effects would occur without mitigation.

After implementation on NFS lands of Mitigation Measures V-3c (Avoid Locating New Roads in Bedrock), V-1a (Use Tubular Steel Poles), V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes), V-4a (Construct, Operate, and Maintain with Helicopters), V-4b (Dispose of Cleared Vegetation Off-Site), and V-4c (Dispose of Excavated Materials Off-Site), B-1a (Provide Restoration/Compensation for Impacts to Native Vegetation Communities), B-1b (No Activities will occur in Riparian Conservation Areas), R-4 (Permanent Closure and Re-Vegetation of Construction Roads), the Very Low SIO would be achieved by Alternative 5 for Impact V-21. This would result in an improved visual environment as seen from Leona Valley Road and nearby residences, but would still result in a significant, unavoidable impact (**Class I**) for NFS lands (Alternative 5-Mile 5.6 to 5.85) that would be three levels below the Forest Service High Scenic Integrity Objective, achieving the Very Low SIO.

For NFS lands mapped as Moderate SIO (Alternative 5-Mile 5.85 to 6.1), Alternative 5 with implementation of Mitigation Measures Mitigation Measures V-1a (Use Tubular Steel Poles), V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes), V-4a (Construct, Operate, and Maintain with Helicopters), V-4b (Dispose of Cleared Vegetation Off-Site), and V-4c (Dispose of Excavated Materials Off-Site), would improve the scenic integrity as compared to Alternative 5 without mitigation, but would result in a significant, unavoidable impact (**Class I**) to visual resources that would be two levels below the Forest Service Moderate SIO, achieving the Very Low SIO. Therefore, from Mile 5.6 to 6.1, the achieved scenic integrity level would be Very Low, a Class I significant, unavoidable impact to visual resources without a Forest Plan amendment.

***Impact V-22: Project infrastructure would substantially degrade the visual quality of landscape views as seen from Lost Valley Ranch Road (KOP 5-4).***

Key Observation Position 5-4 was established on Lost Valley Ranch Road and Loop Equestrian Trail, looking southeast, at a point where Alternative 5 would cross over the road, approximately 0.4 miles away. Figure C.15-21A presents the existing view from KOP 5-4, and Figure C.15-21B presents a computerized visual simulation showing the new transmission line of Alternative 5. Because there is no Road Story for this Alternative, access roads and spur roads to towers have not been shown in this simulation. However, access and spur roads would increase the visual impacts beyond those shown. The introduction of industrial structures of substantial size would create a new focal point in the landscape and would lead the eye to new focal points on the skyline. Visual contrast of the large, angular, lattice steel towers and conductors would range from moderate-to-high in a landscape that is dominated by narrow valley floor and the gently sloping landforms that define Lost Valley. The structures’ silver-gray color would contrast with the setting of tan grasses and sagebrush against the dark-green vegetation. The color contrast caused by the sun’s reflection off the structures would depend on ambient lighting conditions and time of day.

At this foreground viewing distance, the structures would be dominant in scale to the landforms, vegetative patterns, and one-lane dirt road in this landscape. The new structures’ height and width would also cause increased structure prominence and a visible increase in industrial character in this rural, pastoral landscape. As a result, visual contrast would be moderate-to-high and Alternative 5 would appear to dominate the existing landscape features. The new and increased structure skylining and additional obstruction of the mountains in the middleground would result in a moderate-to-high degree of view blockage.

Referring to Table C.15-1, General Guidance for Review of Visual Impact Significance, the overall visual change would be moderate-to-high and in the context of the existing landscape's moderate-to-high visual sensitivity and the resulting visual impact would be significant.

Because there are residences in the vicinity of KOP 5-4 and people would view the transmission line structures at foreground and middleground viewing distances, and because most of these towers would be seen against the skyline from one vantage point or another, it is appropriate to use tubular steel poles in the vicinity of KOP 5-4. Implementation of Mitigation Measures V-1a (Use Tubular Steel Poles), V-1b (Construct, Operate, and Maintain with Existing Access Roads), V-1c (Dispose of Cleared Vegetation), V-1d (Dispose of Excavated Materials), V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes), and V-19 (Construct New Access and Spur Roads with Least Visual Disturbance) would reduce visual impacts of Alternative 5. This would result in an improved visual environment, as compared to Alternative 5 without mitigation, but would still result in significant, unavoidable visual impacts (**Class I**).

***Impact V-23: Project infrastructure would substantially degrade the visual quality of landscape views as seen from Upper Bouquet Canyon Road (KOP 5-5).***

Key Observation Position 5-5 was established on Upper Bouquet Canyon Road (a Second Priority County Scenic Highway), approximately 1½ miles east of the ANF boundary, looking west toward Maple Canyon. The transmission line of Alternative 5 would cross over this road approximately 1/3 miles west of this vantage point. Figure C.15-22A presents the existing view from KOP 5-5, and Figure C.15-22B presents a computerized visual simulation of Alternative 5 transmission line. Because there is no Road Story for this Alternative, access roads and spur roads to towers have not been shown in this simulation. However, access and spur roads would increase the visual impacts beyond those shown.

Two 500-kV transmission lines are visible in the middleground, the Midway-Vincent No. 1 and No. 2 lines. Because Alternative 5 would be closer to the viewer than the two existing lines, the introduction of new lattice steel towers would result in an increase in the degree of structure prominence compared to the existing transmission lines and the existing wooden distribution line which parallels the left side of the road. Visual contrast of the larger angular, lattice structures would range from moderate-to-high in a landscape that is dominated by rolling hills and Sierra Pelona Ridge to the south. Contrasts of color, line, and form would be accentuated by the vertical lines and angular forms of new lattice steel towers and horizontal conductors that would cross through commercial orchards and rural residential developments along the road.

At this foreground viewing distance, the structures would be dominant in scale to the landforms, vegetative patterns, and infrastructure of this landscape. The new structures' height and width would also cause increased structure prominence and a visible increase in industrial character in this rural landscape. As a result, visual contrast would be moderate-to-high and Alternative 5 would appear to dominate the existing landscape features. The new and increased structure skylining and additional obstruction of the middleground would result in a moderate-to-high degree of view blockage.

Referring to Table C.15-1, General Guidance for Review of Visual Impact Significance, the overall visual change would be moderate-to-high and in the context of the existing landscape's moderate-to-high visual sensitivity, the resulting visual impact would be significant.

Because there are residences in the vicinity of Alternative 5 on Bouquet Canyon Road and people would view the transmission line structures at foreground and middleground viewing distances, and because most of these towers would be seen against the skyline from one vantage point or another, it is appropriate to use tubular steel poles in the vicinity of KOP 5-5. Implementation of Mitigation Measures V-1a (Use Tubular Steel Poles), V-1b

(Construct, Operate, and Maintain with Existing Access Roads), V-1c (Dispose of Cleared Vegetation), V-1d (Dispose of Excavated Materials), V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes), and V-19 (Construct New Access and Spur Roads with Least Visual Disturbance) would reduce visual impacts of Alternative 5. This would result in an improved visual environment, as compared to Alternative 5 without mitigation, but would still result in significant, unavoidable visual impacts (Class I).

***Impact V-24: Project infrastructure would substantially degrade the visual quality of landscape views as seen from Sierra Highway at Anthony Road (KOP 5-6).***

Key Observation Position 5-6 was established on the Sierra Highway (a Second Priority County Scenic Highway) at Anthony Road, looking north to a location where Alternative 5 would descend from the crest of Sierra Pelona Ridge, travel adjacent to or across a number of single-family residences and ranchettes located along Anthony Road and Hierba Road, and cross over the Sierra Highway. Figure C.15-23A presents the existing view from KOP 5-6, and Figure C.15-23B presents a computerized visual simulation of Alternative 5 transmission line. Because there is no Road Story for this Alternative, access roads and spur roads to towers have not been shown in this simulation. However, access and spur roads would increase the visual impacts beyond those shown.

The introduction of new lattice steel towers and the foreground view would result in an increase in the degree of structure prominence compared to the existing pastoral landscape character. Visual contrasts that would be created by the large, angular, lattice structures would be high in a landscape that is dominated by equestrian ranches, flat valley floors, rolling foothills, and Sierra Pelona Ridge as a backdrop. This contrast is largely a result of the structures' vertical lines, angular, geometric forms, and silver-gray color in contrast with the setting of tan grasses and scattered evergreen trees. The color contrast caused by the sun's reflection off the structures would depend on ambient lighting conditions and time of day. In the middleground and background, access/spur roads and clearings for towers would stand out on the mountainous backdrop, and would draw viewers' attention to each tower, further increasing visual contrast and discordance. Because of the introduction of lattice steel towers and 500-kV conductors into this landscape that has no other industrial character features, Alternative 5 would create a high degree of visual contrast.

At this foreground viewing distance, the structures would be dominant in scale to the landforms, vegetative patterns, and rural-residential infrastructure of this landscape. The new structures' height and width would also cause increased structure prominence and a visible increase in industrial character in this rural landscape. As a result, visual contrast would be high and Alternative 5 would appear to dominate the existing landscape features. The new and increased structure skylining and additional obstruction of the middleground would result in a moderate-to-high degree of view blockage.

Referring to Table C.15-1, General Guidance for Review of Visual Impact Significance, the overall visual change would be high and in the context of the existing landscape's moderate-to-high visual sensitivity, the resulting visual impact would be significant.

Because there are residences in the immediate vicinity of Alternative 5 at KOP 5-6, and people would view the transmission line structures at foreground viewing distances, it is appropriate to use tubular steel poles in the vicinity of KOP 5-6 for structures that would be seen against the skyline from one vantage point or another. For skylined structures, implementation of Mitigation Measures V-1a (Use Tubular Steel Poles), V-4a (Construct, Operate, and Maintain with Helicopters), V-1c (Dispose of Cleared Vegetation), V-1d (Dispose of Excavated Materials), and V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes) would reduce visual impacts, as compared to Alternative 5 without mitigation, but would still result in significant, unavoidable visual impacts (Class I). For structures that would not be seen against the skyline and that would have a landform



backdrop, lattice steel towers are appropriate for visual resource reasons. From the crest of Sierra Pelona Ridge to the Sierra Highway, for lattice steel towers seen with a landform backdrop, implementation of Mitigation Measures V-1c (Dispose of Cleared Vegetation), V-1d (Dispose of Excavated Materials), and V-4a (Construct, Operate, and Maintain with Helicopters), would reduce visual impacts of Alternative 5. This would result in an improved visual environment, as compared to Alternative 5 without mitigation, but would still result in significant, unavoidable visual impacts (**Class I**).

***Impact V-25: Project infrastructure would substantially degrade the visual quality of landscape views as seen from Vasquez Rocks County Park (KOP 5-7).***

Key Observation Position 5-7 was established at the Vasquez Rocks County Park just west of the large gravel parking lot that is situated in the southeast corner of the park, looking east. Alternative 5 would cross this landscape from left to right (north to south) approximately 1 mile east of this vantage point. Figure C.15-24A presents the existing view from KOP 5-7, and Figure C.15-24B presents a computerized visual simulation of the Alternative 5 transmission line. Because there is no Road Story for this Alternative, access roads and spur roads to towers have not been shown in this simulation. However, access and spur roads would increase the visual impacts beyond those shown.

From this vantage point, Alternative 5 would cross the dark-green mountains in the middleground, and would distract from the rock formations and rural residential buildings in this view. Three of the four towers visible from KOP 5-7 would protrude above the skyline, creating visual blockage and skyline interruption. The introduction of industrial structures of substantial size would create new focal points in the landscape and would lead the eye to new focal points on the skyline. Visual contrast of the larger angular, lattice structures would be the same as described above for other KOPs. Access and spur roads would be constructed in the dark-green landscape, and bare soils of cut- and fill-slopes would be very visually evident. These contrasts would range from moderate-to-high in a landscape that is dominated by horizon and rounded landforms of the dark-green landscape backdrop. The structures' silver-gray color would contrast with the setting of darker green vegetation. The color contrast caused by the sun's reflection off the structures would depend on ambient lighting conditions and time of day. Access roads, spur roads, and clearings for towers would stand out in the dark green vegetation, and would draw viewers' eyes to each tower, further increasing visual contrast and discordance.

