

4.2 AESTHETIC RESOURCES

4.2.1 Overview

Aesthetic or visual resources are the natural and cultural features of the landscape that can be seen and that contribute to the public's appreciative enjoyment of the environment. Visual resource or aesthetic impacts are generally defined in terms of a project's physical characteristics and potential visibility and the extent to which the project's presence would change the perceived visual character and quality of the environment in which it would be located.

The proposed Project, which is described in detail in Chapter 3 of this Proponent's Environmental Assessment (PEA), would entail construction of 155 miles of new and rebuilt transmission lines, largely in or immediately adjacent to existing transmission corridors, and would also involve addition of conductors to existing towers in an 18-mile transmission corridor segment. As can be seen on Figure 4.2-1 at the end of this chapter, the proposed Project transmission line routes would be located in Kern, Los Angeles, and San Bernardino counties, and would traverse the landscapes of the Antelope Valley, San Gabriel Mountains, San Gabriel Valley, and Inland Empire regions. The proposed Project would also include construction of the new Whirlwind Substation in a rural area in the northern Antelope Valley, and expansion of the existing Antelope Substation west of Lancaster and expansion of the existing Vincent Substation in the Soledad Pass south of Palmdale. The locations of these substations are also indicated on Figure 4.2-1. Because of the proposed Project's geographic extent and the physical size of many of its features, the proposed Project has the potential to bring about visible changes in many of the areas in which its components would be located.

In response to the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) requirements for assessment of a proposed Project's aesthetic impacts, a systematic evaluation was made of the visual conditions that now exist in the landscapes of areas in which the proposed Project's elements would be located, and of the implications that the proposed Project would have for the public's experience of the region's aesthetic qualities. This analysis is presented in detail in the Visual Resources Technical Report in Appendix F.

In this chapter, a brief summary is presented of the methodology followed in preparing the technical study (Section 4.2.2); the regulations, plans, and standards applicable to the visual resources in the proposed Project area are noted (Section 4.2.3); and the criteria applied to determine whether the proposed Project's impacts on visual resources would be significant under CEQA or adverse under NEPA are presented (Section 4.2.4). Section 4.2.5 of this

**ENVIRONMENTAL IMPACT ANALYSIS
AND MITIGATION MEASURES**

SECTION 4.0

Tehachapi Renewable Transmission Project

chapter summarizes the Applicant Proposed Measures (APMs) that SCE would integrate into the siting and design of the proposed Project and the plans for proposed Project construction that would help to visually integrate the proposed Project into its landscape settings and reduce the potential for the proposed Project to result in significant or adverse aesthetic effects. Section 4.2.6 provides a summary assessment on a segment-by-segment basis of the proposed Project's potential to result in significant impacts or adverse effects on the visual resources of the areas in which those segments would be located.

4.2.2 Technical Methodology

Both CEQA and NEPA require project-sponsoring agency(ies) to determine and weigh the environmental effects associated with proposed projects. To ensure that potential changes to visual quality resulting from a project are adequately and objectively considered, it is critical that an accepted, systematic evaluation process be used.

The analysis in the Visual Resources Technical Report (Appendix F) on which the summary analysis presented here is based, applies two well-established evaluative systems to analyze the proposed Project's potential changes to visual quality. The primary method used was the process set out by the Federal Highway Administration (FHWA) in *Visual Impact Assessment for Highway Projects* (FHWA, 1988). This method was selected because it is applicable for linear projects, appropriate for use in both undeveloped and developed landscape settings, and the current standard for assessments of linear projects. Use was also made of the U.S. Forest Service's (USFS's) Scenery Management System (SMS) (USFS, 1995) for the portion of the proposed Project that passes through the Angeles National Forest (ANF). Both systems were developed by major federal agencies that invested considerable resources in their creation, testing, and implementation, and as a result, both approaches are robust and are heavily relied upon to provide systematic and objective evaluations of visual change. Together, these systems provide methodologies that are reliable and widely accepted for evaluating changes to visual or scenic quality resulting from proposed projects such as the TRTP and are described below.

4.2.2.1 Federal Highway Administration Methodology

4.2.2.1.1 Visual Quality and Impact Assessment Guidance. The Federal Highway Administration's visual quality assessment method is the standard approach for evaluation of the aesthetic effects of transportation projects, and is often applied in the evaluation of other linear projects. The Tehachapi Renewable Transmission Project (TRTP), like many transportation projects, is linear in nature and the FHWA's system is directly applicable. It was used for all portions of the proposed Project including National Forest System lands. It

ENVIRONMENTAL IMPACT ANALYSIS AND MITIGATION MEASURES

SECTION 4.0

Tehachapi Renewable Transmission Project

must be noted that use of the FHWA system on National Forest System lands was secondary to the U.S. Forest Service SMS (see Section 4.2.2.2.1) and was only used as a way to consistently compare impacts along the entire proposed route.

The FHWA developed this assessment method in response to NEPA requirements that consideration be given to determine the effects proposed federal actions or projects are likely to have on the quality of the human environment, including effects on the environment's visual quality. The method was designed to provide a systematic and objective approach to evaluation of the visual changes that proposed projects or actions would bring about. The FHWA visual quality assessment methods and guidance used to prepare the Visual Resources Technical Report in Appendix F is documented in the FHWA publication *Visual Impact Assessment for Highway Projects* (FHWA, 1988). Since the time of its inception in the late 1980s, this evaluative method has been successfully applied by the FHWA and state highway departments, as well as by other visual resource specialists to the evaluation of numerous linear projects.

The FHWA visual quality and aesthetics assessment method used in preparing the Visual Resources Technical Report in Appendix F was based on a set of broad criteria that consider the following factors:

- The overall visual and aesthetic quality of the area through which the transmission line would pass.
- The visual and aesthetic experience and expectations of viewers (including residents, users of parks and other public spaces, pedestrians, and motorists) looking at transmission corridors.
- The scale and contrast between existing and proposed elements in the area.

The FHWA's assessment method also uses professionally accepted, descriptive terminology that encompasses the physical attributes of the landscape being assessed and viewer sensitivity or concern. Consistent use of this terminology facilitates consistent and effective communication and is used throughout the following sections.

A visual quality and aesthetics assessment typically addresses three primary questions:

- What are the visual qualities and characteristics of the existing landscape in the project area?
- What are the potential effects of the project's proposed alternatives on the area's visual quality and aesthetics?

**ENVIRONMENTAL IMPACT ANALYSIS
AND MITIGATION MEASURES**

SECTION 4.0

Tehachapi Renewable Transmission Project

- Who would see the project, and what is their likely level of concern about or reaction to how the project visually fits into the existing landscape?

Each of these questions is addressed and the results documented in the Visual Resources Technical Report in Appendix F.

The FHWA visual quality assessment method that was applied in preparing the analysis presented in the Technical Report has six steps:

1. Establish the project’s area of visual influence by identifying contiguous “landscape units.” A landscape unit is an identifiable segment or area that contains views of a project. These units are often framed by natural or man-made features to make “outdoor rooms.” For the analysis presented in the Technical Report, landscape units were used to structure and organize the documentation of existing visual conditions and to assess potential Project visual effects. The boundaries of the landscape units that were defined for the evaluation of this Project are indicated on Figure 4.2-1. Figure 4.2-2 is the map set that includes individual maps of each of the landscape units.
2. Determine who has views of and from the project (“viewer”).
3. Describe and assess the landscape that exists before project construction (“existing environment”).
4. Assess the response of viewers looking at and from the project, before and after project construction (“viewer sensitivity or concern”).
5. Determine and evaluate views of and from the Project for before and after project construction.

This entails identification of representative and/or critical viewpoints known as Key Observation Points (KOPs), documentation of existing views from the KOPs, and preparation of simulations that depict the view from each KOP with the proposed Project features in place. The locations of each of the landscape units and KOPs used in evaluating this proposed Project are indicated on the maps included as Figures 4.2-1 and 4.2-2. Additionally, the KOPs are shown on the Detailed Project Aerial map, Figures 4.2-3a and 4.2-3b. A list of the existing views and the simulated with-Project views from each of the KOPs where significant impacts were identified are presented on Figure sets 4.2-4 and 4.2-5.

6. Describe the potential visible changes to the Project area and its surroundings that would result from the proposed Project (“project impacts or effects”).

The first three steps were conducted to break up the territory along the proposed Project's alignment into landscape areas that constitute logical units for analysis, and to establish the baseline conditions that exist within them. The proposed Project's potential changes to the visible landscape, and likely viewer responses to those changes, were assessed and were systematically compared against the baseline conditions to determine the nature and degree of the proposed Project's potential impacts to visual resources.

4.2.2.1.2 Specialized Tools and Vocabulary. The FHWA system uses a generally accepted set of tools and well-defined terminology. The FHWA terminology was used throughout the Technical Report and some of this vocabulary is used in presenting the impact findings summarized in Section 4.2.6 of this chapter. To facilitate interpretation of the findings presented in Section 4.2.6, the FHWA system's key terms are defined here:

Landscape unit is an identifiable segment or span that contains the view and/or is an area where landscape conditions are generally similar. In some cases, these units are framed by natural or man-made features to make "outdoor rooms," while in other cases, they are areas within which landscape conditions are similar.

Simulations are digitally enhanced images based on photographs taken of selected views; they illustrate the probable changes due to the project and relative scales of the existing and proposed features.

Views are what can be seen from the project area and what can be seen of the project area from the surrounding neighborhoods and communities. It is not possible to depict every view of a long linear project such as the TRTP, so for the Visual Resources Technical Report, **representative views** have been selected within each landscape unit to represent types of views of the TRTP that are available to the general public. These representative views are called **Key Observation Points (KOPs)**. Table 4.2-1 presented at the beginning of Section 4.2.6 lists the KOPs used for the evaluation of each segment of the proposed Project and provides a brief identification of the views that each KOP represents. The locations of each of the landscape units and KOPs used in evaluating this proposed Project are indicated on the maps included as Figure 4.2-1 and Figure set 4.2-2. The first digit of the numbers assigned to the KOPs indicates the landscape unit in which the KOP is located, which provides an indication of which landscape unit map to consult to see the KOP location.

Viewers are people who have views of the project. Viewers are usually discussed in terms of general categories of activities (such as residents, workers, recreationists [including park users, hikers, boaters, or bicyclists], pedestrians, or motorists [both commuters and leisure travelers]) and are referred to as "viewer groups."

Viewer sensitivity (or level of concern) is a combination of the following factors for a specific view:

- How many people have that view and what types of viewers are they?
- How long can they see the view? Residents and recreationists generally have views of long duration while bicyclists and motorists typically have views of shorter duration.
- What is their likely level of concern about the appearance, aesthetics, and quality of the view? Level of concern is a subjective response that is affected by factors such as the visual character of the surrounding landscape, the activity a viewer is engaged in, and their values, expectations, and interests. Generally residents, and recreationists are considered to be highly sensitive viewers, and commuters and workers in commercial and industrial areas are considered to be less sensitive.

Low viewer sensitivity results when there are few viewers who experience a defined view or they are not particularly concerned about the view. High viewer sensitivity results when there are many viewers who have a view frequently or for a long duration, as well as viewers (many or few), such as those in a residential neighborhood, who are likely to very aware of and concerned about the view. Viewer sensitivity or level of concern does not imply support for or opposition to a proposed project; it is a neutral term that is an important parameter in assessing visual quality.

Visual character is an impartial description of what the landscape consists of and is defined by the relationships between the existing visible natural and built landscape features. These relationships are considered in terms of dominance, scale, diversity, and continuity. Visual character-defining resources and features include:

- Landforms: types, gradients, and scale
- Vegetation: types, size, maturity, and continuity
- Land uses: height, bulk, scale, and architectural detail of associated buildings and ancillary site uses
- Transportation facilities: types, sizes, scale, and directional orientation
- Overhead utility structures and lighting: types, sizes, and scale
- Open space: type (e.g., parks, reserves, greenbelts, and undeveloped land), extent, and continuity
- Viewpoints and views to visual resources

**ENVIRONMENTAL IMPACT ANALYSIS
AND MITIGATION MEASURES**

SECTION 4.0

Tehachapi Renewable Transmission Project

- Water bodies, historic structures, and downtown skylines
- Apparent “grain” or texture, such as the size and distribution of structures and unbuilt properties or open spaces of the landscape
- Apparent upkeep and maintenance

Viewing distance is distance between the viewed object and the viewer. The closer the viewer is to a viewed object the more detail can be seen and the greater the potential influence of the object on visual quality is. For the Visual Resources Technical Report on which the analysis presented here is based, four viewing distances were used. They are 1) immediate foreground (between 0 and approximately 300 feet of the viewers), 2) foreground (between 300 feet and 0.5 mile), 3) middleground (between 0.5 and 4 miles), and 4) background (over 4 miles).¹

Visual quality is an assessment of the composition of the character-defining features for selected views. Under the FHWA visual quality analysis system, the characteristics are evaluated in terms of vividness, intactness, and unity (which are defined below) and are scored for these characteristics. The scores are then averaged for a total visual quality score between 1 and 7, where a low score represents low visual quality and a higher score represents high visual quality. This assessment asks: Is this particular view common or dramatic? Is it a pleasing composition (with a mix of elements that seem to belong together) or not (with a mix of elements that either do not belong together or are unattractive and contrast with the other elements in the surroundings)?

