2. Affected Environment

The Visual Resources Specialist Report describes the scenic and visual impacts to the landscape that would be associated with the construction and operation of the TRTP. Visual resources were investigated based on the following criteria: 1) existing visual quality and scenic attributes of the landscape; 2) location of sensitive receptors in the landscape; 3) known and documented sensitivity and assumptions about receptors' concern for scenery and sensitivity to changes in the landscape; 4) existing visual conditions and existing scenic integrity of the landscape; 5) the magnitude of visual changes in the landscape that would be brought about by implementation, construction, and operation of TRTP; and, 6) compliance with federal, State, County and local goals, standards and objectives for visual resources.

2.1 Baseline Data Collection Methodology

Based on the description of SCE's proposed Project and alternatives, and in consultation with the CPUC and Forest Service, the Visual Resources Technical Team defined the Study Area for the visual resource analysis as the viewsheds from which the proposed Project and alternatives might be seen, including immediate foreground, foreground, middleground, and background viewing distances. Viewing distance is distance between the viewed object and viewer. When a viewer is closer in proximity to a viewed object, more detail can be seen and there is greater potential influence of the object on visual quality. For this Specialist Report, four viewing distances were used, based on distance zones used by the Forest Service:

- Immediate foreground (approximately between 0 and 300 feet from viewers),
- Foreground (approximately between 300 feet and 0.5mile),
- Middleground (approximately between 0.5 and 4 miles), and
- Background (beyond approximately 4 miles).

To facilitate the visual resource analysis, and to be compatible with the recreation and wilderness analysis, the Visual Resources Study Area was divided into three sub-areas:

North Area: The North Area extends from the Windhub Substation (Milepost [MP] 0.0 of the proposed Project's Segment 10) to the Vincent Substation (MP 17.8 of the proposed Project's Segment 5). The North Area includes proposed Project Segments 4, 5, 9, and 10 and traverses parts of southern Kern and northern Los Angeles Counties, as well as the incorporated cities of Lancaster and Palmdale. The Windhub, Cottonwood, Whirlwind, Antelope and Vincent Substations are situated in the North Area.

Center Area: The Center Area is located between the Vincent Substation (MP 0.0 of the proposed Project's Segments 6 and 11) and the southern boundary of the ANF (MP 24.5 of the proposed Project's Segment 11 and MP 26.9 of the proposed Project's Segment 6). The majority of the Center Area falls within the jurisdictional boundaries of the ANF and includes all of the proposed Project's Segment 6 and approximately 70 percent of Segment 11. The Gould Substation, part of Segment 9, is located just outside of the ANF's jurisdictional boundaries, but was included as part of the Center Area because of its visual context to the ANF and the fact that Segment 11 continues past Gould Substation inside the ANF boundary.

South Area: The South Area extends from the southern boundary of the ANF (MPs 0.0 and 24.5 of the proposed Project's Segments 7 and 11, respectively) to the Mira Loma Substation (MPs 35.2, 6.8 and 6.4 of the proposed Project's Segments 8A, 8B and 8C, respectively). The South Area includes the Goodrich, Rio

Hondo, Mesa, Chino, and Mira Loma Substations and traverses lands within Los Angeles and San Bernardino Counties, as well as multiple incorporated cities.

The visual resource environmental setting was coordinated with the Land Use and Wilderness and Recreation Technical Teams to ensure that the visual sensitivity analyses were correct and current, including the locations of residences, parks, recreation areas, schools, and other sensitive receptor areas. The environmental setting also incorporated new visual issues and sensitive areas identified during the scoping process, as listed above in Table 1-2.

For all segments of the proposed Project and its alternatives, baseline data were collected using an approach that incorporated a combination of information review, agency consultation, analysis of aerial photographs and satellite imagery (Google Earth, 2007-2009), review of maps, field reconnaissance, site analysis, and on-site photography. Existing information was used to the extent possible and appropriate, including the Proponent's Environmental Assessment that was prepared by SCE and the Visual Resource Report prepared by CH2M Hill for SCE (SCE, 2007a, Elizabeth Cutler, 2007; Thomas Priestley, 2007).

Baseline data were collected for the environmental setting using the following methodology:

- A general overview and site reconnaissance was conducted for each route segment and alternative route;
- Locations of sensitive receptor locations were mapped on existing USGS topographic maps and/or aerial photographs showing freeways, streets, roads, residences, trails, and recreation areas;
- Viewpoints were identified from which the proposed Project and/or alternatives would be seen;
- From all of these viewpoints, the most critical views were selected as "possible key observation points" (Possible KOPs).
- From all Possible KOPs, the most critical were selected as KOPs for analysis, based on their ability to exemplify visual resource impacts at a particular location.
- KOPs that were analyzed are representative of visual resource impacts to a particular landscape unit. See Figure A-1 – Key Observation Points in Appendix A;
- Written descriptions were prepared for each KOP, including a photograph of existing conditions as a thumbnail view to augment the text in the Affected Environment section.
- Color photographs of existing conditions and corresponding visual simulations are found at the end of this Specialist Report in Appendix A
- Both images are at an 11"x17" size to allow "life-size" viewing.

From thousands of potential viewpoints, and in consultation with CPUC and Forest Service personnel (Jose Henriquez-Santos. 2007), 53 locations were selected as Key Observation Points (KOPs) for detailed analysis of SCE's proposed Project, and eight additional KOPs were selected for detailed analysis of Alternatives 3 through 7. Also, the 20 KOPs in the Angeles National Forest (Center Area) were re-analyzed for Alternative 6 (Maximum Helicopter Construction in the ANF.

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 digital camera equipped with a "normal" focal length lens. The use of a "normal" lens is important for accurate representation of visual conditions and possible visual effects. For each KOP analyzed in the Visual Resource Specialist Report, a photograph and simulation has been printed on 11 by 17 inch-paper. If the reader stands at the exact location of the KOP looking in the direction the photo was taken, each photograph and simulation will appear "life-size" when held approximately 18-inches away from the viewer's eyes.

From among all photographs taken, the best exposures and landscape compositions taken by the visual analysts were selected to represent the existing view from each KOP (and for subsequent computerized visual simulations to depict the visual effects of the proposed Project). In the Affected Environment section, the existing visual situation is described in detail for each of the KOPs and a small "thumbnail" photograph is displayed. In the Impact Analysis Sections (Sections 6 through 11), future visual effects of the proposed Project were predicted for each KOP by using the computerized visual simulations. In Appendix A, at the end of the Visual Resource Specialist Report, there is a map of all the KOPs in Appendix A (see Figure A-1 – Key Observation Points). Also in Appendix A, the reader will find "life-size" pairs of before and after photographs and simulations (see Figures A-3ab through A-83ab in Appendix A of this Specialist Report).

The proposed Project would affect federal lands administered by the Forest Service, and cross private lands under the jurisdiction of Kern, Los Angeles, and San Bernardino Counties, and the Cities of Palmdale and Lancaster in the North Area, and 40 incorporated cities in the South Area: 33 in Los Angeles County; six in San Bernardino County; and, one in Orange County. All incorporated cities of the South Area that would be traversed by the proposed Project and its alternatives are listed in Table 2-1.

Table 2-1. Incorporated Cities of the South Area

Los Angeles County		
Alhambra	Irwindale	Montebello
Arcadia	La Cañada Flintridge	Monterey Park
Azusa	La Habra Heights	Pasadena
Baldwin Park	La Puente	Pico Rivera
Bradbury	La Verne	Pomona
City of Industry	Monrovia	Rosemead
Claremont	South Pasadena	San Dimas
Covina	Temple City	San Gabriel
Diamond Bar	Walnut	San Marino
El Monte	West Covina	Sierra Madre
Glendora	Whittier	South El Monte
San Bernardino County		
Chino	Ontario	
Chino Hills	Rancho Cucamonga	
Montclair	Upland	
Orange County		
City of Brea		

Source: Thomas Guide 2007

The multi-jurisdictional nature of the proposed 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 Desired Condition and Scenic Integrity Objectives (SIOs) described in the 2005 ANF Land Management Plan (Forest Plan) and in the Nationwide Forest Service Scenery Management System (SMS). Scenic integrity is defined as the state of naturalness, or conversely, the state of disturbance, created by human activities or alterations. Integrity is stated in degrees of deviation from existing or desired 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 proposed Project on existing landscapes. This dual methodology approach was necessary because the SMS analysis must be used for NFS lands, however, 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 County and City General Plans that have

criteria for visual resource management, and from state and county scenic highway standards. Regardless of jurisdiction, visual simulations were prepared in order to show future visual conditions after Project completion.

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.

Visual Sensitivity/Visual Change Methodology (VS/VC)

The VS/VC methodology used to analyze the proposed Project and its alternatives 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 natural landscape features and built structures that contribute to overall visual quality. Viewer concern can be described as the expectations for the landscape that are held by the viewing public. These concerns were elicited during scoping and from planning documents. Viewer concern is often reflected in public policy documents that identify landscapes of special concern (vista points, scenic trails, ridgeline protection ordinances, etc.) 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, viewing distance, number of people who view the landscape, or 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 impairment, that is, potential of the proposed structure to block, obstruct, or impair the view of the backdrop landscape, skyline, or higher quality landscape features. Project-induced visual change can result from aboveground facilities, vegetation removal, landform modification, Project 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, architecture and other structures; distance from the observers; atmospheric conditions; and angle of view.

As described in detail above, 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. Each KOP analysis was thoroughly documented and summarized in tabular form in the Introduction, Table S-1, above.

For the North and South Areas (non-NFS lands), in order to accommodate the various State, county and city regulations presented later in this Specialist Report (see Section 3 and also Appendix C: Applicable Laws, Regulations, and Standards for Visual Resources), the visual analysis used a single methodology to determine the degree of impact significance, after considering two factors – overall visual sensitivity and visual change. Table 2-2 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 at each KOP.

The relationships presented in Table 2-2 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. 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.

Table 2-2. 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 [1]	Not Significant	Adverse but Not Significant [2]	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 [3]
Moderate	Adverse but Not Significant	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 [4]
High	Adverse but Not Significant	Adverse and Potentially Significant	Adverse and Potentially Significant	Significant	Significant

Table Notes:

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

Adverse but Not Significant – Impacts are perceived as negative but do not exceed environmental thresholds.

Adverse and Potentially Significant – Impacts are perceived as negative and may exceed environmental thresholds depending on Project and site-specific circumstances.

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.

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 proposed Project tends toward the high extreme, leading to a substantial reduction in visual quality.

USDA Forest Service Scenery Management System (SMS) Methodology

In the 1970s, the Forest Service developed the Visual Management System (VMS) and a series of handbooks on visual resource management, including National Forest Landscape Management, Volume 2, Chapter 1 – The Visual Management System (USDA, Forest Service. 1974) and National Forest Landscape Management, Volume 2, Chapter 2 – Utilities (USDA, Forest Service. 1975).

In 1995, the Forest Service updated its nationwide Visual Management System, published a new handbook called Landscape Aesthetics, A Handbook for Scenery Management. Agriculture Handbook No. 701 (USDA, Forest Service. 1995), and adopted a new name "The Scenery Management System" (SMS). In 2005, the Pacific Southwest (PSW) Region of the Forest Service adopted new Forest Plans for its four Southern California National Forests, consisting of three parts:

- Land Management Plan. Part 1: Southern California National Forests Vision. (USDA, Forest Service. 2005a)
- Land Management Plan. Part 2: Angeles National Forest Strategy. (USDA, Forest Service. 2005b)
- Land Management Plan. Part 3: Design Criteria for the Southern California National Forests. (USDA, Forest Service. 2005c)

When these new Forest Plans were adopted, the Forest Service implemented the SMS for the Los Padres, Angeles, San Bernardino, and Cleveland National Forests. The purpose of SMS is to methodically inventory, manage, and monitor visual and scenic resources on National Forest System lands. The goal of the Forest Service SMS is to manage NFS lands to attain the highest possible visual quality of landscape aesthetics and scenery for the public in perpetuity, commensurate with other appropriate public uses, costs, and benefits.

The visual resource analysis of this Specialist Report and related EIR/EIS used the old Forest Service VMS methodology and the new Forest Service SMS methodology to evaluate SCE's proposed Project and its effects on landscape aesthetics and visual quality in the ANF and to ascertain compliance with the Forest Plan for all NFS lands that would be crossed by SCE's proposed Project or its alternatives.

For planning purposes, the ANF has been divided by the Forest Service into a series of geographic units, each of which is called a "Place." The ANF Forest Plan assigned Place designations to 11 areas throughout the ANF. Of the 11 Places, five would be crossed by the proposed Project (see Appendix A, Figure A-2 – Angeles National Forest Landscape Places and Scenic Integrity Objectives Segment 6 and 11). They are, from north to south:

- Soledad Front Country
- Angeles High Country
- Angeles Uplands West
- Big Tujunga Canyon (only a tiny corner)
- The Front Country

The LMP descriptions for these Places are found in the detailed analysis of the Affected Environment, Section 2.3 Alternative 2: SCE's Proposed Project. Land use zones (CFR 219.11(c)) were used to map the Angeles National Forest (ANF) for the purpose of identifying appropriate management types of 'uses' that are consistent with the achievement of the desired conditions described in Part 1 of the revised forest plan. These land use zones are used to help demonstrate clearly management's intent and to indicate the anticipated level of public land use in any area (Place) of the national forest. The activities that are allowed in each zone are expected to result in progress along the pathway toward the realization of the desired conditions. Specific uses are allowed on national forests except when identified as not suitable, because of law, national or regional policy, or the revised forest plan. What this means is that the forest plans are permissive. That is, activities may occur unless the forest plan says that they cannot. However, activities are not authorized based solely on the land use zoning for this forest plan. The suitable uses identified in tables 2.1.1 through 2.1.4 are intended as guidance for consideration of future activities and do not affect existing authorized occupancy and uses or the administrative procedures used to manage them. Most ground disturbing activities require further project or site-specific analysis before a decision is made. The uses that are identified as suitable in each of the land use zones are subject to the design criteria, as well as the other guidance described in Part 3 (Appendix A) of this forest plan. The standards (along with applicable guidance) are typically used during project or site-specific planning. Applicable guidance includes the body of information encompassed by the Forest Service Manual and Handbooks, Species Accounts, Best Management Practices, Soil and Water Conservation Handbooks, the Built Environment

Image Guide, or other documents with guidance that is identified for use based on site-specific project analysis.

Following is a copy of "Table 2.1.3. Suitable Uses Commodity and Commercial Uses" from the ANF Forest Plan, page 5.

Land Use Zone	DAI	BC	BCMUR	BCNM	CB	W	EF
Activity or Use	Developed Areas Interface	Back Country	Back Country Motorized Use Restricted	Back Country Non-Motorized	Critical Biological	Wilderness	Experimental Forest
(Non-Rec) Special Uses: Low Intensity Land Use	Suitable	Suitable	Suitable	By Exception	By Exception	By Exception	For Research
Communication Sites	Designated Areas	Designated Areas	Designated Areas	By Exception	By Exception	Not Suitable	By Exception
Livestock Grazing	Designated Areas	Designated Areas	Designated Areas	Designated Areas	Not Suitable	Designated Areas	Not Suitable
Major Transportation Corridors	Designated Areas	Designated Areas	Not Suitable	Not Suitable	Not Suitable	Not Suitable	Not Suitable
Major Utility Corridors	Designated Areas	Designated Areas	Designated Areas	Not Suitable	Not Suitable	Not Suitable	Not Suitable
Road construction or re-construction	Suitable	Suitable	Suitable for authorized use	Not Suitable	Not Suitable	Not Suitable	By Exception

In the Forest Plan, Table 484 describes existing designated Utility Corridors on the Angeles National Forest. Table 484 from the Forest Plan is displayed below.

Forest Plan Table 484. Designated Utility Corridors - Angeles National Forest			
Utility Corridor Name	Approximate Land Area		Existing Uses
	Acres	Miles	
Interstate 5 (Tejon Pass)	9,544	27.1	500KV (2), 220KV (3), Oil & Gas pipelines (7), Fiber Optic line (4), Interstate Highway 5, Aqueduct
Old Ridge Route	3,543	10.7	2 500KV, 4 Oil & 2 Gas Pipelines, Fiber Optic, Aqueduct.
Saugus/Mesa	185	1.4	500KV.
Saugus/Del Sur	1,697	13.8	500KV, 66KV
Ranaldi Dept Water Power	1,207	9.6	500KV
Gorge Ranaldi	629	5.0	500KV
BPL	3,025	24.7	500KV
Vincent Gould (Segment 11 of TRTP)	2,259	18.5	500KV
Vincent Rio Hondo (Segment 6 of TRTP)	3,090	25.3	500KV
3-P Line	353	2.8	500KV
Midway Vincent	3,442	43.4	500KV
Vincent Pardee	191	1.4	500KV

The Forest Plan established standards for each Place, including a theme, setting, desired condition and program emphasis section. These four descriptions provide visual resource management direction of the ANF.

- **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. The Forest Service describes landscape character 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'" (USDA Forest Service, 1995).
- **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 Forest Service SMS uses Theme, Setting, Desired Condition, Program Emphasis, and Scenic Integrity Objectives to evaluate, manage, and monitor visual resources, landscape aesthetics, and scenery on NFS lands. Desired Condition expresses the highest quality goal for a given landscape. A Scenic Integrity Objective (SIO) defines the minimum level of visual quality to which any National Forest landscape should be subjected, in other words, the minimum acceptable standard for visual quality for an area (see Figure A-2 – Landscape Places and Scenic Integrity Objective Map in Appendix A). The following paragraphs describe these two key components of the SMS.

Desired Condition (Maximum Standard)

With regard to attaining the highest possible visual quality, the 2005 Angeles Forest Land Management Plan established maximum standard of Desired Condition for each landscape "Place."

- Desired Condition expresses the maximum level of desired condition for each given landscape Place.
- Desired Condition 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.
- Desired Condition represents the sustainable image pursued by the Forest Service for each landscape Place.
- Combined, the elements of Desired Condition and SIO succinctly capture the landscape's sense of place.

Scenic Integrity Objective or SIO (Minimum Standard)

In order to define the degrees of deviation from the natural or natural-appearing landscape character that may occur at any given time, the Forest Service uses Scenic Integrity Objectives or SIOs. SIOs represent the minimum standard of scenic integrity to which landscapes are to be managed. All land management activities, including TRTP, must ensure that these minimum levels are achieved, or a Project-specific Forest Plan amendment would be required. The 2005 Forest Plan allows for a project to achieve one level below the established SIO(s), but only with the Forest Supervisor's approval. Temporary drops of more than one SIO level are allowed during and immediately following the implementation of the Project provided that the SIO level(s) are met within a three year period (maximum).

SIOs were established and mapped for the ANF in the 2005 Land Management Plan for Southern California Forests. There are five SIOs, and additionally, there is a sixth level of landscape alteration that is excessive, where human-caused deviations are extremely dominant and inappropriate for NFS lands. This level of scenic integrity is never used as a management objective; however, it is useful for inventorying existing visual conditions or for predicting future scenic conditions of proposed projects. Table 2-3 presents the five Scenic Integrity Objectives, with definitions for each Scenic Integrity Level.

Table 2-3. Scenic Integrity Objectives and Definitions for NFS Lands

Scenic Integrity Objective (SIO)	Definition
Very High SIO	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.
High SIO	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.

Table 2-3. Scenic Integrity Objectives and Definitions for NFS Lands	
Scenic Integrity Objective (SIO)	Definition
Moderate SIO	Landscapes where the valued landscape character "appears slightly altered." Noticeable deviations must remain visually subordinate to the landscape character being viewed.
Low SIO	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.
Very Low SIO	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.
For Inventory and Scenic Effect Prediction Purposes Only	
Unacceptably Low Scenic Integrity [1]	A scenic integrity level (never an objective) where human activities of vegetation and landform alterations or human-made structures are excessive and totally dominate the natural or natural-appearing landscape character. Landscapes where the valued landscape character being viewed appears extremely altered. Visual deviations are extremely dominant and borrow little if any form, line, color, texture pattern or scale from the natural landscape character. Landscapes of this level of integrity need rehabilitation. Unacceptable alterations are "what not to do to any landscape," regardless of the distance from which the activity may be observed.

Table Notes:

[1] 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, "Unacceptably Low Scenic Integrity" or "Unacceptably Altered," is useful for inventorying existing 220-kV and 500-kV transmission line facilities, and for use in predicting future scenic integrity of proposed projects and activities.

As described in Chapter 2 of the EIR/EIS, it is expected that amendment(s) to the 2005 Forest Plan would be required for the proposed Project, which would include altering SIOs along the Project route. Table 2-4, below, provides the SIOs which are currently assigned to Forest lands that would be traversed by the proposed Project (Segment 11 and Segment 6) in the ANF, presented geographically by Milepost (MP), from the north to the south.

Table 2-4. Scenic Integrity Objectives by Mile for Alternative 2 (SCE's Proposed Project)		
MP (Proposed Project)	SIO	Definition
Segment 11 MP 1.5 to 6.8 MP 6.9 to 8.7 MP 9.9 to 11.3 MP 11.5 to 15.2 MP 15.3 to 19.7 MP 19.8 to 24.5	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 landscape character so completely and at such a scale that they are not evident.
Segment 11 MP 6.8 to 6.9 MP 8.7 to 9.9 MP 11.3 to 11.5 MP 15.2 to 15.3 MP 19.7 to 19.8	Moderate	Landscapes where the valued landscape character "appears slightly altered." Noticeable deviations must remain visually subordinate to the landscape character being viewed.
Segment 6 MP 1.4 to 10.6 MP 10.8 to 12.1 MP 12.3 to 13.5 MP 13.6 to 26.9	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.

Table 2-4. Scenic Integrity Objectives by Mile for Alternative 2 (SCE's Proposed Project)		
MP (Proposed Project)	SIO	Definition
Segment 6 MP 10.6 to 10.8 MP 12.1 to 12.3 MP 13.5 to 13.6	Moderate	Landscapes where the valued landscape character "appears slightly altered." Noticeable deviations must remain visually subordinate to the landscape character being viewed.

The Direct, Indirect, and Cumulative Effects Analysis for Alternatives 2 through 7 are described in detail in Sections 6.1 through 11.1. The anticipated effects of construction and operation of the proposed Project or an alternative to the Project would result, in most cases, in conditions that would be inconsistent with the existing established SIOs described in Table 2-4, above. Therefore, Project-specific amendments to the 2005 Forest Plan for Forest Standards S9 and S10 would be necessary in order for the Forest Supervisor to approve the Project. Table 2-5, below, is organized by MP, from north to south, and provides a description of those locations along Segments 11 and 6, within the ANF, where the proposed Project and each of its alternatives would be inconsistent with existing SIOs established for the Forest.

The anticipated SIO inconsistencies outlined in Table 2-5 assume that all relevant mitigation measures recommended for visual resource management in this Specialist Report and in the EIR/EIS would be implemented. If visual resource mitigation measures are not implemented by the Decision Makers at the CPUC and/or FS, then the predicted SIO levels in Table 2-5 will not be attained, and future scenic integrity would be lower. There are other variables affecting the predicted SIO outcomes. Viewsheds of affected landscapes may be greater than the utility corridor's 1,000-foot width or the ROW width of a few hundred feet. For re-opening, widening, and/or improvement of existing access roads and spur roads in the Forest, the exact limits of new cuts and fills are not known at this time. New cuts and fills, plus the construction of new roads that would be approximately 16 feet wide, could alter the predicted SIO changes listed in Table 2-5.

Table 2-5. Inconsistencies with Established Scenic Integrity Objectives of the 2005 Forest Plan – Proposed Project and Alternatives	
Alternative	Inconsistencies with Established Scenic Integrity Objectives (SIO)
Alternative 1 No Project/Action	N/A
Alternative 2 SCE's Proposed Project (For Segments 11 and 6 within the ANF)	**Segment 11:** An Unacceptably Low Level of Scenic Integrity would occur in an area designated as High SIO for a total of 10.45 Miles (A drop of 4 Levels) (from MP 1.5 to 2.25, MP 3.0 to 4.25, MP 11.5 to 14.75, MP 19.2 to 19.7, and MP 19.8 to 24.5) A Very Low SIO would occur in an area designated as High SIO for a total of 3.4 Miles (A drop of 3 Levels) (from MP 4.75 to 6.8 and MP 6.9 to 8.25) A Low SIO would occur in an area designated as High SIO for a total of 6.2 Miles (A drop of 2 Levels) (from MP 8.25 to 8.7, MP 9.9 to 11.3, MP 14.75 to 15.2, and MP 15.3 to 19.2) A Moderate SIO would occur in an area designated as High SIO for a total of 0.75 Miles (A drop of 1 Level) (from MP 2.25 to 3.0) [1] An Unacceptably Low Level of Scenic Integrity would occur in an area designated as Moderate SIO for a total of 0.1 Miles (A drop of 4 Levels) (from MP 19.7 to 19.8) A Very Low SIO would occur in an area designated as Moderate SIO for a total of 0.1 Miles (A drop of 3 Levels)

Table 2-5. Inconsistencies with Established Scenic Integrity Objectives of the 2005 Forest Plan – Proposed Project and Alternatives

Alternative	Inconsistencies with Established Scenic Integrity Objectives (SIO)
	(from MP 6.8 to 6.9) A Low SIO would occur in an area designated as Moderate SIO for a total of 1.5 Miles (A drop of 2 Levels) (from MP 8.7 to 9.9, MP 11.3 to 11.5, and MP 15.2 to 15.3) [1] **Segment 6:** An Unacceptably Low Level of Scenic Integrity would occur in an area designated as High SIO for a total of 11.0 Miles (A drop of 4 Levels) (from Mile MP 1.4 to 8.0, MP 13.1 to 13.5, and MP 13.6 to 17.6) A Very Low SIO would occur in an area designated as High SIO for a total of 3.7 Miles (A drop of 3 Levels) (from 8.0 to 10.6, MP 10.8 to 11.5, and MP 17.6 to 18.0) A Low SIO would occur in an area designated as High SIO for a total of 6.6 Miles (A drop of 2 Levels) (from MP 11.5 to 12.1, MP 12.3 to 13.1, MP 19.0 to 21.4, and MP 24.1 to 26.9) A Moderate SIO would occur in an area designated as High SIO for a total of 3.7 Miles (A drop of 1 Level) (from MP 18.0 to 19.0 and MP 21.4 to 24.1) [1] An Unacceptably Low Level of Scenic Integrity would occur in an area designated as Moderate SIO for a total of 0.1 Miles (A drop of 4 Levels) (from MP 13.5 to 13.6) A Very Low SIO would occur in an area designated as Moderate SIO for a total of 0.2 Miles (A drop of 3 Levels) (from MP 10.6 to 10.8) A Low SIO would occur in an area designated as Moderate SIO for a total of 0.2 Miles (A drop of 2 Levels) (from MP 12.1 to 12.3) [1]
Alternative 3 West Lancaster Alternative (Changes required inside rights of way in ANF for Segments 11 and 6)	Same changes as Alternative 2
Alternative 4 Chino Hills Route Alternatives (Changes required inside rights of way in ANF for Segments 11 and 6)	Same changes as Alternative 2
Alternative 5 Partial Underground Alternative (Changes required inside rights of way in ANF for Segments 11 and 6)	Same changes as Alternative 2
Alternative 6 Maximum Helicopter Construction in the ANF (Changes required inside rights of way in ANF for Segments 11 and 6)	**Segment 11:** An Unacceptably Low Level of Scenic Integrity would occur in an area designated as High SIO for a total of 5.2 Miles (A drop of 4 Levels) (from MP 19.2 to 19.7 and MP 19.8 to 24.5) A Very Low SIO would occur in an area designated as High SIO for a total of 2.0 Miles (A drop of 3 Levels) (from MP 1.5 to 2.25 and MP 3.0 to 4.25) A Low SIO would occur in an area designated as High SIO for a total of 12.85 Miles (A drop of 2 Levels) (from MP 4.75 to 6.8, MP 6.9 to 8.25, MP 8.25 to 8.7, MP 9.9 to 11.3, MP 11.5 to 14.75, MP 14.75 to 15.2, and MP 15.3 to 19.2) A Moderate SIO would occur in an area designated as High SIO for a total of 0.75 Miles (A drop of 2 Levels)

Table 2-5. Inconsistencies with Established Scenic Integrity Objectives of the 2005 Forest Plan – Proposed Project and Alternatives

Alternative	Inconsistencies with Established Scenic Integrity Objectives (SIO)
	(from MP 2.25 to 3.0) [1] An Unacceptably Low Level of Scenic Integrity would occur in an area designated as Moderate SIO for a total of 0.1 Miles (A drop of 4 Levels) (from MP 19.7 to 19.8) A Very Low SIO would occur in an area designated as Moderate SIO for a total of 0.1 Miles (A drop of 3 Levels) (from MP 6.8 to 6.9) A Low SIO would occur in an area designated as Moderate SIO for a total of 1.5 Miles (A drop of 2 Levels) (from MP 8.7 to 9.9, MP 11.3 to 11.5, and MP 15.2 to 15.3) [1] **Segment 6:** An Unacceptably Low Level of Scenic Integrity would occur in an area designated as High SIO for a total of 13.6 Miles (A drop of 4 Levels) (from Mile MP 1.4 to 8.0, MP 8.0 to 10.6, MP 13.1 to 13.5, and MP 13.6 to 17.6) A Very Low SIO would occur in an area designated as High SIO for a total of 1.1 Miles (A drop of 3 Levels) (from MP 10.8 to 11.5, and MP 17.6 to 18.0) A Low SIO would occur in an area designated as High SIO for a total of 6.6 Miles (A drop of 2 Levels) (from MP 11.5 to 12.1, MP 12.3 to 13.1, MP 19.0 to 21.4, and MP 24.1 to 26.9) A Moderate SIO would occur in an area designated as High SIO for a total of 3.7 Miles (A drop of 1 Level) (from MP 18.0 to 19.0 and MP 21.4 to 24.1) [1] An Unacceptably Low Level of Scenic Integrity would occur in an area designated as Moderate SIO for a total of 0.1 Miles (A drop of 4 Levels) (from MP 13.5 to 13.6) A Very Low SIO would occur in an area designated as Moderate SIO for a total of 0.2 Miles (A drop of 3 Levels) (from MP 10.6 to 10.8) A Low SIO would occur in an area designated as Moderate SIO for a total of 0.2 Miles (A drop of 2 Levels) (from MP 12.1 to 12.3) [1]
Alternative 7 66-kV Subtransmission Alternative (Changes required inside rights of way in ANF for Segments 11 and 6)	Same changes as Alternative 2

Note: It is predicted that Alternatives 2, 3, 4, 5, and 7 would achieve the Very Low SIO in areas designated as Moderate SIO for Segments 11 and 6 because topographic screening would not hide these tall new T/L structures.

[1] The Forest Supervisor may approve a project in the ANF without a Forest Plan amendment, as long as the SIO decrease would not be greater than one SIO level (for instance if a project would achieve a Moderate SIO in an area designated for a High SIO).

The following Forest-specific Design Criteria and Place-specific Standards are applicable to the proposed Project:

- 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). (p. 76)
- 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 is allowable with the Forest Supervisor's approval.

  Temporary drops of more than one SIO level may be made during and immediately following project implementation providing they do not exceed three years in duration.

2.2 Regional Setting

The regional setting for SCE's proposed Project and alternatives includes parts of Kern County, the ANF, Los Angeles County (incorporated and unincorporated), and San Bernardino County (incorporated and unincorporated). The proposed Project also is located within one-half mile of Riverside County at the Mira Loma Substation; and within one-half mile of Orange County along the proposed ROW for Segment 8A. The Chino Hills Alternative and routes (Alternative 4) would extend into Orange County, the City of Brea and Chino Hills State Park. The vast majority of incorporated cities that would be affected by the proposed Project and its alternatives are situated in the South Area, as summarized in Table 2-1.

From a visual resource perspective, the proposed Project and its alternatives span a wide variety of landscapes, including: rugged mountains of the Tehachapi Wind Resource Area in Southern Kern County; flat valley floors with desert scrub or agricultural fields in the Antelope Valley in Southern Kern and Northern Los Angeles Counties; barren, rolling foothills south of Vincent Substation; remote, rugged landscapes of the ANF; and rapidly developing urban and suburban landscapes of the Los Angeles Basin and Inland Empire of Western San Bernardino County and Northern Orange County.

2.2.1 North Area

Near the Tehachapi Wind Resource Area (TWRA) and in the Antelope Valley, vegetation is generally low, dry scrub and grasses, or agricultural fields that provide little or no vegetative screening for transmission lines, substations, and other utility infrastructure. Travelways in the TWRA are paved, two-lane roads that twist and turn through the rugged topography. Existing wind turbine generators (also called wind farms) dominate the visual character in the mountains and gentle slopes of the TWRA. In the Antelope Valley, travelways are primarily unpaved agricultural field roads and paved access roads on a one-mile grid. Scattered ranch houses, outbuildings, and windbreaks are located along paved, gravel and dirt roads that follow the one-mile grid pattern in the Antelope Valley. Existing transmission line corridors and substations are visually evident in the Antelope Valley.

2.2.2 Pacific Crest Trail

The Pacific Crest National Scenic Trail (PCT) would be crossed by the proposed Project in three locations; once in the North Area and twice in the Center Area. The PCT is 2,650 miles long, extending from Mexico to Canada and running generally along the north-south oriented mountain ridges of California (Sierra Nevada), Oregon, and Washington (Cascade Range). It is the westernmost of the National Scenic Trails and has the greatest elevation change of all, extending from low desert valleys in Southern California, along the Sierra Nevada, and into rainforests of the Pacific Northwest (SCE, 2007a). The Pacific Crest Trail Association (PCTA) is a non-profit membership group dedicated to the preservation and protection of the trail. Use of the PCT is limited to non-mechanized means of travel. Every year, thousands of hikers and horseback riders use some portion of the PCT and approximately 300 through-hikers attempt to complete the entire trail in a single season (PCTA, 2007). In 1993, the PCTA signed a Memorandum of Understanding (MOU) with the Forest Service and other land management agencies including the US Department of Interior (DOI), the National Park Service (NPS), and the Bureau of Land Management (BLM). This MOU identifies the PCTA as the federal government's "major partner" in the management of the PCT (PCTA, 2007). As described in the PCTA's Strategic Plan, which was approved on July 15, 2006, the PCTA's vision is that "The Pacific Crest Trail is a permanently protected trail through wilderness and other public lands that is treasured by equestrians and hikers as a quiet, natural refuge that provides a high quality user experience" and the PCTA mission is to

"…protect, preserve, and promote the Pacific Crest National Scenic Trail as an internationally significant resource for the enjoyment of hikers and equestrians, and for the value that wild and scenic lands provide to all people."

The PCT crosses through the North Area in a south-to-north direction. Although the PCT is usually situated on ridgelines, it is routed off ridges in several places within the North Area due to a lack of necessary easements through private property (see Figure A-1 – Key Observation Points in Appendix A). In the vicinity of Segment 4, the PCT does not have its own trail tread, but rather, generally follows access roads associated with the Los Angeles Aqueduct (SCE, 2007a). Although most of the PCT is situated to follow ridgelines, it has been diverted northeast of the nearest ridgeline in the area of Segment 4 due to the location of private property (Tejon Ranch) where easements for the trail have not been granted. Segment 4 would traverse the PCT at S4 MP 2.7.

The PCT crosses through the Center Area in a east-to-west direction. In the Center Area, the PCT is located on ridgelines, consistent with the vision for a "crest" trail (see Figure A-2 – Angeles National Forest Landscape Places and Scenic Integrity Objectives Segments 6 and 11 in Appendix A). East of Segment 6, the PCT is situated on the north side of the mountains, providing views to the Mojave Desert to the north, as it traverses undeveloped landscapes dominated by oak and pine vegetation covering steep mountainsides. As the PCT approaches Mill Creek Summit, the visual environment becomes dominated by paved three parking lots at the trailhead, a Forest Service fire station, and a day use recreation site. At the PCT trailhead, the trail is situated directly downhill from an existing 220-kV LST that would be replaced with a new 500-kV LST. Segment 6 would traverse over the PCT at S6 MP 7.3. Leaving Mill Creek Summit, the PCT then crosses the Angeles Forest Highway and proceeds west along the south side of the Santa Clara Divide. This location provides panoramic views to viewsheds in a southern direction, into the Tujunga Creek watershed. West of Mill Creek Summit, the PCT crosses the Mount Gleason Road (Santa Clara Divide Road) at a saddle, and then proceeds on the north side of the mountains, heading west toward Segment 11. Therefore, the PCT provides numerous viewing opportunities to the north and south into different viewsheds. Segment 11 would traverse over the PCT at S11 MP 7.6, just southwest of Big Buck Campground. The landscape in this vicinity is dominated by natural appearing forests of pine, cedar, and oak trees.

2.2.3 Center Area

Throughout the Center Area, the ANF, dense shrubs and tall conifer trees cover steep mountainsides leading down into narrow canyons, providing some vegetative and landform screening. Water features are mostly absent in this landscape, except along major rivers in canyon bottoms and at the Big Tujunga Reservoir, which is not accessible for recreationists. Narrow, twisting, two-lane paved mountain roads wind through the ANF in a north-south direction (Angeles Forest Highway) and east-west direction (Angeles Crest Highway, also known as Angeles Crest Scenic Byway) and TRTP would cross over both of these highways at different locations. These two major roads, along with the Upper Big Tujunga Canyon Road, provide scenic viewing opportunities, opportunities for "driving for pleasure," and access linkages between the Antelope Valley and the Los Angeles Basin. The Pacific Crest Trail, Big Tujunga Canyon Trail (12W02), Clear Creek Trail, Alder Creek Trail (11W05), Silver Moccasin National Recreation Trail (11W06), Gabrieleno National Recreation Trail (11W14), Rincon-Red Box OHV Trail (2N23), Upper and Lower Winter Trail to Mount Zion (11W15 and 11W14A), Silver Fish Trail (1N29), and San Gabriel River National Scenic Bike Trail (2N25.1) are all popular recreation trails, designed and managed specifically for pedestrian, equestrian, bicyclists, and/or OHV-users. They provide access and scenic viewing opportunities within the ANF. SCE's proposed Project would be visible from these trails. The proposed Project would cross over the PCT in the Center Area at

Segment 6 - Mile 7.3 and Segment 11- Mile 7.6. Additionally, the proposed Project would be visible from several developed recreation areas, including Mill Creek Summit Picnic Area, PCT Trailheads at Mill Creek Summit and Mount Gleason Road, Monte Cristo Campground, Vetter Mountain Lookout, Silver Moccasin Trailhead, Rincon/Shortcut OHV Trailhead, Messenger Flats Campground, Gould Mesa Campground, and Millard Campground. Additional vantage points where the proposed Project would be viewed include Mount Wilson, Cobb Estate, Mount Lowe, Mount Disappointment, and Strawberry Peak.

The Angeles Crest Scenic Byway (State Highway 2) through the ANF is a federal Scenic Byway and a State Scenic Highway (CALTRANS [California Department of Transportation] 2008, and Los Angeles County. 2007.) as it winds along the spine of the San Gabriel Mountains. It is also known as the Angeles Crest Scenic Byway, a federal designation. The proposed Project's Segment 6 and Segment 11 would cross over the Angeles Crest Scenic Byway in four different locations (at approximately S11 MP 16.0, 17.7, and 18.4 for Segment 11 and at S6 MP16.8 for Segment 6). Portions of Segments 6 and 11 would be visible at foreground and middleground viewing distances from the Angeles Crest Scenic Byway. The National Scenic Byways Program is a voluntary, community-based program administered through the Federal Highway Administration (FHWA) to recognize, protect, and promote America's most outstanding roads. Through their State departments of transportation, communities can apply for designation as a State or National Scenic Byway for funding from the FHWA. "America's Byways®" is the umbrella term used for marketing the collection of 125 distinct and diverse roads designated by the U.S. Secretary of Transportation. America's Byways include the National Scenic Byways and All-American Roads (National Scenic Byways Program, 2008).

Portions of Segments 6 and 11 also would be visible at foreground, middleground and background viewing distances from the Angeles Forest Highway (County Highway N3) and the Upper Big Tujunga Canyon Road (Forest Service Road 3N19.2), which are both heavily used Forest roadways.

Viewing distances help determine how the proposed Project will affect scenic quality. Foreground views provide a high degree of discernible detail, including unobstructed close-up views of landscape features. Middleground views provide a moderate degree of discernable detail, and also allow the viewer to judge visual elements within the context of the overall landscape composition. Although background views provide a muted degree of detail, at a background distance (greater than 4 miles) viewers can distinguish vegetative changes, large openings or disturbances, and large rock outcrops. Texture disappears and colors flatten at this distance but landform ridgelines and horizon lines are dominant visual characteristics. The role of background in providing scenic quality lies mainly in its capacity as a contrasting and softened backdrop, or in scenic vista or overlook situations.

There are numerous gravel turnouts and informal viewpoints along the aforementioned roadways and near the proposed Project ROW where motorists frequently stop and from which they can enjoy panoramic views of the Mojave Desert to the north, the San Gabriel Mountains in the ANF, and the San Gabriel and Pomona Valleys to the south. There are very few locations where the proposed Project would be completely screened from view by topography from somewhere the public enjoys the ANF. This fact is demonstrated by the extensive areas of High SIO and the relatively small and scattered locations designated with Moderate Scenic Integrity Objective from the Forest Plan's SIO map for the ANF (see Figure A-2, Angeles National Forest Landscape Places and Scenic Integrity Objectives, Segments 6 and 11 in Appendix B).

2.2.4 South Area

In the South Area, the urban and suburban areas of Los Angeles and San Bernardino Counties, vegetation is both low-growing native grasses and shrubs, or culturally introduced street-tree plantings and

residential/commercial landscapes. Topography ranges from flat valley floors to rolling hills to steep hillsides. Natural drainages are almost non-existent, as most urban rivers and streams have been modified with concrete channels. Urban infrastructure, including freeways, existing transmission lines, electric substations, drainage channels, plus single-story and multi-story buildings dominates the South Area. A multitude of scenic viewing opportunities of the proposed Project and its alternatives are provided by the numerous freeways, State highways, arterial roads, and literally thousands of residential streets in these urban and suburban areas. Additionally, many county, city, and regional parks and trails offer scenic viewing opportunities. The State has designated portions of the Orange Freeway (State Highway 57) as "Eligible" to become a State Scenic Highway where it traverses largely undeveloped hills between Brea and Diamond Bar, and TRTP would cross State Highway 57 in this vicinity. Colima Road, Hacienda Road, and Harbor Boulevard are proposed as scenic corridors in the most recent update to the County of Los Angeles General Plan. Los Angeles County has designated several other roads as Priority Two Scenic Highways, also indicating a high sensitivity for scenic integrity of landscapes. Portions of Interstate 210 (I-210) and State Highways 39 and 57 are either designated as, or eligible for, State Scenic Highway status and portions of the proposed Project would be visible from these roadways.

