4.1 AESTHETICS

4.1.1 Environmental Setting

Methods

Aesthetics is defined as the visual character of an area. Table 4.1-1 lists the definitions of various terms and concepts used in this section to describe and assess the visual resources of the proposed project area and project impacts on aesthetic resources.

Table 4.1-1 Definitions of Visual Resources Terms

Term	Definition
Color	The hue (e.g., red, blue, brown, etc.) and value (e.g., light, dark, etc.) of the light reflected by objects in the visual landscape.
Cultural Modification	Any human-caused (anthropogenic) change in the land form, water form, vegetation, or the addition of a structure which creates a visual contrast in the basic elements (form, line, color, texture) of the naturalistic character of a landscape. Cultural modifications can contribute or detract to the unity of the landscape.
Distance Zones	Areas of landscapes denoted by specified distances from the observer and used as a frame of reference to discuss landscape characteristics or management activities. These include: • Foreground: areas within 0.25 to 0.5 miles of the observer at which details can be perceived. • Middleground: 0.5 miles to 3 to 5 miles from the observer where texture normally is characterized by uniform vegetative cover. Individual tree forms are usually only discernible in very open or sparse stands. • Background: from middleground to infinity where texture is generally very weak or non-existent. Atmospheric conditions can greatly influence the observer's ability to see details in background views.
Form	The visual mass, bulk, or shape of an object or objects in the visual landscape that appear unified. This element of visual character is usually the strongest.
Glare	Sunlight or other brilliant luminary reflecting off a specular (mirror-like) surface. If the reflected rays of light reach a receptor, the intensity of the reflection can be distracting, discomforting, or debilitating.
Glint	A momentary flash of glare, which may be repetitious and attract the receptor's attention.
Intactness	The integrity of visual order in the natural and built landscape, and the extent to which the landscape is free from visual encroachment.
Key Observation Point (KOP)	Points on a travel route, at an existing or potential use area where the view of the proposed project would be most obvious.
Landscape Character Unit (LCU)	Landscape areas with distinguishing topographic, vegetative, and/or development patterns. Areas within an LCU have common basic visual characteristics of line, form, color, and texture. LCU boundaries can be distinct or transition gradually from one LCU to the next.

Term	Definition
Line	The well-defined edges of shapes or masses created in the visual landscape by horizons, silhouettes, or human-made features.
Visual Quality	Visual quality is the relative worth of a landscape based on visual perception. Outstanding visual quality is a rating reserved for intact landscapes. Landscapes that are considered of low visual quality are often dominated by visually discordant cultural (human-made) modifications. Visual quality is a threshold for evaluating visual impact significance.
Scenic Vista	A scenic vista is a distant public view along or through an opening or corridor that is recognized or valued for its visual quality.
Texture	The apparent surface coarseness of the visual landscape caused by the aggregation or density of surface features and vegetation (e.g., fine, medium, coarse).
Unity	The degree to which the visual resources of the landscape join together to form a coherent, harmonious visual pattern. Unity refers to the compositional harmony or inter-compatibility between landscape elements.
Viewer Exposure	A measure of the openness of a view, taking into consideration the number of viewers exposed to the view, their location, the duration of their view, and the speed at which the viewer is moving. Viewer exposure is a metric used to determine viewer response.
Viewer Response	A measure of public concern for changes to visual quality and a threshold for evaluating visual impact significance. Viewer response takes into account viewer exposure and viewer sensitivity.
Viewer Sensitivity	The extent to which the viewing public would notice or experience a substantial change in visual quality. Viewer sensitivity is based on a number of factors that can differ in level of importance from one viewer to another. These factors include the viewer's activity, awareness of visual change, and visual preference. Viewer sensitivity is a metric used to determine viewer response.
Viewshed	The landscape that is visible from an observer's viewpoint; all the areas from which a viewpoint can be seen. Analogous terms are seen area or visible area.
Visual Contrast	The opposition or unlikeness of different forms, lines, colors, or textures in a landscape.
Visual (Sensitive) Receptor	A person who may be at any scenic vista, scenic highway, or public recreational area located within the project viewshed or an area where perceived visual intrusion is a distinct possibility.
Vividness	The visual power or memorability of the visual impression received from contrasting landscape elements as they combine in distinctive visual patterns.