Referring to Table C.15-1 General Guidance for Review of Visual Impact Significance, the overall visual change would be high and in the context of the existing landscape's high visual sensitivity, the resulting visual impact would be significant.

Because there are residences in the immediate vicinity of Alternative 5 at KOP 5-7, and people would view the transmission line structures at foreground viewing distances against the skyline, it is appropriate to use tubular steel poles in the vicinity of KOP 5-7 for structures that would be seen against the skyline from one vantage point or another. For structures seen from KOP 5-7, implementation of Mitigation Measures V-1a (Use Tubular Steel Poles), V-4a (Construct, Operate, and Maintain with Helicopters), V-1c (Dispose of Cleared Vegetation), V-1d (Dispose of Excavated Materials), and V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes) would reduce visual impacts of Alternative 5. This would result in an improved visual environment, as compared to Alternative 5 without mitigation, but would still result in significant, unavoidable visual impacts (**Class I**).

***Impact V-26: Project infrastructure would substantially degrade the visual quality of landscape views as seen from Escondido Canyon Road at Antelope Valley Freeway (KOP 5-8).***

Key Observation Position 5-8 was established on Escondido Canyon Road near the on-ramp to the Antelope Valley Freeway, looking southwest toward undeveloped private lands and public lands administered by the Angeles National Forest and BLM. In this view, all public lands that would be crossed by Alternative 5 are administered by the Forest Service. This view is looking toward the crossing of Alternative 5 over the Antelope Valley Freeway (State Highway 14), approximately 0.8 miles away. Figure C.15-25A depicts the existing view from KOP 5-8, and Figure C.15-25B presents a computerized visual simulation of the Alternative 5 transmission line. Because there is no Road Story for this Alternative, access roads and spur roads to towers have not been shown in this simulation. However, access and spur roads would increase the visual impacts beyond those shown.

From this vantage point, Alternative 5 would enter the scene from the northwest (right) and cross the dark-green mountains in the middleground to the southeast (left). The tower on the right is visible on the skyline from this vantage point and would be visible on the skyline from other locations on the freeway. The tower on the left would only be seen against a dark landscape backdrop. Visual contrast of the large angular, lattice structures would be the same as described above for other KOPs, with contrasts of form, line, color, texture, and scale. Access and spur roads would be constructed in the dark-green landscape, and bare soils of cut- and fill-slopes would be very visually evident. These contrasts would be high in a landscape that is undisturbed except for the freeway and Escondido Canyon Road. Access/spur roads and clearings for towers would stand out in the dark green vegetation, and would draw viewers' eyes to each tower, further increasing visual contrast and discordance.

**Private Lands.** Following is a discussion of private lands visible from KOP 5-8, using the Visual Sensitivity/Visual Change (VS/VC) method.

Referring to Table C.15-1 General Guidance for Review of Visual Impact Significance, the overall visual change would be high and in the context of the existing landscape's moderate-to-high visual sensitivity, the resulting visual impact would be significant.

Because two of these three structures would be seen against the skyline and at middleground viewing distances, it is appropriate to use tubular steel poles in the vicinity of KOP 5-8 for structures that would be seen against the skyline from one vantage point or another. For skylined structures seen from KOP 5-8 and the Antelope Freeway, implementation of Mitigation Measures V-1a (Use Tubular Steel Poles), V-4a (Construct, Operate, and Maintain with Helicopters), V-1c (Dispose of Cleared Vegetation), V-1d (Dispose of Excavated Materials), and V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes) would reduce visual impacts, as compared to Alternative 5 without mitigation, but would still result in significant, unavoidable visual impacts (**Class I**). For structures that would not be seen against the skyline and that would have a landform backdrop, such as the tower in the left of this photograph, lattice steel towers are appropriate for visual resource reasons. For lattice steel towers seen with a landform backdrop in Section 31, T5N, R13W, implementation of Mitigation Measures V-4a (Construct, Operate, and Maintain with Helicopters), V-4b (Dispose of Cleared Vegetation Off Site), V-4c (Dispose of Excavated Materials Off Site), and V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes) would reduce visual impacts of Alternative 5. This would result in an improved visual environment, as compared to Alternative 5 without mitigation, but would still result in significant, unavoidable visual impacts (**Class I**).

**NFS Lands.** Following is a discussion of NFS lands visible from KOP 5-8, using the Forest Service Scenery Management System (SMS).

**Scenic Integrity Objectives for NFS Lands.** NFS lands in this view are located in the NW quarter of Section 31, T5N, R13W, and appear as a canyon beyond the freeway in this view. This landscape is within the Soledad Front Country Place and it functions as a scenic backdrop and transitional landscape between the rapidly urbanizing Mojave Desert and Los Angeles Basin. The Pacific Crest National Scenic Trail is barely visible in the center of this photograph as a faint, horizontal line proceeding through the saddle in the middleground (see Figure C.15-25B and Figure B.4-14 – Alternative 5 Alignment). Management direction in the Forest Plan indicates an intention to acquire additional private land in this vicinity for management of the Pacific Crest National Scenic Trail. In the 2005 Forest Plan, this plot of land is not mapped for SIOs, because this is a newly acquired tract. Nearby NFS lands in this vicinity are mapped as High SIO, where the management direction states that human activities should not be visually evident. Human-caused deviations may be present but must repeat the form, line, color, texture, and pattern common to the natural landscape character so completely and at such a scale that they are not evident. The Forest Service manages these newly acquired lands in Section 31, T5N, R13W with the same High SIO management direction.

The 500-kV towers, conductors, and access roads would not borrow form, line, color, texture, pattern or scale common to the natural landscape character. The predicted scenic integrity level for the 500-kV transmission line meets the definition of Unacceptably Low Scenic Integrity. Under Alternative 5, the additional transmission line would adversely affect scenic vistas of the PCT and would substantially degrade the existing natural landscape character and scenic quality of the trail, creating a landscape that would be four levels below the High Scenic Integrity Objective. This would be a significant visual impact.

These visual impacts can be completely avoided only by relocating the proposed transmission line to a different, less visible location that completely avoids public lands.

After implementation of Mitigation Measures V-3b (Remove, Rehabilitate, and Re-Vegetate Crane Pads), and V-3c (Avoid Locating New Roads in Bedrock), V-1a (Use Tubular Steel Poles), V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes), V-4a (Construct, Operate, and Maintain with Helicopters), V-4b (Dispose of Cleared Vegetation Off Site), and V-4c (Dispose of Excavated Materials Off Site), B-1a (Provide Restoration/Compensation for Impacts to Native Vegetation Communities), B-1b (No Activities will occur in Riparian Conservation Areas), R-4 (Permanent Closure and Re-Vegetation of Construction Roads), the Very Low SIO would be achieved by the proposed Project. As compared to the proposed Project without mitigation, this would result in an improved visual environment as seen from the PCT, but would still result in a significant, unavoidable impact (**Class I**) that would not meet the High Scenic Integrity Objective, but would be three levels lower, achieving the Very Low SIO.

***Impact V-27: Project infrastructure would substantially degrade the visual quality of landscape views as seen from the Pacific Crest National Scenic Trail (KOP 5-9).***

Key Observation Position 5-9 was established on the Pacific Crest Trail on BLM-administered lands at a point where the PCT crosses under the existing transmission lines in the Vincent-Pardee corridor, looking northwest toward BLM-administered and NFS lands. Figure C.15-26A presents the existing view from KOP 5-9, and Figure C.15-26B presents a computerized visual simulation of the Alternative 5 transmission line. Because there is no Road Story for this Alternative, access roads and spur roads to towers have not been shown in this simulation. However, access and spur roads would increase the visual impacts beyond those shown.

Alternative 5 would enter this landscape view on top of the right skyline peak, which is approximately 1 mile away and is newly acquired NFS land in the SE ¼ of Section 31, T5N, R13W. The transmission line would follow a midslope ridge and onto BLM administered land (toward the center of this photograph), and then it would connect to the existing corridor behind the hillside at the left side of this photograph. Out of view of this KOP, existing 500-kV single-circuit towers would be replaced with 500-kV double-circuit towers. These new, taller towers would be visible from the PCT at locations further north than this location.

Landscapes seen from this vantage point encompass both NFS and BLM-administered lands, and therefore, two methods are used to analyze visual impacts – the FS-SMS on NFS lands and the BLM-VRM System on BLM-administered lands.

**NFS Lands.** Following is a discussion of NFS lands visible from KOP 5-9, using the Forest Service Scenery Management System (SMS).

**Scenic Integrity Objectives for NFS Lands.** NFS lands in this view are located in the SE 1/4 of Section 31, T5N, R13W. The tower on the right is visible on the skyline from this vantage point and would be visible on the skyline from other locations on the PCT and the Antelope Freeway. Towers to the left on the intermediate ridge appear to have a landform backdrop for this vantage point, but would also be seen against the skyline as PCT users travel northbound. Visual contrast of the large angular, lattice steel towers would be the same as described above for other KOPs, except that the duration of view is much greater for hikers and equestrians on the PCT. Access roads and spur roads would be constructed in the grass-covered landscape, and bare soils of cut- and fill-slopes would be very visually evident, similar to the existing spur roads in this photograph. These visual contrasts would be high in a landscape that is undisturbed except for the PCT and the Vincent-Pardee transmission line corridor. Access/spur roads and clearings for towers would stand out in this landscape, which has no vegetative screening, and would draw viewers' eyes to each tower, further increasing visual contrast and discordance.

The 500-kV towers, conductors, and access roads would not borrow form, line, color, texture, pattern or scale common to the natural landscape character. The predicted scenic integrity level for the 500-kV transmission line meets the definition of Unacceptably Low Scenic Integrity. Under Alternative 5, the additional transmission line would adversely affect scenic vistas of the PCT and would substantially degrade the existing natural landscape character and scenic quality of the trail, creating a landscape that would be four levels below the High Scenic Integrity Objective. This would be a significant visual impact.

These visual impacts can be completely avoided only by relocating the proposed transmission line to a different, less visible location that completely avoids public lands.

After implementation of Mitigation Measures V-3b (Remove, Rehabilitate, and Re-Vegetate Crane Pads), and V-3c (Avoid Locating New Roads in Bedrock), V-1a (Use Tubular Steel Poles), V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes), V-4a (Construct, Operate, and Maintain with Helicopters), V-4b (Dispose of Cleared Vegetation Off-Site), and V-4c (Dispose of Excavated Materials Off-Site), B-1a (Provide Restoration/Compensation for Impacts to Native Vegetation Communities), B-1b (No Activities will occur in Riparian Conservation Areas), R-4 (Permanent Closure and Re-Vegetation of Construction Roads), the Very Low SIO would be achieved by the proposed Project. As compared to the proposed Project without mitigation, this would result in an improved visual environment as seen from the PCT, but would still result in a significant, unavoidable impact (**Class I**) that would not meet the High Scenic Integrity Objective, but would be three levels lower, achieving the Very Low SIO.

**BLM-VRM System.** For BLM-administered lands, the degree of contrast from the characteristic landscape determines which VRM class would be achieved by Alternative 5. Contrast rating is completed by determining the degree of contrast (i.e., strong, moderate, weak, or none) for each visual resource element (form, line, color, and texture). Following are the ratings for the degree of contrast for each visual element, as seen from KOP 5-9, using the contrast rating system from Table C.15-17.