Almost the entire extent of the proposed Project's Segments 4 through 11 is visually impacted by existing transmission line infrastructure, with the exception of Segment 10, which involves the establishment of an all new ROW. Although the proposed Project primarily would be located within established utility corridors, any increase in industrial character caused by larger and/or additional transmission towers and conductors and that is noticeable to sensitive viewing populations (e.g., community residents, recreational travelers on local trails, roads, and freeways, equestrians, hikers, picnickers, campers, and back-country recreationists) likely would be perceived as an adverse visual change. Likewise, a new ROW with new transmission lines, such as Segment 10 and various routes that are part of the Chino Hills Alternative likely would be perceived as an adverse visual change.

2.3 Alternative 2: SCE's Proposed Project

Alternative 2 (the proposed Project) would include eight separate segments (Segments 4 through 11), which together would result in new 220-kV and 500-kV transmission lines, with required substations, extending from the Tehachapi Wind Resource Area in Kern County and south through the ANF, before turning east from the Mesa Substation in Monterey Park and ending at the Mira Loma Substation in Ontario. As described in Section 2.1 (Baseline Data Collection Methodology), the Study Area has been divided into three separate areas for the purposes of this analysis: North Area; Center Area; and, South Area. Table 2-6, below, provides a list of components for the proposed Project (Alternative 2) within each of the three areas. Other TRTP Project alternatives also are listed by area for the readers' convenience and understanding.

Table 2-6. Alternative 2 (SCE's Proposed Project) Components per Area and Alternatives by Area

North Area (north of ANF)	Center Area (within ANF)	South Area (south of ANF)
S10 MP 0.0 – 16.8	S11 MP 1.5 – 24.5	S11 MP 24.5 – 36.2
S9 Cottonwind Substation	S6 MP 1.4 – 26.9	S9 Goodrich Substation
S9 Whirlwind Substation	S9 Gould Substation	S9 Mesa Substation
S4 MP 0.0 – 19.6		S7 MP 0.0 – 15.8
S9 Antelope Substation		S9 Rio Hondo Substation
S5 MP 0.0 – 17.8		S8A MP 0.0 – 35.2
S9 Vincent Substation		S8B MP 0.0 – 6.4
S6 MP 0.0 – 1.4		S9 Mira Loma Substation
S11 MP 0.0 – 1.5		S9 Chino Substation

Table 2-6. Alternative 2 (SCE's Proposed Project) Components per Area and Alternatives by Area		
North Area (north of ANF)	Center Area (within ANF)	South Area (south of ANF)
Alternative 3 - West Lancaster	Alternative 6 – Maximum Helicopter Construction in ANF	Alternative 4A – Chino Hills Route A Alternative 4B – Chino Hills Route B Alternative 4C – Chino Hills Route C Alternative 4C – Chino Hills Route C Modified Alternative 4D – Chino Hills Route D Alternative 5 – Partial Underground Alternative 7 – 66-kV Subtransmission

Provinces, Landscape Units, and KOPs

Alternative 2, SCE's proposed Project, extends from the approved Windhub Substation, located in Kern County, to the existing Mira Loma Substation in the City of Ontario. The following description of existing visual resources along the proposed Project's ROW has been divided into the three geographic areas. However, it is noted that in addition to the three geographic areas (North, Center, and South) described above in Section 2.1, the landscape can be further subdivided. It is important to identify and map existing landscape character at different scales: macro-scale and micro-scale. At a macro-scale, large geographic areas having consistent existing landscape character are called landscape provinces. At a micro-scale, small distinct landscape areas having consistent existing landscape character are called landscape units. For the proposed Project, a landscape unit is defined as an identifiable transmission line segment or span that contains the view and/or is an area where landscape conditions are generally similar.

Starting in the North Area at Windhub Substation and proceeding through the Center Area to the Mira-Loma Substation in the South Area, the proposed Project route can be subdivided into nineteen (19) landscape units, based on similar landscape conditions and characteristics.

This section documents the existing visual conditions in each of the landscape units through which the proposed transmission line would pass. The written descriptions for each landscape unit are supported by Figure B-1 –Landscape Unit Map, and a map set in Appendix B that provides nine individual maps with a detailed look at each landscape unit and KOP location. Appendix C displays applicable laws, regulations, and standards for visual resources for the proposed Project route. Appendix D presents photographs of representative views (landscape character photos) in each landscape unit. Thumbnail photographs of landscapes that were selected as KOPs and were subjected to detailed analysis are presented below alongside the descriptive text. In Appendix A the reader will find the overall KOP Map and "life-size" pairs of before and after photographs and simulations. It may be beneficial to the reader to have Appendices A, B, C, and D available during reading of the following sections.

North Area: Antelope Valley Landscape Region

The North Area, the Antelope Valley Landscape Region, consists of four landscape units (1-4), extending from the Tehachapi Mountains in the north to the Vincent Substation in the south, as shown in the landscape unit maps included in Appendix B. These maps show major landforms, major streets and roads, and the location of photograph viewpoints for KOPs used as the basis for simulations and analysis in the North Area.

Landscape Unit 1

Landscape Unit 1 extends roughly from the base of the Tehachapi Mountains in the north to just north of the Antelope Substation in the south. Landscape Unit 1 is characterized primarily by its undeveloped nature and its

rural/agricultural developments in the desert of Antelope Valley. As exhibited in character photos P-1.1 through P-1.6, views throughout Landscape Unit 1 have the common theme of being expansive, with few view obstructions and many distant mountain views. Vegetation is limited primarily to grasses with low shrubs. Larger trees are notably absent and trees associated with human development are mainly windbreaks. Expansive valley views with distant mountains are the major natural visual features in this landscape unit (see Figures B-2, B-3, and B-4 in Appendix B for maps of Landscape Unit 1).

Land uses in and near Landscape Unit 1 that influence landscape character are largely comprised of utilities (scattered transmission lines throughout) and transportation (paved two-lane roads and local roads on a one-mile grid). With the exception of scattered rural residences, the landscape unit is primarily undeveloped. The far northern end of the landscape unit is dominated by the presence of wind turbines associated with wind development in the Tehachapi Mountains (character photo P-1.1) and by the Cal Cement facility. The PCT crosses the northwest corner of Landscape Unit 1 in a southwest-northeast direction. The PCT generally follows access roads and trails associated with the Los Angeles Aqueduct in this vicinity (SCE, 2007a). Although most of the PCT is situated to follow ridgelines, it has been diverted northeast of the nearest ridgeline in this area due to the location of private property (Tejon Ranch) where easements for the trail have not been granted. Segment 4 would traverse the PCT at MP 2.7. Fields devoted to irrigated and un-irrigated field crops are found in the central portion of Landscape Unit 1, particularly in the vicinity of the proposed Whirlwind Substation (character photo P-1.6). Major roads in Landscape Unit 1 include Oak Creek Road at the far north, Tehachapi-Willow Springs Road, Rosamond Boulevard, and Highway 138, all of which are paved roads. There is also a one-mile grid of paved and unpaved local roads throughout the unit. Toward the southern end of Landscape Unit 1, the Antelope Valley California Poppy Reserve, a 1,745-acre California State Park located on the Antelope Buttes at an elevation of approximately 2,600 to 3,000 feet, is an important area of recreational land use, albeit seasonal in the spring (California Department of Parks and Recreation. Antelope Valley California Poppy Reserve. 2008).

Important human-made features that can be seen within Landscape Unit 1 include the transmission lines, open pit mine operations, and the grid of paved and unpaved roads. The existing transmission lines are among the most visible human-made features in this landscape area.

To understand the context of the proposed Project in Landscape Unit 1, Table 2-7 summarizes features of the proposed Project (Alternative 2). Under Alternative 2, the following features would occur in Landscape Unit 1, the Northern Antelope Valley:

Table 2-7. Alternative 2 (Proposed Project) Components in Landscape Unit 1

Segment 10: New Windhub – Whirlwind 500-kV T/L
• Initiates at the Windhub Substation and ends at the new Whirlwind Substation • Construct new approximately 17-mile single-circuit Windhub – Whirlwind 500-kV T/L • All construction within new 330-foot-wide ROW (~17 miles) • Erect approximately 96 new single-circuit 500-kV lattice steel towers (LSTs) (94-172 feet tall) • Would require approximately 16 new pulling locations, 16 tensioner locations, and 7 new splicing locations
Segment 4: Whirlwind 500/220-kV T/L Elements
• Initiates at the Cottonwind Substation and ends at the existing Antelope Substation • Construct two new parallel 4-mile single-circuit 220-kV T/Ls (Cottonwind – Whirlwind 220-kV No. 1 & No. 2) • Construct new approximately 16-mile single-circuit Whirlwind – Antelope 500-kV T/L • All construction within new 200-foot-wide ROW (20 miles total) • Erect approximately 165 new transmission structures, including: ▪ 88 single-circuit 220-kV LSTs (90-120 feet tall) • 77 single-circuit 500-kV LSTs (113-188 feet tall)

Table 2-7. Alternative 2 (Proposed Project) Components in Landscape Unit 1
• Would require approximately 34 new pulling locations, 34 tensioner locations, and 19 new splicing locations
Segment 9: Substation Facilities
• Construct new Whirlwind Substation; activity would require acquisition of new substation property between approximately 102 to 113 acres

Segment 10 would establish a new ROW through the desert and Segment 4 would follow the existing Antelope-Magunden transmission line corridor. There is no existing transmission ROW in the vicinity of Segment 10. The existing transmission ROW throughout Segment 4 varies between 0 and 580 feet in width. Existing transmission structures throughout Segment 4 are a mix of lattice steel towers carrying either 220-kV or 500-kV conductors. The future Windhub Substation was approved as a part of the Antelope Transmission Project, Segment 3 (also known as ATP Segment 3 or TRTP Segment 3). The proposed Whirlwind Substation does not currently exist and is a necessary part of the proposed Project.

Sensitive viewers in Landscape Unit 1 include scattered homeowners with views of the transmission corridor and people driving throughout the unit, particularly on Oak Creek Road, Tehachapi-Willow Springs Road, Rosamond Boulevard, and Highway 138. Sensitive viewers also include seasonal visitors to the Antelope Valley California Poppy Reserve. The level of visual sensitivity varies by type of viewer and view duration and exposure, but is generally considered low-to-moderate for most of Landscape Unit 1, given the limited number of residences, minimal traffic, but high visual exposure and lack of vegetative or landform screening. The exception to this rule is the California Poppy Reserve and surrounding landscapes during poppy blooming season, generally March 31 to May 31 each year.

The study corridor in Landscape Unit 1 traverses through Kern and Los Angeles counties jurisdictions. Applicable laws, regulations, and standards relative to scenic quality for transmission lines in Landscape Unit 1 are included as part of comprehensive tables included in Appendix C. There are no designated state or local scenic highways located within Landscape Unit 1.

KOP-North-1 – Oak Creek Canyon Road (Segment 10)

KOP-North-1 was established on Oak Creek Canyon Road looking west toward the site of the future Windhub Substation that was approved as part of ATP 2-3. The existing condition photograph is the same as the "No Project/Action Alternative" for KOP-North-1, and this is consistent for all KOPs. Segment 10 of TRTP would start at the future Windhub Substation, approximately 200 feet south of Oak Creek Canyon Road on a relatively flat desert plain of the Mojave Desert, and approximately one mile east of the Cal Cement Substation access road, and proceed southwest across the desert. At this location, the desert appears flat, but is actually gently sloping, northwest to southeast. Looking west along Oak Creek Canyon Road, the Tehachapi Wind Resource Area is to the north (right) and the undeveloped Mojave Desert is

on the south (left) side of the road (see Figure A-3a – Existing Visual Condition at KOP-North-1 – Oak Creek Canyon Road). (For all KOP Figures with pairs of photographs/simulations, the "a" designates the photograph of existing landscape conditions and the "b" designates the computerized visual simulation). The future Windhub Substation would be a 500/220/66-kV facility. The site of Segment 10 MP 0.0 and the future Windhub Substation is approximately one mile away from this vantage point, a middleground viewing distance. Figure A-3a is representative of existing conditions seen at foreground and middleground viewing distances near S10 MP 0.0 to S10 MP 17.

Viewer Exposure: moderate-to-high. Because there is no landscape screening by landforms or vegetation, the proposed TRTP 500-kV single circuit transmission lines (and future Windhub Substation) would be highly visible in the middleground and foreground from Oak Creek Canyon Road. The number of viewers would be low-to-moderate. For all of these viewers, the duration of view would be brief because of the speed of travel and viewer exposure therefore would be moderate-to-high.

Viewer Concern: low. Many people who travel on Oak Creek Canyon Road work in the wind industry or at Cal Cement and can be expected to have low concern for visual impacts that would be caused by Windhub Substation and the transmission lines. Travelers on this road may be concerned with visual resources, but most are traveling through the area to other, more scenic destinations. Overall, viewer concern is estimated to be low.

Visual Quality: low. The primary focal points in this landscape are the numerous rows of large, white wind turbine generators that occupy the skyline to the north. The axial view created by Oak Creek Canyon Road leads the viewers' eye to secondary focal points – angular landforms of Tehachapi Mountains visible on the skyline. The motion of spinning rotors on existing wind turbine generators adds visual interest, but detracts from the natural-appearing landscape character and changes it to an industrial character landscape, resulting in a low visual quality rating.

Overall Visual Sensitivity: low-to-moderate. For viewers on Oak Creek Canyon Road in general, and from KOP-North-1 specifically, the moderate-to-high viewer exposure, low viewer concern, and low visual quality, lead to a low-to-moderate overall visual sensitivity of the visual setting and viewing characteristics.

KOP-North-2 – Tehachapi Willow Springs Road (Segment 10)

KOP-North-2 was established on Tehachapi Willow Springs Road, looking northwest, at the point where the road turns northwest, after running straight north for many miles in the Mojave Desert. A new 500-kV transmission line would exit Windhub Substation and head south across the flat, undeveloped desert plains. For the proposed Project from S10 MP 0.0 to S10 MP 17.0, the only vantage points of sensitive receptors are Oak Creek Canyon Road (see KOP-North-1), Tehachapi Willow Springs Road (see Figure A-4a – Existing Visual Condition at KOP-North-2 – Tehachapi Willow Springs Road), and Rosamond Boulevard near 170 Street West.

The proposed Project would cross over the Tehachapi Willow Springs Road at approximately S10 MP 4.3 and would follow along the Los Angeles Aqueduct from approximately S10 MP 7.5 to S10 MP 15.8. The aqueduct is an underground facility, with access roads being the only aboveground feature. As such, the aqueduct is not a landscape feature and does not attract attention. Figure A-4a is representative of existing conditions seen at foreground and middleground viewing distances from S10 MP 3.0 to S10 MP 9.0.

Viewer Exposure: moderate-to-high. The proposed Project would vary from zero miles to two miles away from sensitive receptor locations, and therefore, would be classified as foreground and middleground viewing distances. Because there is no landscape screening by landforms or vegetation, the proposed Project would be highly visible in the middleground and foreground from Tehachapi Willow Springs Road, as well as both Oak Creek Canyon Road. The number of viewers on Tehachapi Willow Springs Road would be moderate, and on Oak Creek Canyon Road would be low-to-moderate. For all of these viewers, the duration of view would be moderate-to-brief because of the speed of travel, resulting in a moderate-to-high viewer exposure.

Viewer Concern: low. People could view the transmission line from both Oak Creek Canyon and Tehachapi Willow Springs Roads. Many people who travel these roads work in the wind industry, at Cal Cement, or nearby agricultural operations. They can be expected to have low concern for visual impacts that would be caused by the proposed Project's transmission line. Travelers on these roads may be concerned with visual resources, but most are traveling through the area to other, more scenic destinations. Overall, viewer concern is estimated to be low.

Visual Quality: low. From S10 MP 0.0 to S10 MP 16.8, the landscape is characterized by a gently sloping desert plain, tilted slightly southeast, covered with gray-green creosote bush scrub and widely scattered Joshua trees. Widely spaced, shallow desert washes are obscured by this vegetation and are not visually evident to passers-by. The primary focal points in this landscape are the wind turbine generators on the skyline in the Tehachapi Wind Resource Area. The secondary focal point is the flat desert plain that creates a horizontal line in front of the rugged, barren, wind-swept mountains. The overall visual quality of the affected landscape is low.

Overall Visual Sensitivity: low-to-moderate. For viewers on Tehachapi Willow Springs Road in general, and from KOP-North-2 specifically, the low visual quality, low viewer concern, and moderate-to-high viewer exposure lead to a low-to-moderate overall visual sensitivity.

KOP-North-3 – 170th Street West (Segments 4, 9, 10)

KOP-North-3 was established on 170th Street West, about 1.5 miles south of Rosamond Boulevard, looking north toward the site of the TRTP Whirlwind Substation and two new 220-kV transmission lines of Segment 4 entering the proposed Whirlwind Substation from the northwest and one new 500-kV transmission line of Segment 10 entering from the northeast. Then one new 500-kV transmission line would proceed southeast toward Antelope Substation (see Figure A-5a – Existing Visual Condition at KOP-North-3 – 170 Street West). The location chosen for the KOP is located just south of the substation and transmission corridor, looking north into the Tehachapi Mountains.

The existing view from this KOP reveals widely scattered tumbleweeds on the immediate foreground plain, a sloping plain covered with dense creosote bush scrub that is contained by rolling hills in the middleground and the Tehachapi Mountains in the background. The PCT traverses the dense creosote brushfield in this landscape, although it is not visible in this photo. It generally follows access roads and trails associated with the Los Angeles Aqueduct before resuming a trail tread in the mountains to the right, further north. Although most of the PCT is situated to follow ridgelines, it has been diverted northeast of the nearest ridgeline (downhill onto the flats) in this area due to the location of private property (Tejon Ranch) where easements for the trail have not been granted. The two new 220-kV transmission lines of Segment 4 would cross over the PCT at S4 MP 2.7.

Faintly visible against the middleground hills are several existing transmission lines of the Antelope-Magunden corridor. Undeveloped flat lands on the west side of 170th Street give way to agricultural fields on the east side (out of view of this photograph, but visible from this KOP). The human-made elements of these transmission lines become somewhat transparent against the landform backdrop.

Viewer Exposure: moderate. The proposed Project would vary from zero to one mile away from viewers on 170th Street West at KOP-North-3 and from viewers on Rosamond Boulevard, and therefore would be classified as foreground and middleground viewing distances. Because there is no landscape screening by landforms or vegetation, the proposed Whirlwind Substation and dual 220-kV transmission lines would be highly visible in the foreground and middleground from 170th Street and Rosamond Boulevard. The number of viewers on 170th Street is low because it is a rural agricultural road, but is moderate to high for Rosamond Boulevard. For all of these viewers, the duration of view would be moderate-to-brief because of the speed of travel, resulting in a moderate viewer exposure.

Viewer Concern: low. People could view the proposed dual 220-kV transmission lines of Segment 4 as they enter the proposed Whirlwind Substation from the northwest and as the lines proceed southeast away from the Substation. Viewer concern is expected to be low, because the existing transmission lines have not been seen as objectionable by local residents, and no comments were received in scoping that opposed the proposed substation site.

Visual Quality: moderate. The combination of flat desert plain with scattered tumbleweeds, sloping plains leading up to rolling hills, with a mountainous backdrop in a near-natural state, create a visually interesting composition that has moderate-to-high existing visual quality. The presence of existing transmission lines slightly decreases the overall visual quality to an overall moderate level.

Overall Visual Sensitivity: low-to-moderate. For viewers on 170th Street West and Rosamond Boulevard in general, and from KOP-North-3 specifically, the moderate viewer exposure, low viewer concern, and moderate visual quality lead to a low-to-moderate overall visual sensitivity.

KOP-North-4 – California Poppy Reserve (Segment 4)

KOP-North-4 was established at the Antelope Buttes Vista Point within the Antelope Valley California Poppy Reserve, looking northeast (see Figure A-6a – Existing Visual Condition at KOP-North-4 – California Poppy Reserve). The Poppy Reserve is a day-use park, with a visitor center that is open from March 31 through May of each year to correspond with the typical poppy season. There are eight miles of trails that traverse the Antelope Buttes throughout the park. This KOP was selected because the Poppy Reserve is a heavily-visited destination during poppy season. This specific location is a viewing point identified on the Poppy Reserve trail map and is the viewpoint that is closest to the transmission corridor.

The foreground of KOP-North-4 consists of the rolling hills of the Antelope Buttes, gently sloping down to the valley through which the existing transmission corridor, as seen in the middleground, traverses approximately 1.4 miles in the distance. Due to the distance to the transmission corridor and because the transmission towers are situated with a landform backdrop, they become somewhat transparent and their visibility is relatively low. Also visible in the middleground are scattered residences, while the more urban areas of Lancaster and Palmdale and distant mountains are visible in the background. Most of the area visible from KOP-North- 4 is undeveloped, with the low grasses and shrubs typical of Landscape Unit 1.

Viewer Exposure: high. The proposed Project Segment 4 would vary from 1.4 miles to several miles away from sensitive receptors at the Poppy Reserve, making this a middleground view. Visibility to the new transmission line would be high because no landform or vegetative screening is available, however, there would be a landform backdrop as explained above. Large numbers of people would view this landscape during poppy blooming season and because this is a vista point and high point on a hiking trail system that is eight miles long, the duration of view would be long. Therefore, viewer exposure would be high.

Viewer Concern: high. People come to the Poppy Reserve to view poppies in bloom and to experience this unique landscape. Viewers at this KOP have come specifically to see the unique landscape at the Poppy Reserve and viewer concern is high for this valued landscape. New transmission line structures would increase the already industrial character of the transmission line corridor in this otherwise rural and natural-appearing landscape.

Visual Quality: high. The expansive views of the Antelope Buttes' rolling hills and Antelope Valley with mountains in the distance are visually pleasing. The vegetative cover of low grasses has minimal visual variety, but poppies provide much greater visual interest during their short blooming season. At that time, this landscape would have a high visual quality. As depicted in this photograph, existing visual quality during the out-of-bloom season is low, and is further degraded by the visual clutter of existing transmission lines that are marching across the Antelope Valley from north to south. The transmission corridor has lattice steel towers of various sizes and designs, further cluttering the view. Faintly visible residences in the distance and urban areas of Palmdale are minor focal points in this landscape but do not detract from the naturalness of the view as much as the transmission lines. Therefore, taking the worst case scenario during poppy blooming season, this landscape has high existing visual quality.

Overall Visual Sensitivity: high. For visitors to the California Poppy Reserve during poppy-blooming season in general, and from KOP-North-4 specifically, the high viewer exposure, high viewer concern, and high visual quality lead to a high overall visual sensitivity.

KOP-North-5 – 110th Street at Silverwind Way (Segment 4)

KOP-North-5 was established on 110th Street near its intersection to Silverwind Way, a private road. At this location, 110th Street is a Priority 2 County Scenic Highway (Los Angeles County. 2005. General Plan. Scenic highway priority 2 designations. 2007). This view is looking northwest across the Antelope Valley toward the Tehachapi Mountains in the background (see Figure A-7a – Existing Visual Condition at KOP-

North-5 – 110th Street at Silverwind Way). This location was selected to generally characterize the existing landscape in the North Area in the location of SCE's proposed Project and also the West Lancaster Alternative (see Section 2.4, Alternative 3). SCE's proposed Project would follow along 110th Street West for approximately two miles. Views from county roads in this vicinity encompass a predominantly natural-appearing landscape setting with limited development other than the existing roads and a few scattered ranch buildings.

West 110th Street is a straight north-south road that gradually descends in elevation from Portola Ridge into the flat Antelope Valley. Under the proposed Project, new 500-kV transmission lines and lattice steel towers would be located on the east side of the road, right next to the county road ROW. These structures would be very visually evident in the immediate foreground of West 110th Street from S4 MP 15.8 to S4 17.9, a distance greater than 2 miles, and would be very visually evident and incongruent with the natural-appearing scenery.

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-North-5 and all along 110th Street West for more than two miles. Although the duration of view for residents on Silverwind Way is extended, the number of potential viewers is relatively low. The number of viewers on 110th Street West is low-to-moderate, except in spring when the poppies bloom and the number of viewers is high and duration of view is moderate. Viewer exposure is therefore high.

Viewer Concern: high. Visitors and residents enjoy the predominantly natural setting with distant, panoramic sightlines to the Antelope Valley and Tehachapi Mountains. The widely scattered ranches have predominantly horizontal structures (one story buildings) and predominantly horizontal windbreaks of low-growing trees and evergreen shrubs. The vertical character of the existing transmission line structures are visible and contrast with the horizontal nature of the panoramic, open-space landscape. Although residents and visitors also accept the existing electric transmission infrastructure, any increase in industrial character visible from this county scenic highway, or blockage/impairment of skyline views by tower structures in the immediate foreground, would be perceived by viewers as an adverse visible change.

Visual Quality: moderate-to-high. The predominant visual elements of this scene are the horizontal lines of the Antelope Valley and the rugged diagonal lines created by the background mountain ranges. The existing 500-kV transmission lines are prominent vertical features in the middleground. 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 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, to a moderate-to-high level.

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

Landscape Unit 2

Landscape Unit 2 consists of the Antelope Substation and extends approximately 1 to 1.5 miles to the north and south of the substation. Landscape Unit 2 is roughly the dividing point in the Antelope Valley between the flat, undeveloped areas to the north and the more developed, hilly areas to the south. Landscape Unit 2 has been designated to capture potential views of the proposed expansion of the Antelope Substation. The area surrounding the Antelope Substation is characteristic of the flat high desert, with low, scrubby vegetation (character photo P-2.1). The landscape gently slopes from south to north, away from the Portola Ridge, with distant Sierra Pelona Mountains further to the south (see Figure B-4 in Appendix B for a map showing Landscape Unit 2).

Character photo P-2.2 shows typical views looking north through Landscape Unit 2. From this location, the landscape slopes gently northward, away from Portola Ridge, with views extending across the high desert plain to the far distant Tehachapi Mountains in the background. Expansive valley views with distant mountains are the major natural visual features in Landscape Unit 2.

Land uses in and near Landscape Unit 2 that influence landscape character are largely comprised of utility and transportation infrastructure (composed of transmission line corridors and the grid of paved and unpaved roads found throughout the Antelope Valley). Residences and homesteads are scattered throughout Landscape Unit 2, but there are no planned residential developments present. As evidenced in character photos P.2-1 and P.2-2, the existing transmission corridor is a major human-made feature in Landscape Unit 2. The existing Antelope Substation is approximately 13.8 acres in size, and the upgrade would require approximately 18 additional acres to the southeast (SCE, 2007a).

To understand the context of the proposed Project in Landscape Unit 2, Table 2-8 summarizes features of the proposed Project.

Table 2-8. Alternative 2 (Proposed Project) Components in Landscape Unit 2

Segment 9: Substation Facilities
• Expand and upgrade existing Antelope Substation to accommodate new 500-kV and 220-kV equipment; activity would require acquisition of additional substation property – approximately 18 acres for Antelope upgrade

Sensitive viewers in Landscape Unit 2 include scattered homeowners with views of the transmission corridors and Antelope Substation. Because these viewers are stationary, the level of visual sensitivity is considered high. The study corridor in Landscape Unit 2 traverses through both the City of Lancaster and Los Angeles County jurisdictions. Applicable laws, regulations, and standards relative to scenic quality for transmission lines Landscape Unit 2 are included as part of a comprehensive table included in Section 3 and Appendix C. There are no designated state or local scenic highways located within Landscape Unit 2.

KOP-North-6 – Avenue J at Antelope Substation (Segment 9)

KOP-North-6 was established on Avenue J looking southwest at the existing Antelope Substation. The camera location is just slightly east of the proposed expansion area for the Antelope Substation, as shown in Figure A-1, the KOP Map. KOP-North-6 was selected to represent views of the substation expansion by travelers driving west on Avenue J and from the scattered residences in the Project vicinity.

The existing view from KOP-North-6 is shown in Figure A-8a – Existing Visual Condition at KOP-North-6 – Antelope Substation. Avenue J and the flat high desert landscape form the foreground of KOP-North-6, extending toward the existing Antelope Substation and the proposed expansion area for the substation. The view from KOP-North-6 is dominated by the existing substation itself, and existing transmission lines leading into the substation from the northwest (right side of photo) and extending from the substation toward the southeast (left side of photo). In the middleground is Portola Ridge, which forms the backdrop for this KOP. Faintly visible in the middleground are scattered residences at the base of the Portola Ridge. Present, but not clearly visible, is the California Aqueduct, which follows the base of the Portola Ridge and seen as a horizontal line in the landscape. Vegetation is sparse, typical of Landscape Unit 2. The human-made elements of substation, transmission lines, and Avenue J in KOP-North-6 dominate the view. Where not obscured by the existing Antelope Substation, the backdrop of the Portola Ridge is the primary natural visual feature from this KOP.

Viewer Exposure: moderate-to-high. Because there is no landscape screening by landforms or vegetation, the proposed Antelope Substation expansion would be highly visible in the foreground as seen from Avenue J and middleground from other nearby roads and residences. The number of viewers is currently low-to-moderate; the duration of view would be brief for travelers and long for residents. Therefore, viewer exposure would be moderate-to-high.

Viewer Concern: moderate. KOP-North-6 was selected to represent views from travelers on Avenue J and residents in the vicinity of the Antelope Substation and the concern level for viewers is expected to be moderate.

Visual Quality: low-to-moderate. Rolling hills of Portola Ridge make a visually pleasing backdrop, but low grasses on this flat landscape lack visual interest. Existing transmission lines with a mix of structure types and heights, criss-crossing conductors, and the existing Antelope Substation are major human-made features that create a major reduction in overall visual quality for this landscape, reducing visual quality to a low-to-moderate level.

Overall Visual Sensitivity: moderate. For viewers on Avenue J in general, and from KOP-North-6 specifically, the moderate-to-high viewer exposure, moderate viewer concern, and low-to-moderate visual quality, lead to a moderate overall visual sensitivity of the visual setting and viewing characteristics.

Landscape Unit 3

This landscape unit extends from approximately 1.5 miles south of the Antelope Substation to approximately 1.5 miles north of the Vincent Substation. Much of Landscape Unit 3 lies within the cities of Lancaster and Palmdale, and traverses future developments proposed in areas at the western fringes of these communities. Landscape Unit 3 is characterized by the rolling hills of Portola Ridge, Ritter Ridge, and Sierra Pelona Ridge that divide the high desert of the Antelope Valley in the north from Soledad Canyon and the ANF to the south. Although largely undeveloped currently, multiple large-scale residential developments are proposed and/or underway along some segments of the proposed Project route for Segment 5 (see Figures B-4 and B-5 in Appendix B for maps showing Landscape Unit 3).

To understand the context of the proposed Project in Landscape Unit 3, Table 2-9 summarizes features of the proposed Project.

Table 2-9. Alternative 2 (Proposed Project) Components in Landscape Unit 3
Segment 5: Antelope – Vincent No. 2 500-kV T/L
• Initiates at the existing Antelope Substation and ends at the existing Vincent Substation • Remove the existing Antelope – Vincent 220-kV T/L and the existing Antelope – Mesa 220-kV T/L • Construct new approximately 18-mile single-circuit Antelope – Vincent No. 2 500-kV T/L • All construction in existing ROW (18 miles) • Erect approximately 67 new single-circuit 500-kV LSTs (113-188 feet tall) • Would require approximately 14 new pulling locations, 16 tensioner locations, and 7 new splicing locations

As evident in character photo P-3.1, the northern portion of Landscape Unit 3 is characterized by a gently increasing slope as the transmission corridor heads south toward Portola Ridge. Vegetation is typical of the high desert, consisting almost exclusively of low grasses. Character photo P-3.2 shows the existing transmission lines in Segment 5 as they approach the base of Portola Ridge. South of the area shown in character photo P-3.2, the transmission corridor quickly climbs Portola Ridge into a more rugged, hilly landscape, as shown in character photo P-3.3. P-3.3 shows the variety of transmission tower types represented in the transmission corridor of Segment 5 in the vicinity of Godde Hill Road.

Vegetation on Portola Ridge is sparse, with low scrub brush. Character photo P-3.4 shows the transmission corridor near Ritter Ridge, as viewed from Elizabeth Lake Road. In this location, existing transmission lines are clearly visible on the ridgeline as the transmission corridor drops into Anaverde Valley. Character photo P-3.5 shows the existing transmission corridor in Anaverde Valley, looking west. The landscape in this vicinity is gently sloping with rounded hills. Vegetation is notably absent in the foreground, as grading for a future residential development is underway, with grasses and low-growing brush on the middleground hills. A view of the transmission corridor as it crosses Sierra Pelona Ridge and heads south into Vincent Substation is shown in character photo P-3.6. A number of residences are visible at the base of Sierra Pelona Ridge, which has the same low scrubby vegetation as the other mountain ridges in Landscape Unit 3. Existing land uses in Landscape Unit 3 that influence landscape character are primarily comprised of utility (transmission lines) corridors and scattered residences and homesteads at the base of the mountain ridges throughout the unit. Future proposed land uses in Landscape Unit 3 include the major residential developments of Anaverde, Ritter Ridge, and Quail Valley. The study transmission corridor is a major human-made feature in Landscape Unit 3. Existing ROW cross-sections for Segment 5 are shown in Chapter 2 of the EIR/EIS (Description of Alternatives). The existing ROW associated with Segment 5 is 200 feet wide. The existing transmission ROW in Segment 5 varies between 380 and 920 feet wide. Existing transmission structures along Segment 5 are a mix of lattice steel towers carrying either 220-kV or 500-kV conductors and tubular steel towers carrying 220-kV conductors (SCE, 2007a).

Sensitive viewers in Landscape Unit 3 include residents with views of the transmission corridor, and travelers on the roads that cross the ridgelines in the vicinity of Landscape Unit 3, particularly Elizabeth Lake Road and Godde Hill Road. The level of visual sensitivity ranges from moderate (for travelers) to high (for residents).

The study corridor in Landscape Unit 3 traverses through jurisdictions that include the cities of Lancaster and Palmdale and Los Angeles County. Applicable laws, regulations, and standards relative to scenic quality for Landscape Unit 3 are included as part of a comprehensive table included in Section 3 and Appendix C. There are no designated State scenic highways located within Landscape Unit 3, but several roads are called out as Priority 2 County Scenic Highways in the County of Los Angeles General Plan (including 110th Street, Johnson Road, Elizabeth Lake Road, and Bouquet Canyon Road) (County of Los Angeles, 2005).

KOP-North-7 – Avenue L Near Olive Grove (Segment 5)

KOP-North-7 was established on Avenue L near an existing homestead with an olive grove, looking southeast. The proposed Project would traverse the flat desert plain of Antelope Valley, following multiple existing transmission lines in the Antelope-Vincent Corridor (see Figure A-9a – Existing Visual Condition as seen from KOP-North-7 – Avenue L at Olive Grove). Segment 5 would remove two existing 220-kV lines and replace them with one new 500-kV line in the same alignment. Additionally, Segment 2 of the already approved Antelope Transmission Project would remove the line of wooden 66-kV transmission poles and replace them with 75-foot-tall, light-weight, direct-buried tubular steel poles, 180 feet west of and parallel to the existing alignment of the existing wooden structures. Following this relocation, Segment 2 will construct the proposed 500-kV lattice steel towers in the location of the existing 66-kV transmission poles. Figure A-9a is representative of existing conditions seen at foreground and middleground viewing distances from S5 MP 0.0 to S5 MP 4.4.

Viewer Exposure: moderate-to-high for residences, moderate for roads. The proposed Project would be highly visible from nearby residential properties at KOP-North-7. Sensitive receptors also would be located on Avenue L, 70th Street West, and at the residential developments just east of the utility corridor and north and south of Avenue M. The proposed Project would be vary from zero miles to 0.5 miles away, and therefore, would be classified as foreground viewing distances. Currently, the number of viewers is low at these widely scattered residences, but from each, the duration of view is extended, resulting in high viewer exposure. From roads that cross the Study Area, the number of viewers is low-to-moderate and duration of view is brief because of travel speeds, resulting in moderate viewer exposure.

Viewer Concern: low for residences, high for roads. From roads throughout the Study Area, viewer concern is the same as described for KOP-North-6 above for most of the year. For a few weeks in spring, viewer concern is high when poppies are in bloom. From residences within this portion of the Study Area, viewer concern is low, based on the fact that many houses and homesteads have been built immediately adjacent to the Antelope-Vincent utility corridor and existing transmission lines.

Visual Quality: low. Looking southeast, the primary focal point in this landscape is Portal Ridge, a fairly horizontal grass-covered ridgeline with scattered evergreen shrubs. The secondary focal point is the horizontal line formed by the desert plain as it meets the foot of Portal Ridge. The California Aqueduct runs along the lower slopes, and is visible as a faint horizontal line, but does not attract attention. Within the Study Area from S5 MP 0.0 to S5 MP 4.4, the visual quality of this landscape is low because of the lack of topographic features, water features, or interesting vegetation on the desert floor, and the presence of multiple transmission lines that visually clutter the landscape.

Overall Visual Sensitivity: low-to-moderate for residences, moderate for roads. For residents living near the proposed Project at S5 MP 0.0 to S5 MP 4.4, and from KOP-North-7 specifically, the moderate-to-high viewer exposure, low viewer concern, and low visual quality lead to a low-to-moderate overall visual sensitivity. For travelers on nearby roads, the moderate viewer exposure, high viewer concern, and low visual quality lead to a moderate overall visual sensitivity for the current situation.

KOP-North-8 – Avenue N at Agena Road (Segment 5)

KOP-North-8 was established on Avenue N at Agena Road, looking south (see Figure A-10a – Existing Visual Condition as seen from KOP-North-8 – Avenue N at Agena Road). From S5 MP 4.4 to S5 MP 6.4, the proposed Project would cross over the crest of Portal Ridge. Because Portal Ridge forms a landscape backdrop for much of the Antelope Valley and the City of Lancaster, any skylining of additional industrial character structures would be a potential visual impact. There are numerous major roads from which the proposed Project would be viewed with Portal Ridge as a backdrop or with towers seen on the skyline, including 70th Street West, 60th Street West, Avenue M-8, Godde Hill Road, and Avenue N. Numerous minor roads and residential streets also provide views to the proposed Project for nearby residents and visitors to Lancaster. A new development is currently under construction at the Quartz Hill Water Treatment Plant of the Antelope Valley East Kern (AVEK) Water Agency, in the immediate foreground of KOP-North-8.

Viewer Exposure: high. Because there is no screening by landforms or vegetation, the proposed Project would be highly visible on the slopes of Portal Ridge at foreground and middleground viewing distances from S5 MP 4.4 to S5 MP 6.4, and specifically as seen from KOP-North-8. The duration of view would be extended from these residential neighborhoods, and the number of potential viewers would be high; therefore the overall viewing exposure would be high.

Viewer Concern: moderate. Visitors and residents enjoy the predominantly rural setting with panoramic sightlines to Portal Ridge on the west side of Lancaster. Nearby residents enjoy the natural-appearing backdrop to their homes and neighborhoods, with panoramic vistas to the round landforms and mottled vegetation. Because residents are familiar with and accepting of existing transmission lines in the Antelope-Vincent corridor, viewer concern is determined to be moderate.

Visual Quality: low-to-moderate. The primary focal point in this landscape is now the new construction in the immediate foreground, plus the skyline ridge, which forms an extensive vertical backdrop against the flat desert plain and flat residential neighborhoods of Lancaster. Secondary focal points are the vertical lines and angular forms of the various transmission line structures in the Antelope-Vincent Corridor, which are seen crossing Portal Ridge in this view. The California Aqueduct forms a horizontal line crossing the lower slopes of Portal Ridge throughout this portion of the Study Area, and in the foreground of this view, a chain link fence surrounds the Antelope Valley East Kern (AVEK) Water Treatment Facility that is undergoing new construction. Portal Ridge in its natural state exhibits a moderately high degree of intactness and coherence of form and character with moderate visual variety. But the presence of transmission lines and the aqueduct has introduced an industrial character to this otherwise natural-appearing landscape, lowering visual quality to a low-to-moderate level. Figure A-10a is representative of existing conditions seen at foreground and middleground viewing distances from S5 MP 4.4 to S5 MP 6.4.

Overall Visual Sensitivity: moderate. For residents and visitors to western Lancaster in general and KOP-North-8 specifically, the high viewer exposure, moderate viewer concern, and low-to-moderate visual quality lead to a moderate overall visual sensitivity of the visual setting and viewing characteristics.

KOP-North-9 – Godde Hill Road (Segment 5)

At approximately S5 MP 6.4, the proposed Project would cross over Godde Hill Road, just downhill on the north side of Godde Pass on Portal Ridge. KOP-North-9 was established on Godde Hill Road at the center of the existing utility corridor, looking southeast. There is a turnout at this location along the twisting, two-lane paved road. During site investigations, it was noted at several times that people were stopped at the turnout, looking at the five existing transmission lines that cross the road at this location (see Figure A-11a – Existing Visual Condition as seen from KOP-North-9 – Godde Hill Road).

Viewer Exposure: moderate-to-high. The proposed Project Segment 5 would be situated in the middle of this utility corridor, and would replace two existing 220-kV lines with one 500-kV line. This utility corridor is visible from zero miles to 0.5 miles away, resulting in foreground viewing distances. Figure A-11a is representative of existing conditions seen at foreground viewing distances from S5 MP 6.3 to S5 MP 6.7. Because there is no screening by landforms or vegetation, Segment 5 would be highly visible on the slopes of Portal Ridge at foreground viewing distances as seen from KOP-North-9. The duration of view would be brief on this twisting mountain road, and the number of potential viewers would be high; therefore the overall viewing exposure would be moderate-to-high.

Viewer Concern: moderate. No residences are located along Godde Hill Road in the vicinity of KOP-North-9. While driving over Godde Pass, visitors and residents enjoy the predominantly rural setting with panoramic sightlines to the City of Lancaster on the north and Leona Valley to the south. During public meetings held in Quartz Hill for the already approved Antelope-Pardee Transmission Project, Segment 1 (TRTP 1), residents of Leona Valley spoke in opposition to the Antelope-Pardee Alternative 5 in their Leona Valley neighborhoods, but did not speak in opposition to the proposed crossing of Godde Hill Road or refer to visual impacts in this vicinity (Aspen, 2006a). Because residents are familiar with and accepting of existing transmission lines in the Antelope-Vincent corridor, viewer concern is determined to be moderate at Godde Hill Road.

Visual Quality: low-to-moderate. The primary focal points in this landscape are the industrial character transmission line towers and conductors that punctuate the skyline view of Portal Ridge and the different tower configurations of each line. Secondary focal points are the scattered dark-green and gray-green shrubs on the gently rolling, grass-covered hillsides. Access and spur roads are present in the landscape, but have revegetated to such an extent that they are not visually evident. The interesting landforms and vegetative patterns have moderate visual quality, but the presence of these industrial character structures lowers visual quality to a low-to-moderate level.

Overall Visual Sensitivity: moderate. For residents and visitors traveling over Portal Ridge and Godde Pass on Godde Hill Road, and as seen from KOP-North-9 specifically, the moderate-to-high viewer exposure, moderate viewer concern, and low-to-moderate visual quality lead to a moderate overall visual sensitivity of the visual setting and viewing characteristics.