Source: FHWA 1988

The existing visual quality of the landscape and viewer sensitivity were assessed using Federal Highway Administration (FHWA) guidance in *Visual Impact Assessment for Highway Projects* (FHWA 1988). This method is appropriate for the assessment of the proposed project because electrical power and transmission lines are linear projects and the proposed project would be visible from local streets and roads. The CPUC has not developed a specific methodology for assessing visual quality under CEQA.

The FHWA recently updated their guidance for visual impact assessment (FHWA 2015); the guidance was made available to the public in March 2015. The baseline aesthetic conditions in the proposed project area were inventoried and evaluated consistent with the 2015 FHWA guidance (FHWA 2015). The visual impact analysis in this Draft EIR uses the 1988 methodology because it includes a numeric evaluation approach to quantitatively evaluate visual impacts. This quantitative approach allows for a repeatable and robust analysis. The 2015 guidance does not currently include a numeric evaluation method and the 1998 numerical evaluation approach was therefore applied to the analysis of impacts. The visual analysis in this Draft EIR began in 2014, prior to FHWA release of the revised guidance.

The visual quality of the landscape was evaluated numerically using the following three criteria:

- Intactness
- Unity
- Vividness

Viewer sensitivity was evaluated based on the types of viewers that observe the landscape. Viewer sensitivity also reflects the City of Chula Vista designations for local roadways and scenic resources in the General Plan (City of Chula Vista 2005). The methods to define viewer sensitivity and visual quality are defined in greater detail in Section 4.1.5.

Regional Visual Character

The proposed project would be located in the City of Chula Vista and unincorporated San Diego County. The City and the area surrounding the proposed project are the westward extension of the Traverse Mountains. The mountain ranges in this portion of San Diego County generally trend in the north-south direction. The river valleys in the project region trend in an east-west orientation. The Sweetwater River is located north of the project area, and the Otay River is south of the project area. Mount San Miguel and Mother Miguel Mountain are located northeast of the proposed project area. Figure 4.1-1 shows the major rivers and mountains near the project area.

The land use and development patterns within the project region consist of a mix of moderate and high-density urban development, transportation and utility corridors, public parks, and open space. The project area is principally located within the master planned community of Otay Ranch, consisting of an interwoven visual fabric of landscaped streets, one- and two-story residential areas, parks and greenways, neighborhood retail and commercial shopping complexes, and institutional land uses. The open space areas surrounding the City are dominated by coastal sage scrub interspersed with non-native grasslands. The coastal sage scrub exhibits an olive-green to grey-green color and a moderately fine visual texture. The lowest portions of the Otay River and Sweetwater River valleys contain pockets of riparian vegetation, including sycamore and cottonwood trees.

Local Visual Character

Landscape Character Units

There are four distinct LCUs in the project area. Table 4.1-2 describes the four LCUs that encompass the project area.

Visual Quality

The existing visual quality in the project area was determined using seven key factors:

1. **Landform:** The overall landform surrounding the project area is a highly dissected mesa. Elevations within the project area range from around 340 above mean sea level (amsl) at Miguel Substation to 650 feet amsl along TL 6965. Much of the land immediately surrounding the project area has been terraced for development. The dominant natural features within the viewshed of the project area are Mount San Miguel at 2,565 feet amsl, Mother Miguel Mountain at 1,527 feet amsl, the Jamul Mountains to the east, and the San Ysidro Mountains to the southeast.
2. **Vegetation:** Vegetation types in the project area are primarily ornamental within the built environment and indigenous vegetation in the open space environment. The ground vegetation of the existing transmission line corridor is either bare or composed of non-native grasses surrounded by the ornamental landscape of the Otay Ranch development and street system. Miguel Substation is essentially void of vegetation while the lands surrounding it are a combination of native and sparse ornamental plantings. Coastal sage scrub is the dominant cover in the open space areas and river bottom areas support riparian woodlands. Pockets of Coast live oak woodland exist where conditions are favorable. This vegetative fabric is interspersed with non-native grasslands.
3. **Water:** Lower and Upper Otay Lakes and Sweetwater Reservoir are the most prominent water features near the project area. There is minimal visibility of these water features from any portion of the project area.
4. **Color:** There is a broad spectrum of colors in the Otay Ranch and OTC LCUs. The colors of the Open Space LCU are generally muted grays, greens, and browns, reflective of the coastal sage scrub and soils of the area. The color of Miguel Substation is dull steel with white, backdropped by the colors of the Open Space LCU.
5. **Adjacent Scenery:** Development patterns within the master planned Otay Ranch LCU contrast with surrounding relatively intact scenery of the open space lands. Specific scenic features include the Sweetwater and Otay River drainages, Sweetwater Reservoir and Upper and Lower Otay Reservoirs, Mount San Miguel, Mother Miguel Mountain, and the Jamul and San Ysidro Mountain ranges.
6. **Scarcity:** Landscapes within and surrounding the project area are common within San Diego County and the general southern California region.