<b>Table C.15-17. BLM VRM Contrast Rating for BLM-Lands at KOP 5-9</b>		
<b>Degree of Contrast</b>	<b>Natural Visual Element</b>	<b>Transmission Line Visual Element</b>
Form – Strong Contrast	Natural landforms are rounded and horizontal to moderately sloping.	Existing transmission towers have strong geometric forms that attract attention and do not borrow naturally established forms of the characteristic landscape. New towers of Alternative 5 would increase these strong form contrasts.
Line – Strong Contrast	Natural lines are predominantly horizontal at the skyline and gently sloping on intermediate ridges.	Existing conductors have strong horizontal lines that attract attention and existing access/spur roads create strong horizontal and diagonal lines and shadows. Existing lattice towers have strong vertical and angular lines that attract attention and do not borrow from naturally established lines in the landscape. New towers, conductors, and access/spur roads of Alternative 5 would increase these strong line contrasts.
Color – Strong Contrast	Natural colors are tans and browns in summer and fall, and greens and tans in winter and spring.	Existing transmission towers have gray concrete footings and dull- to shiny-gray steel structures. Existing conductors are dull-to-shiny-gray and create moderate color contrasts. Existing access/spur roads create strong shadows that create color contrasts. New towers, footings, conductors, and access/spur roads of Alternative 5 would increase these color contrasts to a strong level.
Texture – Moderate-to-Strong Contrast	Natural textures are smooth textured grassy hillsides and fine textured shrubs in the immediate foreground.	Existing transmission towers have smooth concrete footings, smooth textured lattice steel towers, and smooth textured conductors. New towers, footings, and conductors of Alternative 5 would increase the number of structures with these smooth textures and create moderate-to-strong texture contrasts.

**Determining Whether BLM-VRM Objectives Are Met.** Comparing the contrast ratings with the objectives for the VRM Class, it is apparent that Alternative 5 would result in mostly strong visual contrasts. The BLM Handbook H-8431-1 for VRM notes that, “For comparative purposes, the four levels of contrast (i.e., none, weak, moderate, and strong) roughly correspond with classes I, II, III, and IV, respectively. This means that a “strong” contrast rating may be acceptable in a class IV area, but probably would not meet the VRM objectives for a class III area.” Therefore, Alternative 5 would result in major modification (class IV rating) of the natural landscape character in this VRM class III area. The existing character of the landscape would not be partially retained, and the new transmission line would attract major attention and dominate the view.

Referring to Table C.15-17, BLM VRM Contrast Rating System and Definitions, Alternative 5 would meet the class IV VRM objective, not the class III VRM objective, resulting in a visual impact that would be significant.

Because access/spur roads would create strong contrasts, and because two of these four structures would be seen against the skyline from KOP 5-9 and all of the structures would be seen against the skyline as people move along the PCT, it is appropriate to use tubular steel poles and helicopter construction in the vicinity of KOP 5-9. For skylined structures, implementation of Mitigation Measures V-1a (Use Tubular Steel Poles), V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes), V-4a (Construct, Operate, and Maintain with Helicopters), V-4b (Dispose of Cleared Vegetation Off-Site), V-4c (Dispose of Excavated Materials Off-Site), B-1a (Provide Restoration/Compensation for Impacts to Native Vegetation Communities), and B-1b (No Activities will occur in Riparian Conservation Areas) would result in an improved visual environment, as compared to Alternative 5 without mitigation, but would still result in significant, unavoidable (**Class I**) visual impacts.

***Impact V-28: Project infrastructure would substantially degrade the visual quality of landscape views as seen from Antelope Valley Freeway Eastbound (KOP 5-10).***

Key Observation Position 5-10 was established at the Agua Dulce On-Ramp to the eastbound Antelope Valley Freeway, looking east-southeast toward undeveloped private lands. Figure C.15-27A presents the existing view from KOP 5-10, and Figure C.15-27B presents a computerized visual simulation depicting the replacement of the existing single-circuit 500-kV towers of the Pardee-Vincent transmission line with double-circuit 500-kV towers of Alternative 5. The other two transmission lines (Pardee-Vincent No. 1 220-kV line in the center, and Pardee-Eagle Rock 220-kV line on the right) would remain in their current condition and position.

This view is representative of many views along the Antelope Valley Freeway that look across natural-appearing, open-space hillsides to undeveloped mountains in the background. The new double-circuit 500-kV towers would be taller and slightly narrower (ranging from 175 to 220 feet tall and 75 feet wide) than the existing 500-kV single-circuit towers (ranging from 113 to 178 feet tall and 96 feet wide). Visual simulations for KOPs 5-10 through 5-13 used a consistent height of 200 feet for all double-circuit towers. The increased height of the structures would result in several noticeable adverse visual effects. Additional structure height would cause additional structure skylining (extending above the horizon line) and a further elevating of the conductors above the background horizon line, potentially increasing their visibility when viewed from the freeway (depending on light conditions and time of day). The increased structure height would also cause increased structure prominence, and a change in scale of the towers in proportion to the scale of this natural-appearing landscape. Increased tower heights would block the views of the background sky and skyline ridges. Travelers on the Antelope Freeway would likely consider any increase in visible industrial character, transmission line structural prominence, or view blockage of the background sky and ridges an adverse visual change. The resulting visual contrast would be moderate-to-high. Alternative 5 would appear to dominate existing landscape features and the skyline, and would create additional industrial character alongside the other two transmission lines.

Referring to Table C.15-1, General Guidance for Review of Visual Impact Significance, the overall visual change would be moderate-to-high and in the context of the existing landscape's moderate visual sensitivity, the resulting visual impact would be adverse and significant.

Because these new double-circuit towers would be viewed against the sky, and people would view the transmission line structures at foreground and middleground viewing distances, it is appropriate to use double-circuit tubular steel poles in the vicinity of KOP 5-10. Implementation of Mitigation Measures V-1a (Use Tubular Steel Poles), V-1b (Construct, Operate, and Maintain with Existing Access Roads), V-1c (Dispose of Cleared Vegetation), V-1d (Dispose of Excavated Materials), and V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes) would reduce visual impacts of Alternative 5. This would result in an improved visual environment, as compared to Alternative 5 without mitigation, but would still result in significant, unavoidable visual impacts (Class I) due to the increased structure prominence, skyline blockage, and industrial character.

***Impact V-29: Project infrastructure would substantially degrade the visual quality of landscape views as seen from Antelope Valley Freeway Westbound at Agua Dulce Interchange (KOP 5-11).***

Key Observation Position 5-11 was established at the Agua Dulce On-Ramp to the westbound Antelope Valley Freeway, looking west to a location where all three transmission lines cross the freeway. Figure C.15-28A presents the existing view from KOP 5-11, and Figure C.15-28B presents a computerized visual simulation depicting the replacement of the existing single-circuit 500-kV towers of the Pardee-Vincent transmission line

(on the right) with double-circuit 500-kV towers of Alternative 5. The other two transmission lines (Pardee-Vincent No. 1 220-kV line in the center, and Pardee-Eagle Rock 220-kV line on the left) would remain in their current position.

This view was chosen because it shows a critical vantage point where the new towers of Alternative 5 would be seen against the skyline directly ahead of freeway users. The new double-circuit 500-kV towers would be taller and slightly narrower than the existing 500-kV single-circuit towers, and the visual contrasts would be identical to those described above for KOP 5-10. Travelers on the Antelope Freeway would likely consider any increase in visible industrial character, transmission line structural prominence, or view blockage of the background sky and ridges an adverse visual change. The resulting visual contrast would be moderate-to-high. Alternative 5 would appear to dominate existing landscape features and the skyline, and would create additional industrial character alongside the other two transmission lines and against the skyline in a focal point location.

Referring to Table C.15-1 General Guidance for Review of Visual Impact Significance, the overall visual change would be moderate-to-high and in the context of the existing landscape's moderate visual sensitivity, the resulting visual impact would be adverse and significant.

Because these new double-circuit towers would be viewed against the sky, and people would view the transmission line structures at the end of a freeway tangent in middleground, and then foreground viewing distances, it is appropriate to use double-circuit tubular steel poles in the vicinity of KOP 5-11. Implementation of Mitigation Measures V-1a (Use Tubular Steel Poles), V-1b (Construct, Operate, and Maintain with Existing Access Roads), V-1c (Dispose of Cleared Vegetation), V-1d (Dispose of Excavated Materials), and V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes) would reduce visual impacts of Alternative 5. This would result in an improved visual environment, as compared to Alternative 5 without mitigation, but would still result in significant, unavoidable visual impacts (**Class I**) due to the increased structure prominence, skyline blockage, and industrial character.

***Impact V-30: Project infrastructure would substantially degrade the visual quality of landscape views as seen from Lily of the Valley Mobile Home Village (KOP 5-12).***

Key Observation Position 5-12 was established on Lower Bouquet Canyon Road, looking northwest toward the Vincent-Pardee transmission line corridor which is situated on the north side of the Lily of the Valley Mobile Home Village. Figure C.15-29A presents the existing view from KOP 5-12, and Figure C.15-29B presents a computerized visual simulation depicting the replacement of the existing single-circuit 500-kV towers of the Pardee-Vincent transmission line (on the right) with double-circuit 500-kV towers of Alternative 5. The other two transmission lines (Pardee-Vincent No. 1 220-kV line in the center, and Pardee-Eagle Rock 220-kV line on the left) would remain in their current condition and position.

This view is representative of many views along Lower Bouquet Canyon Road, but the only view of the transmission line corridor from a mobile home village. Other views to the corridor from this portion of Lower Bouquet Canyon Road look across rural-residential and equestrian-oriented landscapes. The new double-circuit 500-kV towers would be taller and slightly narrower than the existing 500-kV single-circuit towers, and double-circuit towers are simulated at 200 feet tall. The increased height of the structures would result in several noticeable adverse visual effects. Additional structure height would cause additional structure skylining and a further elevating of the conductors above the background horizon line, increasing their visibility when viewed from these residences. The increased structure height would also cause increased structure prominence, and a change in scale of the towers in proportion to the scale of this mobile home village. Increased tower heights would block the views of the background sky and skyline ridges. Residents of this mobile home village would likely consider any increase in visible industrial character, transmission line structural prominence, or view

blockage of the background sky and ridges an adverse visual change. The resulting visual contrast would be moderate-to-high. Alternative 5 would appear to dominate existing landscape features and the skyline, especially from homes closer to the transmission line, and would create additional industrial character alongside the other two transmission lines.

Referring to Table C.15-1, General Guidance for Review of Visual Impact Significance, the overall visual change would be moderate-to-high and in the context of the existing landscape's moderate visual sensitivity, the resulting visual impact would be adverse and significant.

Because these new double-circuit towers would be viewed against the sky, and people would view the transmission line structures for long durations in immediate foreground viewing distances, it is appropriate to use double-circuit tubular steel poles in the vicinity of KOP 5-12. Implementation of Mitigation Measures V-1a (Use Tubular Steel Poles), V-1b (Construct, Operate, and Maintain with Existing Access Roads), V-1c (Dispose of Cleared Vegetation), V-1d (Dispose of Excavated Materials), and V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes) would reduce visual impacts of Alternative 5. This would result in an improved visual environment, as compared to Alternative 5 without mitigation, but would still result in significant, unavoidable visual impacts (**Class I**) due to the increased structure prominence, skyline blockage, and industrial character.

***Impact V-31: Project infrastructure would substantially degrade the visual quality of landscape views as seen from Shadow Valley Lane (KOP 5-13).***

Key Observation Position 5-13 was established on Shadow Valley Lane, looking northwest to the existing Vincent-Pardee transmission line corridor. Figure C.15-30A presents the existing view from KOP 5-13, and Figure C.15-30B presents a computerized visual simulation depicting the replacement of the existing single-circuit 500-kV towers of the Pardee-Vincent transmission line (on the right) with double-circuit 500-kV towers of Alternative 5. The other two transmission lines (Pardee-Vincent No. 1 220-kV line in the center, and Pardee-Eagle Rock 220-kV line on the left) would remain in their current condition and position. Because there is no Road Story for this Alternative, access roads and spur roads to towers have not been shown in this simulation. However, access and spur roads would increase the visual impacts beyond those shown.