KOP-North-10 – Elizabeth Lake Road (Segment 5)

KOP-North-10 was established on Elizabeth Lake Road (a Second Priority County Scenic Highway) near several existing rural ranchettes, looking north (see Figure A-12a – Existing Visual Condition as seen from KOP-North-10 – Elizabeth Lake Road). From S5 MP 6.7 to S5 MP 7.9, the proposed Project would be visible from Elizabeth Lake Road and these residential ranchettes. The proposed Project Segment 5 would replace two existing 220-kV lines with one 500-kV line and would pass near one uninhabited and three inhabited residences in this vicinity. The AV Buffalo Ranch is one of the affected properties, as shown in the thumbnail photo to the left. At approximately S5 MP 7.5, the proposed Project would enter property owned by Ritter Ranch Development, a large planned development currently under construction. Figure A-12a is representative of existing conditions seen at foreground viewing distances from S5 MP 6.7 to S5 MP 7.9.

Viewer Exposure: high. The proposed Project would be highly visible from these residential properties because it would cross directly behind existing houses. As seen from Elizabeth Lake Road, the proposed Project would be highly visible on the slopes of Portal Ridge at foreground viewing distances from S5 MP 6.7 to S5 MP 7.9, and specifically as seen from KOP-North-10. The duration of view would be extended from these residential neighborhoods, and the number of potential viewers would be moderate. With the development of Ritter Ranch, immediately adjacent to this KOP, the number of viewers is predicted to be high. Therefore the overall viewing exposure would be high.

Viewer Concern: high. During scoping meetings held in Rosamond and Palmdale for the already approved Antelope Transmission Project, Segment 2 (ATP 2), residents of the three occupied houses spoke in opposition to the proposed Segment 2 route based on visual impacts, housing, and land use impacts (Aspen, 2006b). Residents suggested possible realignments but did not oppose the proposed Project; their primary concern related to the desire to protect existing homes. Neighbors along Elizabeth Lake Road also spoke in opposition of the proposed alignment and in support of their friends and neighbors. The road is less than 0.5 mile from the proposed Project, and three houses are directly adjacent to the utility corridor, making this a foreground landscape view. Based on the intensity of comments during scoping, viewer concern is determined to be high.

Visual Quality: moderate-to-high. The primary focal points in this landscape are its unique wildlife (American Bison) and the horizontal skyline backdrop formed by Portal Ridge. Additional focal points are created by the large, industrial transmission line structures of various designs and configurations – tall, narrow, gray LSTs, wider, shorter, gray lattice steel towers, and white tubular steel poles. Secondary focal points are the houses and ranch buildings, fence lined driveways, and residential landscaping. Newly graded earth is exhibited in the immediate foreground and Elizabeth Lake Road is being widened and straightened by the Ritter Ranch Developers. Without the transmission lines on the skyline, this rural, pastoral landscape would exhibit high visual quality, but the introduction of these towers and conductors has lowered the visual quality to a moderate-to-high level.

Overall Visual Sensitivity: high. For residents of Elizabeth Lake Road in general and KOP-North-10 specifically, the high viewer exposure, high viewer concern, and moderate-to-high visual quality lead to a high overall visual sensitivity of the visual setting and viewing characteristics.

KOP-North-11 – Sierra Pelona Ridge from Avenue S (Segment 5)

KOP-North-11 was established on Avenue S looking southwest at Sierra Pelona Ridge. As before, two existing 220-kV lines would be replaced by one 500-kV line in this vicinity leading into the Vincent Substation south of the Antelope Freeway (I-14). Visual characteristics of the landscape are similar from approximately S5 MP 14.8 to S5 MP 20.2. This KOP is typical of views from many different vantage points, including new residential streets in the Anaverde and Palmdale 1000 Developments, existing residential streets in Palmdale and Acton, Tuckerway Ranch Road, Peaceful Valley Road, and Avenue S (see Figure A-13a – Existing Visual Condition as seen from KOP-North-11 – Sierra Pelona Ridge from Avenue S). Currently under construction, the Anaverde Development is visible on the right in this photograph and the proposed Palmdale 1000 Development would be constructed on vacant lands to the left side in this photograph.

Viewer Exposure: high. Because there is no screening by landforms or vegetation, the proposed Project would be highly visible on the slopes of Sierra Pelona Ridge at foreground and middleground viewing distances from S5 MP 14.8 to S5 MP 20.2 in general, and specifically as seen from KOP-North-11. The duration of view would be brief from Avenue S, but long for residents and the number of potential viewers would be high; therefore the overall viewing exposure would be high.

Viewer Concern: High. Visitors and residents enjoy the predominantly rural setting with panoramic sightlines to the eastern end of Sierra Pelona Ridge in the City of Palmdale. Nearby residents enjoy the natural-appearing backdrop to their homes and neighborhoods, with panoramic vistas to the grass-covered, rounded landforms. Because residents are familiar with and accepting of existing transmission lines in the Antelope-Vincent corridor and because many comments were received about visual impacts during scoping meetings, viewer concern is determined to be high.

Visual Quality: moderate. The primary focal points in this landscape are the rounded landforms that create a strong horizon line at Sierra Pelona Ridge, the rolling, grass-covered foothills beneath, and the communication towers on the skyline. Secondary focal points are the transmission lines with various structure designs and configurations (lattice steel towers and tubular steel poles) and the row of wooden poles at the sub-transmission line along Avenue S. Because of the multitude of existing and new streets near this segment of the proposed Project, it would be seen at foreground and middleground viewing distances. From approximately S5 MP 14.8 to S5 MP 20.2, the proposed Project would be located at a midslope location, below the skyline, and new towers and conductors therefore would not be seen in silhouette from most vantage points, and would not degrade the visual quality. Figure A-13a is representative of existing conditions seen at foreground and middleground viewing distances from S5 MP 14.8 to S5 MP 20.2. The overall visual quality of this portion of the proposed Project is moderate.

Overall Visual Sensitivity: moderate-to-high. For residents and visitors who travel along Avenue S looking at Sierra Pelona Ridge in Palmdale and other vantage points described above, and KOP-North-11 specifically, the high viewer exposure, high viewer concern, and moderate visual quality lead to a moderate-to-high overall visual sensitivity of the visual setting and viewing characteristics.

Landscape Unit 4: Soledad Pass

This landscape unit is centered on the Vincent Substation and includes parts of Soledad, Kentucky Springs, and Aliso Canyons. It is situated between Landscape Unit 3 to the north and the ANF and Landscape Unit 5 to the south. This landscape unit is entirely located within unincorporated Los Angeles County. Segments 6 and 11 pass through this landscape unit and the expansion of Vincent Substation, Segment 9, is located here (see Figure B-6 in Appendix B for a map of Landscape Unit 4).

Landscape Unit 4 is surrounded by a series of rounded low hills covered with arid vegetation consisting mostly of grasses and low shrubs. Hillsides and canyons contain patches of larger shrubs and trees such as junipers and oaks. Several of the intermittent streams found in the unit are lined with sparse riparian vegetation.

Land uses in and near this area that influence landscape character include utility, transportation, residential, and some scattered areas of commercial and light industrial. The Vincent Substation and the transmission lines that feed into and out of it are the most visible human-made elements in the unit. A number of transmission corridors pass through the unit from numerous directions and all are quite visible. Transportation features are also highly visible and influence landscape character. The most visually dominant is Highway 14 (the Antelope Valley Freeway) which follows the west side of Soledad Canyon and is the backbone of a major transportation corridor that includes the Union Pacific railroad track (which is used for transporting freight and commuter trains), the Metrolink Light Rail train station (character photo P-4.1), Buffalo Ridge Road, Soledad Canyon Road, Carson Mesa Road (character photo P-4.2), and the Sierra Highway (character photo P-4.3). The Angeles Forest Highway runs through the unit in a north-south direction and provides access to the substation and ANF beyond (character photos P-4.3 and P-4.4). In addition to the transportation elements mentioned, numerous local public and private roads, generally unpaved, are scattered throughout the unit. They provide access to residential areas and isolated residences. Additionally, the Metrolink station is located on the west side of the tracks in this unit and faces east. Residential areas include the community of Soledad, a subdivision west of the substation that is centered on Foreston Road, an area near the Vincent Fire Station (west of Highway 14), and scattered rural residences accessed from the Angeles Forest Highway and Aliso Valley Road.

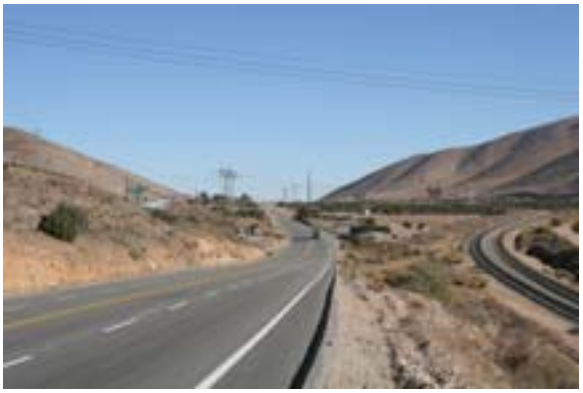
Sensitive viewers in this landscape unit include homeowners who can view the substation and transmission corridors, residents in the general vicinity of the unit, people waiting at the Metrolink station, and people driving on the freeway, highways, and roads. The level of visual sensitivity varies by type of viewer and view duration, and distance zone. Residents have views of long duration and varying distance zones. They are quite familiar with the nearby landscape and their concern level is assumed to be high. Drivers and commuters have shorter duration views and are assumed to have a moderate level of visual concern.

Existing ROW cross-sections for Segments 5, 6, and 11 are shown in Chapter 2 of the EIR/EIS (Description of Alternatives). The existing ROW associated with Segment 5 varies from 200 to 680 feet wide; with Segment 11, the existing ROW is between 200 to over 400 feet wide; and with Segment 6, it is 200 to 400 feet wide. In some portions of Segment 5, the existing transmission ROW is 680 feet wide. In some locations along Segments 11 and 6, the ROW is up to 1,090 feet wide where the transmission lines diverge from one another. Existing transmission structures throughout this area are LSTs at varying heights carrying either 220-kV or 500-kV conductors. The existing Vincent Substation is approximately 13.4 acres in size (SCE, 2007a). To understand the context of the proposed Project (Alternative 2) in Landscape Unit 4, Table 2-10 summarizes features of the proposed Project.

The study corridor in Landscape Unit 4 traverses through Los Angeles County jurisdiction. Applicable laws, regulations, and standards relative to scenic quality for Landscape Unit 4 are included as part of a comprehensive table included in Section 3 and Appendix C. There are no designated state or local scenic highways located within Landscape Unit 4.

Table 2-10. Alternative 2 (Proposed Project) Components in Landscape Unit 4
Segment 9: Substation Facilities
• Expand and upgrade existing Vincent Substation to accommodate new 500-kV and 220-kV equipment; activity would require acquisition of additional substation property – approximately 0.2 acre for Vincent upgrade; Vincent expansion would disturb approximately 18 acres
Segment 5: Antelope – Vincent No. 2 500-kV T/L
• Initiates at the existing Antelope Substation and ends at the existing Vincent Substation • Remove the existing Antelope – Vincent 220-kV T/L and the existing Antelope – Mesa 220-kV T/L • Construct new approximately 18-mile single-circuit Antelope – Vincent No. 2 500-kV T/L • All construction in existing ROW (18 miles) • Erect approximately 67 new single-circuit 500-kV LSTs (113-188 feet tall) • Would require approximately 14 new pulling locations, 16 tensioner locations, and 7 new splicing locations
Segment 11: New Mesa -- Vincent (via Gould) 500/220-kV T/L
• Initiates at the existing Vincent Substation and ends at the existing Mesa Substation • Remove approximately 4 miles of the existing Vincent – Pardee No. 1 220-kV T/L • Remove approximately 15 miles of the existing Pardee – Eagle Rock 220-kV T/L • Construct new approximately 19-mile 500-kV single-circuit T/L between Vincent and Gould Substations (initially energized at 220 kV) • String approximately 18 miles of new 220-kV conductor on the vacant side of the existing double-circuit structures of the Eagle Rock-Mesa 220-kV T/L • Most construction within existing ROW, except for approximately 3 miles north of Gould Substation where existing ROW would be expanded on the west side to maintain a ROW width of 250 feet (currently the ROW width varies) • Erect approximately 76 new transmission structures, including: ▪ 2 single-circuit 220-kV poles (120 feet tall) ▪ 7 single-circuit 220-kV LSTs (120-160 feet tall) ▪ 67 single-circuit 500-kV LSTs (100-220 feet tall) • Would require approximately 12 new pulling locations, 15 tensioner locations, and 5 new splicing locations • A portion of this segment (S11 MP 1.5 to 18.7) would be located within the ANF (USDA National Forest System land)

KOP-North-12 – Sierra Highway and Antelope Valley Freeway (Segment 5)



KOP-North-12 was established on the Sierra Highway looking northeast at the Antelope Valley Freeway corridor. At approximately S5 MP 20.4 to S5 MP 20.6, the proposed Project would cross over the Antelope Valley Freeway (a six-lane highway), the Sierra Highway (a two-lane highway), and the Acton/Vincent Grade Metrolink railroad (two-tracks) (see Figure A-14a – Existing Visual Condition as seen from KOP-North-12 – Sierra Highway and Antelope Valley Freeway).

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-North-12. The duration of view would be brief for travelers on the Sierra Highway and Antelope Valley Freeway, moderate for commuters at the train station, and high for residents in the Hidden Valley area, just to the left (north) of this photo. The number of viewers would be high, considering the volume of traffic on all three travel routes, leading to a high viewer exposure rating.

Viewer Concern: moderate-to-high. Because of the multitude of existing transportation routes in this segment, the proposed Project would be seen at foreground and middleground viewing distances. From approximately S5 MP 20.2 to S5 MP 20.9 as represented in Figure A-14a, the proposed Project would be visible against the skyline from many different angles and views, and therefore, new towers and conductors would be seen in silhouette from various vantage points. Figure A-14a is representative of existing conditions seen at foreground and middleground viewing distances from S5 MP 20.2 to S5 MP 20.9. Travelers on the Sierra Highway and Antelope Valley Freeway enjoy the panoramic views of Soledad Pass 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 would be moderate for commuters, but would be high for residents, leading to an overall moderate-to-high rating. Any blockage or impairment of views to the skyline, such as would occur with the new transmission line in the proposed Project, may be seen as an adverse visible change.

Visual Quality: low. The primary focal points in this landscape are the rounded landforms that create a strong horizon line as Sierra Pelona Ridge terminates at Soledad Pass in the center of this photograph, multiple lattice steel towers and tubular steel poles of various transmission lines crossing the highways, and on the right, the rolling, grass-covered foothills of the San Gabriel Mountains that create enclosure for this view. The proposed Project Segment 5 would replace two 220-kV lines with one 500-kV line, as seen in the center of this photograph, and the new transmission line would cross this view from left to right on its way to the Vincent Substation. Existing visual quality of the undeveloped landscape in this view was low-to-moderate and the introduction of the freeway, highway, railroad, and transmission lines has lowered visual quality to a low level.

Overall Visual Sensitivity: moderate. For travelers on the Sierra Highway, Antelope Valley Freeway and railroad in general, and KOP-North-12 specifically, the high viewer exposure, moderate-to-high viewer concern, and low visual quality lead to a moderate overall visual sensitivity of the visual setting and viewing characteristics.

KOP-North-13 – Acton/Vincent Grade Metrolink Park and Ride (Segment 5)

KOP-North-13 was established at the Acton/Vincent Grade Metrolink Park and Ride access road, looking south to the Vincent Substation. The proposed Project would be located approximately 0.1 mile west of the Acton/Vincent Grade Metrolink Park and Ride and looking south from this facility, the Vincent Substation and a multitude of transmission lines are visible (see Figure A-15a – Existing Visual Condition as seen from KOP-North-13 – Acton/Vincent Grade Metrolink Park and Ride). Looking between the two lattice steel towers in the center of this photograph, the viewer can see a multitude of parallel transmission lines exiting the Vincent Substation and heading south over the San Gabriel Mountains into Landscape Unit 5. The proposed Project would remove two existing 220-kV lines and replace them with one 500-kV line that would lead into the substation (see Section 1.2, The Proposed Project/Action and Alternatives). This photograph is representative of the proposed Project from S5 MP 20.5 to its terminus at S5 MP 21.6 in the substation. The Angeles Forest Highway is approximately 0.25 mile east of this location, and it runs parallel to the transmission line, thereby affording foreground views to the proposed Project.

Viewer Exposure: high. Because there is no screening by landforms or vegetation, the proposed Project would be highly visible in the foreground as seen from KOP-North-13. The duration of view would be moderate for commuters at the train station. The number of viewers would be high, considering the volume of traffic, leading to a high viewer exposure rating.

Viewer Concern: moderate. Commuters at the Park and Ride enjoy the panoramic views of Soledad Canyon, as portrayed in this view, on their way to Los Angeles. However, the primary use at the Park and Ride is for commuting. Therefore, the concern with scenic attributes of the landscape would be moderate.

Visual Quality: low. The focal points in this landscape are all of the industrial character transmission lines, towers, and conductors that dominate the landscape. Many of the towers and lines are seen in silhouette against the skyline, furthering their visual contrast with the natural landscape. Natural vegetation in the area consists of native grasses, sagebrush, scrub pine, and junipers, all of which provide little-to-no vegetative screening for the large industrial character structures. The existing Vincent Substation is located on a small knoll surrounded by hills at the upper end of Soledad Canyon near Soledad Pass and south of the City of Palmdale. Figure A-15a is representative of existing conditions seen at foreground and middleground viewing distances from S5 MP 20.5 to its terminus at the existing Vincent Substation at S5 MP 21.6. The resulting visual quality of this landscape is low.

Overall Visual Sensitivity: moderate. For commuters at the Acton/Vincent Grade Metrolink Park and Ride in general, and KOP-North-13 specifically, the high viewer exposure, moderate viewer concern, and low visual quality lead to a moderate overall visual sensitivity of the visual setting and viewing characteristics.

Center Area: San Gabriel Mountains Landscape Region

The Center Area (San Gabriel Mountains Landscape Region) consists of Landscape Units 5 through 8. All of TRTP Segment 6 and approximately 46 percent of Segment 11 would occur inside the ANF boundary, the Center Area. Elements associated with the proposed Project in the Center Area are listed in Table 2-11, below, but are not listed again in the description of each Landscape Unit within the ANF.

Table 2-11. Alternative 2 (Proposed Project) Components in Center Area (Landscape Units 5 through 8)

Segment 11: New Mesa – Vincent (via Gould) 500/220-kV T/L
• Initiates at the existing Vincent Substation and ends at the existing Mesa Substation • Remove approximately 4 miles of the existing Vincent – Pardee No. 1 220-kV T/L • Remove approximately 15 miles of the existing Pardee – Eagle Rock 220-kV T/L • Construct new approximately 18.7-mile 500-kV single-circuit T/L between Vincent and Gould Substations (initially energized at 220 kV) • Re-route portions of two existing 220-kV lines into Vincent Substation using currently idle towers. • String approximately 17.5 miles (approximately 3.3 miles are located on NFS lands) of new 220-kV conductor on the vacant side of the existing double-circuit structures of the Eagle Rock-Mesa 220-kV T/L (9 existing structures are located on NFS lands) • Most construction within existing ROW; however, the ROW may need to be expanded by up to approximately 250 feet to the west along the approximately 16 miles north of Gould Substation to maintain safe clearances from the edge of the ROW due to wire swing of the new 500-kV T/L under wind loading conditions • Erect approximately 76 new transmission structures (59 LSTs on NFS lands), including: ▪ 2 single-circuit 220-kV poles (120 feet tall) ▪ 7 single-circuit 220-kV LSTs (120-160 feet tall) ▪ 67 single-circuit 500-kV LSTs (100-220 feet tall) , of which 17 are configured as delta towers (10 on NFS lands) • Construction of 16 structures by helicopter (all on NFS lands), supported by 7 helicopter staging areas (4 on NFS lands) • Would require approximately 36 wire setup sites for pulling/tensioner/splicing of conductor wire (11 on NFS lands) • Approximately 40 miles (±15% range of 34 to 46 miles) of roads, of which approximately 33 miles (±15% range of 28 to 38 miles) would be on NFS lands, would be created (new), reconstructed, or require some amount of maintenance

Table 2-11. Alternative 2 (Proposed Project) Components in Center Area (Landscape Units 5 through 8)
• The majority of this segment would be located on NFS lands including: S11 MP 1.5-3.5, 3.75-18.5, 19.25-20.3, 20.8-21.3, 21.8-22.6, 23.05-24.15, and 24.35-24.55 (in-holdings or other non-NFS lands are located between the mileposts listed)
Segment 6: Section of New Replacement Rio Hondo – Vincent No. 2 500-kV T/L (initially energized at 220 kV) and Section of New Mira Loma – Vincent 500-kV T/L
• Initiates at the existing Vincent Substation and ends at the southern boundary of the ANF • Remove approximately 5 miles of the existing Rio Hondo – Vincent No. 2 220-kV T/L between Vincent Substation and the "crossover" span (S6 MP 5.0) • Construct new approximately 5-mile single-circuit Mira Loma – Vincent 500-kV T/L from the Vincent Substation to the "crossover" span (S6 MP 5.0) • Remove approximately 26.9 miles of the existing Antelope – Mesa 220 kV T/L from Vincent Substation to the southern boundary of the ANF • Construct new approximately 26.9-mile single-circuit Rio Hondo – Vincent No. 2 500-kV T/L (initially energized at 220 kV) • Eliminate the existing crossing of the Vincent – Rio Hondo No. 2 220-kV T/L over the Antelope – Mesa 220-kV T/L • All proposed permanent infrastructure to be located within existing ROW (approx. 27 miles) • Erect approximately 138 total new transmission structures (105 on NFS lands – 99 LSTs and 6 tubular steel poles [TSPs]), including: ▪ 2 single-circuit 220-kV LSTs (90-120 feet tall) ▪ 26 single-circuit 500-kV tubular steel poles (TSPs) (75-200 feet tall) ▪ 106 single-circuit 500-kV LSTs (85-193 feet tall) ▪ 4 three-pole dead-end 500-kV structures (75-80 feet tall) [all off NFS lands] • Construction of 17 structures by helicopter (all on NFS lands), supported by 6 helicopter staging areas (5 on NFS lands) • Would require approximately 19 wire setup sites for pulling/tensioner/splicing of conductor wire (16 on NFS lands – In addition, 5 alternate sites have been identified on NFS lands) • Approximately 60 miles (±15% range of 51 to 69 miles) of roads, of which approximately 57 miles (±15% range of 49 to 66 miles) would be on NFS lands, would be created (new), reconstructed, or require some amount of maintenance • The majority of this segment would be located on NFS lands including: S6 MP 1.45-1.7, 2.75-5.3, 5.65-6.7, 6.7-6.95, 7.05-24.8 (in-holdings or other non-NFS lands are located between the mileposts listed)
Segment 9: Substation Facilities
• Upgrade existing Gould Substation to accommodate new 220-kV equipment

The landscape units selected to represent the ANF in this Visual Resource Specialist Report are based upon "Places" identified in the ANF Forest Plan. For planning purposes, the ANF was divided into 11 geographic units called "Places." Of the 11 Places, five would be crossed by the proposed Project (see Figure A-2 – Angeles National Forest Landscape Places and Scenic Integrity Objectives Segment 6 and 11). These five Landscape Places are, from north to south:

- Soledad Front Country Landscape Place (Landscape Unit 5)
- Angeles High Country Landscape Place (Landscape Unit 6)
- Angeles Uplands West Landscape Place (Landscape Unit 7)
- Big Tujunga Canyon Landscape Place (only a very tiny corner of this Place is crossed by Segment 11)
- The Front Country Landscape Place (Landscape Unit 8)

As described in Section 2.1 above, the Forest Service has developed statements of Desired Condition and mapped SIOs for public lands it administers. See Table 2-4, above, for a list of the SIOs by milepost for the proposed Project (Segment 11 and Segment 6) in the ANF. (These same 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 that analysis.) Because the Forest Service has specific scenic management direction in the Forest Plan, the Forest Service SMS was used for the analysis of visual resources in the Center Area. Visual resource factors that are discussed in the Center Area include existing scenic integrity as well as Desired Condition and SIOs. Existing scenic integrity is defined as the current scenic condition of the landscape considering previous human alterations. And in order to better assess the existing scenic conditions, it is essential to know the "Places" and their descriptions on the Forest that the

Project would cross as they provide direction in the management of the ANF. Understanding the Desired Condition and Program Emphasis of a Place was valuable for establishing landscape units for the proposed Project. This information helped determine the consistency of the proposed Project with the scenery-related goals for the ANF. Definitions of Desired Conditions and Program Emphasis are described below:

- 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 3 to 5 years.

Where the descriptions of the Desired Conditions and Program Emphasis directives for a Place were relevant to the proposed Project and visual quality, they were included or summarized in the following text for each landscape unit. In addition to Desired Conditions and Program Emphasis, each Place included a description of the "Theme" and "Setting" of each Place. 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.

The Center Area (San Gabriel Mountains Landscape Region) crossed by SCE's proposed Project would include the northern half of Segment 11 (to the west) and all of Segment 6 (to the east).

Landscape Unit 5: Soledad Front Country

The northern edge of this unit abuts the southern edge of Landscape Unit 4 and the boundary of the ANF. Although most of the unit is located with the ANF, there are in-holdings of private land that are surrounded by the ANF and are part of unincorporated Los Angeles County. Both Segments 6 and 11 pass though this landscape unit (see Figure B-6 in Appendix B for a map showing Landscape Unit 5).

This landscape unit is a transition zone between the lower elevations with more highly developed Soledad Canyon – Antelope Valley area and the much less developed ANF (character photo P-5.1). It includes a variety of terrain from rolling hills in the northern portion (character photo P-5.2) to steeper and more enclosed terrain of the southern parts (character photo P-5.3). The lower (northern) portions of the landscape unit are relatively open in appearance and include the bottoms of Kentucky Springs Valley and Bear Canyon (character photo P-5.4). The canyon bottoms contain streams (most of which are intermittent) and washes. Traveling south through Landscape Unit 5 on Angeles Forest Highway and Aliso Canyon Road brings viewers into steeper, higher, and more rugged terrain. Views in the southern (higher) portions of the landscape unit are more confined by the steep topography than in the northern (lower) parts. Nearby vegetation is composed of shrubs of varying sizes (mixed chaparral) which is present on most slopes and is seen as patterns of dense patches with large openings. Coniferous trees such as pine and juniper are found at higher elevations. Various species of oaks, sycamores, and other vegetation are present in dense woodlands along shaded slopes and in the canyons. Some streams and washes contain riparian vegetation.

Human use of areas near (but outside of) the landscape unit is changing the unit's appearance and areas nearby the unit. As stated in the ANF Forest Plan:

> *The cultural landscape of the Soledad Front Country is rapidly converting from rural to urban due to the development of housing tracts along the national forest boundary. Human influences, such as urban development, intensive use areas, transportation corridors, utility corridors, sand and gravel mining, road cuts and flood control channels are creating strong visual contrasts and user conflicts within this Place. Most facilities and trails are located along drainages, ridge tops or cut into hillsides. Urban development is affecting access to National Forest System roads and trails, and*

residents of adjacent developments are creating social trails on national forest land. Encroachment has increased due to urbanization resulting in problems of trespass, fire, and resource damage.

Existing human-made features within Landscape Unit 5 that are readily apparent to the general public include the Angeles Forest Highway (which is an important route into and through the ANF), Aliso Canyon Road, numerous dirt roads and fuel breaks, and three major transmission corridors. Several areas of in-holdings along Aliso Canyon Road and Angeles Forest Highway contain scattered residences and associated buildings that are both within and near the landscape unit.

Existing ROW cross-sections for Segments 6 and 11 are shown in Chapter 2 of the EIR/EIS (Description of Alternatives). The existing ROW associated with Segment 6 varies from 200 to 800 feet wide. For Segment 11, the existing ROW varies from 180 to 560 feet wide. Existing transmission structures throughout both Segments 6 and 11 are LSTs at varying heights, carrying either 220 kV or 500 kV conductors (SCE, 2007a).

Compared to the other four landscape units in the ANF that are crossed by the proposed Project, Landscape Unit 5 does not have many recreation areas or opportunities. Therefore this Unit does not receive much public recreation use. It does however, receive considerable vehicle traffic as growing numbers of people use Angeles Forest Highway to enter the Forest or to commute (and avoid State Highway 14 and Interstate 5) between the greater Antelope Valley area and the San Gabriel Valley-Los Angeles area. These commuters are among the various types of viewers that view the Landscape Unit 5. Viewers primarily include Forest visitors driving for pleasure and scenic enjoyment, local residents driving to/from home, and commuters driving through this Unit. These types of viewers have different concern levels. Nearby residents are considered to have a high concern level, both as property owners and as part of the relatively low numbers of recreationists that use this area. Forest visitors can be included as part of the relatively low numbers of recreationists that use this area, but most drive through this Unit to get to other areas of the Forest further south. However, this Unit is the first section of the Forest they encounter on the way to their final recreation destination. Because of the aforementioned reasons, Forest visitors and general area residents looking at the landscape as they drive through it may be considered to have a moderate concern level for scenery. On the other hand, weekday commuters just passing through the Unit are considered to have a low-to-moderate concern for scenery.

USDA Forest Service Management Direction Relative to Scenic Quality

ANF Forest Plan. The following descriptions of Theme, Desired Condition and Program Emphasis are cited directly from the ANF Forest Plan for the Soledad Front County Place and are relevant for Landscape Unit 5.

Theme: *The Soledad Front Country Place functions as a scenic backdrop and transitional landscape between the rapidly urbanizing Mojave Desert and Los Angeles Basin. The flow of people and materials through this transitional landscape links the greater Los Angeles area to the Mojave Desert. The growing communities along California Interstate 14 are transforming this area from rural to urban in character. Residents of these new communities have the scenic views of the San Gabriel Mountains from their homes and travel corridors. The Pacific Crest National Scenic Trail occurs on a portion of the Place.*

Setting: *The Soledad Front Country Place runs northeast to southwest along both sides of California State Highway 14 along the Santa Clara and Soledad Rivers. This landscape is commonly defined as the area between California Interstate 5 at the southern end and the intersection of California State Highway 138 at the northern end. The northwest and southeast boundaries are, in general, defined by the area visible from California Highway 14. There is a Special Interest Area that highlights the heritage resource values of the area.*

Elevations in the area range from about 2,100 feet to 3,000 feet. The broad floodplain of the Soledad River (with its various side drainages) dominates this landscape. The broad floodplain (which leads to steep slopes with rounded summits) is the most prevalent landform in this Place.

The mostly hot to sometimes temperate climate affects vegetation types and water availability. The predominant plant community at the lower elevations is mixed chaparral. Pine and juniper are present at higher elevations. Chaparral is continuous on most slopes. The chaparral is seen as patterns of dense patches with large openings. Canyon and coast live oaks are present in dense woodlands along shaded slopes and in the canyons. All but the larger streams are dry through the summer. Several canyons, including Elsmere and Whitney, still exhibit pristine characteristics. However, human influences on the viewshed include the altered vegetation composition resulting from an increase in fire starts. Degradation of air quality is affecting forest health by stressing vegetation, resulting in lower water quality and productivity.

Most of the vegetative communities within the area are in the expected fire regime; however, there are areas that have a history of excessive fire occurrence. Safe conditions along the urban interface within this Place are inconsistent, and private landowners look to the Forest Service to create community defense zones. Fuel treatments have been limited in the past, and the focus of fire management is on property protection, concentrating on age class mosaics and fuelbreaks to reduce downstream flooding. The flood-fire sequence poses a problem to downstream housing developments. Wildland fires have resulted in high property and resources loss, and the numerous fire starts are moving vegetative communities towards type conversions.

A rich diversity of plant and animal species is present within Soledad Front Country.

Soledad Canyon includes habitat for the unarmored threespine stickleback, least Bell's vireo, southwestern willow flycatcher and numerous other riparian dependent species.

Opportunities for establishment of regional wildlife linkages to improve connectivity between the San Gabriel, Castaic and Santa Susana Mountains exist and are needed in this Place. Potential threats to sensitive habitat areas include developed and dispersed recreation, mining, wildland fire and groundwater extraction.

The cultural landscape of the Soledad Front Country is rapidly converting from rural to urban due to the development of housing tracts along the national forest boundary. Human influences, such as urban development, intensive use areas, transportation corridors, utility corridors, sand and gravel mining, road cuts and flood control channels are creating strong visual contrasts and user conflicts within this Place. Most facilities and trails are located along drainages, ridge tops or cut into hillsides. Urban development is affecting access to National Forest System roads and trails, and residents of adjacent developments are creating social trails on national forest land. Encroachment has increased due to urbanization resulting in problems of trespass, fire, and resource damage.

Trailheads and travel routes offer visitors year-round access to the Angeles National Forest. The trails through the Place lead visitors by dramatic canyon and rugged mountain views. The area has a rich history and is known for a high occurrence of heritage resource sites. Recreation opportunities such as hiking the Pacific Crest National Scenic Trail and managed OHV areas occur within this Place. Recreation use is conflicting with other resources, and facilities are aging and do not meet Americans with Disabilities Act or the National Forests and Grasslands Built Environment Image Guide (BEIG).

Environmental education venues (including the Placerita Nature Center) are present in the area, but there is no unifying, overview or integrated focus.

This area accommodates other human uses and needs, such as providing the backdrop for movies and television shows, mining activities, electric utility and distribution lines, and water extraction. However, the supply of both ground and surface water does not adequately provide for forest ecosystem health and other demands. A variety of special- use authorizations exist in this Place that range from electronic sites to shooting areas. Past oil and gas development has also occurred in or near this Place, and there may be the potential for future oil and gas exploration and development.

The Place has many existing activities that are not authorized. Problems in the canyons associated with human use, such as trash and car dumping, partying, graffiti, illegal OHV use, and closure maintenance are persistent. Law enforcement coverage is inadequate, especially at night.

Special Interest Areas:

- *Aliso - Arrastre Middle and North 7,850 acres*

Proposed Critical Biological Zones (see table 524: Angeles NF Critical Biological Land Use Zones, page 10)

- *Soledad Canyon*

Total national forest acres--Soledad Front Country Place: 59,338

Desired Condition: *The Soledad Front Country Place is identified as a "Key Place" for its natural appearing area that functions as a scenic backdrop and transitional landscape. The valued landscape attributes to be preserved over time are the dramatic canyon and rugged mountain views, the presence of pine and juniper stands, and a well-defined age class mosaic with patches in chaparral. Heritage resources are managed to standard under a comprehensive and integrated management plan. Wildlife linkages connecting the San Gabriel Mountains to the Castaic and Santa Susana Mountains are established and functioning. Habitat conditions for threatened, endangered, proposed, candidate and sensitive species are improving over time. Exotic species are reduced and controlled over time. Private land between the two mountain ranges is acquired and the Pacific Crest National Scenic Trail is connected.*

Program Emphasis: *Management emphasis is expected to focus on the protection of communities from the threat of fire, the management of high levels of recreation use, and the maintenance of urban and forest infrastructures (facilities). The success of this emphasis is dependent on a sustainable level of development and the delicate balance between the needs of people and the effects of those uses on the plant and animal communities in the national forest. Uses must be balanced to promote the conservation of valuable natural resources and to sustain the needs of people. The significance of the heritage resources in the Place is recognized through the designation of special areas managed for the heritage resource value. Special emphasis will be given to acquiring private land between the San Gabriel and Sierra Pelona Mountain Ranges in order to connect the Pacific Crest National Scenic Trail. The national forest will focus on protection of open space and boundary management in anticipation of future adjacent development.*

The national forest is active in regional planning efforts to establish a wildlife linkage connecting the San Gabriel Mountains to the Sierra Pelona and Santa Susana Mountains. Uses and activities are managed to provide opportunities for establishment of regional wildlife linkages in the Soledad Front Country Place. Protection and enhancement of threatened, endangered, proposed, candidate and sensitive species, such as

the unarmored threespine stickleback, arroyo toad, southwestern willow flycatcher, least Bell's vireo, San Diego horned lizard, two-striped garter snake and sensitive plants will be emphasized in all activities. Arundo and other exotic species eradication to restore healthy riparian systems will continue to be emphasized.

Special emphasis will be given to acquiring private land between the San Gabriel and Castaic Mountain Ranges in order to connect the Pacific Crest National Scenic Trail.

Other Plans. The private in-holdings that are located within Landscape Unit 5 are not under the jurisdiction of the ANF. They are in unincorporated Los Angeles County and land use and potential regulations related to aesthetics or scenery are regulated by the County's General Plan (Section 3 and Appendix C). There are no officially designated State Scenic Highways in Landscape Unit 5.

The TRTP visual analyst for this Specialist Report and its related EIR/EIS and the ANF landscape architect examined the proposed Project on the ground and from sensitive receptor locations during several days of site visits that occurred over a period of months, in order to evaluate and analyze different viewing conditions, times of day, and seasons of the year. In sum, site reconnaissance visits in the ANF occurred between May 2007 and April 2008. From among hundreds of possible key observation points (KOPs) and after careful evaluation, 20 KOPs were selected as typical viewing conditions for analysis in this Specialist Report. Then, from many photographs taken at each KOP, the most appropriate photographs were selected for analysis of existing conditions and simulations of Project-based potential future visual conditions. Of those 20 KOPs, the two that best exemplify Landscape Unit 5 are KOP-Center-1 and KOP-Center-2, which are captured in the KOP analyses below.

KOP-Center-1 – Southbound Angeles Forest Highway (Segment 6)

KOP-Center-1 (see Figure A-1 – Key Observation Points and Figure A-16a – Existing Conditions for KOP-Center-1) was established on Southbound Angeles Forest Highway during consultation with the ANF landscape architect. It is located on NFS lands along the Angeles Forest Highway, looking south, near the intersection of Mount Emma Road and the Angeles Forest Highway. Because most proposed Project activities visible from this KOP would occur on federal lands administered by the ANF, the SMS methodology was used for this visual assessment. Figure A-16a represents the existing condition of the site and displays Segment 6 on the skyline. Undeveloped hillsides of the ANF are visible in the middleground. Looking south along the highway, existing lattice towers of Segment 6 are visible on the skyline to the right side of the photo. Existing LSTs are barely visible on the hillside below these skylined structures, because they blend very well with the landform backdrop.

The "Existing Condition" photograph is the same as the "No Project/Action Alternative" for KOP-Center-1, and this is consistent for all KOPs in the Center Area.

Scenic Integrity Objective: High. 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 Desired Condition is a natural appearing area that functions as a scenic backdrop and transitional landscape.

Existing Scenic Integrity: High, with Areas of Low. NFS lands visible from the Angeles Forest Highway and Mount Emma Road (KOP-Center-1) are predominantly natural-appearing, consisting of middleground and background views to brush-covered hillsides and rounded landforms that contain and enframe the overall composition. The vegetation is finely-textured brushfields with many hues of dark- and medium-green colors and tan-colored, grassy mountainsides in the background. The landscape exhibits a high degree of intactness and coherence of form and character with a moderate amount of visual variety. However, this harmony of form and character is interrupted on the skyline by the geometric forms of three separate existing 220-kV transmission line towers. Several existing lattice steel towers are situated below the skyline and they tend to blend with the landform backdrop and are barely visible in this photograph. However, these back-dropped structures are visually evident when viewed from on-the-ground. Overall, the existing scenic integrity of this NFS landscape is high, with little or no deviations of form, line, color, texture, or scale, except for the existing skylined transmission towers with their inherent industrial character that attract attention and begin to dominate the valued landscape character being viewed. They reduce these certain areas of the existing landscape to levels of low scenic integrity.

KOP-Center-2 – Northbound Angeles Forest Highway (Segment 6)

KOP-Center-2 (see Figure A-17a) was established during consultation with the ANF landscape architect on the northbound side of the Angeles Forest Highway that leads towards Lancaster. It is located approximately one-mile north of Mill Creek Summit, headed northbound toward Lancaster and Palmdale. The image in Figure A-17a was taken at the approximate boundary between Landscape Units 5 and 6, and looking into Landscape Unit 5, it is representative of the forest landscapes in that unit, with portions of Landscape Units 4 and 3 visible in the background.

Scenic Integrity Objective: High. 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 Desired Condition is a natural appearing area that functions as a scenic backdrop and transitional landscape.

Existing Scenic Integrity: High, with Areas of Unacceptably Low. Although the immediate foreground is dominated by the highway itself, NFS lands visible from the Angeles Forest Highway (KOP-Center-2) are predominantly natural-appearing, consisting of middleground and background views to brush-covered hillsides and rounded landforms that contain and enframe the overall composition. The vegetation is finely-textured brushfields with many hues of dark- and medium-green colors and tan-colored, grassy mountainsides in the background. The landscape exhibits a high degree of intactness and coherence of form and character with a moderate amount of visual variety. However, this harmony of form and character is interrupted on the skyline by the geometric forms of the existing 220-kV transmission line towers. Existing transmission lines are visible as discordant visual elements in the foreground along the highway for more than three miles. Overall, the

existing scenic integrity of this NFS landscape is high, with very few deviations of form, line, color, texture, or scale. However, the size and scale of existing skylined transmission towers, with their inherent industrial character, makes them very prominent in contrast to the natural-appearing landscape character. This reduces certain areas of the existing landscape to levels of unacceptably low scenic integrity, as is evident from Figure A-17a at KOP-Center-2.

Landscape Unit 6: Angeles High Country

Landscape Unit 6 begins approximately above the intersection of ANF Highway and Aliso Canyon Road, continues up and over the northern crest of the San Gabriel Mountains, and ends adjacent to Landscape Unit 7. Both Segments 6 and 11 pass though this landscape unit (see Figure B-6 and the top portion of Figure B-7 in Appendix B for a map showing Landscape Unit 6). The unit is characterized by steep slopes with sharply defined to rounded summits surrounding small alpine valleys (character photo P-6.1). Trees are seen as tight clumps, scattered individuals, or groups on north-facing slopes. The forested areas contain a mix of conifers including Coulter pine, Douglas-fir, Jeffrey pine and others as well as dense forested areas of oaks. Deciduous trees and shrubs are typical in riparian areas along creeks.