Cultural Modifications: Cultural modifications dominate much of the viewshed from the project area. Modifications include manipulated landforms, freeways, local roads with appurtenant structures, existing electric transmission lines and maintenance access routes, low-

Figure 4.1-1 Major Rivers and Mountains near the Proposed Project

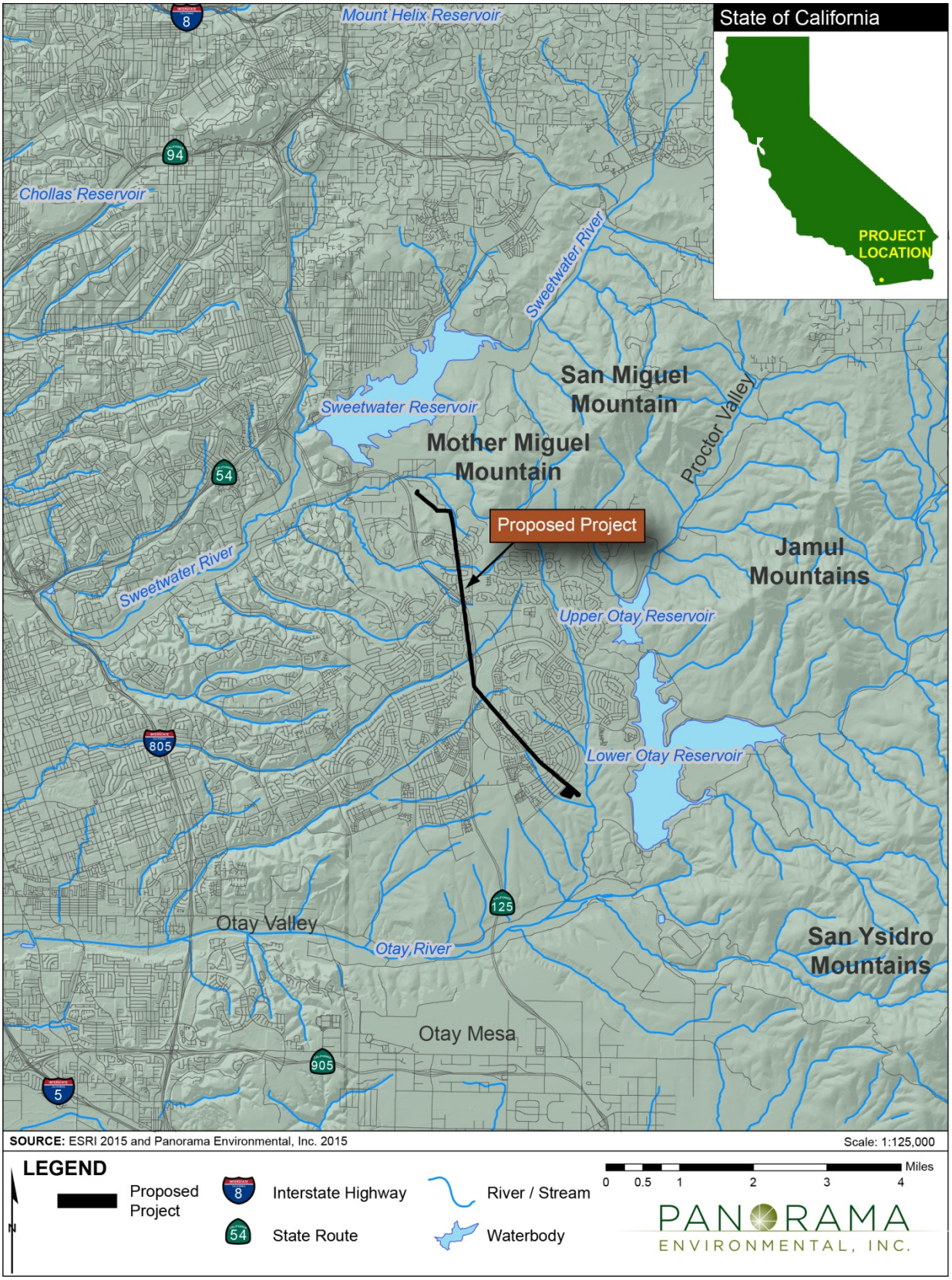


Table 4.1-2 Landscape Character Units

Description	Representative Image
Otay Ranch LCU	
Location. Community of Otay Ranch; southern boundary is marked by Hunte Parkway **Characteristic features.** Master planned communities consisting primarily of residential land uses with pockets of commercial and institutional developments **Visually dominant features.** SR-125 and SDG&E's transmission corridor, which both run north-south **Visual quality.** Low to moderate due to foreground presence of varied cultural modifications that dominate the viewshed **Intactness.** Moderate due to disruptions in the viewshed by vertical human elements (i.e., steel lattice towers and traffic lights) that punctuate the horizon lines **Unity.** Moderate due to disruptions in the viewshed by vertical human elements **Vividness.** Low to moderate; areas surrounding Otay Ranch LCU also have a mix of natural, rural, and human elements, with the exception of Otay Open Space Preserve	

Description	Representative Image
Open Space LCU	
Location. South and east of the community of Otay Ranch **Characteristic features.** Natural and park-like appearance with reservoirs, rivers, trails, and recreational facilities **Visually dominant features.** Lower and Upper Otay Lakes and north-south transmission line located west of the proposed substation site **Visual quality.** Moderate to high; area is relatively undeveloped with a small number of visual intrusions **Intactness.** Moderate to high due to contrast of the natural landscape with surrounding areas **Unity.** Moderate to high because area is relatively undeveloped **Vividness.** Moderate to high because of varied terrain within the Open Space LCU	