This view is representative of many views from residential streets, sidewalks, and homes within the suburban neighborhoods of the Santa Clarita vicinity. The new double-circuit 500-kV towers would be taller and slightly narrower (ranging from 175 to 220 feet tall and 75 feet wide) than the existing 500-kV single-circuit towers (ranging from 113 to 178 feet tall and 96 feet wide). These double-circuit towers are simulated at 200 feet tall. The increased height of the structures would result in several noticeable adverse visual effects. Additional structure height would cause additional structure skylining and a further elevating of the conductors above the background horizon line, increasing their visibility when viewed from these residences. The increased structure height would also cause increased structure prominence, and a change in scale of the towers in proportion to the scale of this residential neighborhood. Increased tower heights would block the views of the background sky and skyline ridges. Residents of this area would likely consider any increase in visible industrial character, transmission line structural prominence, or view blockage of the background sky and ridges an adverse visual change. The resulting visual contrast would be moderate-to-high. Alternative 5 would appear to dominate existing landscape features and the skyline, especially from homes closer to the transmission line, and would create additional industrial character alongside the other two transmission lines.

Referring to Table C.15-1, General Guidance for Review of Visual Impact Significance, the overall visual change would be moderate-to-high and in the context of the existing landscape's high visual sensitivity, the resulting visual impact would be significant.



Because these new double-circuit towers would be viewed against the sky, and people would view the transmission line structures for long durations in immediate foreground viewing distances, it is appropriate to use double-circuit tubular steel poles in the vicinity of KOP 5-13. Implementation of Mitigation Measures V-1a (Use Tubular Steel Poles), V-1b (Construct, Operate, and Maintain with Existing Access Roads), V-1c (Dispose of Cleared Vegetation), V-1d (Dispose of Excavated Materials), and V-1e (Treat Surfaces with Appropriate Colors, Textures, and Finishes) would reduce visual impacts of Alternative 5. This would result in an improved visual environment, as compared to Alternative 5 without mitigation, but would still result in significant, unavoidable visual impacts (**Class I**) due to the increased structure prominence, skyline blockage, and industrial character.

Alternative 5 would join the proposed Project at Mile 20.3 and proceed to the Pardee Substation at Mile 25.6. With implementation of mitigation measures (as described earlier for the proposed Project in the South Area), visual impacts at proposed Project KOPs 10, 11, 12, 13 and 14 resulting from implementation of Alternative 5 would be the same as the proposed Project (Impacts V-10, V-11, V-12, V-13, and V-14, **Class I**) due to the increased structure prominence, skyline blockage, and industrial character, as described elsewhere.

Table C.15-18 displays locations where Mitigation Measure V-4a (Construct, Operate, and Maintain with Helicopters) would be applied to Alternative 5, by estimates made from aerial photos, topographic maps, and correlation to the PEA Segment 1, Volume 2 (The Road Story). Approximate miles are given to generally orient the reader to areas of Alternative 5 where helicopter use would minimize visual impacts. Miles and number of towers are approximate, based on estimates derived from preliminary design concepts and are subject to change as the design is finalized.

<b>Table C.15-18. Alternative 5 Locations to Apply Mitigation Measure V-4a: Construct, Operate, and Maintain with Helicopters</b>					
<b>Use Helicopter Only</b>			<b>OK to Use Access Roads</b>		
From Mile	To Mile	Number of Structures	From Mile	To Mile	Number of Structures
			0.0	5.6	28
5.6	6.1	4*	6.1	10.5	21
10.5	17.1	29			
17.1	17.5	2*			
17.5	17.9	2			
17.9	18.5	3*			
18.5	18.9	2	18.9	36.8	82
Total Structures		42	Total Structures		131

\* Indicates structures constructed, operated, and maintained with helicopters on NFS lands (preliminary, subject to design finalization).

Note: These are approximate numbers and miles based on estimates derived from preliminary design concepts. Numbers and miles are subject to change as the design is finalized.

### **Construction Activity Impacts**

Under Alternative 5, short-term visual impacts during construction (Impact V-15) would be similar to the proposed Project, and would be significant and unavoidable (**Class I**). There are no mitigation measures available to make vehicles, heavy equipment, helicopters, and other Project components less-visible during construction. Long-term visual impacts of construction activities would be reduced to a less-than-significant level (**Class II**) with the implementation of Mitigation Measures V-15a (Storage and Site Cleanup), V-15b (Recontouring and Restoration), and V-15c (Revegetation).

### **Conflict with Policies and Objectives**

Alternative 5 would not conflict with existing visual quality policies and objectives contained in Forest Service, BLM, and local plans (Impact V-16) after amendment of the Angeles National Forest Land Management Plan

(Forest Plan). As with the proposed Project and all alternatives, Alternative 5 includes an amendment to the Forest Plan that would modify the SIOs along the proposed route on NFS lands to ensure consistency between the Forest Plan and this Alternative. Table C.15-19 provides an analysis of Alternative 5 and its consistency with applicable plans and policies discussed in Section C.15.2. As noted in the table, even with implementation of APM VIS-1 and VIS-2, Alternative 5 would be inconsistent with existing plans, objectives, and policies for visual resources, and therefore, additional mitigation measures were developed (V-1a through V-1d, V-4a through V-4c, V-9, V-15, V-16, V-19). There are occasions when a reduction of tower height or the installation of vegetative screening (in close proximity to an observation position) would accomplish some level of visual impact reduction. However, for a transmission line of this scale, with 113- to 178-foot tall and 96-foot wide single-circuit towers in a new utility corridor and 175- to 220-foot tall and 75-foot wide double-circuit towers in an existing utility corridor, there is relatively little opportunity to mitigate visual impacts to a level of insignificance. The only feasible measures to mitigate visual impacts below a level of significance are as follows: (1) relocation of aboveground structures to areas where topographic features would provide complete screening of these large, industrial structures; or (2) construction of underground structures in areas with level ground where no topographic features are present to provide screening.

Alternative 5 would have the same conflicts with applicable plans and policies as the proposed Project, as shown in Table C.15-5 above, except for the following. Table C.15-19 shows the differences between the proposed Project and Alternative 5, specifically at the Veluzat Motion Picture Ranch and on Forest Service and BLM administered lands near the PCT. As noted in that table, even with implementation of APM VIS-1 and VIS-2, Alternative 5 would be inconsistent with many existing plans, objectives, and policies for visual resources.

Implementation of Mitigation Measure V-16a (Forest Plan Amendment), AV-16b (Local Agency Approvals), and V-16c (Transmission Line Siting Study within the ANF) would reduce visual impacts associated with Impact V-16 to less-than-significant, but adverse (**Class III**) levels.

<b>Table C.15-19. Consistency with Applicable Visual Resource Plans and Policies</b>			
<b>Agency Regulating Land Use</b>	<b>Regulation</b>	<b>Is Alternative 5 Consistent?</b>	<b>Method of Consistency</b>
USDA Forest Service, Pacific Southwest Region, Angeles National Forest	Scenery Management System. Design management activities to meet the Scenic Integrity Objectives (SIOs) shown on the Scenic Integrity Objectives Map. Would Alternative 5 meet High SIO from Alternative 5-Mile 5.6 to 5.85?	Yes (Conditional upon approval of Forest Plan amendment)	Alternative 5 would be visually evident from Mile 5.6 to 5.85, as seen from KOP 5-3, looking onto NFS lands with a High SIO, and where, after implementation of mitigation measures, the Very Low SIO would be achieved by Alternative 5. Therefore, to ensure consistency with management direction in the governing 2005 Forest Land Management Plan (Forest Plan), Alternative 5 would require several amendments to the Forest Plan. With an amendment to the Forest Plan to change Scenic Integrity Objectives along the proposed utility corridor to "Very Low SIO" as described above, Alternative 5 would be consistent with the Forest Plan policies and regulations.
	Scenery Management System. Would Alternative 5 meet Moderate Scenic Integrity Quality Objective from Alternative 5-Mile 5.85 to 6.1?	Yes (Conditional upon approval of Forest Plan amendment)	In the Moderate SIO area from Alternative 5-Mile 5.85 to 6.1, Alternative 5 would meet the Very Low SIO after implementation of mitigation measures. Therefore, to ensure consistency with management direction in the governing 2005 Forest Land Management Plan (Forest Plan), Alternative 5 would require several amendments to the Forest Plan. With an amendment to the Forest Plan to change Scenic Integrity Objectives along the proposed utility corridor to "Very Low SIO" as described above, Alternative 5 would be consistent with the Forest Plan policies and regulations.

<b>Table C.15-19. Consistency with Applicable Visual Resource Plans and Policies</b>			
<b>Agency Regulating Land Use</b>	<b>Regulation</b>	<b>Is Alternative 5 Consistent?</b>	<b>Method of Consistency</b>
	Scenery Management System. Would Alternative 5 meet High Scenic Integrity Quality Objective from Alternative 5-Mile 17.1 to 17.4 and 17.7 to 18.4	Yes (Conditional upon approval of Forest Plan amendment)	Alternative 5 would be very visually evident from KOPs 5-8 and 5-9, looking onto NFS lands with a High SIO, and where the Very Low SIO would be achieved by Alternative 5 after implementation of mitigation measures. Therefore, to ensure consistency with management direction in the governing 2005 Forest Land Management Plan (Forest Plan), Alternative 2 would require several amendments to the Forest Plan. With an amendment to the Forest Plan to change Scenic Integrity Objectives along the existing or proposed utility corridor to "Very Low SIO" as described above, Alternative 2 would be consistent with the Forest Plan policies and regulations.
USDI Bureau of Land Management, California Desert District	Federal Land Policy and Management Act of 1976, Public lands be managed in a manner that will protect the quality of the scenic values.	Yes (Conditional upon approval of by BLM)	The visual effects of the transmission line under Alternative 5 would diminish the scenic values of landscapes in the vicinity of the PCT on BLM lands, and therefore, to ensure consistency with management direction in the governing 2005 West Mojave Plan (BLM Plan), Alternative 5 would require an amendment to the BLM Plan. With an amendment to change VRM Classes along the existing or proposed utility corridor to "VRM Class IV" as described above, Alternative 5 would be consistent with the BLM West Mojave Plan policies and regulations.
	Approved VRM objectives (classes) provide the visual management standards for the design and development of future projects and for rehabilitation of existing projects. Would Alternative 5 meet VRM Class III?	Yes (Conditional upon approval by BLM)	Alternative 5 would achieve VRM Class IV, an underachievement of one level of VRM Classes, and would be seen in the foreground of the Pacific Crest Trail on public lands administered by the BLM. Therefore, to ensure consistency with management direction in the governing 2005 West Mojave Plan (BLM Plan), Alternative 5 would require an amendment to the BLM Plan. With an amendment to change VRM Classes along the existing or proposed utility corridor to "VRM Class IV" as described above, Alternative 5 would be consistent with the BLM West Mojave Plan policies and regulations.
Los Angeles County	Relationship of Urban and Natural Environments, Policy 2.1. Carefully integrate physical development in rural areas into the natural environment setting.	Yes	Alternative 5 would be located south of and away from the Veluzat Motion Picture Ranch in Haskell Canyon.
City of Palmdale General Plan (Amended January 1993) Environmental Resources Element, Part G, Scenic Roadways	The City shall protect scenic highways in the Planning Area, including Sierra Highway (south of Avenue S), Elizabeth Lake Road, and Bouquet Canyon Road.	Yes	Alternative 5 is aligned such that it avoids these scenic highways within the City Limits of the City of Palmdale.
	Height limits to preserve view corridors, maintenance of roadside landscaping, limits on grading activities along highways, and the prohibition of overhead utility rights of way along scenic highways.	Yes	The Project under Alternative 5 would cross at an angle those roadways mentioned by the City of Palmdale but would not follow alongside these roadways. Structures would be set back from roadways for safety reasons, therefore, roadside landscaping and grading activities would not create visual impacts.

## New Source of Substantial Light or Glare

Alternative 5 would create a new source of substantial glare that would adversely affect daytime views in the area (Impact V-17). Alternative 5 would have the same visual glare effects as the proposed Project, but in different locations (see Figure B.4-14 Alternative 5 Alignment). Alternative 5 would have no new sources of light that would affect nighttime views. Implementation of Mitigation Measures V-1e (Treat Surfaces with Appropriate Colors, Finishes, and Textures) and V-17a (Use Only Non-Specular and Non-Reflective Conductors and Insulators) would lead to a reduction in overall visual contrast such that the visual effects of Alternative 5 would be less than significant, but adverse (**Class III**).