Two transmission corridors (Segment 11 – westerly and Segment 6 – easterly) pass through a relatively narrow portion of the Angeles High Country Place at its western extent. Segment 6 would cross over the PCT (character photo P-6.2) in this landscape unit, and Segment 11 would cross over the PCT at a location approximately 4.5 miles further west. Further south and near State Highway 2 – the Angeles Crest Scenic Byway – Segment 6 is located immediately adjacent to the San Gabriel Mountain Wilderness and the heart of the Angeles High Country Place. The LMP description of this landscape Place's Theme, Setting, and Desired Condition states:

> ***Theme:*** *The Angeles High Country Place is characterized by the highest elevations in Los Angeles County including the tallest peak in the county, Mt. Baldy (10,064 feet). The Place functions as a year-round mountain recreation landscape for the greater Los Angeles Area and is associated with winter snowplay, opportunities for solitude, hiking through spectacular big tree-cover vistas and includes historic and scenic mountain resorts. The Pacific Crest National Scenic Trail is located here and traverses the entire width of the Place. It is one of the "Key Places" representing the most picturesque national forest locations, containing its own landscape character.*
>
> ***Setting:*** *The Angeles High Country Place is located at the top of the Angeles National Forest and is regarded by many as the core area of the national forest. Elevations within the Place range from approximately 5,000 feet to approximately 10,060 feet. The area is characterized by steep slopes with sharp to rounded summits surrounding small alpine valleys. The Place exhibits a forested (tree-covered) environment offering community linkages between the national forest and the surrounding urban areas. The area is a truly unique setting where, on a clear day, visitors are offered panoramic views including the urban center of Los Angeles and the Pacific Ocean to the west and the Mojave Desert to the north. Numerous special designations are found within this Place, including eligible Wild and Scenic River segments, Congressionally-designated wilderness, recommended wilderness, and National Inventoried Roadless Areas (IRAs). Three Special Interest Areas (SIAs) are also found here. The Devil's Punchbowl SIA exhibits unique geological values, including folds, faults, plate tectonics, cuestas, and hogbacks. The Mt. Baden-Powell and Mt. San Antonio SIAs boast unique botanical elements, including ancient limber pine, and alpine and subalpine plants. The area is accessed from major highways, scenic byways, and a trail system that includes routes with state or national designations such as the Pacific Crest Trail. The*

community of Wrightwood is the 'gateway' to the Place. The high elevation of the Place (above the inversion layer) and the more remote locations offer an ideal setting for 'dark-sky' research facilities and communication sites.

Numerous special designations are found within this Place, including eligible Wild and Scenic River segments, Congressionally-designated wilderness, recommended wilderness, and National Inventoried Roadless Areas (IRAs). Three Special Interest Areas (SIAs) are also found here. The Devil's Punchbowl SIA exhibits unique geological values, including folds, faults, plate tectonics, cuestas, and hogbacks. The Mt. Baden-Powell and Mt. San Antonio SIAs boast unique botanical elements, including ancient limber pine, and alpine and subalpine plants. The area is accessed from major highways, scenic byways, and a trail system that includes routes with state or national designations such as the Pacific Crest Trail. The community of Wrightwood is the 'gateway' to the Place. The high elevation of the Place (above the inversion layer) and the more remote locations offer an ideal setting for 'dark-sky' research facilities and communication sites.

The cooler and wetter mountain climate affects vegetation types within the Place. Trees are seen as tight clumps, scattered individuals, or groups on north-facing slopes. The predominant plant communities include Coulter pine and mixed conifer on the south facing slopes and bigcone Douglas fir and Jeffrey pine on the north facing slopes. Oaks are present in dense woodlands along the shaded slopes of the canyons. Deciduous trees and shrubs are typical in riparian areas.

There is a rich diversity of animal communities living in the Place including the endangered mountain yellow-legged frog. The Place includes habitat for the Nelson's bighorn sheep. This species viability is a significant concern for managers due to a dramatic drop in population since the 1980s. The East Fork of the San Gabriel River includes important habitat linkages and sensitive resource areas for riparian dependent species and other wildlife between adjacent Places.

The cultural landscape of the Angeles High Country Place includes a diverse range of recreation opportunities in areas with settings that are more primitive or natural appearing. Human development has occurred ranging from historic sites, recreation sites, observatories, visitor centers, ski areas, organization camps and private resorts. Many of these are attractions are for year-round visitors looking for a mountain getaway from the surrounding urban communities. There is a wide range of opportunities including hiking, camping, backpacking, hunting, fishing, OHV uses, mountain biking, water and snow play. The Place has established visitor centers and entrance stations. Some of the most significant historic buildings and sites are found in this Place. The Pacific Crest National Scenic Trail traverses the entire width of the Place in an east-west direction and exits the east side of the national forest onto the San Bernardino National Forest. Similar to other areas of the national forest, the facilities in this Place are aging and out of date.

There is a history of fire in the Place; however, only a portion of this Place is within the normal fire regime. The village of Wrightwood requires community protection strategies. Fuel treatments to date have been limited, but are expected to increase due to the build up of fuels over the past decades.

A variety of special-use authorizations exist in the Place, ranging from organization camps to recreation residence tracts to ski areas. There are some unique potential user conflicts in the area such as the need for dark skies at the Table Mountain site and the need for lights at a nearby ski resort for night skiing and operational maintenance.

Eligible Wild and Scenic Rivers:

- *Little Rock Creek 7.5 miles*
- *San Antonio Canyon Creek 2.2 miles*

Existing Wilderness:

- *Cucamonga 3,585 acres*
- *San Gabriel Wilderness 5,928 acres*
- *Sheep Mountain Wilderness 23,290 acres*

Recommended Wilderness:

Sheep Mountain (Sheep Mountain Wilderness) 1,897 acres

Existing Special Interest Areas:

- *Devil's Punchbowl 89 acres*
- *Mt. Baden-Powell 252 acres*
- *Mt. San Antonio 164 acres*

Critical Biological Zones (see table 524: Angeles NF Critical Biological Land Use Zones, page 10):

- *South Fork Big Rock Creek*
- *Upper Little Rock Creek*

Total national forest acres--Angeles High Country Place: 100,560

Desired Condition: *The Angeles High Country Place is a key place that is valued for its scenic quality and is maintained as a naturally evolving and natural appearing landscape that functions as a year-round forested mountain recreation area. The valued landscape attributes to be preserved over time are large conifer trees in groups and as scattered individual specimens, views of distant landscapes, and oak woodlands along the shaded slopes of the canyons. The built environment portrays a rustic, historic image. Habitat conditions for threatened, endangered, proposed, candidate and sensitive species are improving over time. Exotic species are reduced and controlled over time.*

Program Emphasis: *Management emphasis is focused on forest health particularly relative to community protection from fire around Wrightwood and large recreation complexes while maintaining the big tree character, vistas and natural appearing landscapes. Additional emphasis will be placed on the use by recreationists and urban and national forest infrastructure that is sustainable such that it has minimal effects to species (mountain yellow-legged frog) and their habitat. Bighorn sheep habitat will be enhanced and wilderness implementation schedules will be developed. Protection and enhancement of threatened, endangered, proposed, candidate and sensitive species such as the mountain yellow-legged frog, California spotted owl, San Diego horned lizard, and a wide array of rare and sensitive plants will be emphasized in all activities. Exotic species eradication will be emphasized. The Angeles Crest Scenic Byway Corridor Management Plan is implemented; rural routes showcase key destinations off the Scenic Byway, and the Interforest Transportation Route linking the Scenic Byways of southern California is*

established. … An emphasis will also be placed on maintaining the historic fabric of the Big Pines Historic District. Historic lodges, resorts, etc. at Big Pines, Chilao, and Crystal Lake will be managed to maintain historic character and to provide interpretation. The national forest will emphasize large appropriate management of large recreation complexes and the winter sports activities that occur in the Place. Snowplay opportunities will be assessed. Management of special-use authorizations will occur along with resolution of water diversion issues. The focus is toward finding a balance that will result in a sustainable level of human use and the sustainability of forest health. Special emphasis on managing the Pacific Crest National Scenic Trail and other National Recreation Trails that occur here will also be given.

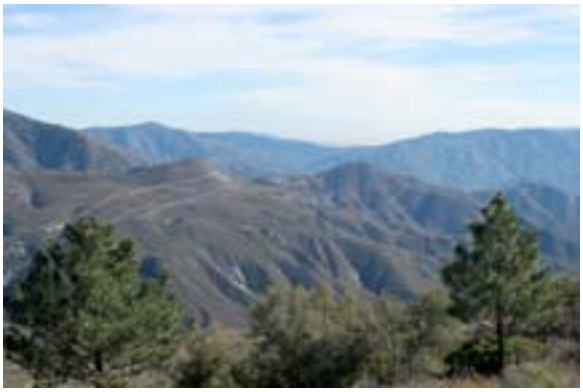
Landscape Unit 6 generally has a very natural appearance. Human-made features that are visible to the general public include Angeles Forest Highway, Forest Service facilities (buildings, storage, parking, picnic area) at Mill Creek Summit, Mount Gleason Road, Camp Louis Routh Camp 5 (a Los Angeles County Department of Corrections facility), communication towers on Mount Gleason, utility corridors, fuel breaks, unpaved Forest roads, trails, and campgrounds (character photo P-6.3). As mentioned above, the Angeles Crest Scenic Byway also traverses portions of the Angeles High Country Place, and this will be discussed later, in Landscape Units 7 and 8.

Existing ROW cross-sections for Segment 6 and Segment 11 are shown in Chapter 2 of the EIR/EIS (Description of Alternatives). The existing ROW width associated with Segment 6 is 200 to 800 feet, and with Segment 11, it is 200 to over 400 feet. Existing transmission structures throughout Segments 6 and 11 in the Center Area are LSTs at varying heights, carrying either 220 kV or 500 kV conductors (SCE, 2007a). The primary viewers of this landscape unit are people recreating in it or people driving through it to reach attractions in the Forest (character photo P-6.4) or locations beyond it. Please refer to Figures D-12 and D-13 in Appendix D for photos of Landscape Unit 6.

Recreationists are considered to have high concern for scenery and people driving through the unit are generally either commuters with low-to-moderate concern levels or people driving for pleasure who would have moderate-to-high levels of concern.

KOP-Center-3 – Mount Gleason Road (Segment 6)

KOP-Center-3 (see Figure A-18a) was established on Mount Gleason Road, about 3 miles west of Mill Creek Summit, looking southeast, down to Segment 6. Traveling west away from Lightning Point Campground and Messenger Flats Campground on the Mount Gleason Road, (FS Road 3N17.5, sometimes called the Santa Clara Divide Road), the existing utility corridor that encompasses Segment 6 is very visible against the dark green, uniform textured, chaparral-covered mountainsides in the Angeles High Country. Existing 220-kV and 500-kV lattice steel towers have a landform backdrop and are barely visible in this photograph, but by connecting the lines created by sunlight reflecting off existing conductors, it is possible to distinguish and locate the transmission line structures. These conductors were specified to be "non-reflective and non-refractive" but in actuality they are quite visually evident during certain lighting conditions, such as shown in this mid-afternoon photograph. The existing 220-kV transmission line would be replaced by a single circuit 500-kV line in this vicinity.



Scenic Integrity Objectives. 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 Desired Condition is a key place that is valued for its scenic quality and is maintained as a naturally evolving and natural appearing landscape that functions as a year-round forested mountain recreation area.

Existing Scenic Integrity: High, with Areas of Very Low. The landscape visible from Mount Gleason Road is predominantly natural-appearing, consisting of foreground, middleground, and background landscapes with dense, dark green chamise and chaparral covered mountainsides. There is very little vegetative pattern in this landscape and the sun angle and shadows emphasize the ruggedness of the steep slopes and broken terrain. The natural landscape has a coherent form and character with substantial visual variety. The existing 220-kV and 500-kV transmission lines were constructed prior to development and application of the Forest Service Visual Management System or the new Scenery Management System, and therefore, these lines are not in compliance. The natural landscape exhibits a high degree of intactness and scenic integrity, except for the highly discordant transmission line conductors that glow with reflected sunlight, leading the eye to the almost transparent, industrial-character steel lattice towers. Access and spur roads to the existing towers are visually evident and further emphasize the reflectivity of the conductors, causing the valued landscape character to appear heavily altered. This leads leading to a rating of very low scenic integrity for the utility corridor.

KOP-Center-4 – Southbound Angeles Forest Highway (Segment 6)

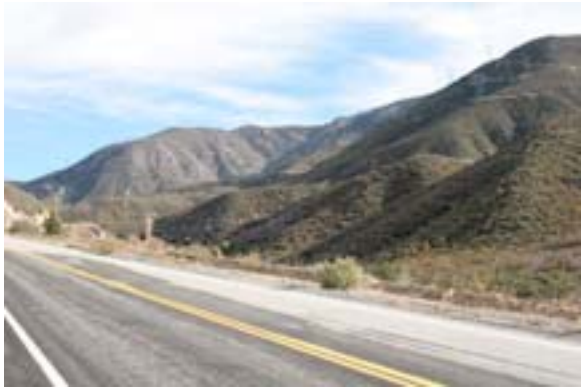
KOP-Center-4 (see Figure A-19a) was established on the Angeles Forest Highway, going southbound away from Mill Creek Summit, looking downhill and to the south-southwest. In crossing over Mill Creek Summit, Segment 6 would also traverse the PCT at S6 MP 7.3. Similar to the existing visual impacts that were seen from KOP-Center-3 on Mount Gleason Road, the existing utility corridor that would be upgraded by Segment 6 is very visible against the dark green, uniform textured, chaparral-covered mountainsides in the Angeles High Country. Some of the existing 220-kV and 500-kV lattice steel towers have a landform backdrop but many are situated against the skyline and are very visible in Figure A-19a and on the ground. Sunlight reflecting off existing conductors and steel lattice towers creates strong visual contrasts. As mentioned before, these conductors were specified to be "non-reflective and non-refractive" but in actuality they are quite visually evident during certain lighting conditions, such as shown in this mid-afternoon photograph. This view is typical from Mill Creek Summit, southbound on the Angeles Forest Highway for approximately 2.5-to-3 miles.

Scenic Integrity Objectives. 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 Desired Condition is a key place that is valued for its scenic quality and is maintained as a naturally evolving and natural appearing landscape that functions as a year-round forested mountain recreation area.

Existing Scenic Integrity: High, with Areas of Unacceptably Low. The landscape visible from KOP-Center-4 and the Angeles Forest Highway is predominantly natural-appearing, consisting of foreground, middleground, and background landscapes with dense, dark green chemise and chaparral covered mountainsides. Vegetative patterns are evident from this view, with changes in riparian vegetation color and texture occurring in the draws. The sun angle and shadows emphasize the ruggedness of the steep slopes and broken terrain. The natural landscape has a coherent form and character with substantial visual variety created by the rugged, folded terrain. The existing 220-kV and 500-kV transmission lines were constructed prior to development and application of the Forest Service Visual Management System or the new Scenery Management System, and therefore, these lines are not in compliance. The natural landscape exhibits a high degree of intactness and scenic integrity, except for the highly discordant transmission line conductors that glow with reflected sunlight, leading the eye to very visually evident, industrial-character steel lattice towers. Access and spur roads to the existing towers are evident and further emphasize the reflectivity of the conductors. These man-made features are prominent and dominate the landscape character, leading to a rating of unacceptably low scenic integrity for the utility corridor.

KOP-Center-5 – Northbound Angeles Forest Highway (Segment 6)

KOP-Center-5 (see Figure A-20a) was established on the Angeles Forest Highway approximately 2-air-miles south of Mill Creek Summit, traveling northbound toward the Summit and looking uphill to the northeast. Similar to the existing visual impacts that were seen from KOP-Center-3 on Mount Gleason Road and KOP-Center-4 southbound on the Angeles Forest Highway, the existing utility corridor that would be used by Segment 6 is very visible against the dark green, uniform textured, chaparral-covered mountainsides in the Angeles High Country. Some of the existing 220-kV and 500-kV lattice steel towers have a landform backdrop and are barely visible, but many are situated against the skyline and are very visible as seen in Figure A-20a and on the ground. Even though the time of day was similar to that for KOPs-Center-3 and 4, in this image sunlight reflecting off existing conductors is not a problem in this photograph because the angle of view is different, even though time of day was similar to that for KOPs-Center-3 and 4. However, the conductors may, and most likely will, reflect sunlight at some point in time throughout the day. The steel lattice towers create strong visual contrasts when seen against the skyline, and draw attention away from the natural landscape features. The existing 220-kV transmission line located in the center of these three transmission lines would be replaced by a new single circuit 500-kV line in this vicinity. This view is typical for northbound travelers for approximately 2.5 miles as they climb toward Mill Creek Summit on the Angeles Forest Highway.



Scenic Integrity Objectives. 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 Desired Condition is a key place that is valued for its scenic quality and is maintained as a naturally evolving and natural appearing landscape that functions as a year-round forested mountain recreation area.

Existing Scenic Integrity: High, with Areas of Low. The landscape visible from the Angeles Forest Highway in general, and KOP-Center-5 specifically, is predominantly natural-appearing, consisting of foreground, middleground, and background landscapes with dense, dark green chemise and chaparral covered mountainsides. There is very little vegetative pattern in this landscape view. The sun angle and shadows emphasize the ruggedness of the steep slopes and broken terrain. The natural landscape has a coherent form and character with substantial visual variety created by the rugged, folded terrain. The existing 220-kV and 500-kV transmission lines were constructed prior to development and application of the Forest Service Visual Management System or the new Scenery Management System, and therefore, these lines are not in compliance. The natural landscape exhibits a high degree of intactness and scenic integrity, but the highly discordant transmission line structures and the access and spur roads leading to those towers are visually evident and moderately alter the valued landscape character, leading to a rating of low scenic integrity for the utility corridor.

Landscape Unit 7: Angeles Uplands West

Landscape Unit 7 is located between Landscape Unit 6 to the north (which is at generally higher elevations) and Landscape Unit 8 to the south (which is located at generally lower elevations). Both Segment 11 (westerly) and Segment 6 (easterly) pass through this landscape unit in a north-south direction (see Figure B-7 in Appendix B for a map showing Landscape Unit 7). This landscape unit contains a major portion of State Highway 2 – the Angeles Crest Scenic Byway. Segment 11 passes immediately adjacent to the Big Tujunga Reservoir and Segment 6 is located immediately adjacent to the southwest corner of the San Gabriel Mountain Wilderness as they pass through Landscape Unit 7. The LMP description of this landscape Place's Theme, Setting, Desired Condition, and Program Emphasis states:

> ***Theme:*** *The Angeles Uplands West Place is a popular, expansive, chaparral-covered landscape that serves as a mid-elevation gateway to the high country (Angeles High Country Place). This area provides dramatic canyon panoramas along the Angeles Crest Scenic Byway. Visitors can also find recreation experiences that provide challenge in a remote setting. It is one of the "Key Places" representing the most picturesque national forest locations, containing its own landscape character.*
>
> ***Setting:*** *The Angeles Uplands West Place is located between the Front and High Country Places. Elevations in the Place range between approximately 2,500 feet to approximately 6,300 feet. The slopes are steep on the southern aspect of the Place, with sharp to rounded summits and deep narrow canyons similar to other mid-elevation Places on the Angeles National Forest. The Place is accessed from routes that pass through the Front Country Place. These routes (including the Angeles Crest Scenic Byway) lead visitors to dramatic canyon panoramas and rugged mountain background views. This Place includes portions of designated wilderness areas that have been proposed for wilderness evaluation, and Inventoried Roadless Areas. The Falls Canyon Research Natural Area is also located here, which was established in 1998 to provide study opportunities of bigcone Douglas-fir.*
>
> *The steeper reaches of slopes are barren and show evidence of erosion. The canyons have steep rocky sides and are dense with upland vegetation. This Place contains the midslope portions of the major watersheds that drain into the Pacific Ocean including the Los Angeles and the San Gabriel Rivers. Water quantity and quality is a management concern since the watersheds drain into various reservoirs (Cogswell and Big Tujunga) that are used for flood control and water table replenishment.*
>
> *There is a lot of diversity in the vegetation between the north and south facing slopes. Chaparral is more prevalent on the hotter and drier south facing slopes. Pines and conifers are dominant on the cooler north*

facing slopes. Mixed chaparral is the most dominant plant community and is visible as dense continuous patterns of patches interrupted by openings of various sizes. Canyon and coast live oak are present in dense woodlands along the shaded slopes and in the canyons. Deciduous trees and shrubs are common in the riparian areas. Year-round water is present only in the largest creeks and springs. Air quality is compromised from the urban areas surrounding the national forest and is a factor in forest health; causing stressed plant communities and lowered water quality and quantity. Noxious weed infestations occur along travel routes and riparian areas within the Place.

The majority of the vegetation in the Place is in a relatively healthy condition. Some vegetative treatments for forest health are needed in some locations, and there are communities on private land and developments on public land that require treatment for fire protection. The fire-flood sequence is a threat to property in areas downstream from the Place.

The Place includes habitat for the arroyo toad, California red-legged frog, least Bell's vireo and southwestern willow flycatcher. The majority of the Big Tujunga Canyon is considered to be critical habitat for the California red-legged frog. There are numerous areas within the Place that offer linkages to other areas of the national forest and habitat on adjacent private land. Heavy recreation use of all kinds and fire are factors in the management of habitat for threatened and endangered wildlife and other riparian dependent species.

The cultural landscape of the Angeles Uplands West Place is generally natural or near-natural in appearance. Human influence is most apparent in the developed and dispersed recreation facilities and travel ways. Developed recreation is limited by the character of the landscape within the Place. Dispersed recreation is emphasized, including hiking, backpacking, equestrian use, bicycling, mountain biking, hang gliding, hunting, fishing, and OHV use. The condition of trails varies, and other infrastructures such as campgrounds and trailheads are aging. The intense level of recreation use generates user conflicts on roads, trails and other areas. There are a variety of special-uses authorized under permits within the Place including organization camps, communication sites, and recreation residence tracts. This area also has a high level of unauthorized uses including trash disposal, car dumping, graffiti, illegal OHV use, partying, gang activities, illegal fires, illegal parking, and entry into closed areas.

The Place supports multiple-uses that are valuable to the public. Many of the utility service infrastructures that support the greater Los Angeles urban area are present within the landscape. Several county roads and California State highways serve as major high-speed commuter routes from inland valleys and desert, which exceeds infrastructure design criteria and creates potential unsafe conflicts.

Existing Research Natural Areas:

- *Falls Canyon 1,440 acres*

Proposed Critical Biological Zones (see table 524: Angeles NF Critical Biological Land Use Zones, page 10):

- *Upper Big Tujunga Canyon*

Total national forest acres--Angeles Uplands West Place: 68,792

***Desired Condition:** The Angeles Uplands West Place is maintained as a natural appearing landscape that functions as a mid-elevation recreation gateway to the High Country. The valued landscape attributes to be preserved over time are dramatic canyon panoramas along the scenic byway, the presence of bigcone*

Douglas-fir and Coulter pine, and a well-defined age class mosaic in chaparral. Habitat conditions for threatened, endangered, proposed, candidate and sensitive species are improving over time. Exotic species are reduced and controlled over time.

***Program Emphasis:** Management emphasis is focused on forest health, particularly protection of pockets of large conifers. Management is also focused on the high levels of recreation use, as well as the urban and national forest infrastructure present, in a balanced and sustainable manner consistent with preserving the dramatic canyon panoramas. Historic Vetter Lookout will be a focal point for interpretation and community outreach. The Angeles Crest Scenic Byway Corridor Management Plan is implemented and rural routes showcase key destinations of the Scenic Byway. Community defense from wildland fire will be emphasized. Protection and enhancement of threatened, endangered, proposed, candidate and sensitive species such as the arroyo toad, California red-legged frog, southwestern willow flycatcher, San Diego horned lizard, two-striped garter snake, western pond turtle and rare and sensitive plants will be emphasized in all activities. Surveys will be conducted and critical habitat will be protected for the California red-legged frog. In order to restore healthy riparian systems, Arundo and other exotic species eradication efforts will be emphasized.*

Angeles Crest Scenic Byway Corridor Management Plan. The Angeles Crest Scenic Byway passes through Landscape Units 6 and 7. The Angeles Crest Scenic Byway has a Corridor Management Plan, as described below:

California State Highway 2 was designated a California State Scenic Highway in 1971 and a National Forest Scenic Byway in 1990. The 55-mile-long byway begins outside of the ANF in La Cañada-Flintridge and continues over the San Gabriel Mountains through the ANF to the Los Angeles/San Bernardino County line. A Corridor Management Plan (CMP) has been developed for the byway. Although the CMP is secondary to the Forest Plan and County of Los Angeles General Plan, in terms of enforcement stature, it does reflect the local community's vision for a byway and represents a commitment to maintain and enhance the Byway's intrinsic qualities. The CMP was developed with the input of numerous agencies and non-agency groups.

The ANF manages the Forest lands that the Byway passes through and is responsible for ensuring consistency between the Forest Plan and the CMP. National Forest Scenic Byways are classified as having a concern level of 1 (out of 3), which indicates the highest level of public concern about alterations to the viewed landscape. The Byway passes through three Forest Plan Places (Front Country, Angeles Uplands West, and the Angeles High Country) and three landscape units (Landscape Unit 6 – Angeles High Country, Landscape Unit 7 – Angeles Uplands, and Landscape Unit 8 – Foothills Front Country).

For the portion of the Byway that passes through non-Forest lands (in-holdings), Los Angeles County is responsible for management of the Byway as directed under the portions of the County of Los Angeles General Plan that relate to designated scenic highways.

As seen in character photos P-7.1 through P-7.4, slopes are steep on the southern aspect of the Place, with sharp to rounded summits and deep narrow canyons similar to other mid-elevation Places on the ANF. Please refer to Figures D-14 and D-15 in Appendix D for landscape character photos of Landscape Unit 7.Canyons have steep rocky sides and are dense with upland vegetation. There is considerable diversity in the vegetation between the north- and south-facing slopes and along shaded slopes and canyons. The cultural landscape is generally natural or near-natural in appearance. Human influence is most apparent in the developed and

dispersed recreation facilities and travel ways. Developed recreation is limited by the character of the landscape within the Place. Dispersed recreation is emphasized, including hiking, backpacking, equestrian use, bicycling, mountain biking, hang gliding, hunting, fishing, and off-highway vehicle (OHV) use. The condition of trails varies, and other infrastructures such as campgrounds and trailheads are aging. The intense level of recreation use generates user conflicts on roads, trails and other areas.

The Place supports multiple uses that are valuable to the public. Many of the utility service infrastructures that support the greater Los Angeles urban area are present within this landscape. Several county roads and California State highways serve as major high-speed commuter routes from inland valleys and the desert to the Los Angeles Basin.

Existing ROW cross-sections for Segments 6 and 11 are shown in Chapter 2 of the EIR/EIS (Description of Alternatives). The existing ROW width associated with Segment 6 varies from 200 to 800 feet, and with Segment 11 it is 200 to over 400 feet. Existing transmission structures throughout Segments 6 and 11 in the Center Area are LSTs at varying heights carrying either 220 kV or 500 kV conductors. Please refer to Figures D-14 and D-15 in Appendix D for photos of Landscape Unit 7.

KOP-Center-6 – Southbound Upper Big Tujunga Canyon Road – (Segment 6)

KOP-Center-6 (see Figure A-21a) is located on Upper Big Tujunga Canyon Road between Lynx Gulch and Alder Gulch, approximately one mile northwest of KOP-Center-7 and approximately two-air-miles north of the Angeles Crest Scenic Byway. The photo is taken looking east, capturing a portion of the proposed Project's Segment 6 as it crosses the mountain slopes of the Upper Big Tujunga Canyon. In Figure A-21a and on the ground,, existing towers and conductors along the Segment 6 alignment are very visible as they cross the midslope landscape, and so are the cutslopes of the SCE access roads. Vetter Mountain Lookout is the white dot located on the high-point of the skyline ridge. Existing transmission lines where Segment 6 would be located are approximately 0.5 miles away from KOP-Center-6. Viewing duration is long for highway users, as there are multiple viewing opportunities toward Segment 6 from various vantage points along the road. Viewers are generally not commuters, and therefore Forest visitors in this vicinity would be expected to have high concern for scenery.

Human-made objects visible from this point include the road itself and gray colored lattice steel towers in the middleground. Vetter Mountain Lookout is the white dot on the highest part of the skyline. With the exception of the road and transmission corridor passing through it, the rest of the landscape viewed from this KOP appears intact and has a natural-appearing landscape character.

This view encompasses upper Big Tujunga Canyon and adjacent mountains, and this part of the canyon is wide and open compared to the narrow, lower canyon, where slopes are steeper. A variety of vegetation including chaparral shrubs and conifer stands can be seen in the canyon and on adjacent slopes.

Scenic Integrity Objectives. 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 Desired Condition is maintained as a natural appearing landscape that functions as a mid-elevation recreation gateway to the High Country. The valued landscape attributes to be preserved over time are dramatic canyon panoramas along the scenic byway, the presence of bigcone Douglas-fir and Coulter pine, and a well-defined age class mosaic in chaparral.

Existing Scenic Integrity: High, with Areas of Low. The landscape visible from Upper Big Tujunga Canyon Road in general, and KOP-Center-6 specifically, is predominantly natural-appearing, consisting of foreground, middleground, and background landscapes with dense, dark green chaparral and evergreen tree-covered mountainsides. There are interesting vegetative patterns in this landscape view that are created by the folded terrain and microclimates. The moderate slopes and rolling terrain are not as visually dominant as the terrain in many other parts of the Forest and therefore the existing transmission lines in this corridor have a stronger visual presence. The natural landscape has a coherent form and character with substantial visual variety created by the folded terrain and moderate slopes. In this utility corridor, the existing 220-kV and 500-kV transmission lines were constructed prior to development and application of the Forest Service Visual Management System or the new Scenery Management System, and therefore, these lines are not in compliance. The natural landscape exhibits a high degree of intactness and scenic integrity, except for the discordant transmission line structures and access road cutslopes which detract from scenic integrity, leading to a rating of low scenic integrity for the utility corridor.

KOP-Center-7 – Northbound Upper Big Tujunga Canyon Road (Segment 6)

KOP-Center-7 (see Figure A-22a) is located on the northbound side of Upper Big Tujunga Canyon Road, at an elevation of approximately 3,900 feet, approximately one-air-mile north of the Angeles Crest Scenic Byway, headed northbound and looking north. It is approximately 1.5 miles north and downhill of the intersection of Big Tujunga Canyon Road and the Angeles Crest Scenic Byway, also referred to as the Shortcut Saddle. The transmission corridor is very visible along this section of road because the road parallels and crosses under transmission lines in several locations. From this view, Segment 6 towers and conductors are very visible in the foreground, and they are visible in the middleground from the point where they cross over the Angeles Crest Scenic Byway (behind the view of this photograph) and then continue north, as shown in Figure A-22a. Segment 6 would be visible in the immediate foreground of the Upper Big Tujunga Canyon Road for approximately three miles past the intersection of the Angeles Crest Scenic Byway.

KOP-Center-7 was selected to represent the foreground and middleground views that people driving north along the road would have of Segment 6 of the transmission corridor. This gently sloping hillside is almost at the top of the Angeles Crest. The sloping terrain is covered with thick chaparral shrubs and small trees. Views from this location are somewhat contained by the relatively low adjacent terrain, but in general, this location has expansive views that extend above the ridgelines and over nearby vegetation. This section of the Upper Big Tujunga Canyon Road is not a commuter route, but is in the heart of the ANF. Viewers from this location are people who are recreating or driving for pleasure and their concern for scenery is moderate-to-high.

Human-made objects visible from this point include the road itself, lattice steel towers that are protruding above the skyline, and tan-colored cutslopes of the access and spur roads along the transmission corridor. With the exception of the road and transmission corridor passing through it, the landscape viewed from this KOP appears intact and has a natural-appearing landscape character.

Scenic Integrity Objectives. 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 Desired Condition is maintained as a natural appearing landscape that functions as a mid-elevation recreation gateway to the High Country. The valued landscape attributes to be preserved over time are dramatic canyon panoramas along the scenic byway, the presence of bigcone Douglas-fir and Coulter pine, and a well-defined age class mosaic in chaparral.

Existing Scenic Integrity: High, with Areas of Unacceptably Low. The landscape visible from Upper Big Tujunga Canyon Road in general, and KOP-Center-7, specifically, is predominantly natural-appearing, consisting of foreground and middleground landscapes with dense, dark green chaparral and evergreen tree-covered mountainsides. There are interesting vegetative patterns in this landscape view that are created by the folded terrain and microclimates. The moderate slopes and rolling terrain are not as visually dominant as the terrain in many other parts of the Forest and therefore the transmission lines in this corridor have a stronger visual presence. The natural landscape exhibits a high degree of intactness and scenic integrity, except for the highly discordant transmission line structures and access/spur road cutslopes which detract from scenic integrity. These man-made features are prominent and dominate the landscape character for approximately three miles, leading to a rating of unacceptably low scenic integrity for the utility corridor.

KOP-Center-8 – Vetter Mountain Lookout (Segment 6)

KOP-Center-8 (see Figure A-23a) is located at Vetter Mountain Lookout at an elevation of approximately 5,890 feet, looking southwest toward the Mount Wilson electronic site on the skyline. Segment 6 towers and conductors are very visible as they cross over the Angeles Crest Scenic Byway and two middleground ridges. Cutslopes of this highway are very visible in this view. Additionally, a few scattered, smaller cutslopes of the Upper Big Tujunga Canyon Road are visible below the Lookout. Vetter Mountain Lookout is a National Scenic Byway destination located on a high-point on the western end of a long flat ridge on which Charlton Flat Picnic Area is located (see Figure A-1 – Key Observation Points and Figure A-2 – Landscape Places and Scenic Integrity Objective Map). Both of these recreation sites are accessed from the Angeles Crest Scenic Byway. The lookout is located at the end of an approximately 1-mile trail from the trailhead parking area at the end of Forest Service Road 3N16.1. Vehicular access is only available to the interpretive volunteers who work at the lookout and to Forest Service personnel; however, visitors are allowed to hike in. From the lookout, views to the west and southwest reveal Segment 6, approximately 1.1-to-1.3 miles away, as it crosses upper slopes of the Upper Big Tujunga Canyon. Viewing duration is long for visitors to this destination and forest visitors to this location would be expected to have high concern for scenery.

This view encompasses upper Big Tujunga Canyon and adjacent mountains, and this part of the canyon is wide and open compared to the narrow, lower canyon, where slopes are steeper. A variety of vegetation including chaparral shrubs and conifer stands can be seen in the canyon and on adjacent slopes.

Scenic Integrity Objectives. 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 Desired Condition is maintained as a natural appearing landscape that functions as a mid-elevation recreation gateway to the High Country. The valued landscape attributes to be preserved over time are dramatic canyon panoramas along the scenic byway, the presence of bigcone Douglas-fir and Coulter pine, and a well-defined age class mosaic in chaparral.

Existing Scenic Integrity: High, with Areas of Moderate. The landscape visible from Vetter Mountain Lookout (and Charlton Flats) in general, and KOP-Center-8 specifically, is predominantly natural-appearing, consisting of foreground, middleground, and background landscapes with dense, dark green chaparral and evergreen tree-covered mountainsides. There are interesting vegetative patterns in this landscape view that are created by the folded terrain and microclimates. The sun angle and shadows emphasize the ruggedness of the steep slopes and broken terrain. The natural landscape has a coherent form and character with substantial visual variety created by the rugged, folded terrain. On the skyline, electronic facilities at Mount Wilson are visible and attract attention. On the midslopes, the existing utility corridor contains 220-kV and 500-kV transmission lines that were constructed prior to development and application of the Forest Service Visual Management System or the new Scenery Management System, and therefore, these lines are not in compliance. Also on the midslopes, existing highway cutslopes are partially shielded from view by dark shadows. The natural landscape exhibits a high degree of intactness and scenic integrity, except for the visually discordant electronic sites, transmission line structures, and highway cutslopes. Access and spur roads to the existing towers are evident beyond the Angeles Crest Scenic Byway, and further detract from scenic integrity, leading to a rating of moderate scenic integrity for the utility corridor.

KOP-Center-9 – Angeles Crest Scenic Byway and Rincon-Shortcut Trailhead (Segment 6)

KOP-Center-9 (see Figure A-24a) is located on the Angeles Crest Scenic Byway just east of the Shortcut Saddle Area, looking west at the Rincon-Shortcut OHV Trailhead. Existing lattice steel towers with orange and black “bat ears” are very visible in this view as the conductors cross over the highway and trail. The Rincon-Shortcut OHV Trail follows the corridor of Segment 6 for approximately seven air-miles; and towers, conductors, and spur roads would be very visible from this OHV Trail. OHV users are generally classified as moderate or low concern levels for scenic quality; however, this view is also seen by travelers on the Angeles Crest Scenic Byway, who have been classified as having high concern for scenic quality.

Scenic Integrity Objectives. 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 Desired Condition is maintained as a natural appearing landscape that functions as a mid-elevation recreation gateway to the High Country. The valued landscape attributes to be preserved over time are dramatic canyon panoramas along the scenic byway, the presence of bigcone Douglas-fir and Coulter pine, and a well-defined age class mosaic in chaparral.

Existing Scenic Integrity: High, with Areas of Very Low. The landscape visible from the Angeles Crest Scenic Byway and Rincon Trailhead in general, and KOP-Center-9 specifically, is predominantly natural-appearing, consisting of foreground and middleground landscapes with dense, dark green chaparral and evergreen tree-covered mountainsides. There are interesting vegetative patterns in this landscape view that are created by the folded terrain and shadows in the landscape. The natural landscape exhibits a high degree of intactness and scenic integrity, except for the highly discordant transmission line structures, one of which has aircraft warning colors and symbols. This further detracts from scenic integrity and makes the landscape look heavily altered, leading to a rating of very low scenic integrity for the utility corridor.

KOP-Center-10 – Eastbound Angeles Crest Scenic Byway (Segment 6)

KOP-Center-10 (see Figure A-25a) is located on the Angeles Crest Scenic Byway approximately 1.5 miles west of the Shortcut Saddle Area, at the southern crest of the San Gabriel Mountains at an elevation of approximately 4,350 feet. This location was selected to represent middleground views of the Segment 6 transmission corridor as seen by people driving up the highway. The view is to the highway corridor, utility corridor crossing, and the surrounding landscape. There are several well-used, unpaved turnouts along this segment of the Byway, of which this is one. Although it is not a formal vista point, numerous tire tracks indicate it has major use as a scenic viewing area. It represents views that people have when they stop at the pullouts along this section of the highway and look at the landscape. Viewing duration from this location is short as drivers focus on the sinuous road, but of medium length when they pull over for the view. The level of concern for viewers from this scenic byway is high.

Views from KOP-Center-10 to the east include rugged terrain composed of mountains, ridgelines, and canyons. The south-facing slopes are covered with medium- to low-growing chaparral shrubs with a large cut-and-fill slope on the highway ahead, and areas of exposed earth and rock along the Segment 6 utility corridor. Just above the transmission line is the San Gabriel Mountain Wilderness. The proposed route for Segment 6 does not enter the San Gabriel Wilderness Area. However, it is positioned directly adjacent to a portion of the southwestern boundary between S6 MP 18.0 and MP 18.5. Views are extensive from this location, including views southward to the San Gabriel Valley.

The steep mountainsides are dominant visual elements. Rock faces from road cuts-and-fills and the transmission corridor are also highly visible elements from this KOP. These human-made elements are located within the immediate foreground to middleground. The road cuts and fill are quite visible due to their contrast in color, shape, and size (scale). The transmission corridor elements are less visible, but are prone to attracting attention when the sun glints off of the conductors at certain times of the day, such as shown in Figure A-25a.

The towers on the skyline ridgeline are also more visible than other corridor elements. The viewed landscape is intact and has a natural-appearing character, except for the road cuts and fills and the twin transmission lines.

Scenic Integrity Objectives. 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 Desired Condition is maintained as a natural appearing landscape that functions as a mid-elevation recreation gateway to the High Country. The valued landscape attributes to be preserved over time are dramatic canyon panoramas along the scenic byway, the presence of bigcone Douglas-fir and Coulter pine, and a well-defined age class mosaic in chaparral.

Existing Scenic Integrity: High, with Areas of Low. The landscape visible from the Angeles Crest Scenic Byway in general, and KOP-Center-10 specifically, is predominantly natural-appearing, consisting of foreground and middleground landscapes with dense, dark green chaparral-covered mountainsides and scattered stands of evergreen trees. There are interesting vegetative patterns in this landscape view that are created by the folded terrain and shadows in the landscape. The natural landscape exhibits a high degree of intactness and scenic integrity, except for the highly discordant transmission line structures, which make the landscape character appear moderately altered. They detract from the otherwise high scenic integrity, leading to a rating of low scenic integrity for the utility corridor.

KOP-Center-11 – Silver Moccasin Trailhead (Segment 6)

KOP-Center-11 (see Figure A-26a) is located on the Angeles Crest Scenic Byway at the Shortcut Saddle Area, looking southwest from the Silver Moccasin Trailhead at an elevation of approximately 4,750 feet and was selected to represent views of Segment 6 transmission corridor from a popular, high elevation recreation area. This area is adjacent to and just east of the Rincon-Shortcut OHV Trailhead discussed in KOP-Center-9, above. The proposed Segment 6 would traverse Shortcut Saddle at S6 MP 16.7. The Shortcut Saddle area has a picnic area, large paved parking area, and interpretive signage. In addition, a number of different types of trails converge in this area, such as the Silver Moccasin National Recreation Trail that passes in a north-south direction over the Angeles Crest Scenic Byway in this area. Because of the parking area, many people start hiking the trail from this location (the portion of the trail south of the highway is also known as Shortcut Canyon Trail). This area is also a terminus for the Rincon-Shortcut OHV Trail. Most of the viewers from this location are either people hiking on the Silver Moccasin Trail or people parking at the trailhead and taking advantage of the spectacular views to the south. Viewer level of concern for scenic values is high in this area.

Existing lattice steel towers and conductors are very visible in this view as they cross over the saddle and proceed south along the southwestern border of the San Gabriel Mountain Wilderness, which is situated to the left of the structures. A portion of the Mount Wilson electronic site is visible on the skyline to the right side of the photograph. The existing utility corridor crosses over the trail as both proceed downhill and southward to

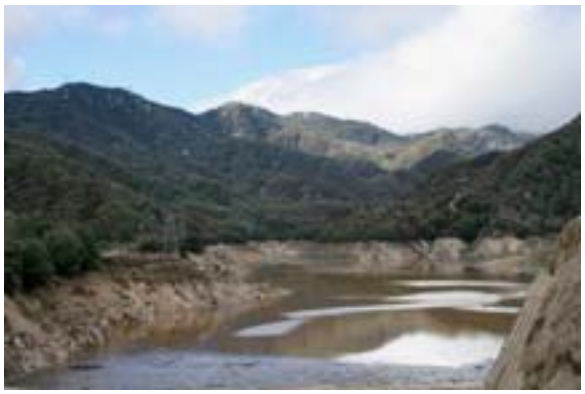
the Los Angeles Basin, as shown in this thumbnail photograph (see Figure A-26a for life-size image). Segment 6 would replace existing 220-kV towers with taller and wider 500-kV towers that would be very visible in the immediate foreground of the Trail and Trailhead. The proposed Segment 6 would cross the Silver Moccasin National Scenic Trail at S6 MP17.0.