Visual quality is evaluated and discussed using these terms:

- **Vividness** is the degree of drama, memorability, or distinctiveness of the landscape components. For example, views of the San Gabriel Mountains from areas within the San Gabriel Valley have high vividness because the abruptly rising mountains are a memorable sight.
- **Intactness** is a measure of the visual integrity of the natural and human-built landscape and its freedom from encroaching elements. This factor can be present in well-kept urban and rural landscapes, as well as in natural settings. High intactness means that the landscape is free of unattractive features and is not broken up by features and elements

¹ This categorization of distance zones is well established among visual resource analysis practitioners and has been adopted by the United States Forest Service as a part of its Scenery Management System (United States Department of Agriculture Forest Service, 1995).

**ENVIRONMENTAL IMPACT ANALYSIS
AND MITIGATION MEASURES**

SECTION 4.0

Tehachapi Renewable Transmission Project

that are out of place. Low intactness means that visual elements can be seen in a view that are unattractive and/or detract from the quality of the view.

- **Unity** is the degree of visual coherence and compositional harmony of the landscape considered as a whole. High unity frequently attests to the careful design of individual components and their relationship in the landscape or an undisturbed natural landscape.

4.2.2.1.3 How the FHWA Methodology Was Used in Conducting the Assessment of the Project's Visual Resources Effects. In preparing the analysis presented in the Visual Resources Technical Report in Appendix F, the FHWA methodology was used to describe the existing conditions and proposed Project impacts for all parts of the TRTP. To develop an understanding of conditions in the Project area, the visual resource analysts who prepared the technical report took a helicopter flight over the proposed route to acquire an overall understanding of the existing conditions on the proposed alignment and the relationship between the alignment and the surrounding landscape. The visual resources team also consulted route maps plotted on a detailed 2006 air photo base; United States Geological Survey (USGS), Thomas Brothers, and other maps; and other aerial photographs that had been assembled for this Project. To document the existing visual conditions in the various landscapes through which the proposed Project would pass, the visual resource analysts visited numerous locations within each landscape unit and selected a number of locations from which to photograph the existing conditions on the corridors proposed for the Project and in the surrounding landscape. From the numerous locations within each landscape unit from which photographs were taken, several representative KOPs were selected. The KOPs were selected to represent the following types of views of the TRTP corridor: typical views and/or sensitive views and the views that different types of viewers would have, including examples of close up views and distant views. The KOPs selected for evaluating the proposed Project are identified in Table 4.2-1, and the locations of the KOPs are indicated on the landscape unit maps provided on Figure 4.2-2.

For the view from each selected KOP, a visual simulation was prepared to depict the view as it would appear with the completed project in place. For each view, computer modeling and rendering techniques were used to produce the simulated images. Existing topographic and site data provided the basis for developing an initial digital model. Project engineers provided site plans and digital data for the proposed transmission line and substation facilities. These were used to create three-dimensional (3-D) digital models of the transmission and substation structures. These models were combined with the digital site model to produce a complete computer model of the proposed Project changes.

**ENVIRONMENTAL IMPACT ANALYSIS
AND MITIGATION MEASURES**

SECTION 4.0

Tehachapi Renewable Transmission Project

For each simulation viewpoint, a viewer location was digitized from topographic maps and scaled aerial photographs, using 5 feet as the assumed viewer eye level. Computer “wire frame” perspective plots were then overlaid on the photographs of the views from the simulation viewpoints to verify scale and viewpoint location. Digital visual simulation images were produced as a next step based on computer renderings of the 3-D model combined with high-resolution digital versions of base photographs.

The final “hardcopy” visual simulation images that appear in this document were produced from the digital image files using a color printer. Comparison of the “before” photographs with the simulations of the Project buildout conditions provided the basis for determining potential Project impacts on views and visual quality.

After the initial field recording of existing conditions was completed, each analyst filled out FHWA rating sheets for the views seen from the KOPs located within the landscape units for which they were responsible and with which they were very familiar. This exercise resulted in preliminary visual quality rating scores for each KOP (including KOPs within the ANF). Ratings for KOPs using the FHWA methodology in the ANF were included for comparison purposes only. Although the FHWA methodology was not used to evaluate the consistency of the TRTP with the ANF Land Management Plan (USDA, 2005) it does provide a numeric system for comparing the effects of the proposed Project on existing visual quality, which is not part of the USFS’ SMS.

To assess the existing visual quality of the views from each KOP, and to establish the degree to which the proposed TRTP would alter those existing visual quality levels, all of the visual resource analysts and an experienced visual resource expert from an outside visual resources firm were brought together for 2 days. As explained above, using the FHWA landscape evaluation system and rating sheets, each analyst prepared an initial evaluation of the existing visual conditions in the views from each of the KOPs within the landscape units for which they were responsible. At the group rating session, each analyst presented their preliminary ratings to the rest of the rating panel. The group collectively viewed photographs of each KOP, reviewed the preliminary FHWA rating scores for them, and adjusted the scores as appropriate to reflect the group’s consensus. After the existing condition scores were developed, the group examined simulations of the proposed Project as seen from each of the KOPs. The panel then rated the quality of the view from each KOP simulation using the FHWA evaluation system. Comparison of the FHWA rating scores for the existing views with the FHWA rating scores for the simulations of the views as they would appear with the proposed transmission Project in place provided a systematic and consistent basis for evaluating the amount of visual change that would occur as a result of the proposed Project’s

development. The FHWA rating sheets prepared in conducting this analysis are provided in the Visual Resources Technical Report in Appendix F.

4.2.2.2 U.S. Forest Service Methodology

4.2.2.2.1 USFS Scenery Management System. Approximately 48 miles of the Project's proposed route are located within the ANF. The management of scenic resources on National Forests is guided by Forest Land Management Plans (LMPs). The methodology used to manage scenic resources on National Forests is based on the Forest Service's SMS. The SMS provides an overall framework for the orderly inventory, analysis, and management of scenery. It was also used for NEPA assessment of the potential impacts of proposed projects on scenic resources and consistency with LMPs. This system applies to every acre of National Forests and National Grasslands administered by the Forest Service and to all Forest Service activities including, but not limited to, timber harvesting, road building, stream, range, and wildlife improvements, special use developments, utility line construction, recreation developments, and fuels management. The document "Landscape Aesthetics—a Handbook for Scenery Management, 1995 *Agriculture Handbook* Number 701 describes the SMS system.

The SMS has been used by the ANF as the basis for its scenic resource components of the *Angeles National Forest LMP* (USDA, 2005) (LMP) since the late 1990s. The SMS is used to describe, allocate, and provide direction for arranging, planning, and designing the ANF landscape. The SMS information used in preparing the Visual Resources Technical Report in Appendix F was obtained from the *Angeles National Forest LMP* (USDA, 2005). For planning purposes the USFS divided the ANF into a series of geographical units called Places. Each Place has a landscape theme and setting that help describe the Place. In addition, each Place description includes a desired condition and a program emphasis section that help describe how the ANF plans to manage the Forest to achieve the LMP's objectives and goals. Understanding the desired condition and program emphasis for each Place relative to scenic resources is especially important for assessing the consistency of a proposed project with the LMP. Theme, setting, desired condition, and program emphasis are described below.

- **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."

- **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. Scenic Integrity Objectives (SIOs) help preserve or maintain the desired scenic condition of each Place.

4.2.2.2.2 Landscape Character. Landscape Character describes particular attributes, qualities, and traits of a landscape that give it an image and make it identifiable or unique. The ANF has a variety of Landscape Character types that are found within Places. The character types that are relevant to the TRTP are described below.

- A **Natural Appearing** Landscape Character is described in the LMP Glossary as having been influenced by human activities yet appearing essentially natural. Examples would include areas where there has been historic conversion of native forests (or local vegetation types) into farmlands and pastures (or other human-made uses) that have reverted back to forests (or local vegetation types) through reforestation activities or natural regeneration.
- A **Natural** Landscape Character has developed from natural disturbances, such as wildland fires, glaciations, succession of plants from pioneer to climax species, or indirect activities of humans, such as inadvertent plant succession through fire prevention. There is very little to no evidence of human interaction or influence.

All of the Places through which the TRTP would pass have a Desired Condition of either “Natural Appearing” or “Natural” for the landscape character as defined in the LMP (USDA, 2005).

4.2.2.2.3 Scenic Integrity Objectives. The SMS includes Scenic Integrity Objectives (SIOs) that describe the appearance of a landscape in varying degrees of naturalness: Very High (Unaltered), High (Appears Unaltered), Moderate (Slightly Altered), Low (Moderately Altered), Very Low (Heavily Altered). The ANF assigned SIOs to each of the Places in the Forest. Each SIO provides guidance for how each Place is to be managed to either preserve or achieve the desired SIO over time. It is important to note that the SIO does not necessarily represent current scenery conditions, but the desired condition that a national forest intends to either preserve or manage its lands over time. This is another reason why the FHWA method was used in addition to the SMS to describe existing visual or scenic conditions on ANF lands. The two SIOs that have been assigned to lands in the ANF through which the TRTP passes are:

- **High Scenic Integrity:** This classification provides for conditions where human activities are not visually evident. This refers to landscapes where the valued (desired)

landscape character “appears” intact. Deviations may be present but must repeat the form, line, color, texture, pattern, and scale common to the landscape character. The landscape appears unaltered.

- **Moderate Scenic Integrity:** This classification refers to landscapes where the valued (desired) landscape characters “appears slightly altered.” Noticeable deviations must remain subordinate to the landscape character being viewed. The landscape appears slightly altered.

The LMP was consulted to help describe the general character of the ANF lands through which the TRTP would pass. The descriptions are provided in Section 5.0 Existing Environment of the Visual Resources Technical Report (Appendix F). To determine how consistent the TRTP would be with the LMP, the SIOs of the areas through which the TRTP would pass were noted for each KOP on the Forest. Simulations of the TRTP as seen from each KOP were consulted and the difference between the existing condition of the utility corridor and the condition with the TRTP elements in place were evaluated. If there was a change in the consistency of the SIOs of the lands seen from each KOP on the ANF, the difference was noted.

4.2.2.2.4 Coordination with the Angeles National Forest. SCE and the visual resource analysts assessing the proposed Project’s potential impacts through the ANF met with the ANF Landscape Architect on March 23, 2007, to discuss scenery issues related to the TRTP and to select KOPs on the ANF. Coordination with the ANF was undertaken to capture the visual concerns of the ANF and the knowledge and insights of the Forest Landscape Architect. Prior to the meeting, the analysts conducted field work in the Forest and undertook analyses to identify KOPs that would be appropriate for evaluation of the proposed Project’s visual effects. In conducting the fieldwork, photographs were taken from the candidate KOPs; these photographs were used as a basis for conversation at the meeting. In addition, Forest Service staff developed a list of potential KOPs to be considered. At the meeting, the relative merits of each potential KOP were discussed and available photographs were reviewed. The meeting was followed by a field visit with the Forest Landscape Architect to a number of the potential KOPs. As a result of the meeting and field visit, mutually agreed upon KOPs were selected to provide the basis for the analysis of proposed Project visual impacts in the areas in and near the ANF.

4.2.3 Regulations, Plans, and Standards

The following is a summary discussion of land management plans (e.g., general plans, specific plans, community plans, and land management agency plans), regulations, and standards that include provisions pertaining to visual quality issues.

4.2.3.1 Federal

As noted in Section 4.2.2.2 above, approximately 48 miles of the Project's proposed route is located within the ANF and is thus subject to the provisions of the LMP for the ANF (USDA, 2005). The provisions of this plan as they pertain to the visual resource issues associated with this proposed Project are described in Section 4.2.2.

4.2.3.2 State

Because the proposed Project would not cross state lands, no state regulations specifically related to visual resources are applicable to the TRTP.