## Summary of Impacts for Alternative 5

From the following vantage points, Alternative 5 would have beneficial visual effects (**Class IV**), as compared to the existing conditions or the proposed Project with mitigation measures, at the following locations and landscapes: 110<sup>th</sup> Street at Johnson Road (KOP 1); Avenue K (KOP 2); Lake Elizabeth Road (KOP 3); the Pacific Crest National Scenic Trail (PCT) (KOP 4); San Francisquito Canyon Road (KOP 5), Bouquet Reservoir (KOP 6), Bouquet Canyon Road (KOP 7), and Vasquez Canyon Road (KOP 8). (See Figure C.15-2, Key Observation Positions Map).

Alternative 5 would result in no change from existing conditions, and have beneficial visual effects (**Class IV**) as compared to the proposed Project, at the following location: Veluzat Motion Picture Ranch (KOP 9 – Impact V-9) due to the avoidance of the site.

Significant, unavoidable visual impacts (**Class I**) would occur under Alternative 5 with mitigation measures at the following locations: Avenue K (KOP 5-1 – Impact V-19); Lake Elizabeth Road (KOP 5-2 – Impact V-20); Leona Valley Road (KOP 5-3 – Impact V-21); Lost Valley Ranch Road (KOP 5-4 – Impact V-22); Upper Bouquet Canyon Road (KOP 5-5 – Impact V-23); Sierra Highway at Anthony Road (KOP 5-6 – Impact V-24); Vasquez Rocks County Park (KOP 5-7 – Impact V-25); Escondido Canyon Road at Antelope Valley Freeway (KOP 5-8 – Impact V-26); Pacific Crest National Scenic Trail (KOP 5-9 – Impact V-27); Antelope Valley Freeway Eastbound (KOP 5-10 – Impact V-28); Antelope Valley Freeway Westbound at Agua Dulce Interchange (KOP 5-11 – Impact V-29); Lily of the Valley Mobile Home Village (KOP 5-12 – Impact V-30); Shadow Valley Lane (KOP 5-13 – Impact V-31); North High Ridge Drive (KOP 10 – Impact V-10); Mountain View Park (KOP 11 – Impact V-11); Rio Norte Junior High School (KOP 12 – Impact V-12); North Park Elementary School and Chesebrough Park (KOP 13 – Impact V-13); and Copper Hill Road (KOP 14 – Impact V-14).

Significant, unavoidable visual impacts (**Class I**) would occur under Alternative 5 due to: 1) the temporary visibility of construction activities and equipment (Impact V-15).

Less-than-significant, but adverse (**Class III**) visual impacts would occur from conflicts with existing visual quality policies and objectives contained in Forest and local plans (Impact V-16).

Overall visual contrasts created by glare effects (Impact V-17) under Alternative 5 with mitigation would be less than significant, but adverse (**Class III**).

### **C.15.11 No Project/Action Alternative**

Selection of the No Project/Action Alternative would mean that the Antelope-Pardee 500-kV Transmission Project would not be implemented. As such, none of the associated construction, operation, and maintenance activities would occur.

As described in Section B.4.8, a variety of activities may be reasonably expected to occur under the No Project/Action Alternative (indirect effects). Many of these activities would have associated impacts to the visual quality of landscapes, landscape character, and scenic integrity.

The following section describes the visual effects of the No Project/Action Alternative as determined by the significance criteria listed in Section C.15.3 and, if necessary, provides mitigation measures that would serve to reduce potentially significant impacts to less-than-significant levels.

#### **Substantial adverse effect on a scenic vista, or substantial degradation of the existing visual character or quality of the site and its surroundings (Criterion VIS1)**

The following section provides an analysis of the No Project/Action Alternative as seen from the 14 KOPs used to describe and analyze the proposed Project. All 14 KOPs afford scenic vistas to the surrounding landscape and the existing condition photographs portray the visual effects the No Project/Action Alternative would have on the site and its surroundings. The visual impacts of the existing transmission line infrastructure were analyzed as part of the Visual Quality assessment in the VS/VC method for private lands, and as part of the Existing Scenic Integrity assessment in the FS SMS method for NFS lands in the Angeles National Forest.

Visual impacts resulting from the No Project/Action Alternative are the same as the existing conditions from Mile 0.0 to 25.6. Because the existing 66-kV transmission line would remain in place, the No Project/Action Alternative would substantially degrade the visual quality of landscape views as seen from KOP 1 (Impact V-1), KOP 2 (Impact V-2), KOP 3 (Impact V-3), KOP 4 (Impact V-4), KOP 5 (Impact V-5), KOP 6 (Impact V-6), KOP 7 (Impact V-7), and KOP 8 (Impact V-8). The existing 66-kV transmission line is a prominent feature and draws attention in the foreground, middleground, and background viewing distances from these KOPs (see descriptions of existing conditions for these KOPs). Figures C.15.3A through C.15.10A display existing visual conditions and text for Impacts VIS-1 through VIS-8 describe existing scenic integrity levels at these KOPs. The existing 66-kV transmission line is either not visible or is not a prominent feature as seen from KOPs 9 through 14.

#### **Conflict with Policies and Objectives**

The No Project/Action Alternative might conflict with existing visual quality policies and objectives contained in Forest and local plans (Impact V-16) because it was constructed in the 1930s and new visual quality policies and objectives have been developed since that time. Table C.15-20 provides an analysis of the consistency of the No Project/Action Alternative with applicable plans and policies discussed in Section C.15.2. The No Project/Action Alternative would differ from Table C.15-5 (above), as shown below in Table C.15-20.

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

The No Project/Action Alternative would not create any new sources of substantial light or glare (Impact V-17) that would adversely affect nighttime or daytime views in the area.

**Table C.15-20. Consistency with Applicable Visual Resource Plans and Policies**

Agency Regulating Land Use	Regulation	Is the No Project/ Action Alternative Consistent?	Method of Consistency
USDA Forest Service, Pacific Southwest Region, Angeles National Forest	Angeles National Forest Land and Resources Management Plan (Unless Amended)		
	Scenery Management System. Would the Project meet High Scenic Integrity Quality Objective from Mile 5.7 to 15.9 and from Mile 16.0 to 17.6?	Yes (Forest Plan amendment is not required for existing conditions)	In High SIO areas, from Mile 5.7 to 15.9 and 16.0 to 17.6, the No Project/Action Alternative would not remove existing 66-kV transmission towers and conductors, thereby leaving the landscape in its current condition. The existing 66-kV transmission line does not repeat form, line, color and texture common in the natural characteristic landscape as seen from KOPs 4, 5, 6, 7, and 8.
	Scenery Management System. Would the Project meet Moderate Scenic Integrity Quality Objective from Mile 15.9 to 16.0 and from Mile 17.6 to 17.9?	Yes (Forest Plan amendment is not required for existing conditions)	In Moderate SIO areas, from Mile 15.9 to 16.0 and 17.6 to 17.9, the No Project/Action Alternative would not remove existing 66-kV transmission towers and conductors, thereby leaving the landscape in its current condition. The existing 66-kV transmission line is visually evident and does not meet a level of Moderate SIO.
Los Angeles County	Scenic Highways Element, Article 3. Protect and enhance esthetic resources within corridors of designated scenic highways.	Yes (No Project/ Action does not require any local agency action)	The No Project/Action Alternative would not remove existing 66-kV transmission towers and conductors, thereby leaving the landscape in its current condition. The existing 66-kV transmission line has negative visual effects on esthetic resources of designated scenic highways.
	Scenic Highways Element, Article 4. Establish and maintain rural scenic highways to provide access to scenic resources and serve recreational users.	Yes (No Project/ Action does not require any local agency action)	The No Project/Action Alternative would not remove existing 66-kV transmission towers and conductors, thereby leaving the landscape in its current condition. The existing 66-kV transmission line does not provide access to scenic resources and serve recreational users.
	Scenic Highways Element, Article 5. Establish and maintain urban scenic highways to provide access to interesting and esthetic manmade features, historical and cultural sites, and urban open space areas.	Yes (No Project/ Action does not require any local agency action)	The No Project/Action Alternative would not remove existing 66-kV transmission towers and conductors, thereby leaving the landscape in its current condition. The existing 66-kV transmission line has negative visual effects on esthetic resources of urban scenic highways.
Los Angeles County	Antelope Valley Areawide General Plan, A Component of the Los Angeles County General Plan (Adopted December 4, 1986)		
	Community Design, Policy 62. Mitigate where possible undesirable impacts of adjacent land uses (i.e., noise interruption, visual intrusion, and airborne emissions) through utilization of appropriate buffers, building codes and standards.	Yes (No Project/ Action does not require any local agency action)	The No Project/Action Alternative would not remove existing 66-kV transmission towers and conductors, thereby leaving the landscape in its current condition. The existing 66-kV transmission line has undesirable visual impacts in the Antelope Valley.

**Table C.15-20. Consistency with Applicable Visual Resource Plans and Policies**

Agency Regulating Land Use	Regulation	Is the No Project/ Action Alternative Consistent?	Method of Consistency
	Relationship of Urban and Natural Environments, Policy 63. Carefully integrate physical land use development into the natural environmental setting.	Yes (No Project/ Action does not require any local agency action)	The No Project/Action Alternative would not remove existing 66-kV transmission towers and conductors, thereby leaving the landscape in its current condition. The existing 66-kV transmission line was constructed in the 1930s and does not integrate physical land use development into the natural environmental setting and has introduced industrial character into the natural environmental setting.
	Physical Appearance/ Community Image, Policy 65(b). Transmission lines should be located underground where feasible.	Yes (No Project/ Action does not require any local agency action)	The No Project/Action Alternative leaves the existing 66-kV transmission line in place, and it is not located underground in flat terrain of Antelope Valley where it is technically feasible to do so.
Los Angeles County	Santa Clarita Valley Area Plan, A Component of the County of Los Angeles General Plan (Updated December 6, 1990)		
	Compatibility and Proximity of Urban Activities. Policy 1.1 Mitigate where possible undesirable impacts of development on adjacent land uses through utilization of appropriate buffers, building codes and standards.	Yes (No Project/ Action does not require any local agency action)	The No Project/Action Alternative would not remove existing 66-kV transmission towers and conductors, thereby leaving the landscape in its current condition. The existing 66-kV transmission line within the unincorporated Los Angeles County areas of Santa Clarita creates undesirable visual intrusions and visual impacts as seen from residences, streets and roads. Utilization of appropriate buffers (vegetative screening, further set-backs, etc.) or building codes or standards is not effective in mitigating the visual impacts.
	Relationship of Urban and Natural Environments, Policy 2.1. Carefully integrate physical development in rural areas into the natural environment setting.	Yes (No Project/ Action does not require any local agency action)	The No Project/Action Alternative would not remove existing 66-kV transmission towers and conductors, thereby leaving the landscape in its current condition. The existing 66-kV transmission line was constructed in the 1930s and does not integrate physical development in the rural areas of the Veluzat Motion Picture Ranch in Haskell Canyon.
	Physical Appearances – Community Image, Policy 3.2(b) Transmission lines should be located underground where feasible.	Yes (No Project/ Action does not require any local agency action)	The No Project/Action Alternative leaves the existing 66-kV transmission line in place, and it is not located underground .
City of Lancaster	The City of Lancaster amended its General Plan on October 3, 1994.		
	Plan for the Natural Environment, Objective 3.8 Preserve and enhance important views within the City, and significant visual features which are visible from the City of Lancaster.	Yes (No Project/ Action does not require any local agency action)	The No Project/Action Alternative would not remove existing 66-kV transmission towers and conductors, thereby leaving the landscape in its current condition. The existing 66-kV transmission line was constructed in the 1930s and does not enhance important views within the City and does not enhance significant visual features which are visible from the City of Lancaster.
	Policy 3.8.1(a) Encourage creation of vistas and view corridors of community or neighborhood value during the development review process, through the siting of buildings to avoid blocking views and view corridors.	Yes (No Project/ Action does not require any local agency action)	The No Project/Action Alternative would not remove existing 66-kV transmission towers and conductors, thereby leaving the landscape in its current condition. The existing 66-kV transmission line was constructed in the 1930s and does not encourage creation of vistas and view corridors of community or neighborhood value.