Scenic Integrity Objectives. 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 Desired Condition is maintained as a natural appearing landscape that functions as a mid-elevation recreation gateway to the High Country. The valued landscape attributes to be preserved over time are dramatic canyon panoramas along the scenic byway, the presence of bigcone Douglas-fir and Coulter pine, and a well-defined age class mosaic in chaparral.

Existing Scenic Integrity: High, with Areas of Unacceptably Low. The landscape visible from the Silver Moccasin Trailhead in general, and KOP-Center-11 specifically, is predominantly natural-appearing, consisting of foreground and middleground landscapes with dense, dark green chaparral and evergreen tree-covered mountainsides. There are interesting vegetative patterns in this landscape view that are created by the folded terrain and shadows in the landscape. The natural landscape exhibits a high degree of intactness and scenic integrity, except for the highly discordant transmission line structures, which detracts from scenic integrity. These man-made features are prominent and dominate the landscape character, leading to a rating of unacceptably low scenic integrity for the utility corridor.

KOP-Center-12 – Cogswell Reservoir and National Scenic Bikeway (Segment 6)

KOP-Center-12 (see Figure A-27a) was established on Cogswell Reservoir Dam, looking west. KOP-Center-12 is located at the west end of the West Fork San Gabriel River National Scenic Bikeway, and just south of the San Gabriel Wilderness, at an elevation of approximately 2,415 feet. The bikeway is a popular, paved recreation trail that follows along the south side of the West Fork San Gabriel River. The trail starts at the West Fork Day Use Trailhead off Highway 39, and then proceeds westward for approximately 5.5 miles, following an easy gradient, and passing several small waterfalls of tributaries that flow into the West Fork. At the western end of the trail, the gradient becomes steeper for the last 0.25 mile, as the road pitches up to the dam. Bicyclists are rewarded with this view from the dam, looking west-southwest toward the divide between the San Gabriel and Anita Canyon watersheds.



Scenic Integrity Objectives. 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 Desired Condition is maintained as a natural appearing landscape that functions as a mid-elevation recreation gateway to the High Country. The valued landscape attributes to be preserved over time are dramatic canyon panoramas along the scenic byway, the presence of bigcone Douglas-fir and Coulter pine, and a well-defined age class mosaic in chaparral.

Existing Scenic Integrity: High, with Areas of Moderate. Existing 220-kV and 500-kV lattice structures are visible on the skyline, as are access and spur roads cutting across the mountainside and leading to each LST. When the reservoir is full, there is no "bathtub ring" effect and scenic integrity is high for this landscape. Overall, the existing scenic integrity of this natural-appearing National Forest landscape is high, with no deviations of form, line, color, texture, or scale except for the seasonal bathtub ring at the reservoir in the foreground and existing transmission lines, access roads, and spur roads near the skyline in the middleground. These man-made features create strong visual contrasts and make the valued landscape character appear slightly altered. They detract from the otherwise high scenic integrity and reduce certain areas of this landscape to a level of Moderate scenic integrity.

KOP-Center-13 –Mount Zion (Segment 6)

KOP-Center-13 (see Figure A-28a) is located on Mount Zion looking northeast from an elevation of approximately 3,575 feet. Mount Zion is a mountain peak just north of Chantry Flat Picnic Area and Trailhead. Chantry Flat is a popular recreation destination featuring American Disability Act (ADA) accessible facilities at the picnic area and a trail-riding concessionaire under special use permit from the Forest Service. The picnic area is situated north of the City of Arcadia and is approximately 1-mile north of the ANF boundary on a narrow, sinuous, paved, two-lane road. KOP-Center-13 was selected because it offers a vantage point to several lattice steel towers of Segment 6, as seen from the top of Mount Zion and exhibits middleground views of the Segment 6 transmission line structures as seen from this heavily used recreation trail. While hiking to this KOP on a weekday, the visual analyst and Forest Service landscape architect encountered several parties of hikers. Weekend use is higher than weekday use, and concern for scenery is high for this viewshed.

From this vantage point, the tops of 10 lattice steel structures are visible to the naked eye; five are very evident on the skyline near the right-center of this view, and others just barely are visible on the skyline to the left of the saddle. At this location, Segment 6 of the proposed Project would remove existing 220-kV transmission structures and install taller 500-kV lattice structures in their place. The access and spur roads leading to these towers are on the opposite (east) side of this skyline ridge, and are not visible from KOP-Center-13.

Scenic Integrity Objectives. In the 2005 Forest Plan, the 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 Desired Condition is maintained as a natural appearing landscape that functions as a mid-elevation recreation gateway to the High Country. The valued landscape attributes to be preserved over time are dramatic canyon panoramas along the scenic byway, the presence of bigcone Douglas-fir and Coulter pine, and a well-defined age class mosaic in chaparral.

Existing Scenic Integrity: High, with Areas of Moderate. Most of the area seen from this KOP is visually intact and natural-appearing, meeting the definition of High SIO. However, the existing transmission line does not. The five existing lattice structures stand out on the middleground skyline and attract attention, and then other lattice structures become evident, once the attention is drawn to the skyline. The existing transmission

line corridor meets the definition of moderate scenic integrity because the valued landscape character appears slightly altered, and the transmission lines remain visually subordinate to the landscape character being viewed.

This concludes the analysis of individual KOPs for Segment 6. Following is a north-to-south analysis of KOPs for Segment 11.

Landscape Unit 6: Angeles High Country

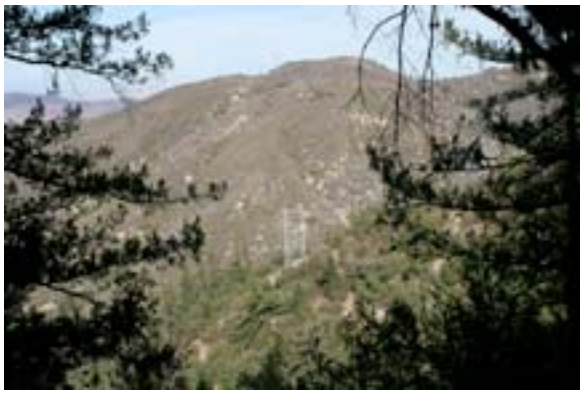
Landscape Unit 6 begins approximately above the intersection of ANF Highway and Aliso Canyon Road, continues up and over the northern crest of the San Gabriel Mountains, and ends adjacent to Landscape Unit 7. Segment 11 passes though this landscape unit (refer to Figure B-6 and the top portion of Figure B-7 in Appendix B of the *Visual Resources Specialist Report* for maps showing Landscape Unit 6).

The Segment 11 transmission corridor passes through a relatively narrow portion of the Angeles High Country Place at its western extent. Segment 11 would both cross over the PCT in this landscape unit, north of the CDF Camp 16 on Mount Gleason Road. The LMP description of this landscape Place's Theme, Setting, and Desired Condition are fully described at the introduction to KOP-Center-3, above.

KOP-Center-14 – Pacific Crest Trail (Segment 11)

KOP-Center-14 (see Figure A-29a) was established on the Pacific Crest Trail (PCT), just north of the Mount Gleason Road and just west of Big Buck Campground, looking north toward two existing parallel transmission lines: a set of 220-kV towers and conductors on the left and a set of 500-kV towers and conductors on the right. In this vicinity, Segment 11 would replace the existing 220-kV line on the left with a new 500-kV line in the same location. The proposed route for Segment 11 would traverse the PCT at approximately S11 MP 7.6. 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 and reddish-colored soils are visible at the base of existing tower in the middleground, leading off to the right to an access road near the skyline. This is evidence of the access roads that have been used to construct and maintain the existing transmission line.

Scenic Integrity Objectives. 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 Desired Condition is a key place that is valued for its scenic quality and is maintained as a naturally evolving and natural appearing landscape that functions as a year-round forested mountain recreation area.



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 Low. The landscape visible from the PCT is predominantly natural-appearing, consisting of a coherent foreground and middleground landscape with dense, dark green Douglas fir, oak, and pine trees on north-facing slopes and chaparral shrubs with widely scattered pine trees on south-facing slopes, creating a mosaic of patterns scattered across these steep mountainsides. The natural landscape exhibits a high degree of intactness, or scenic integrity, except for the few distinct man-made features – the transmission lines with industrial-character, tall, geometric lattice towers. Access and spur roads to the existing towers are evident and 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 the natural landscape. These discordant features attract attention from the harmony of the natural form and character of the landscape, especially transmission towers that are in the foreground or are silhouetted against the skyline in the middleground. These discordant elements do not borrow form, line, color or texture from the natural-appearing landscape, and create a moderately altered landscape. Therefore, the existing transmission line towers meet the definition of low scenic integrity.

KOP-Center-15 – Mount Gleason Road (Eastbound) (Segment 11)

KOP-Center-15 (see Figure A-30a) was established on the Mount Gleason Road, approximately 0.3-miles east of Camp 16, looking northeast toward the ridgetop and an existing pull-out on the north side of the road. The proposed route for Segment 11 would not traverse this landscape, but would be located approximately 0.3-miles west of this location. However, this KOP is relevant because SCE proposes to construct a helicopter staging area (SCE #1) in this vicinity for the proposed Project. (However, this SCE-proposed helicopter staging area would not be used for Alternative 6, the Maximum Helicopter Alternative.) This viewpoint was selected to characterize the existing landscape visible to recreationists and Camp personnel driving eastbound on Mount Gleason Road in the vicinity of the proposed Project. Tan and reddish-colored soils are visible at the pull-out. More bare soils would be exposed with the development of a large helicopter staging area.

Scenic Integrity Objectives. 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 Desired Condition

is a key place that is valued for its scenic quality and is maintained as a naturally evolving and natural appearing landscape that functions as a year-round forested mountain recreation area.

Existing Scenic Integrity: High, with Areas of Borderline Moderate-to-Low. The landscape visible from the Mount Gleason Road is predominantly natural-appearing, consisting of large-scale, panoramic views to middleground and background landscape, such a shown at KOP-Center-3. However, this is a foreground view toward the proposed Project's (Alternative 2) helicopter staging area (Site #1) and it does not show panoramic views; rather, it shows details in the landscape that are somewhat discordant. The dense, dark green brushfields are interrupted by cut and fill slopes of the road itself, and by an access road that follows along the ridgeline and powerline with wooden poles that interrupt the skyline. The natural landscape exhibits a moderate degree of scenic integrity, except for the distinct man-made features: the power line with its H-frame wooden poles; and the cut and fill slopes with bare earth. These discordant elements do not borrow form, line, color or texture from the natural-appearing landscape, but they are not extremely dominant; therefore, this scene is on the borderline between moderate and low scenic integrity.

Landscape Unit 7: Angeles Uplands West

Landscape Unit 7 is located between Landscape Unit 6 to the north (which is at generally higher elevations) and Landscape Unit 8 to the south (which is located at generally lower elevations). Segment 11 passes through this landscape unit in a north-south direction (refer to Figure B-7 in Appendix B of the *Visual Resources Specialist Report* for a map showing Landscape Unit 7). The LMP description of this landscape Place's Theme, Setting, Desired Condition, and Program Emphasis are described as an introduction to KOP-Center-6 through KOP-Center-11, above.

KOP-Center-16 – Angeles Forest Highway (Southbound) (Segment 11)

KOP-Center-16 (see Figure A-31a) was established on the Angeles Forest Highway, approximately 0.25-miles north of the intersection of the Highway and the Lower Big Tujunga Canyon road, looking west toward the skyline and an existing access road that leads to an existing underground water tank that is used for fire-fighting. Although the proposed route for Segment 11 would not traverse this landscape, but instead would be located approximately 0.5-miles west of this location, this KOP was chosen because at this location, there is a proposed helicopter staging area for Alternative 6 (Maximum Helicopter Alternative). However, this site would not be used for the proposed Project (Alternative 2). This viewpoint was selected to characterize the existing landscape visible to recreationists and commuters driving southbound on the Angeles Forest Highway in the vicinity of the proposed Project. This ridgeline is visible for a very short time, based on speed of traffic on the Highway and the narrow curving nature of this portion of the highway. The gray colors of the asphalt road dominate the scene, and dark green evergreen trees and chaparral cover the mountainside in this vicinity. The flat area on the skyline is completely covered with Spanish broom, and this large leveled area overlooks the Tujunga Creek Canyon. This flat area is visible to travelers on the Highway, although viewing duration is short as drivers focus on the sinuous road. Two types of users travel on this road: commuters and recreationists. It is assumed that commuters have some regard for scenic values, but

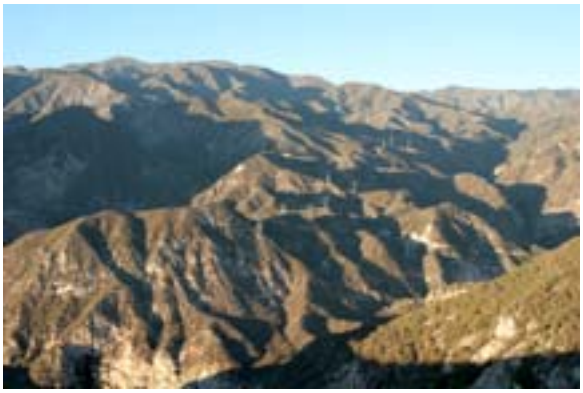
in general, may have only a low-to-moderate concern level. Recreationists, on the other hand, are generally driving for pleasure and have a high concern level.

Scenic Integrity Objectives. 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 Desired Condition is maintained as a natural appearing landscape that functions as a mid-elevation recreation gateway to the High Country. The valued landscape attributes to be preserved over time are dramatic canyon panoramas along the scenic byway, the presence of bigcone Douglas-fir and Coulter pine, and a well-defined age class mosaic in chaparral.

Existing Scenic Integrity: Low. This highway provides panoramic views to the Tujunga Canyon and steep mountainsides. However, because of the direction of view of this photograph, these panoramic views are not shown. Rather, details in the landscape that are somewhat discordant are displayed, and the landscape appears moderately altered. This is a foreground view toward the proposed helicopter staging area Site #10 for Alternative 6. This same area is not proposed as a helicopter staging area for Alternative 2. The natural landscape no longer exhibits a high degree of intactness, or scenic integrity, because of the man-made features that have begun to dominate the valued landscape character – the highway itself, the cut and fill slopes with bare earth, and the flattened skyline caused by an abandoned parking lot on the right side of the skyline and a buried water tank on the left half of the skyline in this view. These discordant elements do not borrow form, line, color or texture from the natural-appearing landscape, giving this scene low scenic integrity.

KOP-Center-17 – Northbound Angeles Forest Highway (Segment 11)

KOP-Center-17 (see Figure A-32a) is located on the Angeles Forest Highway approximately three miles north of its intersection with the Angeles Crest Scenic Byway. This location was selected to represent middleground and background views of the Segment 11 transmission corridor as seen by people driving north and down into the Big Tujunga Canyon on their way to Palmdale, Lancaster, or the Antelope Valley. This view is typical of the view northward for approximately 0.5 miles along this twisting, narrow highway. The existing, utility corridor crosses over the highway just south of this vantage point, and then proceeds toward Mount Gleason -- the background ridge in this view. The photograph was taken from a large, unpaved turnout, and although it is not a formal vista point, numerous tire tracks and litter piles indicate it is used as a stopping point and scenic viewing area. There are several well-used, unpaved turnouts along this segment of the Highway, of which this is one. It represents views that people have when they stop at the pullouts along this section of the highway and look at the landscape. Viewing duration from this location is short for drivers, as they tend to focus on the sinuous road, but long for people who exit their vehicles and walk around to look at the landscape from these numerous turnouts. Two types of users travel on this road: commuters and recreationists. It is assumed that commuters have some regard for scenic values, but in general, may have only a low-to-moderate concern level. Recreationists, on the other hand, are generally driving for pleasure and have a high concern level.



Scenic Integrity Objectives. 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 Desired Condition is maintained as a natural appearing landscape that functions as a mid-elevation recreation gateway to the High Country. The valued landscape attributes to be preserved over time are dramatic canyon panoramas along the scenic byway, the presence of bigcone Douglas-fir and Coulter pine, and a well-defined age class mosaic in chaparral.

Existing Scenic Integrity: High, with Areas of Very Low. The smooth vegetation and the folded terrain with interesting shadows draws attention away from the horizontal skyline ridges and down into the bottom of Big Tujunga Canyon. The setting sun casts rays of light that particularly dramatically illuminate the two parallel transmission lines in this corridor. The influence of human activity is very evident with the presence of highly visible bare soils from access/spur roads and transmission line towers that appear all the way to the horizon. The landscape character of this area is natural-appearing, except for the steel lattice towers, conductors, access roads, and spur roads. Segment 11 of the proposed Project would remove the existing line of 220-kV towers and conductors to the west (left side of photo) and construct new, taller, wider single-circuit 500-kV lattice steel towers (100 to 220 feet tall) in the same alignment.

The landscape visible from the Angeles Forest Highway in general, and KOP-Center-17 specifically, is predominantly natural-appearing, consisting of foreground, middleground, and background landscapes with interesting patterns of dense, dark green chaparral-covered mountainsides. The folded terrain and shadows create interesting patterns in this landscape view. The natural landscape exhibits a high degree of intactness and scenic integrity, except for the highly discordant transmission line structures, which detracts from the high scenic integrity. The utility corridor appears heavily altered and visual deviations (human-made structures) strongly dominate the view, leading to a rating of very low scenic integrity for the utility corridor.

KOP-Center-18 – Clear Creek Outdoor Education Camp (Segment 11)

KOP-Center-18 (see Figure A-33a) is located on a nature trail just west of the Clear Creek Outdoor Education Camp. This camp is operated by the Los Angeles Unified School District, under special use permit from the Forest Service. The camp access is a single-lane, paved road that takes off from the Angeles Forest Highway approximately 1-mile north of its intersection with the Angeles Crest Scenic Byway. The nature trail at this location is wide enough for a motor vehicle, but provides access for the 80 students who come to camp for a week at a time. The camp has a three-year waiting list, according to the Assistant Director (Calderon, 2007; Gardina, 2007). This location was selected to represent foreground, middleground, and background views of the Segment 11 transmission corridor as seen by students hiking on the nature trail down into Clear Creek, a tributary of Big Tujunga Creek. This view, looking northwest, is representative of the view for approximately ¼-mile along this trail before it crosses under the transmission lines.

The focal point of this landscape is the background mountain with interesting vegetative patterns and rock outcrops that attract attention. The jagged skyline further dominates the viewers' attention away from the foreground slope, which is covered by dense, evenly textured chaparral vegetation. There is a reddish-colored knob in the middleground that does not attract much attention; however, on the top of it there are two existing transmission lattice steel towers. Both towers have a landform backdrop, and are hardly visible from this vantage point, but the conductors shine in the early morning sunlight, as is evident in this view. On the skyline to the right, one more tower is visible against the blue sky. Segment 11 of TRTP would remove existing 220-kV towers and conductors and construct new, taller, wider single-circuit 500-kV lattice steel towers (100 to 220 feet tall).

Scenic Integrity Objectives. 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 Desired Condition is maintained as a natural appearing landscape that functions as a mid-elevation recreation gateway to the High Country. The valued landscape attributes to be preserved over time are dramatic canyon panoramas along the scenic byway, the presence of bigcone Douglas-fir and Coulter pine, and a well-defined age class mosaic in chaparral.

Existing Scenic Integrity: High, with Areas of Low. The landscape visible from the Clear Creek Outdoor Education Center in general, and KOP-Center-18 specifically, is predominantly natural-appearing, consisting of foreground, middleground, and background landscapes with interesting tan rock patterns and a mosaic of dark green chaparral-covered mountainsides, leading the eye to a jagged skyline in the background. The folded terrain and shadows create high visual interest in this landscape view. The natural landscape exhibits a high degree of intactness and scenic integrity, except for the discordant transmission line conductors that lead viewers' attention to the lattice steel tower on the right skyline. The existing LST in the middle of this view blends almost completely with the mottled background landscape patterns, and if it were not for the horizontal lines created by the conductors, this LST would meet the definition of moderate scenic integrity. However, the existing transmission line begins to dominate the valued landscape character and detracts from scenic integrity, leading to a rating of low scenic integrity for the utility corridor.

Landscape Unit 8: The Front Country

Landscape Unit 8 is located south of Landscape Unit 7, which is situated to the north and is generally at higher elevations, and north of the greater Los Angeles Basin. The foothills of the San Gabriel Mountains serve as a part of the scenic backdrop for the greater Los Angeles area. The Forest Plan considers the Foothill Place to be one of the ANF's "Key Places" which represents some of the most picturesque areas of ANF. Both Segment 11 (to the west) and Segment 6 (to the east) pass through The Front County Landscape Unit (see Figures B-7 and B-8 in Appendix B for a map showing Landscape Unit 8). The Forest Plan description of the Front Country Place applies to this landscape unit as well. The LMP description of this landscape Place's Theme, Setting, Desired Condition, and Program Emphasis states:

> ***Theme:*** *The scenic mountain backdrop for the greater Los Angeles area. This Place provides portals from the Los Angeles Basin, (with its 15 million plus population), to the national forest. This 'backyard' landscape is extensive and includes the 60 miles from Lytle Creek to Newhall Pass. It is one of the "Key Places" representing the most picturesque national forest locations, containing it own landscape character.*

Setting: *The Front Country Place rises dramatically from the Los Angeles Basin from an elevation of approximately 300 feet to an elevation of approximately 6,000 feet. The communities that make up the urban interface of the San Bernardino, San Fernando, and San Gabriel Valleys define the lower elevation edge of the Place. The area is easily accessible from various points along the Interstate 5, 15, and 210 travel corridors. The trails through the Place offer national forest visitors dramatic urban panoramas and views to rugged mountain backdrops. This Place includes a variety of special designations, including the San Dimas Experimental Forest and the 1,400-acre Fern Canyon Research Natural Area (RNA), which offers opportunity for study of mixed chaparral and live oak woodland communities. Five Inventoried Roadless Areas are located in the Front Country, some of which may be recommended as wilderness.*

The southern aspect of the Place includes steep slopes with sharp to rounded summits and deep narrow canyons. The steeper reaches of the slopes are typically barren and highly eroded. Canyons characteristically have steep, rocky sides and are often strewn with large distinctive boulders. The Mediterranean climate of southern California affects vegetation types and water availability. Perennial water is present only in the largest creeks and rivers. Chaparral is the most dominant plant community. Canyon and coast live oaks grow along the shaded slopes of the canyons.

Deciduous trees and shrubs occupy riparian areas. Degradation of air quality (in surrounding communities) is a factor that is affecting forest health in a variety of ways including stressed plant communities, lower water productivity and lower water quality. Human use has resulted in the presence of invasive exotic weed infestations in many areas.

There is a rich diversity of plant and animal species found in the Place, as well as habitat for four federally listed plants and several other rare plants. Riparian areas along the streams include habitat for numerous riparian dependant species, and serve as valuable linkages between the national forest and adjacent habitat on private land. Potential threats to habitat for riparian dependent species and other sensitive habitat include recreation uses, wildland fire, flood control and other water conservation activities and practices.

The cultural landscape of the Place is generally characterized by urban influences resulting in a modified character in many areas. The modified setting is often inconsistent with the types of recreation opportunities visitors are seeking. In other areas, steep slopes limit access (protecting resources) resulting in feelings of remoteness and solitude while enjoying hidden treasures that include, springs, waterfalls, a variety of landscapes, and many recreation experiences including hunting and fishing. Access is limited by a trail system that some think is not meeting the needs of the recreating public. Some trails are located in poor locations (steep, unstable areas) requiring high maintenance. There is also a network of user created trails that are the cause of resource problems in many areas. The developed sites in the Place are aging and do not meet the needs of the modern recreation user. Many facilities cannot accommodate modern vehicles and at a fundamental level do not meet the requirements of the Americans with Disabilities Act (ADA) or the National Forests and Grasslands Built Environmental Image Guide (BEIG). In many areas within the Place, managers feel that the levels of recreation use are exceeding the capacity of the facilities.

The Place has numerous electronic and communication sites located on ridgelines and mountain tops. Many of the utility corridors that support the Los Angeles Basin are located in the Place, as well as flood control structures and dam facilities. Finally, there are many unauthorized activities occurring in the Place resulting in resource problems.

Fire safe conditions along the urban interface within the Place are inconsistent. Private landowners look to the Forest Service to accomplish the vegetative treatments required for community defense. Traditionally, fuel treatments have been focused on Front Country watershed protection, concentrating on age class mosaics and fuelbreaks designed to reduce the threat of downstream flooding that often occurs after wildland fire. Wildland fires have resulted in significant property and resource losses. The numbers of fire starts are not consistent with natural disturbance cycles and are moving some plant communities toward type conversions that are out of character in the Place.

The proximity of the Place to the cities along the urban interface emphasizes the need to continue to develop and maintain good working relationships with other agencies and community government. Inconsistent management strategies have led to problems and emphasize the need to work together and effectively manage the national forests to support common goals in an era of intense urbanization. Habitat linkages, access, water, and urban infrastructure are just a few of the problems requiring a more common solution.

The Place is viewed by the residents of adjacent communities as their backyard. The area might be characterized as being loved to death. The area is intensively used resulting in user conflicts, trash, non-permitted uses, parties, car dumping, graffiti, and other activities that compromise national forest resources.

Existing Wilderness in the Place includes:

- *Cucamonga 216 acres*

Recommended Wilderness

- *Cucamonga "A" (southernmost section) 448 acres*

Established Research Natural Areas:

- *Fern Canyon 1,400 acres*

Total Angeles National Forest acres--Front Country Place: 101,232

Desired Condition: *The Front Country Place is maintained as a natural appearing landscape that functions as a 'first impression' scenic backdrop for the Los Angeles/San Bernardino metropolitan area, and a national forest portal for its 15 million residents. The valued landscape attributes to be preserved over time are the rugged and wild appearing mountain silhouettes, dramatic undisturbed views to urban and mountain landscapes especially from trails and roads, coast live oaks along the shaded slopes of the canyons, and a well-defined age-class mosaic in chaparral. Wildlife linkages connecting the southern San Gabriel Mountains to the Santa Ana, Santa Susana and Verdugo Mountains are established and functioning. Habitat conditions for threatened, endangered, proposed, candidate and sensitive species are improving over time. Exotic species are reduced and controlled over time.*

Program Emphasis: *Management emphasis is on protecting communities from the threat of fire, managing for high recreation use levels, and maintaining urban and national forest infrastructure (facilities) consistent with the natural setting. An extensive trail network is managed to provide opportunities for hiking, biking, and equestrian trips of short duration and to provide linkages to the national forest trail network and the Pacific Crest Trail. Picnic areas and campgrounds along the Front Country Place provide close to home "first visit" opportunities. Mount Wilson is managed as a major trail destination, vista point*

and astronomical research site. The national forest will focus on open space protection along the urban interface. Local communities and the national forest cooperate to develop environmental education and conservation stewardship programs relevant to urban students and families especially for the San Gabriel Canyon entry point. The national forest is active in regional planning efforts to establish wildlife linkages connecting the San Gabriel Mountains to the Santa Ana, Santa Susana and Verdugo Mountains. Uses and activities are managed to provide opportunities for establishment of a regional wildlife linkage in the Place.

In Appendix D of this Visual Resources Specialist Report, character photo P-8.1 illustrates the terrain along the foothills that rises dramatically above the Los Angeles Basin from an elevation of approximately 300 feet to an elevation of approximately 6,000 feet. Numerous trails offer national forest visitors dramatic urban panoramas and views to rugged mountain backdrops (character photo P-8.2). The southern aspect of the Front County includes steep slopes with sharp to rounded summits and deep narrow canyons. The steeper reaches of the slopes are typically barren and highly eroded. Canyons characteristically have steep, rocky sides and are often strewn with large distinctive boulders. Perennial water is present only in the largest creeks and rivers. Chaparral is the most dominant plant community, while canyon and coast live oaks grow along the shaded slopes of the canyons. The Front County Place is viewed by the residents of adjacent communities as their backyard (character photo P-8.3). The area is intensively used resulting in user conflicts, trash, parties, car dumping, graffiti, and other non-permitted uses and activities that compromise national forest resources. The Front Country Place has numerous human-made features that are visual elements. Some of the more visible include electronic and communication sites located on ridgelines and mountain tops, utility corridors, and flood control structures and dam facilities. Many areas near this place (but outside of the ANF) are heavily developed. They include vast stretches of subdivisions and residential areas of varying ages.

Existing ROW cross-sections for Segments 6 and 11 are shown in Chapter 2 of the EIR/EIS (Description of Alternatives). The existing ROW width associated with Segment 6 is 200 to 800 feet, and with Segment 11, it is 200 to over 400 feet. Existing transmission structures throughout the segments are lattice steel towers carrying either 220 kV or 500 kV conductors (SCE, 2007a).

This landscape unit has a variety of viewers because of its proximity to urban areas. The concern level ranges from high for nearby residents and recreationists, to moderate for residents living farther away from the ANF (but still able to view it) and for people driving on roads that pass through the unit. The most sensitive viewers of the unit would likely be residents living in the area near the ANF (and within private in-holdings) (character photo P-8.4) have high levels of concern. Recreationists hiking on nearby trails, picnicking, camping, and participating in other activities, such as driving the Angeles Crest Scenic Byway, also have high levels of concern for the visual environment. People driving the Angeles Crest Scenic Byway and the Angeles Forest Highway for commuting or other non-viewing purposes, as well as those driving area roads, are more likely to have different levels of concern, ranging from low, to moderate, to high.

KOP-Center-19 – Gould Substation from Angeles Crest Scenic Byway (Segment 11)

KOP-Center-19 (see Figure A-34a) is located adjacent to the Angeles Crest Scenic Byway in a paved pullout and overlook at an elevation of approximately 2,500 feet, approximately 0.5 mile north of the Gould Substation, looking south toward downtown Los Angeles, which is barely visible in the background. This location was selected to represent middleground views of the Segment 11 transmission corridor and the existing Gould Substation, as seen by people driving downhill on the highway or stopped at this developed pullout. This heavily used overlook is northwest of the City of Pasadena and north of the City of La Cañada

Flintridge. The overlook was selected as a KOP because it is part of the Angeles Crest Scenic Byway, its popularity (due in part to its proximity to developed communities), its easy access, the spectacular views it offers, and its visual proximity to Segment 11 of TRTP and the Gould Substation. The overlook was identified in the Angeles Crest Scenic Byway Corridor Management Plan as "Vista Point, Milepost 27.23" and was listed as a potential site for interpretative development.

The existing view from KOP-Center-19 takes in the lower foothills of the San Gabriel Mountains that line both sides of the Arroyo Seco, the San Rafael Hills to the south, and other more distant hills and mountains. On especially clear days, the Pacific Ocean and Catalina Island can be seen in the distance to the west. The foothills in the foreground are thickly vegetated with native chaparral vegetation. Ornamental trees and landscaping can be seen in the residential areas situated on the hilltops south of the Gould Substation.

A variety of land uses that influence landscape character can be observed from this location. They include conservation (on ANF and City of Pasadena watershed protection lands), utility, and residential. Human-made features that can be seen in the foreground to middleground from this KOP include the Gould Substation, several utility corridors, local electric distribution lines, and residences. On clear days, high-rise buildings in downtown Los Angeles can be viewed beyond the Gould Substation (character photo P-8.5). Middleground and background views take in residential areas of La Cañada Flintridge, Pasadena, and Los Angeles beyond. Viewers consist primarily of people who drive to the overlook specifically to take in the view and people driving on the Angeles Crest Scenic Byway who pull over for brief views. Their viewing duration ranges from short to moderate and their concern level is high. Because of the open nature of this location when looking southeast, south, and southwest, the views are very expansive and take in a variety of landscape character types. The landscapes seen from this KOP are complex and the view is a good example of an urban/wildland interface. The undeveloped, heavily vegetated foreground and middleground areas are best described as having a natural-appearing landscape character. The transmission corridor is characteristic of large-scale utility infrastructure. Nearby residential areas and areas beyond have an urban or suburban landscape character.

Scenic Integrity Objectives. In the 2005 Forest Plan, the entire ANF 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 Desired Condition would maintain the Forest as a natural appearing landscape that functions as a "first impression" scenic backdrop for the Los Angeles/San Bernardino metropolitan area, and a national forest portal for its 15 million residents. The valued landscape attributes to be preserved over time are the rugged and wild appearing mountain silhouettes, dramatic undisturbed views to urban and mountain landscapes especially from trails and roads.

Existing Scenic Integrity: High. Although the Substation and areas beyond are not in the ANF, the foreground and middleground landscapes of this view are within the Forest and contribute much value to the scene. NFS lands are largely intact in this view, and meet the definition of High SIO. Urban areas beyond the Forest boundary do not have a scenic integrity objective.

KOP-Center-20 – Forest Road to Millard Campground (Segment 11)

KOP-Center-20 (see Figure A-35a) is located on Forest Road 2N65.2, also shown on maps as the Chaney Trail, leading to the Millard Campground just north of the City of Altadena at an elevation of approximately 2,090 feet, looking west. This location, approximately 0.5 mile north and inside the ANF boundary, was selected to represent immediate foreground views of the Segment 11 transmission corridor along this recreation road and trail. The road to the campground was gated at this location and several cars were parking alongside the road, indicating recreationists were using this location along the road as a trailhead for additional recreation pursuits. It is expected that all viewers on this dead-end road are recreationists who have a high concern for scenic values. There are additional recreation trails in this vicinity from which recreationists would view Segment 11 (see Section 3.15, Wilderness and Recreation, of the EIR/EIS).

Two existing double-circuit 220-kV transmission structures are evident from this vantage point in the landscape; the lattice steel tower on the left has an unused position on the right side of the tower, where no insulators or conductors are located. In this portion of Segment 11 from the Gould Substation to the Mesa Substation, new insulators would be hung on the vacant positions of these existing 220-kV double circuit towers and new conductors would be strung.

Scenic Integrity Objectives. In the 2005 Forest Plan, the 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 Desired Condition would maintain the Forest as a natural appearing landscape that functions as a 'first impression' scenic backdrop for the Los Angeles/San Bernardino metropolitan area, and a national forest portal for its 15 million residents. The valued landscape attributes to be preserved over time are the rugged and wild appearing mountain silhouettes, dramatic undisturbed views to urban and mountain landscapes especially from trails and roads.

Existing Scenic Integrity: High, with Areas of Unacceptably Low. Most of the NFS lands in this area are visually intact and meet the definition of High SIO. However, the existing transmission lines in the immediate foreground are very prominent and dominate in contrast to the natural-appearing landscape character, and therefore the transmission line meets the definition of unacceptably low scenic integrity.

South Area: San Gabriel Valley and Inland Empire Landscape Region

The San Gabriel Valley/Inland Empire Landscape Region consists of Landscape Units 9 through 19, extending south from the southern boundary of the ANF to the Mesa Substation, then east to the Chino and Mira Loma Substations as shown in Appendix B.

Landscape Unit 9: Duarte/Bradbury/Irwindale

This landscape unit is bounded on the north by the southern border of the ANF, on the south by the Foothill Freeway (Interstate 210 or I-210), and extends approximately one mile east and west of the transmission

corridor. Landscape Unit 9 contains the developed areas of Duarte, an eastern portion of Bradbury, and a small portion of Irwindale north of the Foothill Freeway (see Figure B-8 in Appendix B for a map showing Landscape Unit 9).

The terrain within this landscape unit is generally flat in its central and southern areas. Moderate slopes are present in the northern residential areas, with steeper slopes to the north in the undeveloped foothills of the San Gabriel Mountains, leading up to the southern boundary of the ANF (character photo P-9.1). Development within the landscape unit consists primarily of single-family residential neighborhoods, and some of these lie in close proximity to the transmission corridor (character photos P-9.2 and P-9.3). Commercial development is concentrated along Huntington Drive. As is typical for many of SCE's transmission corridors, several nurseries are present within the Right-of-Way (ROW) itself (character photo P-9.4). The Rancho Duarte Golf Course is located within and around the transmission corridor north of Huntington Drive, and the Avila Gardens Residence for Seniors is located immediately south of the golf course and adjacent to the transmission corridor (character photo P-9.5). Some industrial land uses are present south of Huntington Drive near the San Gabriel River channel and immediately north of I- 210. A residential neighborhood is also present south of Huntington Drive and west of the transmission corridor (character photo P-9.6).

Vegetation in this cultural landscape consists of a variety of planted deciduous trees, palm trees, various shrubs, and grass lawns (character photo P-9.3). Native chaparral evergreens dominate the undeveloped San Gabriel Mountains to the north (character photos P-9.1, 9.3, and 9.5). The most visually dominant features in this landscape unit are the San Gabriel Mountains to the north and the two sets of electric transmission towers and conductors that define the central axis of the landscape unit (character photo P-9.3).

Segment 7 of the proposed Project would traverse Landscape Units 9 and 10, and terminate in Landscape Unit 12 at the existing Mesa Substation. To understand the context of the proposed Project in Landscape Units 9, 10, and 11, Table 2-12 summarizes features of the proposed Project.

Table 2-12. Alternative 2 (Proposed Project) Segments 7 and 9 Components in Landscape Units 9, 10, and 12

Segment 7: Section of New Replacement Vincent – Rio Hondo No. 2 500-kV T/L (initially energized at 220 kV) and Section of New Vincent – Mira Loma 500-kV T/L
• Initiates at the southern boundary of the ANF and ends at the existing Mesa Substation • Remove approximately 15.8 miles of the existing Antelope – Mesa 220-kV T/L between the southern boundary of the ANF and the Mesa Substation • Construct new approximately 15.8-mile 500-kV double-circuit T/L to include the Rio Hondo – Vincent No. 2 500-kV T/L (initially energized at 220 kV) and the new Mira Loma – Vincent 500-kV T/L • Connect the new Rio Hondo – Vincent No. 2 500-kV T/L (initially energized at 220 kV) into the Rio Hondo Substation • Relocate several existing 66-kV subtransmission lines between the existing Rio Hondo Substation and the existing Mesa Substation • All proposed permanent infrastructure to be located within existing ROW (approx. 15.8 miles) • Erect approximately 85 new transmission structures, including: ▪ 1 double-circuit 220-kV LST (185 feet tall) ▪ 2 double-circuit 500-kV TSPs (195-200 feet tall) ▪ 3 single-circuit 500-kV LSTs (113-175 feet tall) ▪ 79 double-circuit 500-kV LSTs (147-262 feet tall) • Erect approximately 150 new double-circuit 66-kV subtransmission Light Weight Steel Poles (LWSPs) and TSPs • Would require approximately 16 wire setup sites for pulling/tensioner/splicing of conductor wire
Segment 9: Substation Facilities
• Upgrade existing Gould Substation to accommodate new 220-kV equipment

Existing ROW cross-sections for Segment 7 are shown in Chapter 2 of the EIR/EIS (Description of Alternatives). The existing ROW width associated with Segment 7 is 200 to 250 feet. Existing transmission structures in these segments are lattice steel towers carrying 220 kV conductors.

Viewers of the transmission corridor within Landscape Unit 9 include residents within their homes, particularly those with views oriented toward the corridor (character photo P-9.1), pedestrians, bicyclists, and motorists traveling on surface roads, plus motorists passing through the landscape unit on I-210.

The study corridor in Landscape Unit 9 traverses through the cities of Duarte, Bradbury, and Irwindale. Applicable laws, regulations, and standards relative to the scenic quality for Landscape Unit 9 are included as part of a comprehensive table included in Section 3 and Appendix C.

The City of Bradbury has adopted ridgeline and view preservation regulations. There are no designated State or local scenic highways located within Landscape Unit 9.

KOP-South-1 – Royal Oaks/Tocino Intersection, Duarte (Segment 7)

KOP-South-1 represents views from generally level terrain looking north toward the San Gabriel Mountains along the transmission corridor. Viewers from this KOP include residents with static views from their homes, and pedestrians, bicyclists, and motorists traveling on the area's streets (see Figure A-36a – Existing Conditions for KOP-South-1 – Royal Oaks/Tocino Intersection, Duarte). This KOP is located within a residential neighborhood in the south-central portion of the landscape unit immediately adjacent to the transmission corridor, looking north-northeast. Because only non-NFS lands are visible in the view, the VS/VC methodology applies to this KOP. Figure A-36a is representative of existing conditions seen at foreground viewing distances from S7 MP 0.0 to S7 MP 1.8.

The existing foreground view from KOP-South-1 includes houses, a paved street, parked automobiles, grass lawns, shrubs, a wide variety of attractive trees, some residential overhead utility wires, and the high-voltage transmission towers and conductors present approximately 300 feet to the north-northeast. The middleground view contains the San Gabriel Mountains with chaparral evergreen vegetation, which are natural-appearing and relatively untouched. However, pairs of transmission towers and conductors also are visible in the middleground view, and even though they have a landform backdrop, the existing lattice structures are visually evident, especially for the pair of towers that are exposed above the skyline.

Viewer Exposure: high. The proposed Project would be highly visible from these residential properties because it would cross directly behind existing houses at foreground viewing distances. As seen from these neighborhoods, the proposed Project also would be highly visible on the barren slopes of the San Gabriel Mountains at middleground viewing distances. The duration of view would be extended from these residential neighborhoods, and the number of potential viewers would be moderate-to-high. Therefore the overall viewing exposure would be high.

Viewer Concern: high. Viewers in this area consist primarily of neighborhood residents in single-family homes, on neighborhood streets, golfers, and residents at the nearby Avila Gardens Senior Center. The level of viewer sensitivity is high.

Visual Quality: moderate-to-high. The overall visual quality for KOP-South-1 is moderate-to-high. The slopes and high ridgeline of the San Gabriel Mountains provide a dramatic and attractive backdrop to this residential view, and the vegetation (particularly the contrasting mix of palm and deciduous trees) provides an

element of special visual interest. The visual intactness of the residential area is average, although the transmission structures encroach upon the foreground view. The visual unity of the residences and streetscape is moderately high; the landforms, vegetation and residential structures fit well together. However, the scale and geometric forms of the transmission structures contrast strongly with these other visual elements, and these existing industrial-character structures protrude above the skyline in both the foreground and middleground, creating additional contrasts. Without the transmission lines in this view, this landscape would exhibit high visual quality, but the introduction of these towers and conductors has lowered the visual quality to a moderate-to-high level.

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

Landscape Unit 10: I-605 Corridor

Landscape Unit 10 is bounded on the north by the Foothill Freeway (I-210), on the south by the Pomona Freeway (Highway 60), and extends approximately one mile east and west of the transmission corridor (see Figures B-8 and B-9 in Appendix B for a map showing Landscape Unit 10). Landscape Unit 10 is centered along the corridor of the San Gabriel River Freeway (I-605) and the San Gabriel River channel, which generally run north-to-south. The transmission corridor generally parallels the river and freeway, with the conductors crossing the river and freeway at some locations (character photos P-10.1 and P-10.2).

This landscape unit is approximately eight miles long and passes through multiple jurisdictions. From north to south Landscape Unit 10 includes: the central portion of Irwindale; a western portion of Baldwin Park; a small western spur of the City of Industry; and, a southeastern portion of South El Monte.