4.2.3.3 Local

The proposed Project's 173-mile alignment passes through large areas of unincorporated Kern and Los Angeles counties, as well as through portions of the Los Angeles County cities of Lancaster, Palmdale, Pasadena, San Gabriel, Rosemead, Monterey Park, Duarte, Monrovia, Irwindale, Baldwin Park, City of Industry, South El Monte, Montebello, Pico Rivera; Whittier and La Habra Heights; and the San Bernardino County cities of Chino Hills, Chino, and Ontario.

As a part of the process of evaluating the visual sensitivity of the views in each of the landscape units, a review was made of the plans, regulations, ordinances, and design standards adopted by each of these jurisdictions to identify any provisions that designate specific landscape areas or features as scenic resources deserving of special protection. Examples of such recognition or protections include designation of scenic vista points and scenic routes, protection of ridgelines by means of ridgeline preservation ordinances, and establishment of districts in which special design controls have been put in place. If such recognitions had been established in local plans, regulations, ordinances, and standards pertaining to any areas along the proposed corridors in a given landscape unit, this fact was taken into consideration in the documentation of existing landscape conditions and sensitivities and in the assessment of potential proposed Project impacts on visual resources. However, the California Public Utilities Commission (CPUC) General Order (GO) No. 131-D, Section XIV B clarifies that "local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the Commission's jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters." Due to this GO, the public utilities are directed to consider local regulations and consult with local agencies, but the county and city regulations and general

**ENVIRONMENTAL IMPACT ANALYSIS
AND MITIGATION MEASURES**

SECTION 4.0

Tehachapi Renewable Transmission Project

plans are not applicable because the county and cities do not have jurisdiction over the proposed Project.

Although SCE intends to develop facility designs that are compatible with local plans and zoning to the extent practicable, the proposed Project is exempt from local land use and zoning regulations and permitting.

Applicable plans, and LORS of the local jurisdictions in which proposed Project features are proposed that pertain to Project-relevant visual resource issues are provided in Section 7.0 of the Visual Resources Technical Report in Appendix F.

4.2.4 Significance Criteria

The proposed Project will require approval by the CPUC and the ANF. The CPUC will evaluate the proposed Project's visual resource impacts in light of the requirements of CEQA, while the ANF will evaluate the Project's visual effects under NEPA. Findings under CEQA include: 1) no impact, 2) less than significant impact, 3) less than significant with mitigation, or 4) potentially significant impact. Findings under NEPA include: 1) no adverse effect or 2) adverse effect.

The following sections identify the criteria that these agencies will apply in determining whether any of the proposed Project's impacts on visual resources would be significant under CEQA (all lands), or adverse under NEPA (for Forest lands only). These criteria are the same criteria that were used in making the impact determinations that are identified in Section 6.0 (Environmental Consequences) in the Technical Report in Appendix F and summarized below.

4.2.4.1 California Environmental Quality Act (CEQA)

The CEQA Guidelines define a "significant effect" on the environment to mean a "substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including...objects of historic or aesthetic significance" (California Code of Regulations [CCR], Title 14, § 15382).

Appendix G of the CEQA Guidelines, under Aesthetics, lists the following four questions to be addressed regarding whether the potential impacts of a project are significant:

1. Would the project have a substantial adverse effect on a scenic vista?
2. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

3. Would the project substantially degrade the existing visual character or quality of the site and its surroundings?
4. Would the project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

4.2.4.2 U.S. Forest Service Scenery Management System and NEPA

For the approximately 48 miles of the Project's proposed route located on the ANF, the criteria used to determine whether an impact associated with the proposed Project would be adverse was whether or not the proposed Project would cause an inconsistency with the scenery resource goals and objectives of the ANF Forest Plan. The procedures for making this impact determination are described in more detail in Section 4.2.2.2.

4.2.4.3 Local Plans, Ordinances, Regulations and Design Standards

As a part of the process of evaluating the potential consistency of the proposed Project with the plans, ordinances, regulations, and design standards of the local jurisdictions relative to visual/scenic quality, a review was conducted of the plans, ordinances, regulations, and design standards adopted by each of the jurisdictions through which the proposed transmission Project would pass. Provisions that designated specific landscape areas or features as scenic resources deserving of special protection were noted. Examples of such recognition or protections include designation of scenic vista points and scenic routes, protection of ridgelines by means of ridgeline preservation ordinances, and establishment of districts in which special design controls have been put in place.

The Technical Report in Appendix F, Section 7.0, Compliance with Laws, Ordinances Regulations, and Standards, contains a table that identifies the applicable plans, ordinances, regulations, and standards for all of the jurisdictions through which the proposed Project would pass. It also notes if the proposed Project would be consistent with the intent of those plans, ordinances, regulations, and standards relative to visual/scenic quality. The assessment of consistency with local laws, ordinances, regulations and standards (LORS) is presented for informational purposes only in that, under CEQA, consistency with local LORS related to visual resource issues is not a criteria for determination of the significance of proposed Project visual resource impacts, and is not required under GO 131-D.

4.2.5 Applicant Proposed Measures

In its siting and design of the proposed Project, Southern California Edison (SCE) considered aesthetic concerns and developed a range of Applicant Proposed Measures (APMs) that have

**ENVIRONMENTAL IMPACT ANALYSIS
AND MITIGATION MEASURES**

SECTION 4.0

Tehachapi Renewable Transmission Project

been incorporated into the proposed Project's design and construction plans to minimize the proposed Project's potential visual resource impacts during the construction and operational phases. These measures are summarized below.

4.2.5.1 Transmission Lines

APM AES-1: Reduce Light Reflection off Towers/Poles. Lattice steel towers (LSTs) and tubular steel poles (TSPs) will be constructed of steel that is galvanized and treated at the factory to create a dulled finish that will reduce reflection of light off of the tower members. As appropriate to the context, the galvanized coating will also be darkened to allow the towers to blend into the backdrops.

APM AES-2: TSPs Near Existing Residential Development. In areas that are in close proximity to existing residential development, TSPs will be specified to provide tower structures that relate visually to the other elements in these settings. The exceptions to this principle are: 1) LSTs are specified at turning tower locations and at long spans because, structurally, TSPs do not have the strength to withstand the forces exerted by the conductors at these locations; and 2) LSTs may be used to match existing structure types adjacent to the Project in the transmission corridor.

APM AES-3: Nonreflective/Nonrefractive Insulators. The insulators specified for this proposed Project will be made of materials that do not reflect or refract light.

APM AES-4: Nonreflective/Nonrefractive Conductors. The conductors specified for the Project will be nonspecular, that is, they will be treated at the factory to dull their surfaces to reduce their potential to reflect light.

APM AES-5: New Structures Aligned with Existing Structures. To the extent feasible, new transmission structures that will be located in corridors containing existing transmission lines will be located to line up with the other transmission structures to create a higher level of visual unity.

APM AES-6: Transmission Structures Set Back from Major Roadways. Where conditions permit, transmission structures will be set back from the crossings of major roadways.

APM AES-7: Avoid Structures in Middle of Lines of Sight. To the extent feasible, the final locations of transmission structures will be adjusted to avoid locations that place the structures in the middle of the line of sight from streets and other important views.

APM AES-8: Regrade/Revegetate Construction Sites. Any areas around new or rebuilt transmission structures that must be cleared during the construction process will be regraded and revegetated to restore the area to an appearance that will blend back into the overall landscape context.

4.2.5.2 Access Roads

APM AES-9: Use Existing Access Roads. To the extent feasible, existing access roads will be used.

APM AES-10: Helicopter Construction. In mountainous areas, particularly in the ANF, helicopters will be used for construction of towers in areas where extensive new road development would be required.

APM AES-11: Minimize Road Modifications. Widening and grading of roads will be kept to the minimum required for access by proposed Project construction equipment.

APM AES-12: Dust Suppression. During the construction period, dust suppression measures will be used to minimize the creation of dust clouds potentially associated with the use of the access roads.

APM AES-13: Cut and Fill Slope Revegetation. Any areas of exposed cut and fill slope created in the process of widening existing access roads or creating new access roads will be revegetated, as practicable, to blend back into the surrounding landscape.

4.2.5.3 Marshalling Yards and Laydown Areas

APM AES-14: Reuse Previously Disturbed/Low Visibility, Low Sensitivity Areas for Marshalling Yards. To the extent feasible, the sites selected for use as marshalling yards and laydown areas will be areas that are already disturbed, in locations of low visual sensitivity.

APM AES-15: Cover Chainlink Fencing with Fabric. During the construction period, the temporary chain-link fences surrounding the marshalling yards and laydown areas will be covered with fabric to limit views into these sites and to create a unified, tidy appearance.

APM AES-16: Reduce Glare and Light Spill. The lighting specified for the marshalling yards and laydown areas will be the minimum required to meet safety and security standards. All light fixtures will be hooded to eliminate any potential for glare effects and to prevent

**ENVIRONMENTAL IMPACT ANALYSIS
AND MITIGATION MEASURES**

SECTION 4.0

Tehachapi Renewable Transmission Project

light from spilling off the site or up into the sky. In addition, the fixtures will have sensors and switches to permit the lighting to be turned off at times when it is not required.

APM AES-17: Construction Site Cleanup. When the construction period is over, the fencing around the marshalling yards and laydown areas will be removed, the sites will be cleaned up, and their surfaces will be restored.

4.2.5.4 Substations

APM AES-18: Low Reflectivity Finish. All substation equipment will be specified with a low reflectivity, neutral finish.

APM AES-19: Nonreflective/Nonrefractive Insulators. All insulators at the substations and on the takeoff equipment will be nonreflective and nonrefractive.

APM AES-20: Low Reflectivity Finish on Structures. The surfaces of all structures will be given low reflectivity finishes with neutral colors to minimize the contrast of the structures with their backdrops.

APM AES-21: Reduce Glare and Light Spill. The lighting specified for the new and expanded substations will be the minimum required to meet safety and security standards. All light fixtures will be hooded to eliminate any potential for glare effects and to prevent light from spilling off the site or up into the sky. In addition, the fixtures will have sensors and switches to permit the lighting to be turned off at times when it is not required.

APM AES-22: Chainlink Dulled Finish. The chain-link fences surrounding the substations will have a dulled, darkened finish to reduce contrast with its surroundings.

APM AES-23: Landscape Plan. An appropriate landscape plan will be prepared for the area on the west side of the Vincent Substation expansion to screen the equipment from view and blend the substation into the surroundings.

4.2.6 Proposed Project and Alternatives

This section summarizes the impacts on visual resources that would be associated with each segment of the proposed Project. This summary is based on the systematic and detailed analysis of the proposed Project setting and assessment of the nature and significance of the changes that the proposed Project would make to the setting's visual resources that are presented in the Visual Resources Technical Report in Appendix F of this PEA.

**ENVIRONMENTAL IMPACT ANALYSIS
AND MITIGATION MEASURES**

SECTION 4.0

Tehachapi Renewable Transmission Project

An overview of the findings documented in the Technical Report is presented in Table 4.2-1 on a segment-by-segment basis. For each of the proposed Project's segments, a list is provided of each of the KOPs that were used as the basis for evaluating the segment's potential impacts on visual resources. The location of each KOP is identified, and a brief indication is provided of the viewing situations that the KOP was selected to represent. For each KOP, the text in the last column indicates whether or not the proposed Project segment would have a significant impact on visual resources under CEQA. It should also be noted that based on current SIOs that the ANF has established for managing the Forest, proposed Project Segments 6 and 11 would be found to have adverse impacts on visual resources in views from all of the KOPs along those segments that are located on ANF lands. The TRTP may be inconsistent with the Forest LMP; however, the Forest service may believe that certain mitigation measures may make the proposed transmission Project consistent with the ANF LMP, and the Forest has the ability to reduce the inconsistencies or choose to amend the LMP as part of the proposed Project's Environmental Impact Statement (to be prepared at a later date).

The locations of the KOPs are indicated on the landscape unit map sheets provided on Figure 4.2-2. The KOPs are also shown on the Detailed Project Aerial map, Figure 4.2-3a and Figure set 4.2-3b. The existing-condition photographs and with-project simulations of the views from each of the KOPs where the proposed Project would potentially result in significant impacts or adverse effects are provided as Figure sets 4.2-4 and 4.2-5. Figure set 4.2-4 consists of the images for the KOPs where significant impacts were identified under CEQA. Figure set 4.2.5 presents the images for the KOPs where adverse effects were identified under NEPA because of potential inconsistency with the current SIOs established in the LMP adopted by the ANF.