<b>Table C.15-20. Consistency with Applicable Visual Resource Plans and Policies</b>			
<b>Agency Regulating Land Use</b>	<b>Regulation</b>	<b>Is the No Project/ Action Alternative Consistent?</b>	<b>Method of Consistency</b>
	Policy 3.8.1(b) Through the implementation of the policies outlined in the Plan for Physical Development, ensure that the development of hillside lands is consistent with preserving their natural character.	Yes (No Project/ Action does not require any local agency action)	The No Project/Action Alternative would not remove existing 66-kV transmission towers and conductors, thereby leaving the landscape in its current condition. The existing 66-kV transmission line was constructed in the 1930s and does not protect hillside lands from disruption of their natural character.
City of Santa Clarita	City of Santa Clarita General Plan (Amended June 1991)		
	Community Design Element, Ridgeline Protection. Ridgelines within the Valley are a significant design feature that should be protected. Development on significant ridgelines should be prohibited or severely limited.	Yes (No Project/ Action does not require any local agency action)	The No Project/Action Alternative would not remove existing 66-kV transmission towers and conductors, thereby leaving the landscape in its current condition. The existing 66-kV transmission line was constructed in the 1930s and would not protect ridgelines within the Santa Clarita Valley Area.
	Community Development Element, Infrastructure, Policy 11.1 Encourage placement of transmission power lines and other mechanical equipment underground, where feasible, to maximize safety and minimize visual distraction.	Yes (No Project/ Action does not require any local agency action)	The No Project/Action Alternative would not remove existing 66-kV transmission towers and conductors, thereby leaving the landscape in its current condition. The existing 66-kV transmission line was constructed in the 1930s and it is not an underground transmission line.
	Policy 11.8 Examine the use of the land under high power transmission lines for landscaping, tree farms, additional safe recreation areas, and other appropriate feasible uses.	Yes	The No Project/Action Alternative is consistent with this policy because the policy does not mandate the use of corridors for landscaping, tree farms, additional safe recreation areas, etc.
	Policy 11.9 Encourage single pole transmission towers and cellular poles, and avoid reinforced structural support bases.	Yes (No Project/ Action does not require any local agency action)	The No Project/Action Alternative would not remove existing 66-kV transmission towers and conductors, thereby leaving the landscape in its current condition. The existing 66-kV transmission line was constructed in the 1930s and is not a single pole transmission line, but rather has double-circuit lattice steel towers in the Santa Clarita area.

**Summary of Impacts for the No Project/Action Alternative**

Visual impacts resulting from the No Project/Action Alternative are the same as the existing conditions from Mile 0.0 to 25.6. Because the existing 66-kV transmission line would remain in place, the No Project/Action Alternative would substantially degrade the visual quality of landscape views as seen from KOP 1 (Impact V-1), KOP 2 (Impact V-2), KOP 3 (Impact V-3), KOP 4 (Impact V-4), KOP 5 (Impact V-5), KOP 6 (Impact V-6), KOP 7 (Impact V-7), and KOP 8 (Impact V-8). The existing 66-kV transmission line is a prominent feature and



draws attention in the foreground, middleground, and background viewing distances from these KOPs, resulting in significant, unavoidable (**Class I**) visual impacts.

The existing 66-kV transmission line is either not visible or is not a prominent feature as seen from KOPs 9 through 14, so leaving it in place would create no changes.

There would be no effect regarding visibility of construction activities and equipment (Impact V-15) under the No Project/Action Alternative because no actions would occur.

The No Project/Action Alternative would not conflict with existing visual quality policies and objectives contained in Forest and local plans (Impact V-16) because it is an existing condition.

Overall visual contrasts created by glare effects (Impact V-17) under the No Project/Action Alternative would be no change from existing conditions.

### **C.15.12 Impact and Mitigation Summary**

Table C.15-21 presents a summary of the impacts and proposed mitigation measures for visual resources.

<b>Table C.15-21. Impact and Mitigation Summary – Visual Resources</b>						
Impact	Impact Significance					
	Proposed Project	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
<b>V-1:</b> Project infrastructure would alter the visual quality of landscape views as seen from 110th Street at Johnson Road (KOP 1).	Class II	Class II	Class II	Class II	Class II	Class II
	V-1a thru V-1e	V-1a thru V-1e	V-1a thru V-1e	V-1a thru V-1e	V-1a thru V-1e	V-1a thru V-1e, V-3a, V-3b
<b>V-2:</b> Project infrastructure would alter the visual quality of landscape views as seen from Avenue K (KOP 2).	Class II	Class II	Class II	Class II	Class II	Class IV
	V-1a thru V-1e	V-1a thru V-1e	V-1a thru V-1e	V-1a thru V-1e	V-1a thru V-1e	V-3a, V-3b
<b>V-3:</b> Project infrastructure would alter the visual quality of landscape views as seen from Lake Elizabeth Road (KOP 3).	Class I outside ANF	Class I outside ANF	Class I outside ANF	Class I outside ANF	Class I outside ANF	Class IV outside ANF
	V-1a thru V-1e	V-1a thru V-1e	V-1a thru V-1e	V-1a thru V-1e	V-1a thru V-1e	V-3a, V-3b
	Class I inside ANF	Class I inside ANF	Class I inside ANF	Class I inside ANF	Class I inside ANF	Class IV inside ANF
	V-3a thru V-3c, V-1a, V-1e, V-4a thru V-4c, B-1a, B-1b*, R-4**	V-3a thru V-3c, V-1a, V-1e, V-4a thru V-4c, B-1a, B-1b*, R-4**	V-3a thru V-3c, V-1a, V-1e, V-4a thru V-4c, B-1a, B-1b*, R-4**	V-3a thru V-3c, V-1a, V-1e, V-4a thru V-4c, B-1a, B-1b*, R-4**	V-3a thru V-3c, V-1a, V-1e, V-4a thru V-4c, B-1a, B-1b*, R-4**	V-3a thru V-3d, V-4b, V-4c, B-1a, B-1b*, R-4**
<b>V-4:</b> Project infrastructure would alter the scenic integrity and character of landscapes seen from the Pacific Crest National Scenic Trail (KOP 4).	Class I	Class I	Class I	Class I	Class I	Class IV
	V-3a thru V-3c, V-1a, V-1e, V-4a thru V-4c, B-1a, B-1b*, R-4**	V-3a thru V-3c, V-1a, V-1e, V-4a thru V-4c, B-1a, B-1b*, R-4**	V-3a thru V-3c, V-1a, V-1e, V-4a thru V-4c, B-1a, B-1b*, R-4**	V-3a thru V-3c, V-1a, V-1e, V-4a thru V-4c, B-1a, B-1b*, R-4**	V-3a thru V-3c, V-1a, V-1e, V-4a thru V-4c, B-1a, B-1b*, R-4**	V-3a thru V-3d, V-4b, V-4c, B-1a, B-1b*, R-4**
<b>V-5:</b> Project infrastructure would alter the scenic integrity and character of landscapes seen from San Francisquito Canyon Road (KOP 5).	Class I	Class I	Class IV	Class I	Class I	Class IV
	V-3a thru V-3c, V-1a, V-1e, V-4a thru V-4c, B-1a, B-1b*, R-4**	None	V-3a thru V-3c, V-1a, V-1e, V-4a thru V-4c, B-1a, B-1b*, R-4**	V-3a thru V-3c, V-1a, V-1e, V-4a thru V-4c, B-1a, B-1b*, R-4**	V-3a thru V-3c, V-1a, V-1e, V-4a thru V-4c, B-1a, B-1b*, R-4**	V-3a thru V-3d, V-4b, V-4c, B-1a, B-1b*, R-4**

**Table C.15-21. Impact and Mitigation Summary – Visual Resources**

Impact	Impact Significance					
	Proposed Project	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
<b>V-6:</b> Project infrastructure would alter the scenic integrity and character of landscapes seen from Bouquet Reservoir (KOP 6).	Class I	Class I	Class I	Class I	Class I	Class IV
	V-3a thru V-3c, V-1a, V-1e, V-4a thru V-4c, B-1a, B-1b*, R-4**	V-3a thru V-3c, V-1a, V-1e, V-4a thru V-4c, B-1a, B-1b*, R-4**	V-3a, V-3b, V-3c, V-1a, V-1e, V-4a thru V-4c, B-1a, B-1b*, R-4**	V-3a, V-3b, V-3c, V-1a, V-1e, V-4a thru V-4c, B-1a, B-1b*, R-4**	V-3a, V-3b, V-3c, V-1a, V-1e, V-4a thru V-4c, B-1a, B-1b*, R-4**	V-3a, V-3b, V-3c, V-1a, V-1e, V-4a thru V-4c, B-1a, B-1b*, R-4**
<b>V-7:</b> Project infrastructure would alter the scenic integrity and character of landscapes seen from Bouquet Canyon Road (KOP 7).	Class I	Class IV	Class I	Class I	Class I	Class IV
	V-3a thru V-3c, V-1a, V-1e, V-4a thru V-4c, B-1a, B-1b*, R-4**	V-3a, V-3b, V-3c	V-3a thru V-3c, V-1a, V-1e, V-4a thru V-4c, B-1a, B-1b*, R-4**	V-3a thru V-3c, V-1a, V-1e, V-4a thru V-4c, B-1a, B-1b*, R-4**	V-3a thru V-3c, V-1a, V-1e, V-4a thru V-4c, B-1a, B-1b*, R-4**	V-3a thru V-3d, V-4b, V-4c, B-1a, B-1b*, R-4**
<b>V-8:</b> Project infrastructure would alter the scenic integrity and character of landscapes seen from Vasquez Canyon Road (KOP 8).	Class I	Class I	Class IV	Class I	Class I	Class IV
	V-3a thru V-3c, V-1a, V-1e, V-4a thru V-4c, B-1a, B-1b*, R-4**	None	V-3a thru V-3c, V-1a, V-1e, V-4a thru V-4c, B-1a, B-1b*, R-4**	V-3a thru V-3c, V-1a, V-1e, V-4a thru V-4c, B-1a, B-1b*, R-4**	V-3 thru V-3c, V-1a, V-1e, V-4a thru V-4c, B-1a, B-1b*, R-4**	V-3a thru V-3d, V-4b, V-4c, B-1a, B-1b*, R-4**
<b>V-9:</b> The Project would alter the visual quality of landscape views as seen from Veluzat Motion Picture Ranch (KOP 9).	Class I	Class I	Class I	Class I	No Impact	No Impact
	V-9	V-9	V-9	V-9	None	None
<b>V-10:</b> Project infrastructure would alter the visual quality of landscape views as seen from North High Ridge Drive (KOP 10).	Class I	Class I	Class I	Class II	Class I	Class I
	V-1a thru V-1e	V-1a thru V-1e	V-1a thru V-1e	V-1a thru V-1e	V-1a thru V-1e	V-1a thru V-1e
<b>V-11:</b> Project infrastructure would alter the visual quality of landscape views as seen from Mountain View Park (KOP 11).	Class I	Class I	Class I	Class II	Class I	Class I
	V-1a thru V-1e	V-1a thru V-1e	V-1a thru V-1e	V-1a thru V-1e	V-1a thru V-1e	V-1a thru V-1e
<b>V-12:</b> Project infrastructure would alter the visual quality of landscape views as seen from Rio Norte Junior High School (KOP 12).	Class I	Class I (overhead) No Impact (undergrnd)	Class I	Class II	Class I	Class I
	V-1a thru V-1e	V-1a thru V-1e, V-12	V-1a thru V-1e	V-1a thru V-1e	V-1a thru V-1e	V-1a thru V-1e
<b>V-13:</b> Project infrastructure would alter the visual quality of landscape views as seen from North Park Elementary School and Chesebrough Park (KOP 13).	Class I	No Impact	Class I	Class II	Class I	Class I
	V-1a thru V-1e	None	V-1a thru V-1e	V-1a thru V-1e	V-1a thru V-1e	V-1a thru V-1e
<b>V-14:</b> Project infrastructure would alter the visual quality of landscape views as seen from Copper Hill Road (KOP 14).	Class I	No Impact	Class I	Class II	Class I	Class I
	V-1a thru V-1e	None	V-1a thru V-1e	V-1a thru V-1e	V-1a thru V-1e	V-1a thru V-1e
<b>V-15:</b> The temporary visibility of construction activities and equipment involved with the Project would alter the visual quality of landscape views as seen from various vantage points throughout the Project area.	Class I	Class I	Class I	Class I	Class I	Class I
	V-15a, V-15b, V-15c	V-15a, V-15b, V-15c	V-15a, V-15b, V-15c	V-15a, V-15b, V-15c	V-15a, V-15b, V-15c	V-15a, V-15b, V-15c
<b>V-16:</b> Project infrastructure would conflict with adopted visual quality policies and objectives contained in Forest and local plans.	Class III	Class III	Class III	Class III	Class III	Class III
	V-16a, V-16b, V-16c	V-16a, V-16b, V-16c	V-16a, V-16b, V-16c	V-16a, V-16b, V-16c	V-16a, V-16b, V-16c	V-16a, V-16b, V-16c
<b>V-17:</b> Project infrastructure would create a new source of substantial light or glare that would adversely affect daytime views in the area.	Class III	Class III	Class III	Class III	Class III	Class III
	V-1e, V-17a, V-17b, V-17c, V-17d	V-1e, V-17a, V-17b, V-17c, V-17d	V-1e, V-17a	V-1e, V-17a	V-1e, V-17a	V-1e, V-17a