The terrain within this landscape unit is generally flat, with the most significant relief occurring within the San Gabriel River channel and the Santa Fe Flood Control Basin (see KOP-South-2 below). Development consists primarily of freeway structures and industrial facilities, including several large gravel quarry facilities (character photo P-10.1). Residential neighborhoods are present east and west of the transmission corridor, but these are somewhat visually isolated from the transmission towers and conductors by the intervening freeway and the San Gabriel River. An exception to this occurs in the southwestern portion of the landscape unit in South El Monte (see KOP-South-3 below). Other major features within Landscape Unit 10 include the Irwindale Speedway south of Live Oak Avenue, several schools, the California Country Club northeast of the I-605/Highway 60 interchange, and the Santa Fe Dam Recreation Area.

The Santa Fe Recreation Area is an 836-acre Los Angeles County Park situated north of the Santa Fe Dam, a flood-control structure for the San Gabriel River. The majority of the park is located southeast of the I-210/I-605 interchange, with a smaller section southwest of this interchange. The park includes floodwater spreading grounds; hiking, biking, and equestrian trails; campsites; picnic areas; a children's water play area; and a 70-acre lake. The lake and vicinity are the primary use areas within the park. The portion of the transmission corridor that passes through the park is not visible from the lake area, but the transmission towers are faintly visible atop the ridgeline within the San Gabriel Mountains to the north (character photo P-10.3). Other areas of the park with views closer to the transmission corridor are generally undeveloped and accessible via hiking, biking, or equestrian trails. The transmission corridor is also likely visible from a private remote-controlled model airplane club located west of I-605 in the northwest portion of the park.

Vegetation within Landscape Unit 10 consists of shrubs, trees, and grasses near the San Gabriel River channel, other trees, shrubs, and grasses at various locations along the corridor, and several nurseries within SCE's ROW (character photo P-10.2 – right side of photo).

The most visually dominant features in this landscape unit are I-605, the San Gabriel River channel, and the electric transmission towers and conductors. Existing ROW cross-sections for Segment 7 are shown in Chapter 2 of the EIR/EIS (Description of Alternatives). The existing ROW width associated with Segment 7 is 200 to 365 feet wide. Parts of the Segment 7 transmission corridor include two sets of structures; the taller structures are double-circuit lattice steel towers carrying 220 kV conductors; the shorter structures are single-circuit lattice steel towers carrying 220 kV conductors. The last part of Segment 7 includes a third set of lattice steel towers of intermediate height that carry two sets of 66 kV conductors.

Viewers of the transmission corridor within Landscape Unit 10 include motorists traveling along I-605, residents living in proximity to the corridor, and pedestrians, bicyclists, and motorists traveling on nearby surface roads. Given the utilitarian nature of this freeway corridor and the high travel speeds, the visual sensitivity of the roadway travelers is considered to be moderate, at most.

The study corridor in Landscape Unit 10 traverses through the cities of Irwindale, Baldwin Park, Arcadia, El Monte, Industry, and South El Monte. Applicable laws, regulations, and standards relative to scenic quality for Landscape Unit 10 are included as part of a comprehensive table included in Section 3 and Appendix C. There are no designated State or local scenic highways located within Landscape Unit 10.

Segment 7: Approximately S7 MP 2.4 to MP 11.2

Two KOPs were selected to represent views of the transmission corridor within this landscape unit. KOP-South-2 represents views for motorists traveling south on I-605. KOP-South-3 represents views for residents living in close proximity to the transmission corridor, and pedestrians, bicyclists, and motorists traveling on nearby streets.

KOP-South-2 – I-605 Corridor Between I-210 and Arrow Hwy, Irwindale (Segment 7)

This KOP is located just south of the I-210/I-605 interchange, looking south on the southbound I-605 freeway and it represents a typical view for motorists traveling south along this freeway (see Figure A-37a – Existing Conditions for KOP-South-2 – I-605 Corridor Between I-210 and Arrow Hwy, Irwindale).

Viewer Exposure: moderate-to-high. The proposed Project would be highly visible from the 605 freeway as there is no topographic or vegetative screening in front of these large, industrial structures. Foreground features include the concrete freeway surface, automobiles, lamp posts, freeway signage, and the high-voltage transmission towers and conductors crossing the freeway approximately 800 feet in front of the viewer to the southwest. The Santa Fe Flood Basin Spillway Channel is visible to the right (west) and beneath the upcoming bridge. The middleground view contains more of the freeway and the transmission towers and conductors further to the south. The background view contains a faint view of the Puente Hills, which are more visible on days with clear air-quality. The number of viewers is high, but the duration of view is brief-to-moderate,

depending on traffic. Because drivers' focus is primarily concerned with traffic and safe driving, overall viewer exposure is moderate-to-high.

Viewer Concern: low. Viewers in this area consist primarily of motorists traveling along I-605. There is an industrial nature in this freeway corridor and during non-rush-hour, there are high speeds and short viewing times at this KOP. During rush-hour, lanes are crowded with stop-and-slow traffic and drivers' attention is on safety and traffic, not visual quality concerns, and therefore, the overall level of visual sensitivity is considered low.

Visual Quality: low. The overall visual quality for KOP-South-2 is low. The level of vividness in this view is low; the Puente Hills are only faintly visible and the relief provided by the Santa Fe Flood basin is slight, vegetation is minimal, and the human-made elements of the freeway and the transmission structures are not memorable features. The visual intactness is low with the transmission structures encroaching upon the view of the distant hills and sky. The visual unity is also low; the view is reasonably coherent for an industrial freeway corridor, but the transmission structures of varying designs detract from the harmony of the view.

Overall Visual Sensitivity: low-to-moderate. For viewers on I-605 in general and KOP-South-2 specifically, the moderate-to-high viewer exposure, low viewer concern, and low visual quality lead to a low-to-moderate overall visual sensitivity of the visual setting and viewing characteristics.

KOP-South-3 – Linard Street/Kayann Place Intersection, South El Monte. (Segment 7)

This KOP is located within a residential neighborhood in the southern portion of Landscape Unit 10, in close proximity to the proposed transmission corridor (see Figure A-38a – Existing Conditions for KOP-South-3 – Linard Street/Kayann Place Intersection, South El Monte). Foreground features include the street, sidewalk, parked automobiles, single-family residences, light poles, grass lawns, introduced landscaping trees and shrubs, a freeway billboard, and residential utility wires, with the high-voltage transmission towers and conductors visible approximately 500 feet to the east. In the middleground above a rooftop on the right side of the photo, a small portion of the San Jose Hills is visible.

Viewer Exposure: high. The proposed Project would be highly visible from this residential neighborhood, as there is no topographic or vegetative screening in front of these large, industrial structures. Viewing distance to the transmission line is foreground and immediate foreground from these houses. The number of viewers is moderate and viewing time is extended from these streets, houses, and yards.

Viewer Concern: high. Viewers in this area consist primarily of neighborhood residents in these single-family homes and on neighborhood streets. Given the residential nature of this area, the level of visual sensitivity is considered high.

Visual Quality: low-to-moderate. The overall visual quality for KOP-South-3 is low-to-moderate. The level of vividness in this view is moderately low; other than the distant San Jose Hills, the terrain is essentially flat. The visual encroachment of industrial structures (transmission towers and conductors) and freeway commercial structures (billboard) are prominently visible against the sky, reducing visual quality in this neighborhood. Landscaping vegetation within the neighborhood adds some visual interest. The visual unity is somewhat

below average due to the contrast between the geometric forms and out-of-scale transmission structures and the other elements of the residential neighborhood. Without the existing transmission lines in this view, this landscape would exhibit moderate visual quality, but the introduction of these towers and conductors and billboard has lowered the visual quality to a low-to-moderate level.

Overall Visual Sensitivity: moderate-to-high. For residents of South El Monte in general and KOP-South-3 specifically, the high viewer exposure, high viewer concern, and low-to-moderate visual quality lead to a moderate-to-high overall visual sensitivity of the visual setting and viewing characteristics.

Landscape Unit 11: San Gabriel Valley

Segment 11: Approximately S11 MP 24.5 to MP 35.2

Landscape Unit 11 is located in the San Gabriel Valley. The north end of the unit begins at the southern boundary of the ANF and the southern end of Landscape Unit 8. From the ANF boundary, the transmission corridor heads in a generally southern direction through Altadena, Pasadena, San Gabriel, Temple City, Rosemead, and Monterey Park. The southern terminus is the boundary of Landscape Unit 12, where the transmission line enters the Mesa Substation (see Figures B-8 and B-9 in Appendix B for a map showing Landscape Unit 11). The northern end of Landscape Unit 11 begins in the southern foothills of the San Gabriel Mountains and follows the east side of Eaton Canyon (a major wash complex that contains the Eaton Wash Dam) downstream into the flat San Gabriel Valley. The unit traverses generally level terrain to its southern end where it passes over low hills to the Landscape Unit 12 boundary.

The extreme northern part of the landscape unit in the vicinity of Eaton Wash contains the least developed areas of Segment 11 (character photo P- 11.1). Even in this area, however, residences are found on the adjacent hillsides. Most of the unit passes through the heavily developed middle of the San Gabriel Valley and includes an assortment of land use types that influence landscape character (character photo P-11.2). Where the transmission corridor is intersected by major arterials such as Sierra Madre Boulevard, Colorado Boulevard, Huntington Drive, Las Tunas Drive, Mission Boulevard, Valley Boulevard, and Garvey Boulevard, nearby land uses (outside of the corridor) tend to be commercial, with some professional-office and residential uses. These areas tend to have a landscape character that is relatively low rise urban commercial. Between the major arterials, land uses are more varied as is landscape character. Uses include well established neighborhoods of single-family residential, concentrated areas of multifamily residential of varying ages and styles, commercial, and light industrial (character photo P-11.3). The landscape character varies according to land use, but from parts of all of these areas components of the transmission corridor (primarily towers and to a lesser extent conductors) can be seen from behind or between buildings and trees (character photo P-11.4).

The transmission corridor is part of the existing landscape and is seen from many areas near it. Towers and conductors are most apparent where the corridor is intersected by streets and allows viewers to look up and down the transmission corridor and see multiple towers and conductors. This is particularly true where land uses under the conductors within the corridor ROW allow clear views and where vegetation has not been planted adjacent to streets to screen views. The transmission corridor is especially visible in areas where public parks have been developed within the ROW, as is illustrated in character photo P-11.2, and people have immediate foreground views of corridor elements like towers and conductors.

Existing ROW cross-sections for Segment 11 are shown in Chapter 2 of the EIR/EIS (Description of Alternatives). The existing ROW width associated with Segment 11 is 200 to over 400-feet. Existing transmission structures in Segment 11 are two sets of lattice steel towers carrying 220 kV conductors and in

Segment 11, existing transmission structures include two sets 140-foot-tall lattice steel towers carrying 220 kV conductors and two sets of 80-foot-tall lattice steel towers carrying 66 kV conductors (SCE, 2007a).

The types of viewers of the transmission corridor found within this landscape unit are as varied as land use types. They include residents, employees, people driving past or through the unit, and recreationists. Viewing sensitivity is likewise diverse. It can be assumed that people living near the transmission corridor would be the most visually sensitive and would have a high visual concern level, and that people passing by or through the area would be less visually sensitive and would have a low visual concern level.

The transmission corridor in Landscape Unit 11 traverses through the unincorporated community of Altadena and the cities of Pasadena, San Gabriel, Temple City, Rosemead, and Monterey Park jurisdictions. Applicable laws, regulations, and standards relative to scenic quality for Landscape Unit 11 are included as part of a comprehensive table included in Section 3 and Appendix C. There are no designated state or local scenic highways located within Landscape Unit 11.

Because the SCE's proposed Project would not replace towers and would involve adding three conductors to existing unused tower cross arms, there would be very little change to the existing visual environment or visual quality. Therefore, no KOPs were selected for this landscape unit.

Landscape Unit 12: Mesa Substation/Montebello Town Center

Segment 7: Approximately S7 MP 13.7 to MP 15.8

Segment 11: Approximately S11 MP 35.2 to MP 36.2

Landscape Unit 12 surrounds the Mesa Substation and the Montebello Town Center and is located in parts of the cities of Montebello and Monterey Park (see Figure B-9 in Appendix B for a map showing Landscape Unit 12). The terrain within this unit is hilly and crossed by a number of utility corridors, including Segments 6 and 11 of the proposed Project (character photo P-12.1). The Mesa Substation is located in a low, broad valley between the Montebello Hills to the southeast and lower hills to the northwest. The Montebello Town Center is situated on a high terrace surrounded by gentle slopes of the Montebello Hills. Land uses in this landscape unit are extremely diverse and that diversity greatly influences landscape character. The area around the substation has an array of land uses, including the substation itself, transmission corridor, and other utility corridors that feed into or exit from the substation, a commercial landscape nursery under one of the utility ROWs, the Operating Industries Incorporated (OII) Landfill (on the northwest edge of the Montebello Hills), Highway 60, office parks, light industry, commercial, vacant lands, arterial roads (character photo P-12.2), a memorial park and residential areas.

Of this array of land uses, the most visually dominating are the north-facing terraced slope of the OII Landfill, Highway 60, the utility corridors, and the Mesa Substation (character photo P-12.3). The landscape character of this part of Landscape Unit 12 is best described as mixed, with the significant presence of large scale landfill, transportation, and utility infrastructure (character photo P-12.4).

Land uses around the Montebello Town Center are also diverse. They include commercial (primarily the Montebello Town Center), light manufacturing, hotel, residential (north of Highway 60), transportation (Highway 60 and several freeway interchanges and major arterial bridges over Highway 60), utility corridor, and oil extraction. The southern portion of the unit that includes part of the Montebello Hills serves as a visual backdrop to this unit. This area includes an active oil field and contains a utility corridor. The oil field contains oil pumping equipment, out-buildings, numerous paved and unpaved roads, and scattered groupings of trees

(mostly eucalyptus) and natural-appearing shrubs and underbrush. The area immediately surrounding the Montebello Town Center has a landscape character that is typical of large regional malls in Southern California. Elements include large areas of paved parking, large, rather low scale buildings, and attractive landscaping and signage. The area south of the Montebello Town Center on the Montebello Hills is best described as having a mineral extraction-industrial landscape character that is edged by a utility corridor. The most visually dominating features in this landscape unit are the Montebello Hills, the Montebello Town Center, the transportation elements described previously, the oil field, and utility corridors.

Existing ROW cross-sections for Segment 7 are shown in Chapter 2 of the EIR/EIS (Description of Alternatives). The existing ROW width associated with Segment 7 is 200 to 500 feet. Existing transmission structures in Segment 7 include three sets of lattice steel towers carrying 220-kV conductors plus a set of three distribution lines. Segment 11 includes two sets of 140 foot-tall lattice steel towers carrying 220 kV conductors and two sets of 80 foot-tall lattice steel towers carrying 66 kV conductors (SCE, 2007a).

A wide variety of people view Landscape Unit 12, including: shoppers; employees of the Town Center, office buildings, and other businesses; people driving through the unit; and, residents. Because of the extensive large-scale development that has occurred in this area and generally short viewing duration of most viewers, viewer sensitivity is considered to be low-to-moderate.

The proposed Project corridor in Landscape Unit 12 traverses through the cities of Monterey Park and Montebello. Applicable laws, regulations, and standards relative to scenic quality for Landscape Unit 12 are included as part of a comprehensive table included in Section 3 and Appendix C. There are no designated State or local scenic highways located within Landscape Unit 12.

Two KOPs were selected to represent existing views o f the proposed Project within Landscape Unit 12. One of the views (KOP-South-4) represents views that people have of the corridor as they pass through the unit, many of whom would be going to the Montebello Town Square. The other, KOP-South-5, represents views of the transmission corridor that shoppers have as they exit the Montebello Town Center. These two KOPs are described below.

KOP-South-4 – Paramount Boulevard, Montebello Hills. (Segment 7)

KOP-South-4 was established on Paramount Boulevard heading east near the Montebello Boulevard intersection. This location represents a foreground view of the transmission corridor for people driving southeast on Paramount Boulevard to North Montebello Boulevard and is similar to other views of the transmission corridor from nearby travelways. Paramount Boulevard is used to access the Montebello Town Center, approximately 0.25 mile downhill to the left (northeast), to connect with San Gabriel Boulevard and to access office park and residential areas to the south (see Figure A-39a – Existing Conditions for KOP-South-4 – Paramount Boulevard, Montebello Hills).

Viewer Exposure: moderate-to-high. The proposed Project would be highly visible from this intersection, as there is no topographic or vegetative screening in front of these large, industrial structures. Viewing distance

to the transmission line is immediate foreground and foreground from this intersection and these roads. The number of viewers is high and viewing time is brief from these streets.

Viewer Concern: low. Viewers from this location are drivers passing through to another location. People stopped at the traffic light have direct views of this landscape, but viewing duration is relatively brief, even when stopped for a red light, and attention is mainly to cross-traffic. Therefore, viewing sensitivity is considered to be low.

Visual Quality: low-to-moderate. People waiting for a red light at this location or passing through this intersection to North Montebello Boulevard have immediate foreground and foreground views of the northwest edge of the Montebello Hills oil field and the proposed transmission corridor. The oil field contains scattered areas of eucalyptus trees, shrubs, and underbrush; areas that have been cleared of all vegetation; paved and unpaved roads; and various types of equipment related to oil extraction. It is surrounded by chain link fencing. North Montebello Boulevard has a new appearance with new sidewalks and young street trees that line it and visually tie into the Montebello Town Center. Views from this KOP are contained by the slope of the Montebello Hills and a grove of trees along the top of the hills. Human-made objects are very apparent in the immediate foreground and the landscape is dominated by human influence, including traffic signals, street lights, electric distribution lines, and transmission structures. The paved streets, three parallel lines in the proposed transmission corridor, and the grove of trees on the Montebello Hills are dominant visual features. This visually complex landscape has mixed character that includes transportation, utility, and mineral extraction. Despite the presence of a partially forested hillside in the foreground, the viewed landscape encompasses an unusual mix of land uses and human-made elements that intrude on the view. The presence of these elements and the condition of the land in the oil field negatively effect vividness, intactness, and unity and contribute to visual quality rating of low-to-moderate.

Overall Visual Sensitivity: low-to-moderate. For travelers on Paramount Boulevard and Montebello Boulevard in general and KOP-South-4 specifically, the moderate-to-high viewer exposure, low viewer concern, and low-to-moderate visual quality lead to a low-to-moderate overall visual sensitivity of the visual setting and viewing characteristics.

KOP-South-5 – Montebello Town Center, Montebello Hills. (Segment 7)

KOP-South-5 was established at the main entrance on the southern side of the Montebello Town Center. It represents views that shoppers have as they leave the shopping complex. As they enter the parking area, they see cars and landscaped islands ahead and beyond that, transmission towers and conductors on the skyline (see Figure A-40a – Existing Conditions for KOP-South-5 – Montebello Town Center, Montebello Hills). Three sets of transmission lines are present on the north slope of the Montebello Hills, and two structure types are present in this view – lattice steel towers on the left and tubular steel poles on the right.

Viewer Exposure: moderate-to-high. The view from this location is contained by the walls of the shopping center building and the hills beyond, leading the viewers' eyes to the skyline with transmission lines protruding into the blue sky seen in this photograph. (The FedEx truck is a temporary focal point in this photograph but is

not a permanent visual element in this landscape, and is, therefore, ignored in this analysis.) Viewing distance ranges from immediate foreground (the shopping center) to foreground (the skyline hills and transmission corridor). Attention is focused on the sidewalks, parking lot, vehicles, the utility corridor on the skyline, and hills. Viewers consist primarily of shoppers and employees leaving the shopping center to access their vehicles or the nearby bus stop. The number of viewers is high, duration of view is brief, and therefore, viewer exposure is moderate-to-high.

Viewer Concern: low. Viewers from this location are shoppers exiting the mall and drivers passing through the parking lot. Peoples' attention is mainly focused on finding a parking space, finding their car, or vehicular/pedestrian cross-traffic. Therefore, viewer concern is considered to be low.

Visual Quality: moderate. The landscape character of this view is a mixture of shopping center, natural-appearing landscape (the hillside) and industrial-appearing (the utility corridor). Vegetative cover on the slope is essentially unbroken and includes natural-appearing trees, shrubs, and underbrush. From this location facilities and developments associated with the oil field cannot be seen. Ornamental landscaping associated with the shopping center is also visually prominent from this location and would be even more prominent during times of year when the trees have leaves. Human-made visual features dominate the view from this location – ornamental trees, sidewalk, parking area, vehicles, light standards for parking, and walls of the shopping center are quite visible in the immediate foreground. Beyond the parking area, the three lattice towers of the transmission corridor are quite visible as are other electric transmission lines and smaller distribution lines along the top of the hillside.

The existing conditions assessment of the view from KOP-South-5 determined that the quality of the natural setting elements (topography and natural-appearing vegetation) is moderate-to-high. The quality of the Town Center building and its ornamental landscaping is typical of a well-managed major urban shopping center. The view from this KOP is not of the shopping center, but is rather focused on the parking lot and areas beyond. This view produces average ratings for vividness, intactness, and unity. The parking lot and vehicles introduce utilitarian elements into the viewed landscape, and the transmission lines introduce an incongruent industrial character to the overall landscape scene, lowering the visual quality. When all of these factors are considered, the resulting visual quality rating is moderate.

Overall Visual Sensitivity: moderate. For shoppers at Montebello Town Center in general and KOP-South-5 specifically, the moderate-to-high viewer exposure, low viewer concern, and moderate visual quality lead to a moderate overall visual sensitivity of the visual setting and viewing characteristics.

South Area: Segment Components

All of Segment 8 would occur in the South Area. Elements of Segment 8 are listed in Table 2-13, but are not listed again in the description of each Landscape Unit.

Table 2-13. Alternative 2 (Proposed Project) Segments 8 and 9 Components in Landscape Units 13 through 19

Segment 8: Section of New Vincent – Mira Loma 500-kV T/L
• Initiates near the existing Mesa Substation and ends at the existing Mira Loma Substation
• Remove various 220-kV T/L structures between the existing Mesa Substation and the existing Mira Loma Substation
• Construct approximately 33 miles of new single- and double-circuit 500-kV T/L to include approximately 33 miles of the new Vincent – Mira Loma 500-kV T/L
• Construct approximately 7 miles of new double-circuit 220-kV T/L from the Chino Substation to the Mira Loma Substation
• Relocate several existing 66-kV subtransmission lines in the area of the Mesa and Chino Substations
• Most construction in existing ROW, except for the following:

Table 2-13. Alternative 2 (Proposed Project) Segments 8 and 9 Components in Landscape Units 13 through 19
▪ Rose Hills Memorial Park ROW relocation (existing: 1.1-mile, 150-foot-wide; future: 1.4-mile, 240-foot-wide) ▪ Hacienda Heights ROW expansion (existing: 2.15-mile, 150 to 230-foot-wide; future: 250 to 330-foot-wide) ▪ Fullerton Road new ROW (existing: none; future: 0.4-mile, 100-foot-wide) ▪ Ontario (near Mira Loma Substation) ROW expansion (existing: 0.45-mile, 100-foot-wide; future: 250-foot-wide) • Erect approximately 226 new transmission structures, including: ▪ 2 single-circuit 220-kV LSTs (65-75 feet tall) ▪ 57 double-circuit 220-kV LSTs (113-180 feet tall) ▪ 3 single-circuit 500-kV LSTs (128-149 feet tall) ▪ 92 double-circuit 500-kV LSTs (147-255 feet tall) ▪ 2 single-circuit 220-kV TSPs (85-95 feet tall) ▪ 11 double-circuit 220-kV TSPs (75-115 feet tall) ▪ 5 three-pole dead-end 220-kV structures (75-110 feet tall) ▪ 4 single-circuit 500-kV TSPs (120-170 feet tall) ▪ 50 double-circuit 500-kV TSPs (150-195 feet tall) • Erect approximately 55 new double-circuit 66-kV subtransmission LWSPs and 6 TSP riser poles • Would require approximately 33 new pulling locations, 33 tensioner locations, and 33 new splicing locations
Segment 9: Substation Facilities
• Upgrade existing Mesa Substation to accommodate new 220-kV equipment • Upgrade existing Mira Loma Substation to accommodate new 500-kV equipment

Landscape Unit 13: Whittier Narrows

Segment 7: Approximately S7 MP 11.2 to MP 13.7

Segment 8 (8A): Approximately S8A MP 2.2 to MP 4.4

This landscape unit extends from San Gabriel Boulevard on the western boundary east to I-605. Landscape Unit 13 is characterized as an area of highly developed industrial and residential uses in Los Angeles County's San Gabriel Valley and with highly developed outdoor recreation areas within an established flood control basin (Whittier Narrows) under the jurisdiction of the U.S. Army Corps of Engineers (see Figure B-9 in Appendix B for a map showing Landscape Unit 13).

Whittier Narrows flood control basin is located within a natural gap in the hills that form the southern boundary of the San Gabriel Valley. The Rio Hondo and San Gabriel River follow through this gap. The Rio Hondo flows across the landscape unit from north to south in the western portion of the unit and the San Gabriel River flows across Landscape Unit 13 from north to south in the eastern portion of the unit. Mission Creek, east of Rosemead Boulevard, is one of the remaining natural streambeds of the Rio Hondo. Other waterways are contained in concrete channels.

The northern portion of the landscape unit outside the Whittier Narrows Recreation Area is highly developed and comprised of industrial and residential land use. The Whittier Narrows Dam is located in the southern portion of Landscape Unit 13. A large nursery is located at the intersection of Rosemead Boulevard and Durfee Road. The transportation system within the landscape unit ranges from local streets to State routes (State Highway 60) to interstate highways (I-605).

The Whittier Narrows Recreation Area is a 1,400-acre park located within the Whittier Narrows flood control basin. It is managed by Los Angeles County Department of Recreation and Parks and the City of Pico Rivera. The basin is near the communities of South El Monte, Rosemead, and Montebello. The Whittier Narrows Recreation Area provides fishing lakes, comfort stations, picnic areas, playgrounds, a nature center, an equestrian facility, trails, a multipurpose athletic complex, a military museum, soccer fields, golf course,

volleyball courts, and archery, skeet, pistol and trap ranges. Tennis courts are also provided and include a pro shop. Rentals are available for boats, surreys, bikes, and group area picnics. Special events include carnivals, festivals, and dog shows (Whittier Narrows Recreation Area. 2008 and Santa Monica Mountains Conservancy [SMMC], 2004b).

Bosque del Rio Hondo, located within the Whittier Narrows Recreation Area just one mile south of State Highway 60, offers year-round trail access to one of the remaining natural streambeds of the Rio Hondo, as well as seasonal creeks, picnic areas, access to bike paths and equestrian trails, parking facilities, and restroom facilities. The park design visually integrates the natural riverfront with the adjacent land to provide a riverfront setting for passive recreation. A continuing program of native revegetation has restored the river ecosystem and has improved habitat for resident and migratory birds. Additionally, the Whittier Narrows area is a main connection point for access to the San Gabriel River Bike Trail to the west (28 miles long) and the Los Angeles River bikeway via Rio Honda to the east (29 miles long) used by bicyclists and inline skaters (Santa Monica Mountains Conservancy [SMMC], 2004a).

Additionally, the Pico Rivera Sports Arena, also located in Landscape Unit 13, is one of the largest Mexican-style "Rancho de Charro" (rodeo ring) facilities in the United States. It annually hosts more than a dozen shows featuring rodeo performers and other celebrities, often presented in combination with a traditional Mexican rodeo. Professional boxing, wrestling and American-style rodeo s are also presented.

As exhibited in character photos P-13.1 through P-13.5, views throughout Landscape Unit 13 include the presence of the existing transmission corridors (both SCE and the City of Los Angeles Department of Water and Power [LADWP] corridors). The existing ROW has been encroached upon by numerous recreation venues (e.g., horse stables, sports arena, parkland, archery/shooting range, fishing lake, picnic areas, hiking trails) and agricultural activities (e.g., nurseries) throughout the landscape unit over the years. The common theme of the views from various locations in the landscape unit is the presence of multiple existing transmission lines within the foreground, middleground, and background views. Native plants and landscape plantings soften the presence of the structures in some locations; however, the height of the towers exceeds the height of existing vegetation, so the transmission line structures dominate the visual environment.

Vegetation within the landscape unit varies from native riparian and woodland plant species in the natural areas associated with the Whittier Narrows Nature Center and adjacent Bosque de Rio Hondo to the landscaped and irrigated plantings associated with parkland, residential, and industrial portions of the area. Ruderal and non-native species are associated with disturbed-but-undeveloped and non-maintained portions of the landscape unit. Larger trees and shrubs associated with human development are notably present. Within the flood basin floor, views are restricted to the foreground and middleground due to the presence of the native plants and landscape plantings. Views that include the adjacent low lying hills east and west of the basin floor in the background are available from near the western and eastern boundaries of the landscape unit.

There are two established transmission corridors within the landscape unit: the Segment 7 corridor travels east-to-west across the middle portion of Landscape Unit 13; and Segment 8 (8A) travels west-to-east across the southern portion the unit. At the very western end of the landscape unit, Segments 7 and 8A are located within the same transmission corridor. Within this landscape unit, both Segments 7 and 8A are located within Los Angeles County. Segment 7 crosses through South El Monte (approximately 0.3 mile) and unincorporated County of Los Angeles (approximately 2.4 miles); and, Segment 8A crosses through unincorporated County of Los Angeles (approximately 1.6 miles) and Pico Rivera (approximately 0.6 mile).

Existing ROW cross-sections for Segments 7 and 8 are shown in Chapter 2 of the EIR/EIS (Description of Alternatives). The existing ROW width associated with Segment 7 is 200 to 250 feet; the ROW associated with Segment 8 varies from 150 to 425 feet wide. Existing transmission structures in Segment 7 and 8 include a variety of lattice steel towers carrying 66-kV and 220-kV conductors (SCE, 2007a).

Land uses in and near Landscape Unit 13 that influence landscape character largely are comprised of recreation, industrial, agricultural, residential, transportation, flood control, and utility (developed transmission corridors throughout the landscape unit). The unit is highly developed outside the Whittier Narrows Recreation Area and is well maintained and managed within the Recreation Area.

Sensitive viewers in Landscape Unit 13 include recreational users of the Whittier Narrows Recreation Area and Bosque del Rio Hondo and people driving throughout the landscape unit. The level of visual sensitivity varies by type of viewer and view duration and exposure, but is generally considered to be moderate-to-high, given the large amount of acreage devoted primarily to recreational use within the flood control basin.

The study corridor in Landscape Unit 13 traverses through the jurisdictions of the cities of Pico Rivera, South El Monte, Industry, and Los Angeles County. Applicable laws, regulations, and standards relative to scenic quality for Landscape Unit 13 are included as part of a comprehensive table included in Section 3 and Appendix C. There are no designated state or local scenic highways located within Landscape Unit 13.

KOP-South-6 – Legg Lake, Whittier Narrows, L.A. County. (Segment 7)

This KOP was established at Legg Lake Park, on the western shore of the lake, looking southeast toward the proposed Segment 7 transmission corridor. Legg Lake Park is open daily, and affords the general public access to fishing, picnicking, wildlife-watching, and other outdoor recreation. The expansive park view has level topography and a dramatic waterfront picnic area. Water features are fairly rare in the Los Angeles Basin; consequently, Legg Lake is a dramatic visual element in this landscape (see Figure A-41a – Existing Conditions for KOP-South-6 – Legg Lake, Whittier Narrows, Los Angeles County). The foreground of this KOP contains maintained park lawns and landscaping. Picnic areas under the transmission lines include picnic tables on concrete pads, barbecue facilities, trash receptacles, lawns, native and non-native trees.

Viewer Exposure: high. The proposed Project Segment 7 would be highly visible from this recreational park at Legg Lake, as there is no topographic screening and vegetative screening is shorter than the existing and proposed large, industrial-character structures. Viewing distance to the transmission line is foreground and immediate foreground from this vantage point and other locations within the park. Existing vegetation screens the middleground and background views. The number of viewers is high and duration of view is extended, and therefore, viewer exposure is high.

Viewer Concern: high. Viewers in this area consist of recreationists who have come to enjoy the unique environment of Legg Lake, enjoy the open space, wildlife, and picnic areas. Given the recreational nature of this area, the level of visual sensitivity is considered high.

Visual Quality: moderate-to-high. The presence of a large water feature is unique in the Los Angeles Basin, as described above, and even though the landforms are relatively flat, vegetation is attractive and well maintained, consistent with a developed park setting. The overall park view exhibits an intact landscape, except for the encroachment of transmission line structures on the skyline. This encroachment is offset somewhat by the evergreen trees in the foreground, providing an overall expansive park view. The unity of the view is moderate-to-high because the view is consistent with a developed park setting, and the mature trees help to visually screen the bases of the transmission structures. The overall existing visual quality of the view from this KOP is moderate-to-high.

Overall Visual Sensitivity: high. For people visiting and recreating at Legg Lake in general and KOP-South-6 specifically, the high viewer exposure, high viewer concern, and moderate-to-high visual quality lead to a high overall visual sensitivity of the visual setting and viewing characteristics.

Landscape Unit 14: Rose Hills

Segment 8 (8A): Approximately S8A MP 4.4 to MP 7.2

Landscape Unit 14 extends approximately from the I-605 to southeast of Rose Hills Memorial Park. Landscape Unit 14 is characterized by the distinctive land uses of Rose Hills Memorial Park and Puente Hills Landfill and includes the communities immediately adjacent to these land uses (see Figure B-9 in Appendix B for a map showing Landscape Unit 14).

Landscape Unit 14 begins as the existing transmission corridor crosses the San Gabriel River and then the I-605 from west to east (character photo P-14.1). In the general location of character photo P-14.1, the landscape is flat and dominated by the presence of the I-605 and transmission lines in the vicinity. The transmission corridor quickly climbs into the Puente Hills in the vicinity of Rio Hondo Junior College (character photo P-14.2). The landscape around Rio Hondo Junior College is hilly and vegetated with grasses, midsize shrubs, and trees. The remainder of Landscape Unit 14 is primarily comprised of Rose Hills Memorial Park to the south and west of Segment 8, and Puente Hills Landfill and open space associated with the Puente Hills Landfill Native Habitat Preservation Authority (PHLNHPA) to the north and east of Segment 8.

There are few residential uses in Landscape Unit 14, but character photo P-14.3 provides an example of residential uses in the unit, with the Hacienda Hills portion of the PHLNHPA visible in the middleground. Character photo P-14.4 was taken from the same location, but illustrates how the Puente Hills Landfill forms the backdrop for many views in the northeastern portion of Landscape Unit 14.

Existing land uses in and near Landscape Unit 14 that influence landscape character are primarily comprised of Rose Hills Memorial Park and Puente Hills Landfill. Recreational uses, open space, and some areas of residential development are also present.

Existing ROW cross-sections for Segment 8 are shown in Chapter 2 of the EIR/EIS (Description of Alternatives). The existing ROW width associated with Segment 8 is 150 to 310 feet wide. Existing transmission structures in Segment 8 include between one and three sets of lattice steel towers carrying 220-kV conductors (SCE, 2007a).

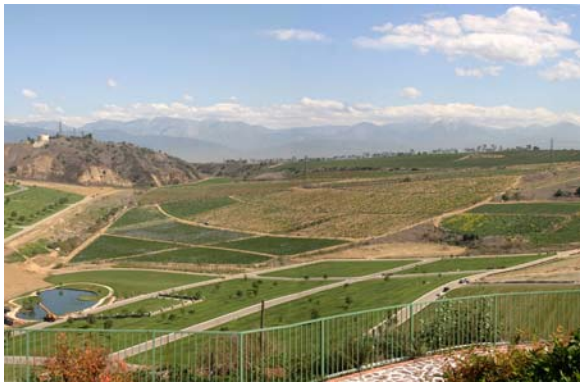
Viewers in Landscape Unit 14 include visitors to Rose Hills Memorial Park, residents with existing and/or future views of Segment 8, and travelers on the I-605. The level of visual sensitivity ranges from low (motorists) to high (residents and Memorial Park visitors).

Segment 8 of the proposed Project traverses through Landscape Unit 14, and includes land falling under the jurisdictions of the City of Industry and Los Angeles County (including the community of Hacienda Heights).

Applicable laws, regulations, and standards relative to scenic quality for Landscape Unit 14 are included as part of a comprehensive table included in Section 3 and Appendix C. There are no designated state or local scenic highways located within Landscape Unit 14.

KOP-South-7 – Buddhist Columbarium at Rose Hills Memorial Park. (Segment 8A)

KOP-South-7 is located at the Buddhist Columbarium at Rose Hills Memorial Park. This KOP was selected to represent views of the Project through the Memorial Park. The immediate foreground of this KOP consists of the fencing and paving at the edge of the Buddhist Columbarium, while the foreground and middleground consists of various portions of the Memorial Park. Also in the middleground is a large agricultural area, which will be developed in the future as part of the Memorial Park extending to the ridgeline. An existing transmission line traverses this agricultural area. The San Gabriel Mountains form an attractive snowcapped feature in the background. Vegetation as seen in KOP-South-7 alternates between the rigid landscaping of the Park, the natural but orderly vegetation in the agricultural area, and small areas of native grasses and shrubs at the edge of the Memorial Park and along the ridgeline (see Figure A-42a – Existing Conditions for KOP-South-7 – Buddhist Columbarium at Rose Hills Memorial Park).



Viewer Exposure: high. The proposed Project Segment 8 would be highly visible from this vantage point at the Columbarium, as there is no topographic or vegetative screening for the existing or proposed large, industrial-character transmission structures. Viewing distance to the transmission line is foreground from this vantage point. Additionally, due to its high number of visitors and numerous roadways, chapels, and expansive grounds, the Memorial Park offers several other vantage points of the transmission line at different viewing distances, including immediate foreground, foreground, and middleground. The number of viewers is high and duration of view is extended, leading to an overall high viewer exposure.

Viewer concern: moderate-to-high. Rose Hills Memorial Park is open to the public, but has no official designation as a tourist attraction or scenic vista. However, the Buddhist Columbarium at the Memorial Park is situated to serve as a scenic vista point and a location for contemplation and meditation. As such, the level of visual concern is considered moderate-to-high.

Visual Quality: moderate-to-high. KOP-South-7 has a highly visual, interesting mix of landforms, from the gentle slopes of the Memorial Park to the rolling hills and mountains beyond in the middleground and background, with a similarly interesting mix of vegetation, ranging from the landscaping of the Memorial Park, agricultural areas, and natural grasses and shrubs. A small lake with a waterfall that is under construction at the Memorial Park adds a pleasant, formal water feature to the view. The view has a relatively high level of intactness, as the human-made development is context sensitive, and the view has high overall coherence that is minimally disturbed by the presence of the transmission line that crosses the agricultural area, mostly below the skyline. The overall existing visual quality of the view from this KOP is moderate-to-high.

Overall Visual Sensitivity: moderate-to-high. For people visiting the Buddhist Columbarium at Rose Hills Memorial Park in general and KOP-South-7 specifically, the high viewer exposure, moderate-to-high viewer concern, and moderate-to-high visual quality lead to a moderate-to-high overall visual sensitivity of the visual setting and viewing characteristics.

Landscape Unit 15: Hacienda Heights

Segment 8A: Approximately S8A MP 7.2 to MP 16.2

This landscape unit extends approximately from Rose Hills Memorial Park on the west to State Highway 57 on the east. Landscape Unit 15 is characterized by the Puente Hills, with open space along the ridgeline and residential development located primarily on the north side of the hills (see Figure B-9 in Appendix B for a map showing Landscape Unit 15).

Landscape Unit 15 includes approximately nine miles of Segment 8A and includes the unincorporated communities of Hacienda Heights and Rowland Heights and small portions of the cities of Whittier and La Habra Heights.

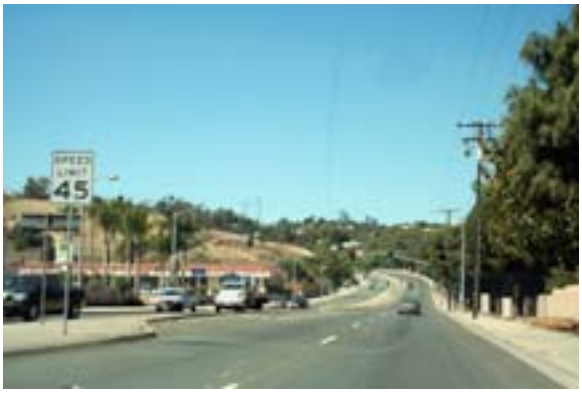
Landscape Unit 15 generally traverses the ridgeline of the Puente Hills. The transmission corridor through Landscape Unit 15 passes through a variety of open space and residential areas. As demonstrated in character photos P-15.1 and P-15.4, the transmission corridor crosses over residential areas in a number of locations throughout the landscape unit. Character photo P-15.2 illustrates how residential development in Landscape Unit 15 extends into the hills right up to the ridgeline, with existing transmission lines on the skyline. A view of the transmission corridor crossing through an open space area of Schabarum Regional Park is shown in character photo P-15.3. Existing land uses in Landscape Unit 15 that influence landscape character are largely limited to the recreational uses/open space and residential uses described above.

Existing ROW cross-sections for Segment 8 are shown in Chapter 2 of the EIR/EIS (Description of Alternatives). The existing ROW associated with Segment 8 is 150 to 340 feet wide. Existing transmission structures in Segment 8 include between one and three sets of lattice steel towers carrying 220-kV conductors (SCE, 2007a).

Applicable laws, regulations, and standards relative to scenic quality for Landscape Unit 15 are included as part of a comprehensive table included in Section 3 and Appendix C. There are no designated State or local scenic highways located within Landscape Unit 15.

KOP-South-8 – Colima Road, Hacienda Heights. (Segment 8A)

KOP-South-8 was established from the passenger's seat of a vehicle on Colima Road, just west of the intersection of Hacienda Boulevard. This KOP was selected to represent views for local residents traveling west-southwest on Colima Road into the residential areas north of the transmission corridor. This is a typical streetscape view of a divided four-lane collector street in Hacienda Heights with convenience commercial development at the intersection (see Figure A-43a – Existing Conditions for KOP-South-8 – Colima Road, Hacienda Heights).



Viewer Exposure: moderate-to-high. The proposed Project Segment 8 would be highly visible from this vantage point. The foreground view from Colima Road exhibits adjacent commercial development, and on the ridgeline of this foreground view, Colima Road leads to residential areas and undeveloped hills of Hacienda Heights with transmission lines and towers visible on the skyline. Because the skyline is less than 0.5 mile away, all of this view is in the foreground distance zone. The number of viewers is high, but the view duration is brief from this KOP, leading to a moderate-to-high viewer exposure.