The analyses for each of the segments that are presented in this section focus on the proposed Project impacts that were found to be potentially significant under CEQA (on all lands) and potentially adverse under NEPA (on Forest lands). For the details of the analyses that led to the conclusions related to which of the proposed-Project-related changes would produce potentially significant impacts under CEQA (and potentially adverse effects under NEPA), refer to the Visual Resources Technical Report in Appendix F.

4.2.6.1 Segment 4

4.2.6.1.1 Environmental Setting. Segment 4 is a 20-mile segment of the proposed Project that would extend through the northern Antelope Valley from the Cottonwind Substation to the proposed Whirlwind Substation, and from the proposed Whirlwind Substation to the

SECTION 4.0**ENVIRONMENTAL IMPACT ANALYSIS
AND MITIGATION MEASURES***Tehachapi Renewable Transmission Project***TABLE 4.2-1
KOP EVALUATION SUMMARY BY PROJECT SEGMENT**

Segment and KOP	Location/View Represented	Jurisdiction	Significance Under CEQA/ Adverse Effect Under NEPA ¹
Segment 4			
KOP-1.1	Highway 138 West of Transmission Line Crossing Represents roadway views toward the Segment 4 alignment.	Unincorporated Los Angeles County	Less than significant
KOP-1.2	Antelope Valley Poppy Reserve Represents views from trails and viewpoints in the Poppy Reserve and other views in which Segment 4 will be in the middleground.	Unincorporated Los Angeles County	Less than significant
Segment 5			
KOP-3.1	Transmission Line Crossing of Portola/Ritter Ridge Represents views toward the Segment 5 alignment from developing residential areas in the western portion of Lancaster.	Lancaster	Less than significant
KOP-3.2	Vicinity of Tuckerway Ranch Represents foreground views toward the Segment 5 alignment from rural residential areas in the hills north of the Soledad Pass.	Unincorporated Los Angeles County	Less than significant
Segment 6			
KOP-5.1	Angeles Forest Highway at Entrance Sign Represents foreground to middleground views toward the Segment 6 alignment from the lower portion of the Angeles Forest Highway and from residences in private in-holdings in this portion of the ANF.	Angeles National Forest	Adverse ¹
KOP-5.2	Angeles Forest Highway and Aliso Canyon Road Represents views toward the Segment 6 alignment from this portion of the Angeles Forest Highway where there is a road crossing, as well as from residences located in nearby private in-holdings.	Angeles National Forest	Adverse ¹
KOP-6.2	Mill Creek Summit Represents views toward the Segment 6 alignment from the recreation facilities at Mill Creek Summit, and from nearby areas of the Pacific Crest Trail and Angeles Crest Highway.	Angeles National Forest	Adverse ¹

TABLE 4.2-1 (CONTINUED)
KOP EVALUATION SUMMARY BY PROJECT SEGMENT

Segment and KOP	Location/View Represented	Jurisdiction	Significance Under CEQA/ Adverse Effect Under NEPA ¹
KOP-7.1	Upper Big Tujunga Road Represents foreground to middleground views toward the Segment 6 alignment from southbound Big Tujunga Canyon Road.	Angeles National Forest	Adverse ¹
KOP-7.2	Vetter Mountain Trail Trailhead Represents views toward the Segment 6 alignment from the parking lot for the Vetter Mountain Lookout Trail, from the Vetter Mountain Lookout Trail itself, from the lookout, and from the Charlton Flats Picnic Area.	Angeles National Forest	Adverse ¹
KOP-7.3	Angeles Crest Highway West of Shortcut Saddle Represents middleground views toward the Segment 6 alignment from the Angeles Crest Scenic Byway.	Angeles National Forest	Adverse ¹
KOP-7.4	Silver Moccasin Trail Represents views toward the Segment 6 alignment from the Shortcut Saddle parking lot and picnic area, the Silver Moccasin Trail, the Shortcut Canyon Trail, and the Rincon-Shortcut Off-Highway Vehicle Route.	Angeles National Forest	Adverse ¹
Segment 7			
KOP-9.1	Woodbluff Avenue Represents downslope foreground to middleground views toward the Segment 7 alignment from nearby residential areas in Duarte.	Duarte	Less than significant
KOP-9.2	Royal Oaks/Tocino Intersection Represents upslope near-foreground to background views toward the Segment 7 alignment from residential neighborhoods in the flat areas of Duarte.	Duarte	Significant
KOP-10.1	I-605 Corridor Represents foreground to middleground views of the Segment 7 alignment seen from I-605.	Irwindale	Less than significant
KOP-10.2	Linard/Kayann Intersection Represents near-foreground views toward the Segment 7 alignment from an immediately adjacent residential area in South El Monte.	South El Monte	Significant

SECTION 4.0

**ENVIRONMENTAL IMPACT ANALYSIS
AND MITIGATION MEASURES**

Tehachapi Renewable Transmission Project

**TABLE 4.2-1 (CONTINUED)
KOP EVALUATION SUMMARY BY PROJECT SEGMENT**

Segment and KOP	Location/View Represented	Jurisdiction	Significance Under CEQA/ Adverse Effect Under NEPA ¹
KOP-13.1	Legg Lake Park, Whittier Narrows Recreation Area Represents near-foreground views toward the Segment 7 alignment from developed recreational sites in the Whittier Narrows Recreation Area.	Unincorporated Los Angeles County	Less than significant
KOP-12.1	Paramount Boulevard Represents foreground views toward the Segment 7 corridor from major roadways in the vicinity of the Montebello Town Center.	Montebello	Less than significant
KOP-12.2	Montebello Town Center Shopping Center Represents foreground views toward the Segment 7 corridor experienced by people using the parking lot at the Montebello Town Center.	Montebello	Less than significant
Segment 8			
KOP-13.2	Pico Rivera Sports Arena Parking Lot Represents foreground to middleground views toward the Segment 8 alignment from public use areas in the Whittier Narrows Recreation Area.	Pico Rivera	Less than significant
KOP-14.1	Rose Hills Memorial Park Represents middleground views toward the Segment 8 alignment from the Rose Hills Memorial Park.	Unincorporated Los Angeles County	Significant
KOP-14.2	Avocado Heights Park Represents views in the direction of the Segment 8 alignment from the park and surrounding residential areas in the Avocado Heights residential area located on the valley floor area to the north of the Puente Hills on which the Rose Hills portion of Segment 8 would be located.	Unincorporated Los Angeles County	No impact
KOP-15.1	Colima Road Represents middleground views of the Segment 8 alignment viewed from major thoroughfares serving commercial and residential areas in Hacienda Heights.	Hacienda Heights (Unincorporated Los Angeles County)	Less than significant
KOP-15.2	Hsi Lai Buddhist Temple This view is the view from within the temple complex in which the Segment 8 alignment is the closest and most prominently visible.	Hacienda Heights (Unincorporated Los Angeles County)	Less than significant

TABLE 4.2-1 (CONTINUED)
KOP EVALUATION SUMMARY BY PROJECT SEGMENT

Segment and KOP	Location/View Represented	Jurisdiction	Significance Under CEQA/ Adverse Effect Under NEPA ¹
KOP-15.3	Pathfinder Park Representative of foreground to middleground views toward the Segment 8 alignment from this park, adjacent streets, and surrounding residential areas in eastern Hacienda Heights.	Rowland Heights (Unincorporated Los Angeles County)	Less than significant
KOP-16.1	Highway 57 Represents middleground views toward the Segment 8 alignment from northbound Highway 57, an adopted California Scenic Route.	Unincorporated Los Angeles County	Significant
KOP-16.2	Crooked Creek Drive Representative of foreground views toward the Segment 8 alignment from residential neighborhoods in Diamond Bar.	Diamond Bar	Significant
KOP-17.1	Avenida Anita/Avenida Compadres Intersection Representative of foreground views toward the Segment 8 alignment from residential neighborhoods in the western area of Chino Hills.	Chino Hills	Significant
KOP-17.2	Coral Ridge Park Representative of foreground to distant views of the Segment 8 alignment from open space areas in the hillier parts of Chino Hills.	Chino Hills	Significant
KOP-17.3	Yellowstone Circle Representative of foreground to middleground views toward the Segment 9 alignment from Chino Hills and Chino residential areas located just west of the Highway 71 freeway.	Chino	Less than significant
KOP-18.1	Edison Avenue across from Ayala Community Park Representative of views toward the Segment 8 alignment from Edison Avenue and from Ayala Park and adjacent recreational facilities.	Chino	Less than significant
KOP-18.2	Chipola Court Representative of foreground to middleground views toward the Segment 8 alignment from residential neighborhoods in Chino.	Chino	Less than significant

SECTION 4.0**ENVIRONMENTAL IMPACT ANALYSIS
AND MITIGATION MEASURES***Tehachapi Renewable Transmission Project***TABLE 4.2-1 (CONTINUED)
KOP EVALUATION SUMMARY BY PROJECT SEGMENT**

Segment and KOP	Location/View Represented	Jurisdiction	Significance Under CEQA/ Adverse Effect Under NEPA ¹
KOP-19.1	Tumbleweed Street Representative of foreground to middleground views toward the Segment 8A and 8C alignment from residential neighborhoods in Ontario.	Ontario	Less than significant
KOP-19.2	Chaparral/Clover Intersection Representative of foreground views toward the Segment 8A and 8B alignments from residential neighborhoods in Ontario.	Ontario	Less than significant
Segment 9			
KOP-2.1	Antelope Substation Expansion Area Representative of foreground views toward the Antelope Substation expansion area from nearby roadways and residences.	Lancaster	Less than significant
KOP-4.1	Vincent Substation Representative of foreground views toward the Vincent Substation expansion area from the adjacent residential area.	Los Angeles County	Less than significant
Segment 10			
KOP-1.3	Transmission Line Crossing of Tehachapi Willow Springs Road Represents views toward Segment 10, and Alternatives 10A and 10B, from major roadways.	Unincorporated Kern County	Less than significant
Segment 11			
KOP-6.1	Pacific Crest Trail near Big Buck Camp This is the foreground view at the point that the Segment 11 alignment crosses the Pacific Crest Trail.	Angeles National Forest	Adverse ^{1,2}
KOP-7.5	Big Tujunga Canyon Dam Overlook Representative of views toward the Segment 11 alignment from visitor areas at the Big Tujunga Dam.	Angeles National Forest	Adverse ¹
KOP-8.1	Angeles Crest Highway Overlook of Gould Substation Representative of views looking south toward the Segment 11 alignment from the portion of the Angeles Crest Scenic Byway above La Canada Flintridge.	Angeles National Forest	Less than significant

TABLE 4.2-1 (CONTINUED)
KOP EVALUATION SUMMARY BY PROJECT SEGMENT

Segment and KOP	Location/View Represented	Jurisdiction	Significance Under CEQA/ Adverse Effect Under NEPA ¹
KOP-8.2	Crosstown Trail near the Gould Substation Representative of views toward the Segment 11 alignment from trails and other visitor areas at the base of the San Gabriel Mountain foothills.	Angeles National Forest	Adverse ¹

¹ Determination of adverse effect under NEPA applies to portions of proposed Project on U.S. Forest Service Land only.

² Also found to result in significant impacts under CEQA when evaluated using FHWA methodology.

expanded Antelope Substation. This segment is located in Landscape Units 1 and 2, and its location is depicted on Figure 4.2-2, Sheets 1 and 2. The existing conditions in the area through which Segment 4 would pass are documented in the environmental setting described for Landscape Units 1 and 2 presented in Sections 5.2.1 and 5.2.2 of the Visual Resources Technical Report in Appendix F.

4.2.6.1.2 Impact Analysis.

Construction. Construction activities related to the proposed Project are described in Section 3.3 of the Project Description chapter. The construction period will be short term in nature, lasting approximately 24 months. Along Segment 4, visual effects of the proposed Project construction process during this approximately 2-year period will include the presence of marshalling yards and laydown areas at locations that have not yet been identified; the development of new roads to provide access to portions of the proposed right-of-way (R-O-W) not accessible from existing roads; clearance of 200-foot by 200-foot areas at each new tower location; the presence of trucks, cranes, and other construction equipment; and the presence of the parked vehicles of construction workers. The APMs to reduce the effects of the construction period activities on visual resources are identified in Section 4.2.5. Because the construction period activities associated with implementation of Segment 4 would be temporary and short term, the potential impacts would be less than significant.

Operations. The potential impacts of the operation of Segment 4 on visual resources during the operational period are evaluated in the impact analyses for Landscape Units 1 and 2 presented in Section 6.0 of the Visual Resources Technical Report in Appendix F. The significance of those impacts in light of the CEQA significance criteria are identified below.