**Table C.15-21. Impact and Mitigation Summary – Visual Resources**

Impact	Impact Significance					
	Proposed Project	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
V-18: Project infrastructure would substantially degrade the visual quality of landscape views as seen from Copper Hill Road above Agajanian Drive (KOP 4-1).	No Impact	No Impact	No Impact	No Impact	Class I	Class I
	None	None	None	None	V-3a thru V-3c, V-1a, V-1e, V-4b, V-4c, B-1a, B-1b*, R-4** on NFS lands	V-3a thru V-3c, V-1a, V-1e, V-4b, V-4c, B-1a, B-1b*, R-4** on NFS lands
					V-1a thru V-1e off NFS lands	V-1a thru V-1e off NFS lands
V-19: Project infrastructure would substantially degrade the visual quality of landscape views as seen from Avenue K (KOP 5-1).	No Impact	No Impact	No Impact	No Impact	No Impact	Class I
	None	None	None	None	None	V-1a thru V-1e, V-19
V-20: Project infrastructure would substantially degrade the visual quality of landscape views as seen from Lake Elizabeth Road (KOP 5-2).	No Impact	No Impact	No Impact	No Impact	No Impact	Class I
	None	None	None	None	None	V-1a thru V-1e, V-19
V-21: Project infrastructure would substantially degrade the visual quality of landscape views as seen from Leona Valley Road (KOP 5-3).	No Impact	No Impact	No Impact	No Impact	No Impact	Class I
	None	None	None	None	None	V-1a thru V-1e, V-19 off NFS lands
						V-3a thru V-3c, V-1a, V-1e, V-4b, V-4c, B-1a, B-1b*, R-4** on NFS lands
V-22: Project infrastructure would substantially degrade the visual quality of landscape views as seen from Lost Valley Ranch Road (KOP 5-4).	No Impact	No Impact	No Impact	No Impact	No Impact	Class I
	None	None	None	None	None	V-1a thru V-1e, V-19
V-23: Project infrastructure would substantially degrade the visual quality of landscape views as seen from Upper Bouquet Canyon Road (KOP 5-5).	No Impact	No Impact	No Impact	No Impact	No Impact	Class I
	None	None	None	None	None	V-1a thru V-1e, V-19
V-24: Project infrastructure would substantially degrade the visual quality of landscape views as seen from Sierra Highway at Anthony Road (KOP 5-6).	No Impact	No Impact	No Impact	No Impact	No Impact	Class I
	None	None	None	None	None	V-1a, V-4a, V-1c thru V-1e
V-25: Project infrastructure would substantially degrade the visual quality of landscape views as seen from Vasquez Rocks County Park (KOP 5-7).	No Impact	No Impact	No Impact	No Impact	No Impact	Class I
	None	None	None	None	None	V-1a, V-4a, V-1c thru V-1e
V-26: Project infrastructure would substantially degrade the visual quality of landscape views as seen from Escondido Canyon Road at Antelope Valley Freeway (KOP 5-8).	No Impact	No Impact	No Impact	No Impact	No Impact	Class I
	None	None	None	None	None	V-1a, V-1c thru V-1e, V-4a thru V-4c off NFS lands
						V-3a thru V-3c, V-1a, V-1e, V-4b, V-4c, B-1a, B-1b*, R-4** on NFS lands

**Table C.15-21. Impact and Mitigation Summary – Visual Resources**

Impact	Impact Significance					
	Proposed Project	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
V-27: Project infrastructure would substantially degrade the visual quality of landscape views as seen from the Pacific Crest National Scenic Trail (KOP 5-9).	No Impact	No Impact	No Impact	No Impact	No Impact	Class I
	None	None	None	None	None	V-1a, V-1e, V-4a thru V-4c off NFS lands V-3a thru V-3c, V-1a, V-1e, V-4b, V-4c, B-1a, B-1b*, R-4** on NFS lands
V-28: Project infrastructure would substantially degrade the visual quality of landscape views as seen from Antelope Valley Freeway Eastbound (KOP 5-10).	No Impact	No Impact	No Impact	No Impact	No Impact	Class I
	None	None	None	None	None	V-1a thru V-1e
V-29: Project infrastructure would substantially degrade the visual quality of landscape views as seen from Antelope Valley Freeway Westbound at Agua Dulce Interchange (KOP 5-11).	No Impact	No Impact	No Impact	No Impact	No Impact	Class I
	None	None	None	None	None	V-1a thru V-1e
V-30: Project infrastructure would substantially degrade the visual quality of landscape views as seen from Lily of the Valley Mobile Home Village (KOP 5-12).	No Impact	No Impact	No Impact	No Impact	No Impact	Class I
	None	None	None	None	None	V-1a thru V-1e
V-31: Project infrastructure would substantially degrade the visual quality of landscape views as seen from Shadow Valley Lane (KOP 5-13).	No Impact	No Impact	No Impact	No Impact	No Impact	Class I
	None	None	None	None	None	V-1a thru V-1e

**Class I** = Significant and unavoidable impact; **Class II** = Significant but mitigated to a less-than-significant level; **Class III** = Less-than-significant impact; **Class IV** = Beneficial impact.

\* Please see Section C.3.5, Biological Resources, Proposed Project/Action, Mitigation Measure B-1a (Provide Restoration/Compensation for Impacts to Native Vegetation Communities) and B-1b (No Activities will occur in Riparian Conservation Areas).

\*\* Please see Section C.9.5, Land Use and Public Recreation, Proposed Project/Action, Mitigation Measure R-4 (Permanent Closure and Re-vegetation of Construction Roads).

## C.15.13 Cumulative Effects

### C.15.13.1 Geographic Scope

The geographic extent for the analysis of cumulative impacts related to visual resources is as described in Section B.5.3. Any current or future project that is expected to occur within approximately five miles of the proposed Project or alternative alignments, plus any other current or future projects that occur beyond five miles of the proposed Project, but are notable to the visual resources cumulative scenario, are included in the geographic scope. Viewsheds of the Project are extensive, given the expansiveness of the landscapes traversed, general lack of vegetative screening, and large numbers of people who reside in Northern Los Angeles County and the communities of Lancaster, Palmdale, and Santa Clarita. Viewsheds can easily extend beyond five miles in the Antelope Valley, and some vantage points, such as KOP 8 on Vasquez Canyon Road, provide views up to eight miles away.

### C.15.13.2 Existing Cumulative Conditions

A wide range of existing, cumulative visual conditions occur within this geographic extent, mainly due to the multiple types of land uses that are traversed by the proposed and alternative routes.

**North Area.** The Project routes traverse through generally rural and low-density rural-residential developments at the western edge of the City of Lancaster, which has maintained its rural, pastoral landscape character in the Antelope Valley. Widely scattered residences, ranch buildings, and windbreaks are widely scattered along two-lane paved roads and unpaved streets that are laid out on a one-mile square grid. Heading southeast out of the Antelope Substation toward the Vincent Substation are seven sets of transmission towers carrying nine different transmission lines: Sagebrush 220-kV (non-SCE); Antelope-Shuttle 66-kV; Antelope-Oasis-Palmdale-Quartz Hill 66-kV; Antelope-Anaverde Helijet 66-kV; Antelope-Mesa 220-kV; Antelope-Vincent 220-kV; Midway-Vincent 500-kV; Antelope-Anaverde 66-kV; and Antelope-Acton-Palmdale Shuttle 66-kV. Seven different transmission lines lead into the Antelope Substation from the northwest, including the Magunden No. 1 220-kV, the Magunden No. 2 220-kV lines, and others. Further northwest of Antelope Substation, LADWP DC 1000-kV line and the LADWP Owens Gorge-Rinaldi 230-kV line traverse the landscape in a northeast/southwest alignment. These transmission lines have introduced an industrial character into these otherwise rural and pastoral landscapes of Antelope Valley.

**Center Area.** Within the Center Area (NFS lands) the natural-appearing landscapes of the Angeles National Forest have been visually impacted by previous construction of paved, two lane roads (Bouquet Canyon, Spunky Canyon, San Francisquito Canyon Roads) and numerous unpaved, one-lane gravel roads (6N04, 6N07, 6N09, 6N14, 6N16, 6N18, 6N19, 6N21, 5N24, 5N28, 5N29, 5N28, and others). Most of these paved and unpaved roads blend in with the natural-appearing landscape because they have existed over long periods of time; however, they have created a cumulative visual effect by modifying the landscape in the vicinity of the proposed Project. Also with the Center Area, there are numerous overhead transmission lines, including the Midway-Vincent No. 1 500-kV and Midway-Vincent No. 2 500-kV, which are visible from Bouquet Canyon Road, Spunky Canyon Road, Bouquet Reservoir and the PCT. Visible from San Francisquito Canyon Road are the LADWP DC 1000-kV line, the LADWP Owens Gorge-Rinaldi 230-kV line, as well as the Los Angeles Aqueduct (also known as the Bouquet Pipeline), associated pumping stations and control facilities, and two LADWP power houses in San Francisquito Canyon, and the SCE 66-kV line on Del Sur Ridge that would be removed by this project. This SCE 66-kV line is also visible on the skyline from Bouquet Canyon Road, Vasquez Canyon Road, and the PCT. The transmission lines degrade the otherwise high scenic integrity of these landscapes to levels of unacceptably low scenic integrity, because the infrastructure does not borrow natural-appearing form, line, color, texture, or scale from the natural elements in the landscape. The existing transmission lines are highly visible from many different vantage points and negatively affect many viewsheds. These transmission lines occupy many miles of major skyline ridges and have created cumulative effects by changing otherwise natural-appearing landscapes into industrial character landscapes. See Section B.5.4 for a list of past projects on NFS lands.

**South Area.** South of NFS lands, in lands under the jurisdiction of Los Angeles County and Santa Clarita, there are existing and rapidly developing suburban residential areas, regional shopping centers, commercial strip malls, parks, churches, schools, hospitals, and government centers. Small, scattered remnants of natural-appearing landscapes are quickly becoming developed into urban and suburban character landscapes. In Santa Clarita, extensive visual impacts have occurred along the Project route, including landform grading, paving of two-lane streets and multi-lane highways, numerous utility corridors, and introduction of non-native vegetation in suburban landscapes. These visual modifications have occurred in new residential subdivisions, commercial, recreational, educational, and civic developments. There are many water tanks and transmission lines located on

skyline ridges in the Santa Clarita area. Transmission lines include the Pardee-Vincent 500-kV, the Pardee-Vincent No. 1 220-kV, the Pardee-Eagle Rock 220-kV, the LADWP DC 1000-kV line, and many others. Transmission lines that occupy skyline ridges have created an industrial character in residential neighborhoods and natural-appearing, undeveloped landscapes. Some transmission lines cross directly over city parks, such as at Mountain View Park (KOP 11). Their height causes structure skylining and view blockage, because conductors and towers interrupt views of the horizon. The transmission lines create visual contrasts that are strong and affect numerous viewsheds in the South Area.