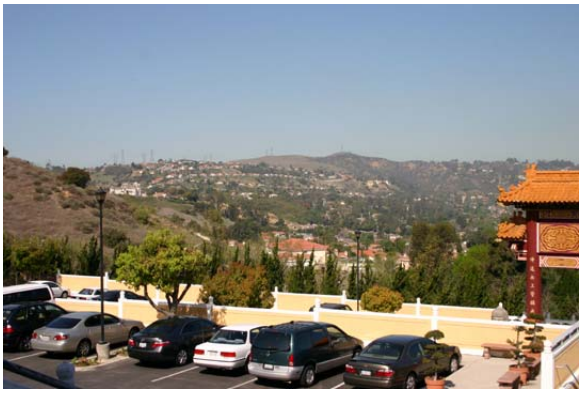
Viewer Concern: moderate-to-high. Viewers would be motorists, passengers on busses, and pedestrians. People stopped at the traffic light at the intersection of Hacienda and Colima (behind the camera about 100-feet), or driving on Colima, have direct views of this landscape with relatively brief viewing durations, but the destinations are residential areas. As such, the level of visual sensitivity is considered moderate-to-high.

Visual Quality: moderate. KOP-South-8 has visually pleasing landforms, with the foreground gently rising into the Hacienda Hills. There is a mix of vegetation in the view, from the planted decorative trees along Colima Road and in the residential areas adjacent to the road, to the low grasses on the undeveloped hillside. Human-made development is the focus of the foreground view, and the transmission structures and conductors and overhead distribution lines adjacent to Colima detract from visual quality. The view generally lacks intactness as a result of encroaching development. The tree-lined Colima Road ties the view together, but unity of the view is diminished by the commercial development. The overall existing visual quality of the view from this KOP is moderate.

Overall Visual Sensitivity: moderate-to-high. For people driving on Hacienda Road or Colima Road in general and KOP-South-8 specifically, the moderate-to-high viewer exposure, moderate-to-high viewer concern, and moderate visual quality lead to a moderate-to-high overall visual sensitivity of the visual setting and viewing characteristics.

KOP-South-9 – Hsi Lai Buddhist Temple. (Segment 8A)

KOP-South-9 was established at the front entrance steps of the Hsi Lai Buddhist Temple in Hacienda Heights. The Temple is a well-known landmark, notable for its prominence as a spiritual and cultural center and also as a tourist destination. The Temple is open to the public daily. KOP-South-9 was selected to represent typical views to the surrounding landscape and the proposed transmission corridor from the Temple main entrance and steps above the main parking area (see Figure A-44a – Existing Conditions for KOP-South-9 – Hsi Lai Buddhist Temple, Hacienda Heights).



Viewer Exposure: high. The foreground view of KOP-South-9 consists of the Temple parking area and main gate (just visible on the right side of this photograph) at the top of the stairs leading to the Main Entrance. The foreground also includes residential areas below the parking lot. The middleground view includes more residential areas and the existing transmission corridor on the skyline ridge, approximately 0.75 to one mile away. The number of viewers is high, and duration of view from the Temple and grounds is extended, leading to an overall high viewer exposure.

Viewer Concern: moderate. It should be noted that because the vividness of the Temple itself is high because of its architectural style, and typical views for visitors to the Temple are usually of the Temple itself, not of the landscape visible from the Temple. KOP-South-9 was selected to represent views of the transmission corridor from the Temple main entrance for regular visitors and tourists. The concern level for viewers is considered moderate to the surrounding landscape and skyline.

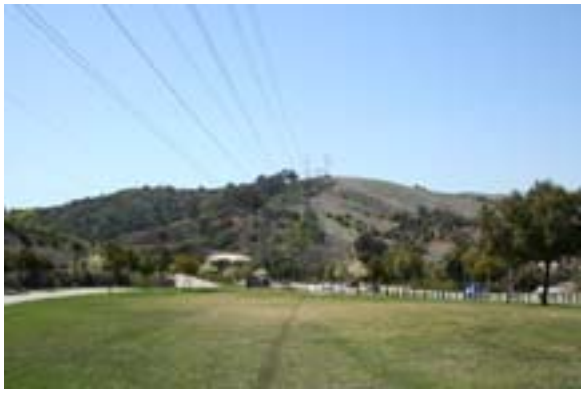
Visual Quality: moderate-to-high. The rolling hills beyond the Temple are an attractive landform, and the native vegetation on the undeveloped hills is equally attractive. The human-made features of the Temple result in a high level of vividness, which is reduced by the presence of the transmission line on the skyline. Overall intactness and unity of the view is high, but visual quality of this landscape is reduced by the transmission towers and conductors that encroach on the middleground view. Therefore, the overall existing visual quality of this KOP is moderate-to-high.

Overall Visual Sensitivity: moderate-to-high. For people arriving and leaving from the Hsi Lai Buddhist Temple and grounds in general and from KOP-South-9 specifically, the high viewer exposure, moderate viewer concern, and moderate-to-high visual quality lead to a moderate-to-high overall visual sensitivity of the visual setting and viewing characteristics.

KOP-South-10 – Pathfinder Park, Rowland Heights. (Segment 8A)

KOP-South-10 was established directly under the transmission lines at Pathfinder Park in Rowland Heights. It was selected because this is a recreational area located adjacent to a large number of residences, and the transmission corridor passes directly overhead. The view is of a grassy area adjacent to picnic tables bordered by decorative trees and walking paths and an access road. Facilities at the park include a recreation center, ball fields, picnic areas with shelters, tennis courts, lawns, and playground (see Figure A-45a – Existing Conditions for KOP-South-10 – Pathfinder Park, Rowland Heights).

Viewer Exposure: high. The proposed Project would be highly visible from this park, as there is no topographic or vegetative screening in front of these large, industrial structures. Viewing distance to the transmission line is immediate foreground and foreground from this park. The skyline is less than 0.5 mile away, making this a foreground view to the rolling hills with various types of native vegetation, transmission lines and towers, and some residential development. The number of viewers is high and viewing time is extended from all facilities within Pathfinder Park, making this a high viewer exposure.



Viewer Concern: high. Viewers in this area consist of recreationists who have come to enjoy the facilities and relax at Pathfinder Park, play sports, or enjoy the open space and picnic areas. Given the recreational nature of this area, the level of visual sensitivity is considered high.

Visual Quality: moderate-to-high. The gentle slope of the foreground leading into the rolling hills at the skyline is visually pleasing with moderately high vividness, as is the broad expanse of landscaped park grass leading into the hillsides with native vegetation. The transmission corridor represents a major human-made feature that strongly detracts from the natural-appearing quality of the view. The unity and intactness of this

view are both relatively high, but diminished by the transmission corridor encroaching upon the view. Therefore, the overall existing visual quality of the view from this KOP is moderate-to-high.

Overall Visual Sensitivity: high. For people relaxing, visiting, and recreating at Pathfinder Park in general and KOP-South-10 specifically, the high viewer exposure, high viewer concern, and moderate-to-high visual quality lead to a high overall visual sensitivity of the visual setting and viewing characteristics.

Landscape Unit 16: Diamond Bar

Segment 8 (8A): Approximately 8A MP 16.2 to MP 20.7

Landscape Unit 16 is bounded on the west by the Puente Hills, on the east by the City of Chino Hills, and extends approximately one mile north of the transmission corridor, and south through the western portion of Chino Hills State Park. "Chino Hills (State Park) is also a place where people can escape the pressures of urban life and find peace and solitude in a natural setting" (California Department of Parks and Recreation. Chino Hills State Park. 2008.) Landscape Unit 16 contains the southwest portion of Diamond Bar and unincorporated portions of Los Angeles County to the south (see Figures B-9 and B-10 in Appendix B for a map showing Landscape Unit 16).

The terrain within this landscape unit consists of rolling hills with some intervening valleys (character photos P-16.1 to P-16.4). Development within the landscape unit consists primarily of single-family residential neighborhoods (character photos P-16.2 to P-16.4), with commercial development occurring along some portions of the area's major arterials. The transmission corridor passes through several residential neighborhoods, including some gated communities (character photo P-16.5). These gated communities could not be accessed during the field investigation portion of this study.

Vegetation in Landscape Unit 16 consists of native chaparral on the undeveloped hills, and a variety of ornamental trees, shrubs, ground covers, and grasses in residential and commercial areas (character photo P-16.2). The most visually dominant features in this landscape unit are the rolling hills, both developed and undeveloped, and the transmission towers and conductors from some viewing perspectives (character photos P-16.1 to P-16.4).

Existing ROW cross-sections for Segment 8 are shown in Chapter 2 of the EIR/EIS (Description of Alternatives). The existing ROW associated with Segment 8 is 150 to 250 feet wide. Existing transmission structures in Segment 8 include one or two sets of lattice steel towers carrying 220 kV conductors (SCE, 2007a).

Viewers of Segment 8 within Landscape Unit 16 include residents within their homes, pedestrians, bicyclists, and motorists traveling on surface roads, and motorists passing through the landscape unit on the Orange Freeway (State Highway 57), which is a State-designated eligible scenic highway (see KOP-South-11 below). For some portions of Segment 8, likely viewers would be those traveling on unpaved roads, and hikers in the undeveloped hills.

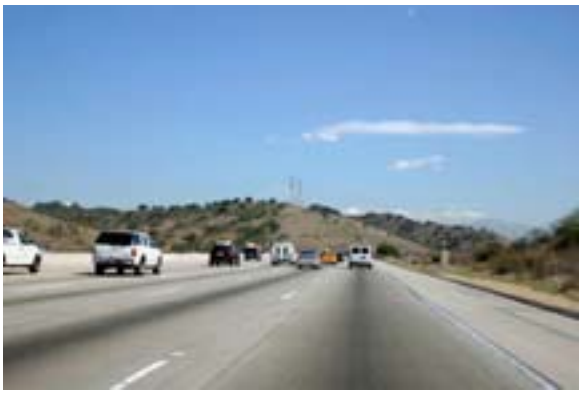
The study corridor in Landscape Unit 16 traverses through the jurisdictions of the City of Diamond Bar and unincorporated Los Angeles County. Applicable laws, regulations, and standards relative to scenic quality for Landscape Unit 16 are included as part of a comprehensive table included in Section 3 and Appendix C. The City of Diamond Bar's General Plan has established a goal to "Preserve significant visual features which are within, or are visible from the City of Diamond Bar, with an emphasis on the preservation of remaining natural hillside areas." Highway 57 (the Orange Freeway) is a state designated eligible scenic highway, which

passes through the western portion of Landscape Unit 16 and intersects the transmission corridor immediately south Diamond Bar.

Two KOPs were selected to represent views of the transmission corridor within this landscape unit. KOP-South-11 represents views for motorists traveling along Highway 57. KOP-South-12 represents views from residential neighborhoods where the transmission corridor is present on nearby hills.

KOP-South-11 – Orange Freeway (Highway 57), Diamond Bar. (Segment 8A)

This KOP is located on the northbound Orange Freeway (Highway 57), just north of the Orange County/Los Angeles County line. In this location, Highway 57 is designated by the State as an eligible State Scenic Highway from State Highway 90 to State Highway 60 (CALTRANS, 2008). KOP-South-11 represents typical views of the TRTP transmission corridor for motorists traveling through Landscape Unit 16. At this location, TRTP would be very visually evident on the skyline straight ahead of northbound travelers (see Figure A-46a – Existing Conditions for KOP-South-11 – Orange Freeway [Highway 57], Diamond Bar). Foreground features include the freeway surface, automobiles, and shrubs and grasses along the freeway margins. Middleground (then foreground) views include rolling hills with native chaparral vegetation, with the high-voltage transmission towers and conductors visible approximately 0.5 mile to the north-northeast. The San Jose Hills are visible in the middleground further to the north-northeast.



Viewer Exposure: moderate-to-high. The proposed Project would be highly visible from the Orange Freeway, as there is no topographic or vegetative screening in front of these large, industrial structures. Viewing distances to the transmission line include the middleground, then foreground distances as vehicles approach the utility corridor. The skyline in this photograph is less than 0.5 mile away, making this a foreground view to the rolling hills with scattered clumps of various types of native vegetation, transmission lines and towers. The number of viewers is high and viewing time is brief, making this a moderate-to-high viewer exposure.

Viewer Concern: high. Viewers from this perspective are motorists traveling north on Highway 57. Although the viewing duration is short for such viewers, viewer sensitivity is considered moderate-to-high given the natural character of the area and the freeway corridor's scenic designation. But because this is eligible as a State Scenic Highway, the level of visual sensitivity is considered high.

Visual Quality: high. The overall visual quality for KOP-South-11 includes a level of vividness that is above average, with both the local and more distant hills providing attractive elements. The visual intactness of the surrounding landscape is high; although the transmission structures encroach upon the skyline and detract for visual quality. The freeway and transmission corridor represent major human-made features that strongly detracts from the natural-appearing quality of the view, although most people discount their own viewer platforms (the freeway itself). The unity and intactness of this view are both relatively high, but diminished by the transmission corridor that encroaches upon the view (and the freeway itself). This segment of the Orange Freeway is designated by the California Department of Transportation (CALTRANS) as an eligible Scenic Highway, and therefore, the overall existing visual quality of the view from this KOP is rated high.

Overall Visual Sensitivity: high. For people traveling northbound on Highway 57 in general and KOP-South-11 specifically, the moderate-to-high viewer exposure, high viewer concern, and high visual quality lead to a high overall visual sensitivity of the visual setting and viewing characteristics.

KOP-South-12 – Crooked Creek Drive, Diamond Bar. (Segment 8A)

KOP-South-12 was established within a residential neighborhood in the western portion of the landscape unit on Crooked Creek Drive, less than 0.75 mile northeast of KOP-South-11, looking south-southeast at the existing transmission line corridor. Foreground features include the street, sidewalk, parked automobiles, houses, planted grass lawns, shrubs, and trees, with native evergreen chaparral vegetation on the hillside immediately behind the houses. The transmission towers and conductors are present on top of the hill, approximately 900 feet to the south-southeast (see Figure A-47a – Existing Conditions for KOP-South-12 – Crooked Creek Drive, Diamond Bar).

Viewer Exposure: high. The proposed Project Segment 8 would be highly visible from this residential neighborhood, as there is no topographic or vegetative screening in front of these large, industrial structures. Viewing distance to the transmission line is foreground and immediate foreground from this residential street. The number of viewers is moderate and viewing time is extended from these streets, houses, sidewalks, and yards, leading to a high viewer exposure.

Viewer Concern: high. Viewers in this area consist primarily of neighborhood residents in these single-family homes and on neighborhood streets. Given the residential nature of this area, the level of visual sensitivity is considered high.

Visual Quality: moderate-to-high. The overall visual quality for KOP-South-12 is moderate-to-high. The level of vividness in this view is above average; the hillside immediately behind the houses adds visual interest, and the well-kept neighborhood and planted vegetation provides an interesting contrast to the native vegetation. The visual intactness is high, except that the existing transmission structures encroach upon the view and add an incongruent industrial character to this otherwise residential landscape. The visual unity is high given the coherent nature of the suburban neighborhood, but lowered by the presence of the lattice steel towers and conductors that disrupt the otherwise-natural skyline view.

Overall Visual Sensitivity: high. For residents of Crooked Creek Drive in general and KOP-South-12 specifically, the high viewer exposure, high viewer concern, and moderate-to-high visual quality lead to a high overall visual sensitivity of the visual setting and viewing characteristics.

Landscape Unit 17: Chino Hills

Segment 8 (8A): Approximately S8A MP 20.7 to MP 25.6

Landscape Unit 17 is bounded on the west by unincorporated Los Angeles County, on the east by Highway 71, and extends approximately one mile north of the transmission corridor and south to the Butterfield Ranch Road interchange of Highway 71. Landscape Unit 17 contains the central portion of the City of Chino Hills and a small portion of the City of Chino that lies west of Highway 71 (see Figure B-10 in Appendix B for a map showing Landscape Unit 17).

The terrain within this landscape unit consists of rolling hills and valleys in the west that generally grade to lower-lying, flatter terrain in the east (character photos P-17.1 to P-17.11). The density and extent of development generally increases from west to east across this landscape unit. Improved areas consist primarily of single-family residential neighborhoods, with commercial development occurring along some portions of the area's major arterials. The existing transmission corridor that would contain the proposed Project passes through several residential neighborhoods, including at least one gated community that could not be accessed during field investigations for of this study.

Vegetation in Landscape Unit 17 consists of native grasses, shrubs, and trees in undeveloped areas (character photos P-17.1 and P-17-3), and a variety of planted deciduous trees, evergreens, palm trees, various shrubs, and grass lawns in developed areas (character photos P-17.5 and P-17.10). Decorative landscaping is also present at some locations within the ROW itself (character photo P-17.9).

The most visually dominant features in this landscape unit are the rolling hills (both developed and undeveloped) and the existing transmission towers and conductors from some viewing perspectives. The transmission towers are lattice steel and carry 220-kV single-circuit conductors (character photos P-17.3, P-17.5, P-17.8, and P-17.9).

Existing ROW cross-sections for Segment 8 are shown in Chapter 2 of the EIR/EIS (Description of Alternatives). The existing ROW associated with Segment 8 is 150 to 250 feet wide. Existing transmission structures in Segment 8 include one set of single-circuit lattice steel towers carrying 220-kV conductors (SCE, 2007a).

Viewers of the transmission corridor within Landscape Unit 17 include residents within their homes and yards; pedestrians, bicyclists, and motorists traveling on residential streets; and motorists passing through the landscape unit on major arterials.

The study corridor in Landscape Unit 17 traverses through the cities of Chino Hills and Chino. Applicable laws, regulations, and standards relative to scenic quality for Landscape Unit 17 are included as part of a comprehensive table included in Section 3 and Appendix C.

The City of Chino Hills has several policies related to the preservation of natural ridgelines. Although California municipalities do not regulate the construction of high-voltage transmission lines, the City's concern with respect to protection of ridgeline views should be noted. Euclid Avenue has been designated by San Bernardino County as a scenic highway. The City of Chino Hills has also identified Carbon Canyon Road as a scenic corridor.

Three KOPs were selected to represent views of the transmission corridor within this landscape unit. KOP-South-13 represents views for residents living in the western portion of the landscape unit where the transmission corridor generally passes through nearby, undeveloped areas. KOP-South-14 represents views for visitors to a small park through which the transmission corridor passes. KOP-South-15 represents views for residents living in the eastern, more-developed portion of the landscape unit through which the transmission corridor passes.

KOP-South-13 – Intersection of Avenida Anita/Avenida Compadres, Chino Hills. (Segment 8A)

This KOP is located within a residential neighborhood adjacent to undeveloped land in the western portion of the Landscape Unit 17. Foreground features include the street, sidewalks, houses, parked automobiles, street-lights, planted lawns, shrubs, and trees, with native grasses and shrubs on the skyline hill behind the houses.

The existing 220-kV transmission tower and conductors are visible on a low skyline ridge approximately 800 feet to the southwest (see Figure A-48a – Existing Conditions for KOP-South-13 – Avenida Anita/Avenida Compadres, Chino Hills).

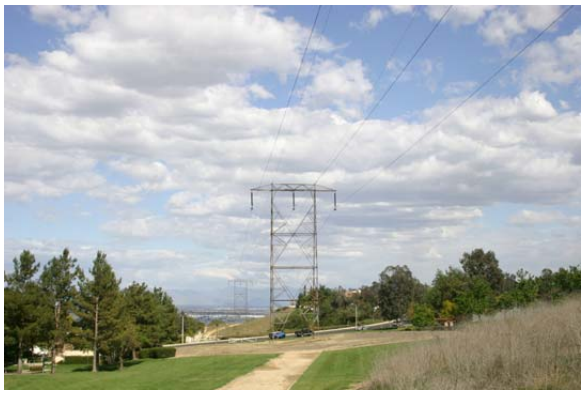
Viewer Exposure: high. The proposed Project Segment 8 would be highly visible from this residential neighborhood, as there is no topographic or vegetative screening in front of these large, industrial structures. Viewing distance to the transmission line is foreground and immediate foreground from houses and streets in this neighborhood. The number of viewers is moderate and viewing time is extended from these streets, houses, sidewalks, and yards, leading to a high viewer exposure.

Viewer Concern: high. Viewers in this area consist primarily of neighborhood residents in these single-family homes and on neighborhood streets. Given the residential nature of this area, the level of visual sensitivity is considered high.

Visual Quality: moderate-to-high. The level of vividness in this view is average; the undeveloped hill behind the neighborhood adds some visual interest, and the neighborhood is well kept, except that the existing transmission structures encroach upon the view, add an incongruent industrial character to this otherwise residential landscape, and create a degree of contrast with the scale and character of the neighborhood. The visual unity is average given the generally coherent nature of this suburban neighborhood, except for the transmission lines. Therefore, the overall visual quality for KOP-South-13 is moderate-to-high.

Overall Visual Sensitivity: high. For residents of Avenida Anita/Avenida Compadres in general and KOP-South-13 specifically, the high viewer exposure, high viewer concern, and moderate-to-high visual quality lead to a high overall visual sensitivity of the visual setting and viewing characteristics.

KOP-South-14 – Coral Ridge Park, Chino Hills. (Segment 8A)



This KOP was established within Coral Ridge Park, a residential "pocket" park on Eucalyptus Avenue in Chino Hills, looking northeast. The existing view from KOP-South-14 includes native brush, planted grass, landscaped evergreen and deciduous trees, a street (Avenida Cabrillo), and some parked automobiles. Framed by green grass, a tan gravel equestrian trail is located in the immediate foreground and continues east of Avenida Cabrillo along the transmission corridor (see Figure A-49a – Existing Conditions for KOP-South-14 – Coral Ridge Park, Chino Hills). The nearest existing 220-kV transmission tower is approximately 250 feet east of this viewpoint, and a second tower is roughly 1,000 feet further to the east. The tan wall of the park comfort station is visible through trees on the left, and some rooftops of a residential neighborhood can be seen through the trees on the right.

Viewer Exposure: high. The proposed Project Segment 8 would be highly visible from this pocket park and residential neighborhood, as there is no topographic or vegetative screening in front of these large, industrial structures. Viewing distance to the transmission line is foreground and immediate foreground from this equestrian trail and other facilities in the park. Middleground features include a third transmission tower that is barely visible behind the second tower. Further in the distance, the urbanized valley contains eastern Chino Hills, Chino, and Ontario. The San Bernardino Mountains are visible above the valley in the background. The number of viewers is moderate and viewing time is extended, leading to a high viewer exposure.

Viewer Concern: high. Viewers in this area consist primarily of neighborhood residents visiting this park to enjoy the open space and play on park facilities or equestrians on the trail. Given the residential nature of this area, the level of visual sensitivity is considered high.

Visual Quality: moderate-to-high. The level of vividness in this view is above average given the park setting and the distant view of San Bernardino Mountains. The visual unity is average, given a generally coherent neighborhood park setting, but this is somewhat disturbed by the transmission corridor. The visual intactness is moderately low due to encroachment of the transmission structures. The overall visual quality for this KOP is moderate-to-high.

Overall Visual Sensitivity: high. For visitors to Coral Ridge Park in general and KOP-South-14 specifically, the high viewer exposure, high viewer concern, and moderate-to-high visual quality lead to a high overall visual sensitivity of the visual setting and viewing characteristics.

KOP-South-15 – Cork Drive, Chino Hills. (Segment 8A)

KOP-South-15 was established on Cork Drive, looking west. Cork Street is a north-south street that connects Tupelo Street on the south and Garden Court on the north, all of which is in a residential subdivision north of Chino Hills Parkway. TRTP Segment 8 would occupy the existing transmission corridor through this neighborhood. Existing chain link fences and gates prohibit public use of the utility corridor ROW in this vicinity and therefore, north of Garden Court (and out of view of this photograph) the equestrian trail that was visible from KOP-South-14 continues along a floodway channel. SCE does not own the land for the utility corridor in this location, and private land owners have extended landscaping into the ROW under existing (un-electrified) conductors (see Figure A-50a – Existing Conditions for KOP-South-15 – Cork Drive, Chino Hills).

Viewer Exposure: high. The proposed Project Segment 8 would be highly visible from this residential neighborhood, as there is no topographic or vegetative screening in front of these large, industrial structures. Viewing distance to the transmission line is foreground and immediate foreground from houses and streets in this neighborhood. The number of viewers is moderate-to-high and viewing time is extended from these streets, houses, and yards, leading to a high viewer exposure.

Viewer Concern: high. Viewers in this area consist primarily of neighborhood residents in these single-family homes and on neighborhood streets. Given the residential nature of this area, the level of visual sensitivity is considered high.

Visual Quality: moderate-to-high. The level of vividness in this view is average; the undeveloped hill behind the neighborhood adds some visual interest, and the neighborhood is well kept, except that the existing chain link fences and transmission structures encroach upon the view, add an incongruent industrial character to this otherwise residential landscape, and create a degree of contrast with the scale and character of the neighborhood. The visual unity is average given the generally coherent nature of this suburban neighborhood, except for the transmission lines. Therefore, the overall visual quality for KOP-South-15 is moderate-to-high.

Overall Visual Sensitivity: high. For residents of Cork Drive in general and KOP-South-15 specifically, the high viewer exposure, high viewer concern, and moderate-to-high visual quality lead to a high overall visual sensitivity of the visual setting and viewing characteristics.

KOP-South-16 – Yellowstone Circle, Chino. (Segment 8A)

This KOP is located within a residential neighborhood in the eastern portion of Landscape Unit 17. Although within the City of Chino, this location is west of Highway 71 and is thus part of Landscape Unit 17. Foreground features include the street, sidewalk, houses, parked automobiles, streetlights, planted lawns, landscaped shrubs, and trees, with the transmission tower and conductors approximately 400 feet away, to the east-southeast (see Figure A-51a – Existing Conditions for KOP-South-16 – Yellowstone Circle, Chino).

Viewer Exposure: high. The proposed Project Segment 8 would be highly visible from this residential neighborhood, as there is no topographic or vegetative screening in front of the proposed large tubular steel pole structures. Viewing distance to the transmission line is immediate foreground from houses and streets in this neighborhood. The number of viewers is moderate-to-high and viewing time is extended from these streets, houses, and yards, leading to a high viewer exposure.

Viewer Concern: high. Viewers in this area consist primarily of neighborhood residents in single-family homes and on neighborhood streets. The level of viewer sensitivity is considered high.

Visual Quality: moderate. The level of vividness in this view is moderate-to-low given the flat terrain and the lack of memorable elements in this typical residential neighborhood. The visual intactness is moderate, but has been reduced due to visual encroachment by the transmission structures above the otherwise intact neighborhood. The visual unity is average for this coherent neighborhood that is somewhat disturbed by the nearby transmission structures. The overall visual quality for KOP-South-16 would be moderate-to-high, except the presence of the transmission lines decrease it to moderate.

Overall Visual Sensitivity: moderate-to-high. For residents of Yellowstone Circle in general and KOP-South-16 specifically, the high viewer exposure, high viewer concern, and moderate visual quality lead to a moderate-to-high overall visual sensitivity of the visual setting and viewing characteristics.

Landscape Unit 18: Chino

Segment 8 (8A): Approximately S8A MP 25.6 to MP 28.3

Segment 8 (8B): Approximately S8B MP 0.0 to MP 5.1

Segment 8 (8C): Approximately S8C MP 0.0 to MP 1.5

Landscape Unit 18 is bounded on the west by the Corona Freeway (Highway 71), on the east by Euclid Avenue (Highway 83), and extends approximately one mile north and south of the transmission corridor. Transmission Segment 8A enters Landscape Unit 18 from the west and travels east, north, and then east to the Chino Substation in the approximate center of the landscape unit. At the Chino Substation, Segments 8B and 8C begin and travel east along with Segment 8A to Euclid Avenue where they pass into Landscape Unit 19 (see Figure B-10 in Appendix B for a map showing Landscape Unit 18).

Landscape Unit 18 contains the central portion of the City of Chino. The terrain within Landscape Unit 18 is generally flat (character photo P-18.1). From Highway 71 to Central Avenue, development is dominated by large commercial warehouses and then from Central Avenue to Euclid Avenue, a mix of agricultural, single-family residential, and commercial land uses. As is typical for many of SCE's transmission corridors, several nurseries are present within the ROW itself (character photo P-18.2).

Vegetation in Landscape Unit 18 consists primarily of planted lawns, trees, and shrubs in residential areas, and various agricultural crops both within and near the transmission corridor (character photo P-18.3). The most visually dominant features in this landscape unit are the large warehouses in the west, the agricultural fields, and existing transmission towers and conductors as seen from some viewing perspectives.

Existing ROW cross-sections for Segment 8 are shown in Chapter 2 of the EIR/EIS (Description of Alternatives). The existing ROW width associated with Segment 8varies between 150 and 600 feet wide. Existing transmission structures in Segment 8 are a mix of single-circuit and double-circuit lattice steel towers carrying 220 kV conductors and contemporary 220 kV double-circuit structures (SCE, 2007a).

Viewers of the transmission corridor within Landscape Unit 18 include residents within their homes; pedestrians, bicyclists, and motorists traveling on residential streets; and motorists passing through the landscape unit on major arterial streets.

Proposed Segments 8A, 8B, and 8C in Landscape Unit 18 would traverse through the jurisdictions of the City of Chino and San Bernardino County. Applicable laws, regulations, and standards relative to scenic quality for Landscape Unit 18 are included as part of a comprehensive table included in Section 3 and Appendix C.

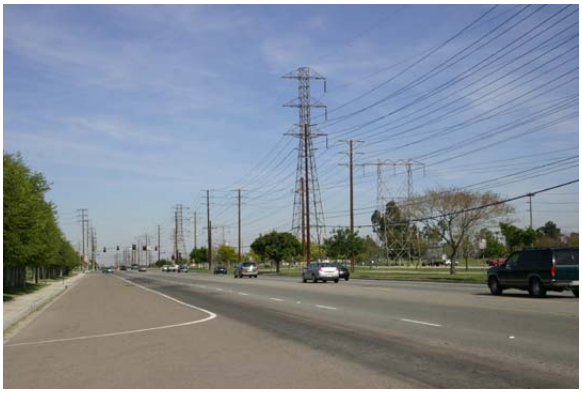
The City of Chino's Eucalyptus Business Park Specific Plan identifies the SCE transmission corridor as the dominant view element. According to this Plan, "Where it is not possible to underground utility lines, appropriate landscape buffers shall be provided." Euclid, Schaefer, and Fern Avenues (each of which intersect the transmission corridor) have been designated by the City of Chino as "Special Boulevards/View Corridors" requiring special and unique design guidelines and standards.

Euclid Avenue has also been designated by San Bernardino County as a scenic highway. Character photo P-19.1 was taken from Euclid Avenue where Segments 8A and 8C cross the road. This north-northwest view shows the San Bernardino Mountains in the background but does not reflect the streetscape design features that are present to the north of this photo location.

Two KOPs were selected to represent views of the proposed transmission corridor within this landscape unit. KOP-South-17 represents views for motorists, bicyclists, and pedestrians traveling along or near an arterial street adjacent to the transmission corridor. KOP-South-18 represents views of the transmission corridor from a residential neighborhood.

KOP-South-17 – Edison Avenue at Reuben S. Ayala Community Park, Chino. (Segment 8A, 8B, 8C)

This KOP is located in the central portion of Landscape Unit 18 along Edison Avenue, a four-lane arterial that parallels the existing transmission corridor. This photograph was taken from the exit to the San Bernardino Fairgrounds parking lot, looking east. The existing view from this KOP includes the street, sidewalk, automobiles, grass lawns and landscape trees within an adjacent park, trees lining the road, a traffic light at the cross-street, a multitude of overhead electric distribution lines, and two sets of high-voltage transmission lines with lattice steel towers. The nearest high-voltage transmission tower is visible approximately 300 feet to the east-southeast (see Figure A-52a – Existing Conditions for KOP-South-17 – Edison Avenue at Reuben S. Ayala Community Park, Chino).



Viewer Exposure: high. The proposed Project Segment 8 would be highly visible from the fairground parking lot exit, from Edison Avenue, and from the Park, as there is no topographic or vegetative screening in front of the existing transmission and distribution lines, or the proposed large tubular steel pole structures. Viewing distance to the transmission line is immediate foreground and foreground from this vantage point. The number of viewers is high and viewing time is moderate-to-extended from the fairgrounds and park, but brief from the street, leading to a high viewer exposure, considering the extended views.

Viewer Concern: moderate-to-high. Viewers in this area consist primarily of motorists traveling along Edison Avenue, or recreationists at the fairgrounds and nearby Reuben S. Ayala Community Park. Given the short viewing duration for motorists, but the moderate to extended viewing duration for recreationists, the level of viewer sensitivity is considered moderate-to-high.

Visual Quality: low-to-moderate. The level of vividness in this view is moderate-to-low; the flat terrain is fairly expansive, with views of grass fields and street trees, but the numerous overhead transmission ones are utilitarian in form. The visual intactness is moderately low with many industrial-character structures encroaching upon the view. The visual unity is somewhat below average; the view is generally coherent for an arterial street, and the many conductors provide some degree linear uniformity, but the numerous utility towers and poles diminish the coherence of the view. The overall visual quality for KOP-South-17 is low-to-moderate.

Overall Visual Sensitivity: moderate-to-high. For visitors to the Reuben S. Ayala Community Park in general and KOP-South-17 specifically, the high viewer exposure, moderate-to-high viewer concern, and low-to-moderate visual quality lead to a moderate-to-high overall visual sensitivity of the visual setting and viewing characteristics.

KOP-South-18 – Chipola Court, Chino. (Segments 8A, 8B, 8C)

This KOP is located within a residential neighborhood in the eastern portion of the Landscape Unit 18. Foreground features include the street, sidewalk, houses, parked automobiles, street lights, decorative mailboxes, planted grass lawns, shrubs, and trees, with the nearest transmission towers approximately 600 feet to the east. The transmission corridor continues to the east-northeast to the edge of the foreground in this view, and the San Bernardino Mountains are very faintly visible in the background (see Figure A-53a – Existing Conditions for KOP-South-18 – Chipola Court, Chino).

Viewer Exposure: high. The proposed Project Segment 8 would be highly visible in the foreground and immediate foreground from this neighborhood, as there is no topographic or vegetative screening in front of the proposed large double-circuit tubular steel pole structures and double circuit lattice steel towers. Viewing distance to the transmission line is immediate foreground and foreground from this vantage point. The number of viewers is moderate and viewing time is extended from these streets and houses. This leads to a high viewer exposure.

Viewer Concern: high. Viewers in this area consist primarily of neighborhood residents in single-family homes and on neighborhood streets and sidewalks. The level of viewer sensitivity is considered high.

Visual Quality: moderate. The level of vividness in this view is moderate-to-low given the flat terrain and the lack of memorable elements in this typical residential neighborhood. The visual intactness is moderate, but has been reduced due to visual encroachment by the transmission structures above the otherwise intact neighborhood. The visual unity is average for this coherent neighborhood that is somewhat disturbed by the nearby transmission structures. The overall visual quality for KOP-South-18 would be moderate-to-high, except the presence of the transmission lines decrease it to moderate.

Overall Visual Sensitivity: moderate-to-high. For residents of Chipola Court in general and KOP-South-18 specifically, the high viewer exposure, high viewer concern, and moderate visual quality lead to a moderate-to-high overall visual sensitivity of the visual setting and viewing characteristics.

Landscape Unit 19: Ontario

Segment 8 (8A): Milepost 29.3 to Milepost 35.2

Segment 8 (8B): Milepost 1.5 to Milepost 6.8

Segment 8 (8C): Milepost 0.8 to Milepost 6.4

Landscape Unit 19 is bounded on the west by Euclid Avenue (Highway 83) and on the east by the Ontario Freeway (Interstate 15 or I-15). The Ontario Freeway runs north-south approximately 0.5 mile east of the boundary between San Bernardino and Riverside Counties. A small portion of Riverside County is thus included in Landscape Unit 19, although no portion of the proposed Project actually enters Riverside County. The majority of Landscape Unit 19 is in the southern portion of the City of Ontario. The northern boundary of this landscape unit extends approximately one mile north of Segment 8B; the southern boundary extends

approximately one mile south of Segments 8A and 8C (see Figure B-10 in Appendix B for a map showing Landscape Unit 19).

The terrain within Landscape Unit 19 is generally flat, with the San Bernardino Mountains visible to the north and east (character photos P-19.1, P-19.2, and P-19.3). Development is dominated by dairy farms and other agricultural uses (character photo P-19.2), with residential subdivisions to the north and in the east-central portion of the landscape unit (see KOP-South-19 and KOP-South-20 below). Vegetation in Landscape Unit 19 consists primarily of grass fields (character photo P-19.3), agricultural crops, and planted grass lawns, trees, and shrubs in residential areas.

The most visually dominant features in this landscape unit are the dairy farms, the residential subdivisions, and the transmission towers and conductors from some viewing perspectives.

Existing ROW cross-sections for Segment 8 are shown in Chapter 2 of the EIR/EIS (Description of Alternatives). The existing ROW width associated with Segment 8 varies between 150 and 330 feet wide. Existing transmission structures in Segment 8 are a mix of single- and double-circuit lattice steel towers carrying either 220 kV or 500 kV conductors and contemporary 220 kV double-circuit structures (SCE, 2007a).

Viewers of the transmission corridor within Landscape Unit 19 include: residents within their homes and yards; pedestrians, bicyclists, and motorists traveling on residential streets; and motorists passing through the landscape unit on major arterials.

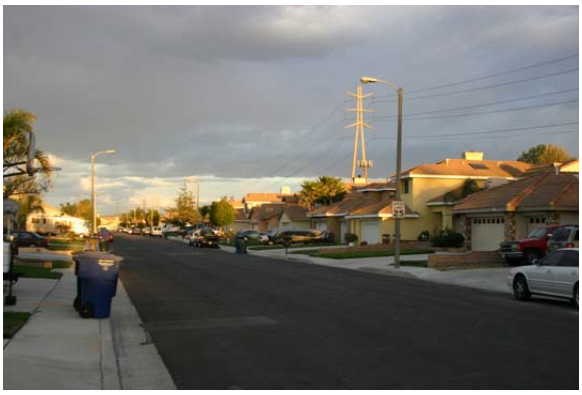
Jurisdictions through which proposed Segment 8 would traverse through Landscape Unit 19 include the City of Ontario and San Bernardino County. Segment 8 does not enter Riverside County, but the study corridor associated with Segment 8 extends across the Riverside County line. Applicable laws, regulations, and standards relative to scenic quality for Landscape Unit 19 are included as part of a comprehensive table included in Section 3 and Appendix C. San Bernardino County has designated Euclid Avenue as a scenic highway, and the East Chino Specific Plan identifies Euclid Avenue as a "Special Boulevard." The City of Ontario has identified Euclid Avenue, Grove Avenue, Vineyard Avenue, Archibald Avenue, Milliken Avenue, and Edison Avenue for creation of scenic roadways and view corridors. Character photo P-19.1 was taken from Euclid Avenue where Segments 8A and 8C would cross the road. This north-northwest view shows the San Bernardino Mountains in the background but does not reflect the streetscape design features that are present, further to the north of this photo location.

Two KOPs were selected to represent views of the transmission corridor in Landscape Unit 19 from two residential neighborhoods in the east-central portion of the landscape unit.

KOP-South-19 – Tumbleweed Street, Ontario. (Segments 8A, 8B, 8C)

This KOP is located within a residential neighborhood in east-central portion of Landscape Unit 19. The foreground features include the street, sidewalks, houses, parked automobiles, street lights, mailboxes, planted grass lawns, shrubs, and trees, with the nearest Dreyfus double-circuit transmission tower situated approximately 700-feet away, to the east-southeast. The transmission corridor that would be occupied by proposed Segment 8 continues to the east with two additional Dreyfus towers. The transmission line would then transition to lattice steel towers at the far edge of the foreground. From this view, the San Bernardino Mountains are very faintly visible in the background (see Figure A-54a – Existing Conditions for KOP-South-19 – Tumbleweed Street, Ontario).

Viewer Exposure: high. The proposed Project Segment 8 would be highly visible in the foreground and immediate foreground from this neighborhood, as there is no topographic or vegetative screening in front of the proposed large double-circuit tubular steel pole structures and double circuit lattice steel towers. Viewing distance to the transmission line is immediate foreground and foreground from this vantage point. The number of viewers is moderate and viewing time is extended from these streets and houses. This leads to a high viewer exposure.



Viewer Concern: high. Viewers in this area consist primarily of neighborhood residents in single-family homes and on neighborhood streets and sidewalks. The level of viewer sensitivity is considered high.

Visual Quality: moderate. The level of vividness in this view is moderate-to-low given the flat terrain and the lack of memorable elements in this typical residential neighborhood, other than perhaps the Dreyfus towers. The visual intactness is moderate, but has been reduced due to visual encroachment by the transmission structures above the otherwise intact neighborhood. The visual unity is average for this coherent neighborhood that is somewhat disturbed by the nearby transmission structures. The overall visual quality for KOP-South-19 would be moderate-to-high, except the presence of the transmission lines decrease it to moderate.

Overall Visual Sensitivity: moderate-to-high. For residents of Tumbleweed Street in general and KOP-South-19 specifically, the high viewer exposure, high viewer concern, and moderate visual quality lead to a moderate-to-high overall visual sensitivity of the visual setting and viewing characteristics.

KOP-South-20 – Chaparral Street and Clover Way, Ontario. (Segments 8A and 8B)

This KOP is located within a residential neighborhood in east-central portion of Landscape Unit. The existing view includes the street, sidewalks, houses, parked automobiles, street lights, planted grass lawns, shrubs, and trees, with four lattice-steel transmission towers in the foreground view. The nearest of these is 700 feet to the north-northeast, and it is a dead-end lattice steel tower with greater visual bulk because of the extra strength needed to change directions of the transmission line (see Figure A-55a – Existing Conditions for KOP-South-20 – Chaparral Street and Clover Way, Ontario).

Viewer Exposure: high. The proposed Project Segment 8 would be highly visible in the foreground and immediate foreground from this neighborhood, as there is no topographic or vegetative screening in front of the proposed large lattice steel towers. Viewing distance to the transmission line is immediate foreground and foreground from this vantage point. The number of viewers is moderate and viewing time is extended from these streets and houses. This leads to a high viewer exposure.

Viewer Concern: high. Viewers in this area consist primarily of neighborhood residents in single-family homes and on neighborhood streets and sidewalks. The level of viewer sensitivity is considered high.

Visual Quality: moderate. The level of vividness in this view is moderate-to-low given the flat terrain and the lack of memorable elements in this typical residential neighborhood. The visual intactness is moderate, but has been reduced due to visual encroachment by the transmission structures above the otherwise intact neighborhood. The visual unity is average for this coherent neighborhood that is somewhat disturbed by the nearby transmission structures. The overall visual quality for KOP-South-20 would be moderate-to-high, except the presence of the transmission lines decrease it to moderate.

Overall Visual Sensitivity: moderate-to-high. For residents of Chaparral Street and Clover Way in general and KOP-South-20 specifically, the high viewer exposure, high viewer concern, and moderate visual quality lead to a moderate-to-high overall visual sensitivity of the visual setting and viewing characteristics.