**ENVIRONMENTAL IMPACT ANALYSIS
AND MITIGATION MEASURES**

SECTION 4.0

Tehachapi Renewable Transmission Project

Would the Project have a substantial adverse effect on a scenic vista?

The only viewpoints in this area that could be considered to be scenic vistas are designated viewing locations along the trail system in the Antelope Valley California Poppy Reserve. These views are represented by KOP 1.2 in Landscape Unit 1. As the analysis of KOP 1.2 in Section 6.0 of the Visual Resources Technical Report in Appendix F indicates, the proposed Project's impacts on these views would be less than significant.

Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Because there are no adopted state scenic highways in the landscape areas through which Segment 4 would pass, no impact would occur due to implementation of Segment 4 related to this criterion.

Would the Project substantially degrade the existing visual character or quality of the site and its surroundings?

As the analyses of the proposed Project impacts in Landscape Units 1 and 2 presented in Section 6.0 of the Visual Resources Technical Report in Appendix F indicate, the changes to the existing visual character due to implementation of Segment 4 would be less than significant; therefore, potential impacts due to implementation of Segment 4 would be less than significant related to this criterion.

Would the Project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

The transmission line would not be illuminated, and thus would not be a source of nighttime light and glare. Daytime glare would not be an issue for the proposed Project. The standard definition of glare is that glare is an effect created by a light source that is so much brighter than the background lighting conditions that it interferes with vision. Examples of light sources commonly thought of as causing glare include direct sunlight; sunlight reflected off large, highly reflective surfaces; or artificial light sources beamed directly into the eyes such as high beam car headlights at night. To the extent that there could be times of the day when sunlight is reflected off transmission line conductors or the structural members of the transmission towers, given the relatively small dimensions of the surfaces of these features, it is doubtful that the small and dispersed areas of reflectivity produced could ever be considered to constitute glare in the true sense of the term. The APMs that specify nonspecular (i.e., dulled finish) conductors, insulators made of materials that do not reflect or refract light, and factory-darkened steel for tower construction would further limit the reflectivity of the transmission line elements and completely eliminate any potential for the

proposed Project to be a source of daytime glare. Therefore, less than significant impacts would occur due to implementation of Segment 4 under this criterion.

4.2.6.1.3 Mitigation Measures. The proposed Project would result in no significant impacts on visual resources in the area along this segment; therefore, no mitigation is required.

4.2.6.1.4 Impact Significance After Mitigation Measure Application. In the area along Segment 4, there would be no significant impacts on visual resources due to implementation of the proposed Project.

4.2.6.2 Segment 5

4.2.6.2.1 Environmental Setting. Segment 5 entails the construction of approximately 18 miles of new single-circuit 500-kV transmission line between SCE's existing Antelope Substation and SCE's existing Vincent Substation. The route Segment 5 would follow would pass through the southwestern portion of Antelope Valley and across undeveloped lands that have been incorporated into the cities of Lancaster and Palmdale. Segment 5 would pass by and through future residential subdivision developments planned along the southwestern edge of the valley and the rolling hills of Portola Ridge, Ritter Ridge, and Sierra Pelona Ridge. Segment 5 would be built next to an identical existing 500-kV line and would replace two 220-kV lines that would be removed. The construction of Segment 5 would occur within the existing R-O-W. The existing conditions of the area through which Segment 5 would pass are documented in the environmental setting summaries for Landscape Units 2 and 3 presented in Sections 5.2.2 and 5.2.3 of the Visual Resources Technical Report in Appendix F.

4.2.6.2.2 Impact Analysis.

Construction. Construction of Segment 5 would be completed in an approximately 21-month period. The impacts of this construction activity to visual resource conditions in Segment 5 would be very similar to those described in Segment 4 (see 4.2.6.1.3.1). Because the construction period activities associated with implementation of Segment 5 would be temporary and short term, the potential impacts would be less than significant.

Operations. The potential impacts of the operation of Segment 5 on visual resources during the operational period of the proposed Project are evaluated in the impact analyses for Landscape Units 2 and 3 in Section 6.0 of the Visual Resources Technical Report in Appendix F. The significance of those impacts in light of the CEQA significance criteria are identified below.

Would the Project have a substantial adverse effect on a scenic vista?

There are no areas in or near the private lands through which Segment 5 would pass that are considered scenic vistas in terms of being identified as such in the plans of Los Angeles County, Lancaster, or Palmdale; therefore, no impacts to a scenic vista would occur.

Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Because there are no adopted state scenic highways in the landscape areas through which Segment 5 would pass, implementation of Segment 5 would result in no impacts related to this criterion.

Would the Project substantially degrade the existing visual character or quality of the site and its surroundings?

The existing transmission corridor in which Segment 5 would be sited contains multiple existing transmission lines consisting of towers of various designs and heights. The new transmission line associated with Segment 5 would have towers that are consistent with the existing towers in the transmission corridor in terms of appearance, and would not substantially alter either the existing visual character or quality of the transmission corridor or the areas along it; therefore, less than significant impacts due to implementation of Segment 5 would occur related to this criterion.

Would the Project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

The transmission line would not be illuminated and, thus, would not be a source of nighttime light and glare. As indicated in the discussion of daytime glare in Section 4.2.6.1.2, the proposed Project would not be a source of daytime glare. Therefore, no impact due to implementation of Segment 5 would occur related to this criterion.

4.2.6.2.3 Mitigation Measures. The proposed Project would result in no significant impacts on visual resources in the area along this segment; therefore, no mitigation is required.

4.2.6.2.4 Impact Significance After Mitigation Measure Application. In the area along Segment 5, there would be no significant impacts on visual resources due to implementation of the proposed Project.

SECTION 4.0

4.2.6.3 Segment 6

4.2.6.3.1 Environmental Setting. Segment 6 is a 32-mile segment of the proposed Project that would extend south from the Vincent Substation to the northern boundary of the ANF. From the northern boundary, Segment 6 would cross over the San Gabriel Mountains to the ANF southern boundary (and the northern boundary of Segment 7). The segment is located in Landscape Units 4, 5, 6, 7, and 8. Its location is depicted on Figure 4.2-2, Sheets 4 through 8. The existing conditions of the areas through which Segment 6 would pass are identified in the environmental setting summaries for Landscape Units 4, 5, 6, 7, and 8 presented in Sections 5.2.4, and 5.3.1 through 5.3.4 of the Visual Resources Technical Report in Appendix F.

4.2.6.3.2 Impact Analysis.

Construction. Construction of Segment 6 would take place during an approximately 33-month period. Because it is anticipated that helicopters would be used to install many of the new LSTs located in the portion of this route located in the ANF, much of the ground disturbance that would be associated with transmission structure installation (building or upgrading roads, structure laydown areas, crane pads) with conventional construction methods would not take place. Setup areas along Segment 6 that would be used to pull wires onto the LSTs and TSPs would occur approximately every 9,000 feet, and setup areas where wires would be spliced would occur approximately every 4,500 feet. There would be approximately 16 new pulling locations and 16 new splicing locations along Segment 6. On average, pulling and splicing equipment setup sites require an area of 200 feet by 200 feet (0.92 acre), so some of these areas would likely be seen during construction. At the completion of the proposed Project, the cleared areas would be restored to original grade, when possible, and replanted. Until the vegetation on restored areas becomes established, some of the setup sites could be visible to viewers. Because the construction period activities associated with implementation of Segment 6 would be temporary and short term, the potential impacts would be less than significant under CEQA, and no adverse effect would occur under NEPA.

Operations. The potential impacts of the operation of Segment 6 on visual resources during the operational period of the proposed Project are evaluated in the impact analyses for Landscape Units 5, 6, 7, and 8 presented in Section 6.0 of the Visual Resources Technical Report in Appendix F. For the most part, Segment 6 would pass through federal lands managed by the U.S. Forest Service, although some privately owned lands would be crossed as well. Impacts on scenic and visual resources associated with the Federal and non-Federal private lands through which the proposed Project would pass are assessed differently.

**ENVIRONMENTAL IMPACT ANALYSIS
AND MITIGATION MEASURES**

SECTION 4.0

Tehachapi Renewable Transmission Project

Impacts on the ANF are measured by how consistent the proposed Project would be with the ANF Forest Plan. Impacts on the privately owned lands along Segment 6 are assessed under CEQA.

ANF Significance. The portion of Segment 6 that passes through the ANF is not subject to CEQA review; however, analysis under CEQA criteria is provided below for general information. The criterion applied in determining the significance of the proposed Project's effects on visual resources on lands in the Forest was whether or not Segment 6 would be consistent with the SIO the ANF Forest Plan establishes for the Forest lands the segment would cross. The SIO the Forest Plan has set for the areas in which Segment 6 would be located is High. The Forest Plan established this SIO, even though the designated utility corridor in which Segment 6 would be developed through rebuilding an existing transmission line does not currently meet an SIO of High.

After the construction of Segment 6, Segment 6 and the rest of the designated utility corridor in which it is located would continue to not meet an SIO of High. As a result, under the rules for determination of visual resource impacts on National Forest system lands, a determination of adverse effect as identified under NEPA would result due to implementation of Segment 6 because of potential inconsistency of the proposed Project with the current SIOs established in the LMP adopted by the ANF.

Segment 6 crosses and would be visible from Angeles Crest Highway, which has been designated as a Scenic Byway that is managed by the ANF. A Draft Angeles Crest Scenic Byway Corridor Management Plan has been prepared to provide guidance to the management of the byway. From the locations along the Byway from which Segment 6 would be viewed (primarily in the vicinity of Shortcut Pass), it would not adversely change the existing visual conditions of the existing utility corridor. However, like the existing designated utility corridor, Segment 6 would not meet the SIO of High established in the Forest Plan, and thus would be found to have an adverse effect on the views from this area under NEPA.

The TRTP may be inconsistent with the Forest LMP; however, the Forest may identify mitigation measures that would make the proposed transmission Project consistent with the ANF LMP, and the Forest has the ability to reduce the inconsistencies, or choose to amend the LMP, as part of the proposed Project's Environmental Impact Statement (to be prepared at a later date).

CEQA Significance. In addition to determining consistency with the Forest Plan, an evaluation of the impacts of Segment 6 on visual quality was conducted using the FHWA

methodology described in Section 4.2.2.1. By selecting a variety of representative viewing location types (viewing distances, background, types of viewers [trail users, drivers, sight-seers]) along Segment 6, it was possible to get a better idea of how the proposed Project would impact visual quality from specific viewing areas in addition to whether or not the proposed Project was consistent with the Forest Plan. Seven KOPs were selected from which there would be views of Segment 6 within the ANF (KOPs 5.1, 5.2, 6.2, 7.1, 7.2, 7.3, and 7.4). Although Segment 6 would somewhat lower the existing visual quality from all of these KOPs, the decrease would result in a less than significant impact when evaluated under CEQA.

In summary, the analysis under CEQA using the FHWA methodology found that where Segment 6 components (generally towers or poles) would be in the immediate foreground of viewers, the likelihood would be much greater that there would be a significant decrease in visual quality. The decrease would depend, in part, on the quality of the existing view and how the new components would change the view. For more distant views, it was determined there is less likelihood that Segment 6 would have a significant impact on the existing visual quality of views that already include the existing designated utility corridor within which Segment 6 would be located.

The northern end (approximately 5 miles) of Segment 6 passes through lands that are privately owned and are not part of the ANF and/or are private in-holdings that are surrounded by the ANF. These areas of private lands are subject to evaluation under CEQA for potential impact to visual resources. The significance of the proposed Project's potential visual resource impacts under CEQA are identified below.

Would the Project have a substantial adverse effect on a scenic vista?

There are no areas in or near lands through which Segment 6 would pass that are designated scenic vistas. Although there are a number of pullouts along the Angeles Crest Highway designed to allow for slower traffic to pull off the roadway, these pullouts have not been designed or developed as vista points. Therefore, implementation of Segment 6 would result in no impact to a designated scenic vista.

Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

The area on the ANF through which Segment 6 would traverse crosses and would be visible from Angeles Crest Highway, which has been designated a Scenic Byway that is managed by the ANF. Removing the existing transmission lines and replacing them with 500-kV single-circuit structures within a Forest-designated utility corridor would not substantially damage

**ENVIRONMENTAL IMPACT ANALYSIS
AND MITIGATION MEASURES**

SECTION 4.0

Tehachapi Renewable Transmission Project

scenic resources within the scenic highway; therefore, implementation of Segment 6 would result in less than significant impacts under this criterion.

Would the Project substantially degrade the existing visual character or quality of the site and its surroundings?