**Alternative 5.** Alternative 5 has a different route that traverses through generally rural and rapidly developing planned development (residential) areas of Palmdale, the open areas east of the ANF, crosses over the Antelope Valley Freeway to the existing Vincent-Pardee utility corridor, and then rejoins the project route in the existing and rapidly developing suburban residential areas of Santa Clarita. Along the route of Alternative 5, existing visual impacts include the realignment and widening of Elizabeth Lake Road, development of Ritter Ranch, rural-equestrian, rural-residential, and airport developments in Agua Dulce, development of recreation facilities at Vasquez Rocks County Park, transportation system development of the Antelope Valley Freeway (as well as the rapidly developing areas of Santa Clarita describe above). All of these landscapes also include many utility corridors with multiple transmission lines, all of which have an existing industrial character and low scenic integrity, as compared to natural-appearing landscapes, caused by the large lattice steel towers, conductors, and graded access/spur roads. Many existing skylines are punctuated by transmission lines on ridgetops throughout this geographic extent, thereby reducing scenic integrity and creating industrial-character landscapes that contrast with rural, pastoral, or natural-appearing landscapes.

### **C.15.13.3 Cumulative Impact Analysis**

Cumulative impacts to visual resources could possibly occur as a result of construction and operation of the Antelope-Pardee 500-kV Transmission Project and projects listed in Table B.5-1 if they occupy the same field of view. Cumulative visual impacts depend on the degree to which the viewshed is altered, visual access to scenic resources is impaired, landscape character is changed, or the Project's visual contrast is increased. It is also possible that a cumulative visual impact could occur if a viewer's perception was that the general quality of an area was diminished by the proliferation of visible structures, even if the structures were not all within the same field of view. Such a perception could occur as an accumulated impression of visual impacts in the landscape, for instance, while traveling along a road and seeing many new housing developments or many new transmission lines.

A cumulative visual impact would be considered significant if it added to significant visual impacts of the Project or resulted in the conditions identified in C.15.3 Significance Criteria. During and after construction of projects identified in Table B.5-1, the construction, operation, and maintenance of the Antelope-Pardee Transmission Project would create cumulative visual impacts within Project viewsheds, as described below for each significance criteria:

- **Substantial adverse effect on a scenic vista, or substantial degradation of the existing visual character or quality of the site and its surroundings (Criterion VIS1).** Implementation of the proposed Project or one of its alternatives would result in significant, unavoidable (**Class I**) cumulative visual impacts to scenic vistas, substantial cumulative degradation of existing landscape character, and cumulative reductions in scenic integrity. Similarly, when projects described in Table B.5-1 are developed, visual impacts of these other projects in close proximity to the proposed Project also would cumulatively result in visual impacts to the landscape, changes in landscape character, and reductions in existing scenic integrity. More specifically, implementation of this Project would combine with visual effects of existing 220-kv, 500-kv, and 1000-kV transmission lines in affected viewsheds, and would cumulatively result in increased structure sizes that would cause a significant increase in structure prominence and industrial character. Implementation of cumulative Projects 1 and 2 in Table B.5-1 (Antelope-

Vincent and Antelope-Tehachapi Transmission Lines) would cause an additional cumulative, significant increase in structure prominence and industrial character. All of these increases in structure prominence and industrial character would be “cumulatively considerable” and would combine with similar impacts of other identified projects in a substantial way, resulting in significant, unavoidable (**Class I**) cumulative visual impacts.

With this Project, numerous and extensive visual impacts would occur on NFS lands from Mile 5.7 to 18.6 with construction/re-construction of access and spur roads. Accumulating the visual effects of on-going highway realignment/re-construction of San Francisquito Canyon Road, and planned highway reconstruction for flood damage on Bouquet Canyon Road, visual effects would be cumulatively adverse. (See discussion below, Section C.15.13.4, below, on cumulative visual impacts to NFS lands.)

Implementation of the proposed Project or one of its alternatives (1, 2, or 3) would result in visual impacts and adverse landscape character changes at the Veluzat Motion Picture Ranch, as well as within unincorporated portions of Los Angeles County and the Cities of Santa Clarita and Lancaster (and Palmdale, under Alternative 5). Development of residential subdivisions on hillsides within the viewshed of and in the vicinity of the Veluzat Motion Picture Ranch (as listed in Table B.5-1) would combine with visual impacts of the proposed Project or Alternatives 1, 2, or 3, to disrupt the natural-appearing landscape character and severely affect the landscape setting, resulting in significant, unavoidable (**Class I**) cumulative visual impacts.

Regarding short-term visual impacts associated with the proposed Project, construction activities could combine with similar impacts of the Antelope-Vincent Transmission Line, Antelope-Tehachapi Transmission Line, and other on-going projects in the same field of view, resulting in the following short-term, significant, unavoidable (**Class I**) cumulative visual impacts. Construction activities would result in the temporary presence of equipment, materials, and workforce at work sites along the transmission line routes and at the substations. Vehicles, heavy equipment, helicopters, facility components, and workers would be visible during construction and operation of laydown areas, creation of new access/spur roads, construction of new towers, and installation of conductors. Most of this construction activity would be visible from public roadways and nearby private properties.

Regarding long-term visual impacts, those associated with the Project would combine with similar impacts of the Antelope-Vincent Transmission Line, Antelope-Tehachapi Transmission Line, and other on-going projects in the geographic extent, and would result in the following long-term, significant, unavoidable (**Class I**) cumulative visual impacts: new transmission line facilities would add new, contrasting visual elements to the existing landscape and degrade views from numerous vantage points, including key observation positions analyzed in this study. The combined effect of the proposed Project with other planned developments (see Table B.5-1) would result in permanent changes to the landscape, all of which would be cumulatively significant, unavoidable (**Class I**) visual impacts.

- **Conflict with applicable adopted city, county, State, or federal plans, policies, regulations, or standards applicable to the protection of visual resources (Criterion VIS2).** The Antelope-Pardee 500-kV Transmission Project would conflict with the Forest Plan (unless amended). See discussion below in Section C.15.13.5.

The Project would conflict with County policies for protection of visual resources seen from County-designated Scenic Highways, with visual resource policies for developments in natural environmental settings, protection of ridgelines from visually obtrusive structures, and requirements for undergrounding of transmission lines in compatible terrain. The Project would conflict with the policies of the Cities of Lancaster, Palmdale, and Santa Clarita for protection of visual resources, including preserving natural character, protection of significant ridgelines, placement of transmission lines underground in compatible terrain, and encouraging single-pole transmission structures, rather than lattice steel structures. The visual effects of the Project would conflict with adopted plans, policies, regulations, or standards applicable to protection of visual resources; and combined with existing transmission lines and other planned developments described in Table B.5-1, would result in permanent changes to the landscape, all of which would be cumulatively significant, unavoidable (**Class I**) visual impacts that would not comply with adopted plans, policies, regulations, or standards.

- **Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area (Criterion VIS3).** The only new sources of light potentially affecting nighttime views would be area-lighting at the four transition stations under Alternative 1, and with implementation of mitigation measures V-17b, V-17c, and V-17d, visual impacts of new sources of light would be reduced to a level of non-significant, but adverse (**Class III**) impacts. However, other planned developments described in Table B.5-1 would contribute new sources of light that would adversely affect nighttime views, including street lighting at all subdivisions, planned developments, commercial developments, and civic developments.

The visual glare effects of existing developments have resulted in, and other planned developments described in Table B.5-1 would result in, permanent changes to the landscape that would include glare, such as reflections off windows in buildings, glare off vehicle windshields, and glare off highly reflective materials such as mirrors, chrome, polished stone, and other polished materials.

Glare can be a visual resource impact. However, because new lattice steel towers and tubular steel poles would be surface coated with appropriate colors, finishes, and textures to most effectively blend the structures with the visible backdrop landscape (MM V-1e) and conductors would be constructed of non-reflective and non-refractive materials (MM V-17a), glare impacts would be reduced to a level of non-significant, but adverse (**Class III**) impacts.

- **Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway (Criterion VIS4).** The proposed Project routes are not visible from the Angeles Crest Highway, which is the only State scenic highway in the vicinity. None of the alternatives investigated by this EIR/EIS are visible from the Angeles Crest Highway. Therefore, there is no impact to visual resources of a State scenic highway, and no mitigation would be required for the Antelope-Pardee 500-kV Transmission Project. Criterion VIS 4 was dropped from further discussion in Section C.15 Visual Resources Report, because the Project would not contribute to cumulative impacts to the visual resources of a State scenic highway. Likewise, none of the planned projects described in Table B.5-1 would damage scenic resources within a State scenic highway.

There are no feasible mitigation measures that could be imposed on the proposed Project, or Project Alternatives to further reduce its contribution to cumulative visual effects.

#### **C.15.13.4 Cumulative Effects on National Forest System Lands**

Cumulative visual effects have resulted from past and current projects on NFS lands that occupy the same field of view as the proposed Project and its alternative routes. Projects that have resulted in significant, unavoidable (**Class I**) impacts to the landscape include those listed in Section B.5.4, Cumulative Projects on NFS Lands. The following is a discussion of cumulative visual effects that would occur on NFS lands.

Implementation of the Antelope-Pardee 500-kV Transmission Project would combine with visual effects of existing 220-kv, 500-kv, and 1000-kV transmission lines in affected viewsheds, and would cumulatively result in increased structure sizes that would cause a significant increase in structure prominence and industrial character, and a comparable decrease in the extent and value of natural-appearing landscapes. These increases in structure prominence and industrial character would be “cumulatively considerable” and would combine with similar impacts of other identified projects in a substantial way, resulting in significant, unavoidable (**Class I**) cumulative visual impacts.

With the proposed Project or Alternatives 1, 2, 3, or 4, numerous and extensive visual impacts would occur on NFS lands from Mile 5.7 to 18.6 with construction/re-construction of access and spur roads. Accumulating the visual effects of on-going highway realignment/re-construction of San Francisquito Canyon Road, and planned highway reconstruction for flood damage on Bouquet Canyon Road, visual effects would be cumulatively adverse. Likewise, accumulating the visual effects of on-going and planned District-wide Fuelbreak Reestablishment Project (103), visual effects of the proposed Project would be cumulatively significant, adverse (**Class I**) impacts.

During and after construction of projects identified in Tables B.5-1 and B.5-3, the construction, operation, and maintenance of the Antelope-Pardee Transmission Project would create cumulative visual impacts within Project viewsheds (Criterion VIS2). For NFS lands affected by the proposed Project and its alternatives, desired future conditions for scenic integrity are described in detail in the Forest Plan. This direction states the goal of increasing and restoring the natural landscape appearance and reducing existing visual contrasts that exist in the landscape. Scenic integrity objectives covering Project routes state the Forest Service management direction of



creating natural-appearing and pastoral landscapes where the valued landscape character appears intact with High Scenic Integrity Objectives. Visual deviations, such as human activities or human-made structures, may be present but must repeat the form, line, color, texture, and pattern common to the natural landscape character so completely and at such a scale that they are not visually evident. The Project and all its alternatives would conflict with this existing Forest Plan direction and thereby, a Forest Plan amendment would be required, as applicable to management of visual resources. Combined with existing transmission lines and other planned developments described in Table B.5-1, this would result in permanent changes to the landscape, all of which would be cumulatively significant, unavoidable (**Class I**) visual impacts that would not comply with the adopted Forest Plan (unless amended). There are no feasible mitigation measures that could be imposed on the proposed Project, or Project Alternatives to further reduce its contribution to cumulative visual effects on NFS lands.