2.4 Alternative 3: West Lancaster Alternative

Provinces, Landscape Units, and KOPs

The West Lancaster Alternative (Alternative 3) would be identical to SCE's proposed Project, except that it would re-route the new 500-kV transmission line in Segment 4 along 115th Street West rather than 110th Street West. The West Lancaster Alternative would deviate from the proposed route at approximately S4 MP 14.9, where the new 500-kV transmission line would turn south down 115th Street West for approximately 2.9 miles and then turn east for approximately 0.5 mile, rejoining the proposed route at S4 MP 17.9. This re-route would increase the overall distance of Segment 4 by approximately 0.4 mile.

The affected environment and landscape character for the distinctive portion of Alternative 3, the West Lancaster Alternative, is the same as the Affected Environment description of the "North Area: Antelope Valley Landscape Region" and Landscape Unit 1 for Alternative 2, the proposed Project (see Figure A-56a – Existing Conditions for KOP-North-5 – 110th Street at Silverwind Way [Segment 4]).

West 110th Street is a straight north-south road that gradually descends in elevation from Portola Ridge into the flat Antelope Valley. Under the proposed Project, new 500-kV lattice steel towers and transmission lines would be very visually evident in the immediate foreground of West 110th Street for more than two miles. Under Alternative 3, the proposed structures would be located ½ mile west of West 110th Street along West 115th Street, an undeveloped dirt road.

Viewer Exposure: moderate. The West Lancaster Alternative would not be highly visible in the foreground or immediate foreground of West 110th Street, because it would be located 0.5 mile west and parallel to West 110th Street, following along undeveloped West 115th Street. There is no topographic or vegetative screening in front of the proposed large lattice steel towers, but the viewing distance and angle of view is directed to the north, following the road. Viewing distance to the transmission line is foreground and middleground from West 110th Street. There are no sensitive receptors located along West 115th Street. There are no residences along West 115th Street and the number of potential viewers is low, except in spring when the poppies bloom and the number of viewers is high. Therefore, the overall viewer exposure is moderate.

Viewer Concern: moderate. Visitors and residents enjoy the predominantly natural setting with distant, panoramic sightlines to the Antelope Valley and Tehachapi Mountains. The widely scattered ranches have predominantly horizontal structures (one story buildings) and predominantly horizontal windbreaks of low-growing trees and evergreen shrubs. The view northbound on West 110th Street is characterized by the panoramic open-space, natural-appearing landscape.

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. Along West 115th Street, vegetation is generally low, dry grass and scrub or agricultural fields. 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. Existing 220-kV and 500-kV 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.

Overall Visual Sensitivity: moderate. For visitors to Antelope Valley in general and looking northbound on West 110th Street specifically, the moderate viewer exposure, moderate viewer concern, and moderate visual quality, lead to a moderate overall visual sensitivity of the visual setting and viewing characteristics.

2.5 Alternative 4: Chino Hills Route Alternatives

Under Alternative 4, the proposed transmission line would follow the same route as the proposed Project (Alternative 2) through the North and Center Areas. In the South Area, Alternative 4 would be the same for Segments 7, 11, and the western portion of Segment 8A. Segment 8A would diverge from the proposed Project route at S8A MP 19.2 and turn to the southeast, crossing through portions of the City of Brea and Orange County before entering San Bernardino County, the City of Chino Hills, and Chino Hills State Park (CHSP). Under Alternative 4 (Routes A, B, C, C Modified, and D) Segment 8A would not occur from S8A MP 19.2 to S8A 35.2; however, Segment 8B between Chino and Mira Loma Substations would be upgraded, same as the proposed Project (Alternative 2).

Provinces, Landscape Units, and KOPs

North Area

The Affected Environment for the North Area of Alternative 4 would be exactly the same as for the proposed Project (Alternative 2), as described in Section 2.3.

Center Area

The Affected Environment for the Center Area of Alternative 4 would be exactly the same as for the proposed Project (Alternative 2), as described in Section 2.3.

South Area

As described above, the Affected Environment of Alternative 4 west of MP 19.2 of proposed Segment 8A is identical to the proposed Project (Section 2.3). Under Alternative 4, the Affected Environment associated with Segment 8A would be different than that of the proposed Project from S8A MP 19.2 through 35.2, as this portion of the alignment would not be built under the Alternative 4 routes. However, upgrades along Segment 8B between Chino and Mira Loma Substations would occur, same as the proposed Project (Alternative 2).

This portion of Alternative 4 would cross through Landscape Units 18 and 19, which were first introduced in Section 2.3.

There are five re-routes for Alternative 4; each re-route would cross through landscapes that would not be crossed by the proposed Project (Alternative 2). Routes A, B, and D for Alternative 4 would cross through portions of Chino Hills State Park (CHSP), and Route C and C Modified would be aligned just outside the north boundary of the park. CHSP is managed by the California Department of Parks and Recreation, with assistance from the Chino Hills State Park Interpretive Association (CHSPIA), a non-profit volunteer organization (CHSPIA, 2007). The visual implications of the five different routes (Routes A through D, including 4C Modified) that are included under Alternative 4 are discussed in further detail below.

The five routes (A, B, C, C Modified, and D) are identical from their point of departure from Segment 8A (S8 MP 19.2) to the north boundary of Chino Hills State Park, a distance of approximately 3.9 miles. The north park boundary for Alternative 4 is designated as "Chino Hills Alternative Milepost 23.1" (Alt 4-A/B/C/C Modified/D MP 23.1). At this location, Routes C, C Modified, and D turn east, diverging from Routes A and B which continue southeast, parallel to and south of the existing Walnut/Olinda-Mira Loma 220-kV double circuit transmission line. This portion of Alternative 4 would cross through Landscape Units 16 and 17, which were first introduced in Section 2.3.

Landscape Unit 16: Diamond Bar

Alternative 4 - Routes A/B/C/C Modified/D: Approximately MP 19.2 to MP 24.0

Landscape Unit 16 is bounded on the west by the Puente Hills, on the east by the City of Chino Hills, and extends to the northwest and southeast of the proposed Project (Alternative 2) and follows Alternative 4 to the southeast. Landscape Unit 16 contains the southwest portion of Diamond Bar, portions of the City of Brea, portions of CHSP, and unincorporated portions of Los Angeles and Orange Counties (see Figures B-10 and B-11 in Appendix B for a map showing Alternative 4 in Landscape Unit 16).

Alternative 4 crosses forested and brush-covered hills and valleys within Landscape Unit 16 that are undeveloped and natural-appearing. At the west end of Tonner Canyon Road, the entrance gate to the Firestone Boy Scout Camp is gated and locked, and could not be accessed during the field investigation portion of this study (character photo P-16.6). State Highway 142, the Carbon Canyon Road, connects the cities of Brea and Chino Hills (character photo P-16.7) The terrain within this landscape unit consists of rolling hills with some intervening valleys and a new planned development called Vellano, adjacent to the Aero Jet property (character photos P-16.8 to P-16.9).

Vegetation in Landscape Unit 16 consists of native chaparral on the undeveloped hills, and native oak woodlands in natural-appearing groves. The most visually dominant features in this landscape unit are the rolling hills, both developed and undeveloped, and the transmission lines on skylines from some viewing perspectives.

Existing ROW cross-sections for Segment Alt 4-A/B/C/ C Modified/D are shown in Chapter 2 of the EIR/EIS (Description of Alternatives). The existing ROW associated with Alternative 4 is 150 to 250 feet wide. Existing transmission structures in this portion of Alternative 4 include one set of double circuit lattice steel towers carrying 220-kV conductors (SCE, 2008).

Viewers of Alternative 4 within Landscape Unit 16 include recreationists at the Boy Scout Camp, residents within their homes, pedestrians, bicyclists, and motorists traveling on surface roads, recreationists at Carbon

Canyon Regional Park, Chino Hills State Park, and motorists passing through the landscape unit on Tonner Canyon Road and Carbon Canyon Road (see KOP-South-21 below). For some portions of Alternative 4, likely viewers would be those traveling on unpaved roads, fire roads, plus bicyclists, equestrians, and hikers in the undeveloped hills.

The study corridor for Alternative 4 in Landscape Unit 16 traverses through the jurisdictions of the Cities of Diamond Bar, Brea, and unincorporated Los Angeles and Orange Counties. Applicable laws, regulations, and standards relative to scenic quality for Landscape Unit 16 are included as part of a comprehensive table included in Section 3 and Appendix C. The City of Diamond Bar's General Plan has established a goal to "Preserve significant visual features which are within, or are visible from the City of Diamond Bar, with an emphasis on the preservation of remaining natural hillside areas." Highway 57 (the Orange Freeway) is a state designated eligible scenic highway, which passes through the western portion of Landscape Unit 16 and intersects the proposed Project (Alternative 2) transmission corridor immediately south Diamond Bar. Alternative 4 is not visible from Highway 57.

Two KOPs were selected to represent views of the Alternative 4 transmission corridor within this landscape unit. KOP-South-21 represents views for motorists traveling northbound on Carbon Canyon Road. KOP-South-22 represents views from residential neighborhoods of the Vellano Planned Development, where the Alternative 4 transmission corridor is visible to the south and southeast on nearby hills.

Route A

As described in Section 1.2.4 (Alternative 4: Chino Hills Route Alternative), this alternative would deviate from the proposed Project route at Segment 8A MP 19.2 and run parallel to the existing Walnut/Olinda-Mira Loma 220-kV transmission line for 6.2 miles, 2.3 miles of which would be within the CHSP. Route A would be situated within an existing utility corridor, but would require that the corridor be widened by 150 feet for the length of Route A. In addition, Route A would require the installation of a new switching station within the CHSP. The size of new switching station would be a minimum of 4-to-5 acres in size (using gas-insulated technology) and a minimum of 11-to-12 acres in size (using air-insulated technology). Route A would travel through CHSP for approximately 2.3 miles.

As described in Section 3.15 (Wilderness and Recreation) of the EIR/EIS, the route A for Alternative 4 would make direct crossings of six different trails and fire roads within the CHSP, and therefore, park visitors would have immediate foreground and foreground views of the Alternative 4-A transmission line. No campgrounds or picnic areas would be directly traversed by route A.

The new switching station that would provide the terminus for Route A would be situated along an existing fire road between Raptor Ridge (to the north) and Telegraph Canyon (to the south). As described above, the switching station would be between 4-and-12 acres in size, depending on the type of technology used.

Route B

Route B would follow the same path as Route A into CHSP, but instead of terminating at the new switching station described above, Route B would continue to just beyond the eastern Park boundary, eventually terminating at a new switching station between the CHSP and Butterfield Ranch Road. The transmission line for Route B would make direct crossings of ten different trails and fire roads that are used by recreationists within CHSP, and therefore, park visitors would have immediate foreground and foreground views of the transmission line. No campgrounds or picnic areas would be directly traversed by route B.

Under the Route B alternative, the new switching station of 4-to-12 acres in size would be installed outside the eastern boundary of the CHSP, and the switching station under Route A would not be installed within the Park. Route B would travel through CHSP for approximately 4.3 miles.

Route C

The Route C alternative would involve the construction of a new transmission line just north of the CHSP, the re-routing of two existing lines within the CHSP, and the removal of existing transmission lines from within the CHSP.

Although the new transmission line associated with Route C would not make any direct crossings of recreational resources, the transmission line re-routing and removal activities associated with Route C would traverse several trails within the CHSP, including the following: North Ridge Trail; McDermont Trail; Raptor Ridge Hiking Trail; Raptor Ridge Fire Road Trail; Hills For Everyone Trail; Telegraph Canyon Trail; and, South Ridge Trail. Therefore, park visitors would experience immediate foreground and foreground views of construction/removal activities and landscape restoration within the park. Additionally, residents in neighborhoods surrounding and adjoining CHSP would experience immediate foreground and foreground views of construction activities and would see new transmission lines, towers, and conductors.

Route C Modified

The proposed Route C Modified is very similar to the original Route C, described above, with the exception that the switching station would be located on Aerojet property approximately 2,500 feet northwest of the location proposed under the original Route C. As such, transmission line configurations and access roads to the new switching station for Route C Modified would be altered to account for relocation of the switching station. Re-routing of the same transmission lines described under Route C would occur under Route C Modified; however, the 500-kV reroute would occur utilizing one set of double-circuit 500-kV towers rather than two sets (in parallel) of single-circuit 500-kV towers.

Route D

The Route D alternative would follow the same path as the Route C alternative, but instead of terminating at a switching station at approximately Segment 8A MP 24.7, Route D would continue to follow the northern boundary of CHSP for approximately 2.4 miles, before crossing through part of the Park in a southeasterly direction and terminating at a new switching station just outside the eastern Park boundary. The switching station for Route D would be in the same location as that proposed for the Route B alternative.

The path for the Route D alternative would make direct crossings of four different Fire Trails, roads, and/or trails, and therefore, park visitors would have immediate foreground and foreground views of construction activities and would see new transmission lines, towers, and conductors.

KOP-South-21 – Carbon Canyon Road, Orange County. (Alternative 4-A/B/C/C Modified/D, Segment 8A)

This KOP is located on Carbon Canyon Road (State Highway 142) in Orange County, looking north from the northbound lane. Carbon Canyon Road runs northeast from Lambert Road in Brea (Orange County) to State Route 71 in Chino Hills (San Bernardino County). This portion of Landscape Unit 16 is typified by the deeply incised canyon walls and rolling hills covered with scattered brush, with the curving, narrow, two-lane road following the contours upstream. This portion of Highway 142 is eligible for inclusion in the State Scenic

Highway System (CALTRANS, 2008). The existing view includes the road, grass- and brush-covered hillsides, and one existing lattice steel tower in the middleground on the skyline (see Figure A-57a – Existing Conditions for KOP-South-21 – Carbon Canyon Road, Orange County).

Viewer Exposure: moderate-to-high. All five routes of Alternative 4 (A/B/C/C Modified/D) would be identical in this area, and would be visible from the Carbon Canyon Road. There is no topographic or vegetative screening in front of the existing or future large, industrial structures. Viewing distances to the transmission line include the middleground, and then foreground distances as vehicles approach the existing utility corridor. The skyline in this photograph is less than 0.5 mile away, making this a foreground view to the rolling hills with scattered clumps of various types of native vegetation and the lone visible transmission towers. The number of viewers is high but viewing time is very brief because of the twisting road, making this a moderate-to-high viewer exposure.

Viewer Concern: high. Viewers from this perspective are motorists traveling north on Carbon Canyon Road. Although the viewing duration is short for such viewers, viewer sensitivity is considered moderate-to-high given the natural character of the area and the road's scenic highway eligibility. Because of this eligibility as a State Scenic Highway, the level of visual sensitivity is considered high.

Visual Quality: high. The overall visual quality for KOP-South-21 includes a level of vividness that is above average, with both the local and more distant hills providing attractive elements. The visual intactness of the surrounding landscape is high; although this and other visible transmission structures encroach upon the skyline and detract for visual quality. The roadway and transmission line represent human-made features that detract from the natural-appearing quality of the view, although most people discount their own viewer platforms (the roadway itself). The unity and intactness of this view are both relatively high, but diminished by the transmission line that interrupts the skyline (and the roadway itself). This segment of Carbon Canyon Road is designated by the California Department of Transportation (CALTRANS) as an eligible Scenic Highway, and therefore, the overall existing visual quality of the view from this KOP is rated high.

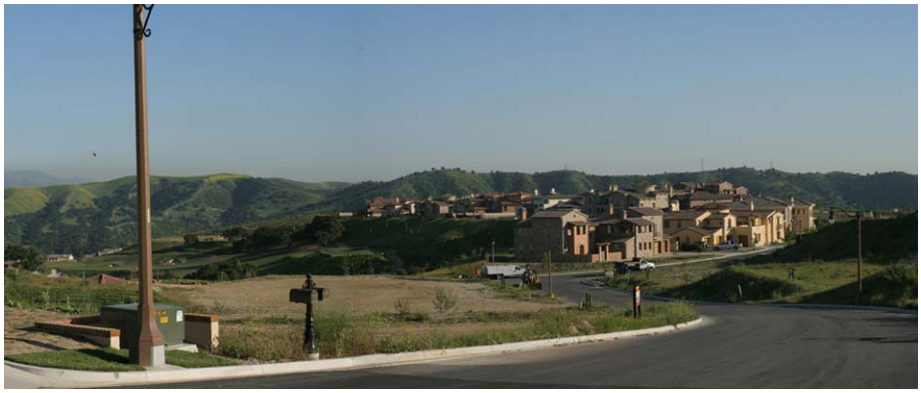
Overall Visual Sensitivity: high. For people traveling northbound on Carbon Canyon Road in general and KOP-South-21 specifically, the moderate-to-high viewer exposure, high viewer concern, and high visual quality lead to a high overall visual sensitivity of the visual setting and viewing characteristics.

KOP-South-22 – Vellano Planned Development, Chino Hills. (Alternative 4-A/B/C/C Modified/D, Segment 8A)

This panoramic view is located in the Vellano Planned Development on Vellano Club Road, just uphill from Catena Drive, looking southeast toward Chino Hills State Park and surrounding undeveloped lands north of the Park. This portion of Landscape Unit 16 continues the typical forested and brush-covered rolling hills that are largely undeveloped. KOP-South-22 uses a single frame of this panoramic view (see Figure A-58a – Existing Conditions for KOP-South-22 – Vellano Planned Development, Chino Hills).

Viewer Exposure: moderate-to-high. All five routes of Alternative 4 Segment 8A (A/B/C/C Modified/D) would be highly visible from this residential neighborhood, as there is no topographic or vegetative screening

in front of these large, industrial structures that would occupy the skyline. Viewing distance to the transmission line is middleground from this residential street. The number of viewers is moderate and viewing time is extended from these streets, houses, sidewalks, and yards, leading to a moderate-to-high viewer exposure.



Viewer Concern: high. Viewers in this area consist primarily of neighborhood residents in these single-family homes and on neighborhood streets. Given the residential nature of this area, the level of visual sensitivity is considered high.

Visual Quality: high. The overall visual quality for KOP-South-22 is high. The level of vividness in this view is above average; the undeveloped hillsides and new houses add visual interest. The planned neighborhood and planted vegetation provides an interesting contrast to the natural-appearing hillside vegetation. The visual intactness is high, except that the existing transmission structures on the middleground skyline encroach upon the view and add an incongruent industrial character to this otherwise residential and natural-appearing landscape. The visual unity is high given the coherent nature of the suburban neighborhood.

Overall Visual Sensitivity: high. For residents of Vellano Club Road in general and KOP-South-22 specifically, the moderate-to-high viewer exposure, high viewer concern, and high visual quality lead to a high overall visual sensitivity of the visual setting and viewing characteristics.

Landscape Unit 17: Chino Hills

Alternative 4 Routes A/B/C/C Modified/D: Approximately MP 24.0 to ~MP 28.0

Landscape Unit 17 is bounded on the west by unincorporated Los Angeles County, on the east by Highway 71, and extends approximately one mile north of the proposed Project (Alternative 2) transmission corridor and south to the Butterfield Ranch Road interchange of Highway 71. Landscape Unit 17 follows Alternative 4 to the east through and around Chino Hills State Park. Landscape Unit 17 contains the central portion of the City of Chino Hills and also a small portion of the City of Chino that lies west of Highway 71 (see Figures B-10 and B-11 in Appendix B for maps showing Landscape Unit 17).

The terrain within this landscape unit consists of rolling hills and valleys in the west and south that generally grade to lower-lying, flatter terrain in the east and north. Hillsides are covered with green grasses and yellow mustard in spring (character photo P-17.12). The density and extent of development generally increases from west to east across this landscape unit. Improved areas consist primarily of single-family residential neighborhoods, with commercial development occurring along some portions of the area's major arterials. The northern entrance to Chino Hills State Park is from Soquel Canyon Road and Elinvar Drive (character photos P-17.13 and P-17.14).

Vegetation in Chino Hills State Park in Landscape Unit 17 consists of native grasses, non-native mustard, widely scattered shrubs, and native trees along riparian areas. The historic Rolling M Ranch is located near the heart of CHSP, and serves as a focus of pedestrian activities. A scenic overlook, equestrian area, campground,

and paved trailhead parking area are located near the Ranch headquarters (character photos P-17.15 through P-17-17).

Residential neighbors are adjacent to CHSP to the north and east, and these landscapes have a variety of planted deciduous trees, evergreens, palm trees, various shrubs, and grass lawns. Transmission lines are visible on the skyline from these residential areas and from a corner commercial area on Butterfield Ranch Road and Pine Avenue (character photos P-17.18 and P-17.19). The most visually prominent features in the Park landscape and surrounding neighborhoods are the rolling hills (both developed and undeveloped) and the existing transmission lines that protrude above the skyline as seen from various perspectives. Existing transmission lines are lattice steel towers, both double circuit and single-circuit (character photos P-17.18 and P-17.19).

Viewers of the transmission corridor within Landscape Unit 17 include residents within their homes and yards; pedestrians, bicyclists, and motorists traveling on residential streets; and motorists passing through the landscape unit on major arterials, plus campers, hikers, equestrians in CHSP.

The study corridor in Landscape Unit 17 traverses through the cities of Chino Hills and Chino. Applicable laws, regulations, and standards relative to scenic quality for Landscape Unit 17 are included as part of a comprehensive table included in Section 3 and Appendix C.

The City of Chino Hills has several policies related to the preservation of natural ridgelines. Although California municipalities do not regulate the construction of high-voltage transmission lines, the City's concern with respect to protection of ridgeline views should be noted. Euclid Avenue has been designated by San Bernardino County as a scenic highway, and from this highway, the switching stations for Alternative 4 Routes B and D (same location) would be visible. The City of Chino Hills has also identified Carbon Canyon Road as a scenic corridor (character photo P-16.7).

Three KOPs were selected to represent views of the Alternative 4 transmission corridor within this landscape unit. KOP-South-23 represents views for hikers, equestrians, and bicyclists in CHSP in the landscape unit where the transmission corridor generally passes through undeveloped areas and directly overhead of several trails. Alternative 4 Routes A and B would be seen from this KOP. KOP-South-24 represents views from the equestrian center in CHSP, and Routes A, B, and D would be visible from the Horse Camp. KOP-South-25 represents views for residents living in the eastern, more-developed portion of the landscape unit as seen from Butterfield Ranch Road, looking at the eastern transition station of Routes B and D.

KOP-South-23 – Chino Hills State Park Trail, CHSP. (Alternative 4-A/B, Segment 8A)

This KOP is located within Chino Hills State Park on a hiking/equestrian trail and fire road that connects Telegraph Canyon Trail to Raptor Ridge Trail in the southern portion of Landscape Unit 17. Foreground and middleground features include rolling, undeveloped hills covered with native grasses and non-native mustard, which, when in bloom, is very scenic. Existing 220-kV double circuit and 500-kV single circuit transmission lines are very visible on the skyline ridge, and the trail crosses directly under these lines (see Figure A-59a – Existing Conditions for KOP-South-23 – Chino Hills

State Park Trail, CHSP).

Viewer Exposure: high. Alternative 4 Routes A and B would be highly visible from this recreational trail in CHSP, as there is no topographic or vegetative screening in front of these new large, industrial structures that would occupy the skyline or the transition station of Route A that would be in the center of this photograph. Viewing distance to the transmission line is immediate foreground, foreground, and middleground from this and other trails in the vicinity. The number of viewers is moderate-to-high and viewing time is extended based on speed of travel on these trails, leading to a high viewer exposure.

Viewer Concern: high. People come to CHSP to experience a natural environment and to enjoy the scenic outdoors of this State Park (John Roe and Dennis Stephen, 2008). Given the recreational nature of this area, the level of visual sensitivity is considered high.

Visual Quality: high. The overall visual quality for KOP-South-23 is high. The level of vividness in this view is above average; the undeveloped hillsides and expansive views to a natural-appearing landscape add visual interest. The visual intactness is high, except that the existing transmission lines encroach upon the view and add an incongruent industrial character to this otherwise natural-appearing landscape. The visual unity is high given the coherent nature of this State Park, and overall visual quality is high.

Overall Visual Sensitivity: high. For visitors to Chino Hills State Park in general and KOP-South-23 specifically, the high viewer exposure, high viewer concern, and high visual quality lead to a high overall visual sensitivity of the visual setting and viewing characteristics.

KOP-South-24 – Horse Camp in Chino Hills State park, CHSP. (Segment 8)

This KOP is located at the equestrian center within Chino Hills State Park. The Horse Camp is located on a hilltop at the southern end of Bane Canyon Road in the southern portion of Landscape Unit 17. Foreground and middleground features include rolling, undeveloped hills covered with native grasses and non-native mustard, which, when in bloom, is very scenic. Small clumps of dark green brush and trees are scattered across the hillsides. Existing 220-kV double circuit and 500-kV single circuit transmission lines are very visible on the skyline ridges. Corrals draw attention to the immediate foreground features. Paved roads and the restroom of the camping area are visible in the middleground (see Figure A-60a – Existing Conditions for KOP-South-24 – Horse Camp in Chino Hills State Park, CHSP).

Viewer Exposure: high. All five routes of Alternative 4 would be visible from this developed recreation area in CHSP, as there is no topographic or vegetative screening in front of these new large, industrial structures that would occupy the skyline. The transition station of Route A would be partially screened by topography, and it would be located in the center of this photograph. Viewing distance to the new transmission line alignments would be middleground from Horse Camp, but would be foreground and middleground from equestrian trails in the Park. The number of viewers is moderate-to-high and viewing time is extended at Horse Camp and on trails, based on speed of travel, leading to a high viewer exposure.

Viewer Concern: high. People come to CHSP to experience a natural environment and to enjoy the scenic outdoors of this State Park. Given the recreational nature of this area, the level of visual sensitivity is considered high.

Visual Quality: high. The overall visual quality for KOP-South-24 is high. The level of vividness in this view is above average; the undeveloped hillsides and expansive views to a natural-appearing landscape add visual interest. The visual intactness is high, except that the existing transmission lines encroach upon the view and add an incongruent industrial character to this otherwise natural-appearing and rural landscape. The visual unity is high given the coherent nature of this State Park, and overall visual quality is high.

Overall Visual Sensitivity: high. For visitors to Chino Hills State Park in general and KOP-South-24 specifically, the high viewer exposure, high viewer concern, and high visual quality lead to a high overall visual sensitivity of the visual setting and viewing characteristics.

KOP-South-25 – Butterfield Ranch Road, Chino Hills. (Alternative 4- B/D, Segment 8A)

This KOP is located on Butterfield Ranch Road, just east of Chino Hills State Park, looking west across undeveloped lands toward the eastern boundary of CHSP. This portion of Landscape Unit 17 is typical of the interface of developed and undeveloped landscapes, with grass covered rolling hills that are currently undeveloped, except for two parallel lines of double-circuit transmission lines (see Figure A-61a – Existing Conditions for KOP-South-25 – Butterfield Ranch Road, Chino Hills).

Viewer Exposure: moderate-to-high. Routes B and D of Alternative 4 Segment 8A would terminate at a new switching station at the same location in these rolling hills. The transmission lines leading into the switching station and the station itself would be highly visible from this collector street, as there is no topographic or vegetative screening available in front of these large, industrial structures that would occupy the skyline. Viewing distance to the transmission line and switching station is foreground from this street. The number of viewers is high and viewing time is brief from this street because of travel speed, leading to a moderate-to-high viewer exposure.

Viewer Concern: high. Viewers in this area consist primarily of neighborhood residents in single-family homes and on neighborhood streets. Given the residential nature of this area, the level of visual sensitivity is considered high.

Visual Quality: high. The overall visual quality for KOP-South-25 is high. The level of vividness in this view is above average; the undeveloped hillsides and flowering landscape along the street add visual interest. This planted vegetation provides an interesting contrast to the natural-appearing hillside vegetation. The visual intactness is high, except that the existing transmission structures on the foreground skyline encroach upon the view and add an incongruent industrial character to this otherwise natural-appearing landscape. The visual unity is high given the coherent nature of the scene.

Overall Visual Sensitivity: high. For travelers on Butterfield Ranch Road in general and KOP-South-25 specifically, the moderate-to-high viewer exposure, high viewer concern, and high visual quality lead to a high overall visual sensitivity of the visual setting and viewing characteristics.

Landscape Unit 18: Chino

Alternative 4 - Segment 8 (8B): Approximately S8B MP 0.0 to MP 5.1

Landscape Unit 18 is bounded on the west by the Corona Freeway (Highway 71), on the east by Euclid Avenue (Highway 83), and extends approximately one mile north and south of the transmission corridor. Transmission Segment 8A enters Landscape Unit 18 from the west and travels east, north, and then east to the Chino Substation in the approximate center of the landscape unit. At the Chino Substation, Segments 8B and 8C begin and travel east along with Segment 8A to Euclid Avenue where they pass into Landscape Unit 19 (see Figure B-10 in Appendix B for a map showing Landscape Unit 18).

Landscape Unit 18 contains the central portion of the City of Chino. The terrain within Landscape Unit 18 is generally flat (character photo P-18.1). From Highway 71 to Central Avenue, development is dominated by large commercial warehouses and then from Central Avenue to Euclid Avenue, a mix of agricultural, single-family residential, and commercial land uses. As is typical for many of SCE's transmission corridors, several nurseries are present within the ROW itself (character photo P-18.2).

Vegetation in Landscape Unit 18 consists primarily of planted lawns, trees, and shrubs in residential areas, and various agricultural crops both within and near the transmission corridor (character photo P-18.3). The most visually dominant features in this landscape unit are the large warehouses in the west, the agricultural fields, and existing transmission towers and conductors as seen from some viewing perspectives.

Existing ROW cross-sections for Segment 8 are shown in Chapter 2 of the EIR/EIS (Description of Alternatives). The existing ROW width associated with Segment 8varies between 150 and 600 feet wide. Existing transmission structures in Segment 8 are a mix of single-circuit and double-circuit lattice steel towers carrying 220 kV conductors and contemporary 220 kV double-circuit structures (SCE, 2007a).

Viewers of the transmission corridor within Landscape Unit 18 include residents within their homes; pedestrians, bicyclists, and motorists traveling on residential streets; and motorists passing through the landscape unit on major arterial streets.

Proposed Segments 8B in Landscape Unit 18 would traverse through the jurisdictions of the City of Chino and San Bernardino County. Applicable laws, regulations, and standards relative to scenic quality for Landscape Unit 18 are included as part of a comprehensive table included in Section 3 and Appendix C.

Two KOPs were selected to represent views of the proposed transmission corridor within this landscape unit. KOP-South-17 represents views for motorists, bicyclists, and pedestrians traveling along or near an arterial street adjacent to the transmission corridor. KOP-South-18 represents views of the transmission corridor from a residential neighborhood. Under Alternative 4, existing conditions would continue into the future for KOP-South 17, as no upgrades to Segments 8A and 8C would occur. However, existing conditions for KOP-South-18 would change as a result of Alternative 4 due to the upgrades in Segment 8B, as shown in Figure A-53c.

KOP-South-18 – Chipola Court, Chino. (Segments 8A, 8B, 8C)

This KOP is located within a residential neighborhood in the eastern portion of the Landscape Unit 18. Foreground features include the street, sidewalk, houses, parked automobiles, street lights, decorative mailboxes, planted grass lawns, shrubs, and trees, with the nearest transmission towers approximately 600 feet to the east. The transmission corridor continues to the east-northeast to the edge of the foreground in this view, and the San Bernardino Mountains are very faintly visible in the background (see Figure A-53a – Existing Conditions for KOP-South-18 – Chipola Court, Chino).

Viewer Exposure: high. The proposed Project Segment 8B would be highly visible in the foreground and immediate foreground from this neighborhood, as there is no topographic or vegetative screening in front of the proposed large double-circuit 220-kV lattice steel towers. Viewing distance to the transmission line is immediate foreground and foreground from this vantage point. The number of viewers is moderate and viewing time is extended from these streets and houses. This leads to a high viewer exposure.

Viewer Concern: high. Viewers in this area consist primarily of neighborhood residents in single-family homes and on neighborhood streets and sidewalks. The level of viewer sensitivity is considered high.

Visual Quality: moderate. The level of vividness in this view is moderate-to-low given the flat terrain and the lack of memorable elements in this typical residential neighborhood. The visual intactness is moderate, but has been reduced due to visual encroachment by the transmission structures above the otherwise intact neighborhood. The visual unity is average for this coherent neighborhood that is somewhat disturbed by the nearby transmission structures. The overall visual quality for KOP-South-18 would be moderate-to-high, except the presence of the transmission lines decrease it to moderate.

Overall Visual Sensitivity: moderate-to-high. For residents of Chipola Court in general and KOP-South-18 specifically, the high viewer exposure, high viewer concern, and moderate visual quality lead to a moderate-to-high overall visual sensitivity of the visual setting and viewing characteristics.

Landscape Unit 19: Ontario

Alternative 4 - Segment 8 (8B): Milepost 1.5 to Milepost 6.8

Landscape Unit 19 is bounded on the west by Euclid Avenue (Highway 83) and on the east by the Ontario Freeway (Interstate 15 or I-15). The Ontario Freeway runs north-south approximately 0.5 mile east of the boundary between San Bernardino and Riverside Counties. A small portion of Riverside County is thus included in Landscape Unit 19, although no portion of the proposed Project actually enters Riverside County. The majority of Landscape Unit 19 is in the southern portion of the City of Ontario. The northern boundary of this landscape unit extends approximately one mile north of Segment 8B; the southern boundary extends approximately one mile south of Segments 8A and 8C (not part of Alternative 4) (see Figure B-10 in Appendix B for a map showing Landscape Unit 19).

The terrain within Landscape Unit 19 is generally flat, with the San Bernardino Mountains visible to the north and east (character photos P-19.1, P-19.2, and P-19.3). Development is dominated by dairy farms and other agricultural uses (character photo P-19.2), with residential subdivisions to the north and in the east-central portion of the landscape unit (see KOP-South-19 and KOP-South-20 below). Vegetation in Landscape Unit 19 consists primarily of grass fields (character photo P-19.3), agricultural crops, and planted grass lawns, trees, and shrubs in residential areas.

The most visually dominant features in this landscape unit are the dairy farms, the residential subdivisions, and the transmission towers and conductors from some viewing perspectives.

Existing ROW cross-sections for Segment 8B are shown in Chapter 2 of the EIR/EIS (Description of Alternatives). The existing ROW width associated with Segment 8B varies between 125 and 300 feet wide. Existing transmission structures in Segment 8B are a mix of single- and double-circuit 220-kV lattice steel towers (SCE, 2007a).

Viewers of the transmission corridor within Landscape Unit 19 include: residents within their homes and yards; pedestrians, bicyclists, and motorists traveling on residential streets; and motorists passing through the landscape unit on major arterials.

Jurisdictions through which proposed Segment 8B would traverse through Landscape Unit 19 include the City of Ontario and San Bernardino County. Segment 8B does not enter Riverside County, but the study corridor associated with Segment 8 extends across the Riverside County line. Applicable laws, regulations, and standards relative to scenic quality for Landscape Unit 19 are included as part of a comprehensive table included in Section 3 and Appendix C. San Bernardino County has designated Euclid Avenue as a scenic highway, and the East Chino Specific Plan identifies Euclid Avenue as a "Special Boulevard." The City of Ontario has identified Euclid Avenue, Grove Avenue, Vineyard Avenue, Archibald Avenue, Milliken Avenue, and Edison Avenue for creation of scenic roadways and view corridors. Character photo P-19.1 was taken from Euclid Avenue where Segments 8A and 8C would cross the road. This north-northwest view shows the San Bernardino Mountains in the background but does not reflect the streetscape design features that are present, further to the north of this photo location.

Two KOPs were selected to represent views of the transmission corridor in Landscape Unit 19 from two residential neighborhoods in the east-central portion of the landscape unit. These include KOP-South-19 and KOP-South-20. Under Alternative 4, existing conditions would continue into the future, as no upgrades to Segments 8A and 8C would occur.

2.6 Alternative 5: Partial Underground Alternative

The proposed route for Alternative 5 (Partial Underground Alternative) would not diverge from the proposed Project (Alternative 2) route and therefore, the Affected Environment for Alternative 5 would be identical to the Affected Environment for the proposed Project, as described in Section 2.3 (Alternative 2: Proposed Project), above.

Provinces, Landscape Units, and KOPs

Two KOPs were selected to represent views of the Alternative 5 transition stations within Landscape Unit 17, as the transmission line would go underground through residential areas of Chino Hills. KOP-South-26 represents views for residents living in the area of the western transition station near Eucalyptus Avenue. KOP-South-27 represents views from a commercial area along Pipeline Avenue, near Highway 71, where the Eastern Transition Station of Alternative 5 would be located, and where the underground transmission line would again become an overhead line.

KOP-South-26 – Intersection of Gold Shadow Lane /Avenida Compadres, Chino Hills. (Alternative 5, Segment 8A)

This KOP is located within a residential neighborhood adjacent to undeveloped land in the western portion of the Landscape Unit 17, and is located just a few blocks west of KOP-South-13. Foreground features include the street, sidewalks, houses, parked automobiles, street-lights, planted lawns, shrubs, and trees, with native grasses and shrubs on the skyline hill behind the houses. The existing 220-kV transmission tower and

conductors are visible on a low skyline ridge approximately 1000 feet to the southeast (see Figure A-62a – Existing Conditions for KOP-South-26 – Gold Shadow Lane/Avenida Compadres, Chino Hills).

Viewer Exposure: high. The proposed West Transition Station of Alternative 5 Segment 8A would be highly visible from this residential neighborhood, as there is no topographic or vegetative screening in front of the large, industrial character, double circuit structures leading into the underground facility. Viewing distance to the transmission line and transition station is foreground and immediate foreground from houses and streets in this neighborhood. The number of viewers is moderate and viewing time is extended from these streets, houses, sidewalks, and yards, leading to a high viewer exposure.

Viewer Concern: high. Viewers in this area consist primarily of neighborhood residents in these single-family homes and on neighborhood streets. Given the residential nature of this area, the level of visual sensitivity is considered high.

Visual Quality: moderate-to-high. The level of vividness in this view is average; the undeveloped hill behind the neighborhood adds some visual interest, and the neighborhood is well kept, except that the existing transmission structures encroach upon the view, add an incongruent industrial character to this otherwise residential landscape, and create a degree of contrast with the scale and character of the neighborhood. The visual unity is average given the generally coherent nature of this suburban neighborhood, except for the transmission lines. Therefore, the overall visual quality for KOP-South-13 is moderate-to-high.

Overall Visual Sensitivity: high. For residents of Gold Shadow Lane/Avenida Compadres in general and KOP-South-26 specifically, the high viewer exposure, high viewer concern, and moderate-to-high visual quality lead to a high overall visual sensitivity of the visual setting and viewing characteristics.

KOP-South-27 – Pipeline Avenue, Chino Hills. (Alternative 5, Segment 8A)

KOP-South-27 was established on Pipeline Avenue in Chino, just west of Highway 71, looking west at the existing transmission line in Segment 8A. This KOP was selected to represent views for local residents traveling north-south on Pipeline Avenue and for customers of the neighborhood commercial area featuring Bravo Burger, Chino Hills Car Wash and neighborhood convenience stores. This is a typical streetscape view of a four-lane collector street in Chino Hills with an entrance to this convenience commercial development and overhead transmission lines (see Figure A-63a – Existing Conditions for KOP-South-27 – Pipeline Avenue, Chino Hills).

Viewer Exposure: high. The proposed East Transition Station of Alternative 5 Segment 8A and new double circuit overhead transmission structures would be highly visible from this vantage point. The foreground view

from Pipeline Avenue exhibits adjacent commercial development, and existing palm and orange trees partially screen the existing transmission line in this foreground view, Pipeline Avenue leads to commercial/light-industrial areas to the south and residential areas to the north. All of this view is in the immediate foreground and foreground distance zones. The number of viewers is high, and because of the commercial uses, view duration is extended from this KOP, leading to a high viewer exposure.

Viewer Concern: moderate-to-high. Viewers would be motorists and pedestrians in this commercial area. People driving on Pipeline Avenue and in the parking areas of this commercial center have direct views of this landscape with relatively brief to relatively extended viewing durations. The level of visual sensitivity is considered moderate-to-high.

Visual Quality: moderate-to-high. KOP-South-27 has visually pleasing architecture and landscaping, with the foreground exhibiting pleasant suburban views. There is a mix of vegetation in the view, from the palm and orange trees planted along the entrance drive, to the low grasses on the undeveloped hillside visible at the end of the entrance road. Red-tile roofs and southern California architectural development is the focus of the foreground view, and the transmission structures and conductors and overhead lines are partially screened from view. The view generally exhibits intactness and unity of view. The overall existing visual quality of the view from this KOP is moderate-to-high.

Overall Visual Sensitivity: moderate-to-high. For people driving on Pipeline Avenue in general and KOP-South-27 specifically, the high viewer exposure, moderate-to-high viewer concern, and moderate-to-high visual quality lead to a moderate-to-high overall visual sensitivity of the visual setting and viewing characteristics.

2.7 Alternative 6: Maximum Helicopter Construction in the ANF Alternative

Provinces, Landscape Units, and KOPs

The affected environment for Alternative 6 (Maximum Helicopter Construction in the ANF Alternative) would be the same as described for Alternative 2 (SCE's Proposed Project). Therefore, the Affected Environment for Alternative 6 would be identical to the Affected Environment for the proposed Project, as described in Section 2.3 (Alternative 2: Proposed Project). For an analysis of the Affected Environment of Alternative 6, please refer to the descriptions of Center Area landscape places, landscape character, scenic integrity objectives, and existing scenic integrity for the Center Area KOPs in Section 2.3.

2.8 Alternative 7: 66-kV Subtransmission Alternative

Provinces, Landscape Units, and KOPs

The Alternative 7 route would be the same as the proposed Project, except that it would involve four 66-kV subtransmission line elements, including the following: (1) Undergrounding the existing 66-kV subtransmission line in Segment 7 through the Woodland Duck Farm / River Commons at the Duck Farm Project (Duck Farm Project) between Valley Boulevard (S7 MP 8.9) and S7 MP 9.9 as requested by the Board of Supervisors County of Los Angeles to minimize the Project's effects to passive recreation opportunities in the planned Duck Farm Project area; (2) Re-routing and undergrounding the existing 66-kV subtransmission line around the Whittier Narrows Recreation area in Segment 7 (S7 MP 11.4 to 12.025) to provide habitat enhancement for least Bell's vireos, as identified by SCE; (3) Re-routing the existing 66-kV subtransmission

line through the Whittier Narrows Recreation Area in Segment 7 (S7 MP 12.0 to 13.6) immediately north of the existing 220-kV ROW to reduce the number of structures required (20-foot expanded ROW required); and (4) Re-routing the existing 66-kV subtransmission line around the Whittier Narrows Recreation Area in Segment 8A between the San Gabriel Junction (S8A MP 2.2) and S8A MP 3.8 to provide habitat enhancement for least Bell's vireos, as identified by SCE. Specific routing details for Alternative 7 can be found at Section 2.2.81 of the Project Description. The remaining portions of Segments 7 and 8A, as well as Segments 4 through 11, would be identical to the proposed Project. Consequently, the Affected Environment for Alternative 7 would be the same as the Affected Environment for Alternative 2 (the proposed Project), as described in Section 2.3.