The area on the ANF through which Segment 6 would pass is a designated utility corridor on the Forest. Removing the existing transmission lines and replacing them with 500-kV single-circuit structures would not substantially change the visual character or quality of the designated utility corridor or its surroundings; therefore, implementation of Segment 6 would result in a less than significant impact under this criterion.

Would the Project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

The transmission line would not be illuminated, and thus would not be a source of nighttime light and glare. As indicated in the discussion of daytime glare in Section 4.2.6.1.2, the proposed Project would not be a source of daytime glare. Therefore, no impact due to implementation of Segment 6 would occur related to this criterion.

4.2.6.3.3 Mitigation Measures. The TRTP may be inconsistent with the Forest LMP; however, the Forest may identify mitigation measures that would make the proposed transmission Project consistent with the ANF LMP, and the Forest has the ability to reduce the inconsistencies, or choose to amend the LMP as part of the proposed Project's Environmental Impact Statement (to be prepared at a later date). The proposed Project would result in no significant impacts on visual resources under CEQA in the area along this segment; therefore, no mitigation is required.

4.2.6.3.4 Impact Significance After Mitigation Measure Application. However, because the proposed Project and the existing transmission corridor would continue to potentially be inconsistent with the SIOs established in the Forest, the proposed Project's visual resource impacts would remain adverse under NEPA. In the area along Segment 6, there would be no significant impacts on visual resources under CEQA due to implementation of the proposed Project.

4.2.6.4 Segment 7

4.2.6.4.1 Environmental Setting. Segment 7 includes a rebuild of approximately 16 miles of existing 220-kV transmission line to 500-kV standards over existing R-O-W from the southern boundary of the ANF to the existing Mesa Substation. This segment would replace

the existing Antelope-Mesa 220-kV transmission line. To accommodate the construction of the 500-kV transmission line, various lower-voltage subtransmission lines between the Rio Hondo and Mesa substations would be relocated, mostly within existing R-O-W. This segment is located in Landscape Units 9, 10, 12, and 13, and its location is depicted on Figure 4.2-2, Sheets 9, 10, 12, and 13. The existing conditions in the area through which Segment 7 would pass are described in the environmental setting summary for Landscape Units 9, 10, 12, and 13 presented in Sections 5.4.1, 5.4.2, 5.4.4, and 5.4.5 of the Visual Resources Technical Report in Appendix F.

4.2.6.4.2 Impact Analysis.

Construction. Construction activities related to the proposed Project are described in Section 3.3 of the Project Description chapter. The construction period would be short term in nature, lasting approximately 31 months. Along Segment 7, visual effects of the proposed Project construction process during this less-than-3-year period would include the presence of marshalling yards and laydown areas at locations that have not yet been identified; rehabilitation work necessary in some locations for existing roads to accommodate construction activities; clearance of 200-foot by 200-foot areas at each new tower location; the presence of trucks, cranes, and other construction equipment; and the presence of the parked vehicles of construction workers. The APMs to reduce the effects of the construction period activities on visual resources are identified in Section 4.2.5. Because the construction period activities associated with implementation of Segment 7 would be temporary and short term, the potential impacts would be less than significant.

Operations. The potential impacts of the operation of Segment 7 on visual resources are evaluated in the impact analyses for Landscape Units 9, 10, 12, and 13 presented in Section 6.0 of the Visual Resources Technical Report in Appendix F. The significance of those potential impacts as analyzed under CEQA significance criteria is discussed below.

Would the Project have a substantial adverse effect on a scenic vista?

There are no viewpoints in Segment 7 that could be considered to be designated scenic vistas; therefore, implementation of the proposed Project would result in no impact to a scenic vista.

Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

There are no adopted state scenic highways in Landscape Units 9, 10, 12, and 13 in Segment 7; therefore, implementation of the proposed Project would result in no impact to scenic resources within a state scenic highway.

Would the Project substantially degrade the existing visual character or quality of the site and its surroundings?

The analyses of the proposed Project impacts in Landscape Units 9, 10, 12, and 13 are discussed in detail in the Visual Resources Technical Report in Appendix F, Section 6.0; and the results are presented in Table 6-2. As shown in Table 4.2-1 of this section, implementation of Segment 7 in two areas of the proposed Project would result in significant impacts to the visual character and quality of the proposed Project and its surroundings: (1) KOP 9.2, the intersection of Royal Oaks Drive and Tocino Drive in Duarte; and (2) KOP 10.2, the intersection of Linard Street and Kayann Place in South El Monte.

KOP 9.2, the intersection of Royal Oaks Drive and Tocino Drive, was chosen as a KOP because it represents upslope near-foreground to background views toward Segment 7 from residential neighborhoods in the flat areas of Duarte with viewers with high sensitivity. For this residential and mountain-side view from the intersection of Royal Oaks and Tocino Drives, the overall visual quality would decline significantly. In the foreground view, the taller and more substantial 500-kV double-circuit TSP that would replace the existing 220-kV single-circuit LST would substantially increase the degree of encroachment. The unity of the view would decline due to the scale of the replacement pole compared to the other visual elements. In addition, the replacement pole would contrast with the LST that would remain. In the middleground portion of the view, the effects would be less because the LSTs (visible in Subsegment 7.1 to the north) would be visually absorbed into the mountainside backdrop to a large degree. Therefore, implementation of Segment 7 in areas with viewers with high sensitivity and upslope near-foreground to background views of the proposed Project would result in significant impacts to the visual quality of this view.

KOP 10.2, the intersection of Linard Street and Kayann Place in South El Monte, represents near-foreground views toward Segment 7 from a residential area with viewers with high sensitivity. For this residential view, the overall visual quality would decline significantly. Although two towers would be replaced by one, the more substantial replacement tower would substantially increase the degree of visual encroachment, and the unity of the view would decline due to the scale of the replacement tower compared to the other visual elements. The new conductors would also cross the view at greater heights, further increasing

SECTION 4.0

the degree of encroachment. Therefore, implementation of Segment 7 in areas with viewers with high sensitivity and near-foreground views of the proposed Project would result in significant impacts to the visual quality of this view.

Implementation of the APMs presented in Section 4.2.5 would minimize Segment 7 impacts to the visual quality of areas with viewers with high sensitivity and upslope near-foreground to background views and near-foreground views of proposed Project; however, implementation of the proposed Project would still result in significant impacts to the existing visual quality due to implementation of the proposed Project.

Would the Project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

The transmission line would not be illuminated, and thus would not be a source of nighttime light and glare. As indicated in the discussion of daytime glare in Section 4.2.6.1.2, the proposed Project would not be a source of daytime glare. Therefore, no impact due to implementation of Segment 7 would occur related to this criterion.

4.2.6.4.3 Mitigation Measures. No feasible mitigation measures have been identified for KOP 9.2 or KOP 10.2.

4.2.6.4.4 Impact Significance After Mitigation Measure Application. Because no mitigation measures have been identified for KOP 9.2 or KOP 10.2, the impacts on the visual quality in these views due to implementation of Segment 7 would remain significant.

4.2.6.5 Segment 8

4.2.6.5.1 Environmental Setting. Segment 8 would include the construction of approximately 33 miles of single- and double-circuit 500-kV transmission line from a point 2 miles east of the Mesa Substation in the Whittier Narrows known as the San Gabriel junction to the Mira Loma substation in Ontario. This segment would replace an existing single-circuit 220-kV line that runs from the San Gabriel Junction to the area of SCE's existing Chino Substation, and from there to SCE's Mira Loma Substation. Existing R-O-Ws would be used for approximately 30 miles of this segment. Approximately 3 miles of new R-O-W would be needed to accommodate new construction in several areas. As a part of this segment, some of the subtransmission lines in the vicinity of the Mesa and Chino substations would be relocated. This segment is located in Landscape Units 13, 14, 15, 16, 17, 18, and 19, and its location is indicated on Figure 4.2-2, Sheets 13 through 19. The existing conditions in the area through which Segment 8 would pass are described in the

environmental setting summary for Landscape Units 13, 14, 15, 16, 17, 18, and 19 presented in Sections 5.4.5 through 5.4.11 of the Visual Resources Technical Report in Appendix F.

4.2.6.5.2 Impact Analysis.

Construction. Construction activities related to the proposed Project are described in Section 3.3 of the Project Description chapter. The construction period would be short term in nature, lasting approximately 36 months. Along Segment 8, visual effects of the proposed Project construction process during this approximately 3-year period would include the presence of marshalling yards and laydown areas at locations that have not yet been identified; rehabilitation work necessary in some locations for existing roads to accommodate construction activities; clearance of 200-foot by 200-foot areas at each new tower location; the presence of trucks, cranes, and other construction equipment; and the presence of the parked vehicles of construction workers. The APMs to reduce the effects of the construction period activities on visual resources are identified in Section 4.2.5. Because the construction period activities associated with implementation of Segment 8 would be temporary and short term, the potential impacts would be less than significant.

Operations. The potential impacts of operation of Segment 8 on visual resources are evaluated in the impact analyses for Landscape Units 9, 10, 12, and 13 presented in Section 6.0 of the Visual Resources Technical Report in Appendix F. The significance of those potential impacts as analyzed under CEQA significance criteria is discussed below.

Would the Project have a substantial adverse effect on a scenic vista?

There are no viewpoints in Segment 8 that have been designated as scenic vistas in adopted state or local plans; therefore, implementation of the proposed Project would result in no impacts to a scenic vista.

Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

The only state-adopted scenic highway located along the Segment 8 alignment is a segment of State Highway 57, also known as the Orange Freeway that travels through the area of largely undeveloped hills between Brea and Diamond Bar. Segment 8 crosses this scenic highway in the area just south of Diamond Bar; the Segment 8 alignment is readily visible to northbound travelers, and is visible to a lesser degree to those who are southbound. The views from this scenic highway are represented by KOP 16.1. As review of the simulation of KOP 16.1 on Figure 4.2-4d, KOP 14.1, suggests development of the proposed Project would result in a noticeable decline in the overall level of visual quality. The taller, more substantial

500-kV double-circuit tower that would replace the existing 220-kV single-circuit tower would be visible in the center of the cone of vision of northbound travelers for a relatively long period of time. The new transmission structure would substantially increase the degree of encroachment, and the unity of the view would decline due to the scale of the replacement tower compared to the other visual elements. Because this view is from an adopted California Scenic Highway, the level of sensitivity to visual change is high. Given the substantial change to the quality of the view from this adopted state Scenic Highway, a significant impact to scenic resources within a state scenic highway would occur.

Would the Project substantially degrade the existing visual character or quality of the site and its surroundings?

The analyses of the proposed Project impacts in Landscape Units 13, 14, 15, 16, 17, 18, and 19 are discussed in detail in the Visual Resources Technical Report in Appendix F, Section 6.0 and the results are summarized in Table 4.2-1.

Implementation of the APMs presented in Section 4.2.5 would help to minimize impacts to the visual quality of many areas along Segment 8 with viewers with high sensitivity and upslope near-foreground to background views of this proposed Project segment; however, development of this segment would still result in significant impacts to views from some viewpoints. As indicated in Table 4.2-1, implementation of Segment 8 would result in significant impacts to the visual character and quality of the proposed Project site and its surroundings from five viewpoints: 1) KOP 14.1, a viewpoint in the Rose Hills Cemetery; 2) KOP 16.1, the view from Highway 57, an adopted California Scenic Highway; 3) KOP 16.2, a viewpoint on Crooked Creek Drive in Diamond Bar; 4) KOP 17.1, a viewpoint at the intersection of Avenida Anita and Avenida Compadres in Chino Hills; and 5) KOP 17.2, a view from Coral Ridge Park in Chino Hills.

KOP 14.1 was selected to represent foreground to middleground views toward the Segment 8 alignment from the Rose Hills Memorial Park. The simulated view on Figure 4.2-4c, KOP 14.1, shows Segment 8 crossing the agricultural area at the memorial park that would become a developed part of the cemetery in the future. In this vicinity, the existing R-O-W with a transmission line consisting of LSTs carrying 220-kV double-circuit conductors would be relocated at the request of the landowner from its existing location to the northeast, closer to the ridgeline. The proposed Project would also add a new transmission line consisting of LSTs carrying 500-kV double-circuit conductors to the relocated R-O-W. As shown in the simulation, the relocation of the existing transmission line closer to the ridgeline plus the addition of the new transmission line would result in transmission structures and lines that contrast with and interfere with the views of the mountains in the background. This change

**ENVIRONMENTAL IMPACT ANALYSIS
AND MITIGATION MEASURES**

SECTION 4.0

Tehachapi Renewable Transmission Project

would greatly decrease the intactness and unity of the existing view. The viewer sensitivity from this viewpoint is moderately high because it serves as a scenic vista point within the memorial park. Implementation of the proposed Project would result in a significant impact on this view.

KOP 16.1 represents middleground views toward the Segment 8 alignment from the northbound Highway 57, an adopted California Scenic Route. The simulated view on Figure 4.2-4d, KOP 16.1, shows this view as it would appear with the proposed Project in place. The proposed Project's impacts on views from this viewpoint are described in the discussion of impacts on state scenic highways under CEQA visual resources significance question 2. Implementation of the proposed Project would result in a significant impact on this view.

KOP 16.2 was selected to represent foreground views toward the Segment 8 alignment from residential neighborhoods in Diamond Bar. The simulated view on Figure 4.2-4e, KOP 16.2, shows this view as it would appear with the proposed Project in place. For this residential and hillside view, there would be a noticeable decline in overall visual quality. The taller, more substantial 500-kV double-circuit tower that would replace the existing 220-kV single-circuit tower would increase the perceived degree of encroachment, as would the additional conductors at higher elevations. The unity of the view would decline due to the scale of the replacement structures compared to the other visual elements. Because of the substantial change in the visual quality of the view and the high level of sensitivity of the views from this residential area, implementation of the proposed Project would result in a significant impact on this view.

KOP 17.1 represents foreground views toward the Segment 8 alignment from residential neighborhoods in the western area of Chino Hills. The simulated view on Figure 4.2-4f, KOP 17.1, depicts this view as it would appear with the proposed Project in place. For this residential and hillside view, there would be a noticeable decrease in overall visual quality. The taller, more substantial 500-kV double-circuit LST that would replace the existing 220-kV single-circuit LST and additional conductors would increase the perceived degree of encroachment. The unity of the view would also decline due to the scale of the replacement structures compared to the other visual elements in the view. Because of the substantial change in the visual quality of the view and the high level of sensitivity of the views from this residential area, implementation of the proposed Project would result in a significant impact on this view.

KOP 17.2 represents foreground to distant views of the Segment 8 alignment from open space areas in the hillier parts of Chino Hills. The simulated view on Figure 4.2-4g,

KOP 17.2, depicts the view from this KOP as it would appear with the proposed Project in place. For this residential park, valley, and distant mountain view, there would be a noticeable decline in overall visual quality. The taller, more substantial 500-kV double-circuit TSP that would replace the existing 220-kV single-circuit LST and additional conductors would increase the perceived degree of visual encroachment. The unity of the view would also decline due to the scale of the replacement structures compared to the other visual elements in the view. Because of the substantial change in the visual quality of the view and the high level of sensitivity of the views from this park and the adjacent residential area, implementation of the proposed Project would result in a significant impact on this view.

Would the Project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

The transmission line would not be illuminated, and thus would not be a source of nighttime light and glare. As indicated in the discussion of daytime glare in Section 4.2.6.1.2, the proposed Project would not be a source of daytime glare. Therefore, no impact would occur due to implementation of Segment 8 under this criterion.

4.2.6.5.3 Mitigation Measures. No feasible mitigation measures have been identified for KOP 14.1. Mitigation measures have been identified for the following KOPs.

MM AES – 8-1. To reduce the impacts on views from Highway 57 (KOP 16.1) and KOP 16.2, siting and engineering studies will be conducted to identify alternative design and placement of the towers proposed for the tops of the ridges on the east and west sides of the freeway to reduce tower visibility. Options could include shifting of tower locations to avoid the need for extremely tall towers at the tops of the ridges, and/or replacement of the double-circuit structures with two lower single-circuit structures. It is anticipated this measure will require expansion of the R-O-W.

MM AES – 8-2. To reduce the impacts on near-foreground and foreground views from residential areas like the one represented by KOP 17.1, in the section of Segment 8 between S8A MP 21.8 and S8A MP 23, the LSTs now proposed will be replaced with TSPs. Changing structure type from LSTs to TSPs will require shorter spans; thus, additional structures will be needed.

MM AES – 8-3. To reduce the impacts to views in the hillier parts of Chino Hills, where the City has developed the R-O-W as public open space, SCE will develop and implement plans to establish plantings near the base of the structures. The objective of these plantings will be to screen views of the base of the towers from trails and other nearby sensitive public use

**ENVIRONMENTAL IMPACT ANALYSIS
AND MITIGATION MEASURES**

SECTION 4.0

Tehachapi Renewable Transmission Project

areas. This will also visually integrate the towers into their landscape settings in more distant views. These plans will not include maintenance by SCE; rather it is anticipated that the City will continue to maintain plantings in this portion of the R-O-W.

4.2.6.5.4 Impact Significance After Mitigation Measure Application. Because no mitigation is proposed for the view from KOP 14.1, the impact to visual resources near KOP 14.1 would remain significant. If the mitigation measures proposed for KOPs 16.1, 16.2, 17.1, and 17.2 are implemented, there is a potential that the impacts on the visual quality of these views can be reduced to a level that is less than significant; however, if these measures are not successful in making a substantial reduction in the impacts to the views from these KOPs, the impacts to visual quality along this segment from these views would also remain significant.

4.2.6.6 Segment 9

4.2.6.6.1 Environmental Setting. Segment 9 would include the construction of a new substation, the Whirlwind Substation, as well as the upgrade of several other existing substations with new equipment. The Whirlwind Substation would be a new 500/220-kV substation located approximately 4 to 5 miles south of the Cottonwind Substation near the intersection of 170th Street and Holiday Avenue in Kern County near the Tehachapi Wind Resource Area (TWRA). Three alternative sites, proposed substation sites A, B, and C (the proposed substation site), have been identified as potential locations for this new substation. These Whirlwind Substation alternative sites are located in Landscape Unit 1. Construction of the new Whirlwind Substation at any of these alternative sites would require property acquisition. It is estimated that Alternative Site A would require acquisition of approximately 113 acres; Alternative Site B would require acquisition of approximately 102 acres; and Alternative Site C (the proposed substation site) would require acquisition of approximately 106 acres.

Additionally, Segment 9 would include construction of upgrades at the existing Antelope, Vincent, Gould, Mesa, and Mira Loma substations to accommodate new transmission line construction and system compensation elements; and, these existing substations are located in Landscape Units 2, 4, 8, 12, and 19, respectively. Upgrades at the Antelope and Vincent substations would also include expansions of existing switchyards outside of existing property boundaries. It is estimated that the Antelope expansion would require SCE to acquire an additional 28 acres of property at the substation site, and the expansion at the Vincent Substation would require SCE to acquire an additional 0.2 acre at the substation site.

SECTION 4.0

This segment is located in Landscape Units 1, 2, 4, 8, 12, and 19, and the locations of each of the substations analyzed in Segment 9 are depicted on Figure 4.2-2, Sheets 1, 2, 4, 8, 12, and 19. The existing conditions in the areas in which Segment 9 substations are located are described in the environmental setting summary for Landscape Units 1, 2, 4, 8, 12, and 19 presented in Section 5.0 of the Visual Resources Technical Report in Appendix F.

4.2.6.6.2 Impact Analysis.

Construction. Construction activities related to the proposed Project are described in Section 3.3 of the Project Description. The construction period for the substations would be short term, lasting approximately 45 months. At each of the substations in Segment 9, visual effects of the proposed Project construction process during this approximately 4-year period would include the presence of marshalling yards and laydown areas at locations that have not yet been identified; clearance of 102 acres, 28 acres, and 0.2 acre at Whirlwind, Antelope, and Vincent substations (construction at other substations within Segment 9 would occur within the existing boundaries of the substations); the presence of trucks, cranes, and other construction equipment; and the presence of the parked vehicles of construction workers. The APMs to reduce the effects of the construction period activities on visual resources are identified in Section 4.2.5. Because the construction period activities associated with implementation of Segment 9 would be temporary and short term, the potential impacts would be less than significant.

Operations. The potential impacts of the operation of Segment 9 on visual resources are evaluated in the impact analyses for Landscape Units 1, 2, 4, 8, 12, and 19 presented in Section 6.0 of the Technical Report in Appendix F. The significance of those impacts under CEQA is identified below.

Would the Project have a substantial adverse effect on a scenic vista?

There are no viewpoints overlooking the substations in Segment 9 that could be considered to be designated scenic vistas; therefore, implementation of the proposed Project would result in no impact to a scenic vista.

Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

There are no adopted state scenic highways associated with the substations in Segment 9; therefore, implementation of the proposed Project would result in no impact to scenic resources within a state scenic highway.

Would the Project substantially degrade the existing visual character or quality of the site and its surroundings?

As the analyses of the proposed Project impacts in Landscape Units 1, 2, 4, 8, 12, and 19 presented in Visual Resources Technical Report, Section 6.0 indicate, there are no areas where the substations in Segment 9 of the proposed Project would create visual impacts that would substantially degrade the existing visual character or quality of the site and its surroundings; therefore, implementation of Segment 9 of the proposed Project would result in a less than significant impact.

Would the Project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

The discussion of daytime glare in Section 4.2.6.1.2 is applicable to the substation changes proposed as part of Segment 9. To the extent that there could be times of the day when sunlight is reflected off equipment in the substations, given the relatively small dimensions of the surfaces of these features, it is doubtful that the small and dispersed areas of reflectivity produced could be considered to constitute glare in the true sense of the term. The APMs that specify insulators made of materials that do not reflect or refract light and neutral finishes for all substation equipment and structures would further limit the reflectivity of the substation elements and eliminate any potential for the substations to be a source of daytime glare. Therefore, impacts to visual resources due to creation of the new sources of daytime light or glare would be less than significant.

Under normal operating conditions, the new Whirlwind Substation, the expanded Antelope and Vincent substations, and the existing Gould and Mesa substations would not be illuminated at night. Lighting would be used only when required for maintenance outages or emergency repairs occurring at night. The lighting would consist of high-pressure sodium lights located in the switchyards, around the transformer banks, and in areas of the yard where operating and maintenance activities may take place during evening hours. Maintenance lights would be controlled by a manual switch and would normally be in the “off” position. The lights would be directed downward, and shielded to reduce light spill outside the facility. Additionally, implementation of the APMs presented in Section 4.2.5 would reduce potential offsite light and glare effects related to lighting of the new facilities within the substations. Therefore, impacts to visual resources due to creation of the new sources of nighttime light or glare would be less than significant.

4.2.6.6.3 Mitigation Measures. Because there would be no significant impacts associated with Segment 9, no mitigation is required.

4.2.6.6.4 Impact Significance After Mitigation Measure Application. Development of Segment 9 will not create any significant impacts on visual resources.

4.2.6.7 Segment 10

4.2.6.7.1 Environmental Setting. Segment 10 would be a new 500-kV transmission line traveling approximately 17 miles over a new R-O-W between the Windhub Substation and the proposed new Whirlwind Substation. It is estimated that the width of the new R-O-W would be 330 feet. This segment is located in Landscape Unit 1, and its location is depicted on Figure 4.2-2, Sheet 1. The existing conditions in the area through which Segment 10 would pass are described in the environmental setting summary for Landscape Unit 1 presented in Section 5.2.1 of the Visual Resources Technical Report in Appendix F.

4.2.6.7.2 Impact Analysis.

Construction. Construction activities related to the proposed Project are described in Section 3.3 of the Project Description chapter. The construction would be short term in nature, lasting approximately 8 months. Along Segment 10, visual effects of the proposed Project construction process during this less-than-1-year period would include the presence of marshalling yards and laydown areas at locations that have not yet been identified, the development of new roads to provide access to portions of the proposed R-O-W not accessible from existing roads; clearance of 200-foot by 200-foot areas at each new tower location; the presence of trucks, cranes, and other construction equipment; and the presence of the parked vehicles of construction workers. The APMs to reduce the effects of the construction period activities on visual resources are identified in Section 4.2.5. Because the construction period activities associated with implementation of Segment 10 would be temporary and short term, the potential impacts would be less than significant.

Operations. The potential impacts of operation of Segment 10 on visual resources are evaluated in the impact analyses for Landscape Unit 1 presented in Section 6.0 of the Visual Resources Technical Report in Appendix F. The significance of those potential impacts as analyzed under CEQA are discussed below.

Would the Project have a substantial adverse effect on a scenic vista?

There are no viewpoints in Segment 10 that could be considered to be designated scenic vistas; therefore, implementation of the proposed Project would result in no impact to a scenic vista.

**ENVIRONMENTAL IMPACT ANALYSIS
AND MITIGATION MEASURES**

SECTION 4.0

Tehachapi Renewable Transmission Project

Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

There are no adopted state scenic highways in Segment 10; therefore, development of the proposed Project would result in no impact to scenic resources within a state scenic highway.

Would the Project substantially degrade the existing visual character or quality of the site and its surroundings?

As the analyses of the proposed Project impacts in Landscape Units 1 presented in Visual Resources Technical Report, Section 6.0 indicate, there are no areas where Segment 10 of the proposed Project, or the Segment 10 alternative alignments 10A and 10B, would create visual impacts that would substantially degrade the existing visual character or quality of the site and its surroundings; therefore, implementation of Segment 10 would result in a less than significant impact.

Would the Project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

The transmission line would not be illuminated, and thus would not be a source of nighttime light and glare. As indicated in the discussion of daytime glare in Section 4.2.6.1.2, the proposed Project would not be a source of daytime glare. Therefore, no impact due to implementation of Segment 10 would occur related to this criterion.

4.2.6.7.3 Mitigation Measures. Because there would be no significant impacts along Segment 10, no mitigation is required.

4.2.6.7.4 Impact Significance After Mitigation Measure Application. In the area along Segment 10, there will be no significant impacts on visual resources.

4.2.6.8 Segment 11

4.2.6.8.1 Environmental Setting. Segment 11 is an approximately 19-mile-long segment of the proposed Project that would be developed within existing and expanded transmission R-O-Ws, starting at the Vincent Substation and extending south into the ANF, passing over the San Gabriel Mountains until reaching the Gould Substation. At the Gould Substation, the segment would turn eastward, traveling across ANF lands in the foothills of the San Gabriel Mountains, and then turn south, traveling through developed communities in the San Gabriel Valley to the Mesa Substation in Monterey Park. Segment 11 would pass through Landscape Units 4, 5, 6, 7, 8, and 11. The location of the route Segment 11 would follow through these landscape units is depicted on Figure 4.2-2, Sheets 4, 5, 6, 7, 8, and 11. The existing

SECTION 4.0

conditions of the areas through which Segment 11 would pass are identified in the environmental setting summaries for Landscape Units 4, 5, 6, 7, 8, and 11 presented in Sections 5.2.4, Sections 5.3.1 through 5.3.4, and Section 5.4.3 of the Visual Resources Technical Report in Appendix F.

4.2.6.8.2 Impact Analysis.

Construction. Construction of Segment 11 would take place during a 19-month period. There would be many new transmission structures constructed along the portion of Segment 11 that extends from Vincent Substation to Gould Substation. In the portion of Segment 11 that extends from Gould Substation to Mesa Substation, construction activities would be more limited, consisting primarily of stringing conductors on a vacant position on the existing transmission structures. Because it is anticipated that helicopters would be used to install most of the transmission structures located in the portion of this route within the ANF, much of the ground disturbance that would be associated with transmission structure installation (building or upgrading roads, structure laydown areas, crane pads) with conventional construction methods would not take place. Setup areas along Segment 11 that would be used to pull wires onto the LSTs and TSPs would occur approximately every 9,000 feet; setup areas where wires would be spliced would occur approximately every 4,500 feet. Segment 11 would require approximately 12 new pulling locations and 5 new splicer locations. On average, pulling and splicing equipment setup sites require an area of 200 feet by 200 feet (0.92 acre), so some of these areas would likely be seen during construction. At the completion of the proposed Project, the cleared areas would be restored to original grade, when possible, and replanted. Until the vegetation on restored areas becomes established, some of the setup sites could be visible to viewers. Because the construction period activities associated with implementation of Segment 11 would be temporary and short term, the potential impacts would be less than significant under CEQA and no adverse effect would occur under NEPA.

Operations. The potential impact of the operation of Segment 11 on visual resources during the operational period of the proposed Project are evaluated in the impact analyses for Landscape Units 4, 5, 6, 7, 8, and 11 presented in Section 6.0 of the Visual Resource Technical Report in Appendix F. For the most part, Segment 11 would cross through federal lands managed by the U.S. Forest Service, although some privately owned lands would be crossed as well. Impacts on scenic and visual resources associated with federal and non-Federal private lands through which the proposed Project would pass are assessed differently. Impacts on the ANF are measured by how consistent the proposed Project would be with the ANF Forest Plan. Impacts on the privately owned lands along Segment 11 are assessed under CEQA.

**ENVIRONMENTAL IMPACT ANALYSIS
AND MITIGATION MEASURES**

SECTION 4.0

Tehachapi Renewable Transmission Project

ANF Significance. The portion of Segment 11 that passes through the ANF is not subject to CEQA review; however, analysis under CEQA criteria is provided below for general information. The criterion applied in determining the significance of the proposed Project's effects on visual resources on lands in the Forest was whether or not Segment 11 would be consistent with the SIO the ANF Forest Plan establishes for the Forest lands the segment would cross. The SIO the Forest Plan has set for the areas in which Segment 11 would be located is High. The Forest Plan established this SIO, even though the designated utility corridor in which Segment 11 would be developed through rebuilding an existing transmission line does not currently meet an SIO of High.

After the construction of Segment 11, Segment 11 and the rest of the designated utility corridor in which it would be located would continue to not meet an SIO of High. As a result, under the rules for determination of visual resource impacts on National Forest system lands, a determination of adverse effect as identified under NEPA would result due to the implementation of Segment 11 because of potential inconsistency of the proposed Project with the current SIOs established in the ANF LMP.

Segment 11 crosses and would be visible from Angeles Crest Highway, which has been designated as a Scenic Byway that is managed by the ANF. A Draft Angeles Crest Scenic Byway Corridor Management Plan has been prepared to provide guidance to the Byway's management. From the locations along the Byway from which Segment 11 would be viewed, it would not adversely change the existing visual conditions of the existing designated utility corridor. However, like the existing designated utility corridor, Segment 11 would not meet the SIO of High established in the Forest Plan, and thus would be found to have an adverse effect on the views from the Byway under NEPA.

The TRTP may be inconsistent with the Forest LMP; however, the Forest may identify mitigation measures that would make the proposed transmission Project consistent with ANF LMP, and the Forest has the ability to reduce the inconsistencies or choose to amend the LMP as part of the proposed Project's Environmental Impact Statement (to be prepared at a later date).

CEQA Significance. In addition to determining consistency with the Forest Plan, an evaluation of the impacts of Segment 11 on visual quality was conducted using the FHWA methodology described in Section 4.2.2.1. By selecting a variety of representative viewing location types (viewing distances, background, types of viewers [trail users, drivers, sight-seers]) along Segment 11, it was possible to get a better idea of how the proposed Project would impact visual quality from specific viewing areas in addition to whether or not the proposed Project was consistent with the Forest Plan. Four KOPs were selected that would

**ENVIRONMENTAL IMPACT ANALYSIS
AND MITIGATION MEASURES**

SECTION 4.0

Tehachapi Renewable Transmission Project

have views of Segment 11 within the ANF (KOPs 6.1, 7.5, 8.1, and 8.2). Although Segment 11 would somewhat lower the existing visual quality for KOPs 7.5, 8.1, and 8.2, the decrease would result in a less than significant impact when evaluated under CEQA. KOP 6.1 is located on the Pacific Crest Trail with an existing LST in the immediate foreground. The new LST that would replace the existing tower currently would be much larger in scale and would result in a considerable decrease in existing visual quality; therefore, at KOP 6.1, the implementation of Segment 11 would result in a significant impact under CEQA.

In summary, the analysis developed using the FHWA evaluative approach found that where Segment 11 components (generally towers or poles) would be in the immediate foreground of viewers, the likelihood would be much greater that there would be a significant decrease in visual quality. The decrease would depend in part on the quality of the existing view and how the new components would change the view. For more distant views, there is less likelihood that Segment 11 would have a significant impact on the existing visual quality of views that already include the existing designated utility corridor within which Segment 11 would be located.

Approximately the northernmost 5 miles of Segment 11 pass through lands that are privately owned and are not part of the ANF. Most of the portion of Segment 11 that would pass through the San Gabriel Valley is privately owned. In addition, Segment 11 passes through and/or near several areas of private in-holdings that are surrounded by the ANF. These areas of private lands and non-Federally owned public lands are subject to evaluation under CEQA for potential impact to visual resources. The significance of the proposed Project's potential impacts to visual resources under CEQA is identified below.

Would the Project have a substantial adverse effect on a scenic vista?

There are no areas in or near lands through which Segment 11 would pass that are designated scenic vistas. Although there are a number of pullouts along the Angeles Crest Highway designed to allow for slower traffic to pull off the roadway, these pullouts have not been designed or developed as vista points. Therefore, implementation of Segment 11 would result in no impact to a designated scenic vista.

Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

The area on the ANF through which Segment 11 would traverse crosses and would be visible from Angeles Crest Highway, which has been designated a Scenic Byway that is managed by the ANF. Removing the existing transmission lines and replacing them with 500-kV single-

**ENVIRONMENTAL IMPACT ANALYSIS
AND MITIGATION MEASURES**

SECTION 4.0

Tehachapi Renewable Transmission Project

circuit structures within a Forest-designated utility corridor would not substantially damage scenic resources within the scenic highway; therefore, implementation of Segment 11 would result in less than significant impacts under this criterion.

Would the Project substantially degrade the existing visual character or quality of the site and its surroundings?

The area on the ANF through which Segment 11 would pass is a designated utility corridor on the Forest. Removing the existing transmission lines and replacing them with 500-kV single-circuit structures would not substantially change the visual character or quality of the designated utility corridor or its surroundings over most of the segment. However, because the proposed tower within the view of KOP 6.1 (Pacific Crest Trail near Big Buck Camp) would be much larger in terms of height and width than the existing tower, the new structure would decrease the already low ratings for vividness and unity and would result in a greater degree of impact on intactness of the view, reducing the visual quality from moderately low to low. Due to high viewer sensitivity and the location of the tower on the Pacific Crest Trail, the implementation of Segment 11 would have a significant impact on visual quality at this location and its surroundings.

Would the Project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

The transmission line would not be illuminated, and thus would not be a source of nighttime light and glare. As indicated in the discussion of daytime glare in Section 4.2.6.1.2, the proposed Project would not be a source of daytime glare. Therefore, no impact due to implementation of Segment 11 would occur related to this criterion.

4.2.6.8.3 Mitigation Measures. The TRTP may be inconsistent with the Forest LMP; however, the Forest may identify mitigation measures that would make the proposed transmission Project consistent with ANF LMP, and the Forest has the ability to reduce the inconsistencies or choose to amend the LMP as part of the proposed Project's Environmental Impact Statement (to be prepared at a later date).

The following mitigation measure is proposed for Segment 11 to address the significant impact under CEQA near KOP 6.1 and adverse effects under NEPA to visual resources located within the ANF.

MM AES – 11-1. To mitigate the potential impacts to views from the Pacific Crest Trail near Big Buck Camp, shown in KOP 6.1 (Figure 4.2-5h), the trail will be relocated in coordination with the Pacific Crest Trail Association and ANF. In this area, the Pacific Crest

Trail is currently located on an access road that passes by two existing towers. Moving the trail to the north, away from the towers to a location where existing vegetation would screen the views of the towers from the Pacific Crest Trail, will minimize the visual impact of Segment 11 on views from the trail. Additionally, relocating the trail will create a trail setting that is a visual improvement to the current setting.

4.2.6.8.4 Impact Significance After Mitigation Measure Application. Mitigation measure MM AES-11-1 will minimize the visual resource impacts associated with implementing Segment 11 near KOP 6.1. Implementation of MM AES-11-1 would reduce potentially significant impacts due to implementation of Segment 11 to less than significant under CEQA. However, because the proposed Project and the existing transmission corridor would continue to potentially be not consistent with the SIOs established in the Forest, the proposed Project's visual resource impacts would remain adverse under NEPA.

4.2.7 References

United States Department of Agriculture, Forest Service. 1995. *Landscape Aesthetics, A Handbook for Scenery Management*. December.

2005. *Land Management Plan, Part 1 – Southern California National Forest Vision; Part 2 – Angeles National Forest Strategy; Part 3 – Design Criteria for the Southern California National Forests*. September 2005.

United States Department of Transportation, Federal Highway Administration. 1998. *Visual Impact Assessment for Highway Projects*.

United States Department of Transportation, Federal Highway Administration, United States Department of Agriculture, Forest Service Pacific Southwest Region, and California Department of Transportation. Undated. *Draft Angeles Crest Scenic Byway Corridor Management Plan*.

This page left intentionally blank.