Description	Representative Image
OTC LCU	
Location. At the Olympic Training Center, east of Hunte Parkway **Characteristic features.** High developed area with sports fields, ball courts, BMX tracks, dormitories, and support facilities **Visually dominant features.** None **Visual quality.** Low to moderate due to highly developed setting **Intactness.** Low to moderate due to disruptions in the viewshed by vertical human elements (i.e., traffic lights and tract housing) that punctuate the horizon lines **Unity.** Moderate; majority of elements are recreational facilities **Vividness.** Low to moderate; areas surrounding OTC LCU also have a mix of natural, rural, and human elements	

Description	Representative Image
Miguel Substation LCU	
Location. North and immediately adjacent to SR-125 **Characteristic features.** Rural residential development and structures at the substation **Visually dominant features.** Tall substation structures and complex array of conductors **Visual quality.** Low; complex array of conductors creates a cluttered appearance **Intactness.** Low; skylined conductors interrupt views to surrounding areas, and access roads and cleared areas alter the area's appearance **Unity.** Low. Complex array of conductors creates a cluttered appearance **Vividness.** Moderate to high; complex array of conductors conflicts with surrounding LCUs	

rise urban development with varied architectural styles, and highly varied ornamental vegetation.

Viewsheds

Proposed Substation
The proposed substation viewshed includes existing development within Otay Ranch and the OTC to the west, north, and northeast, and open space lands to the east and south. One existing electric transmission line is visible and distinct within the foreground open space setting. The proposed substation is located within the Otay Ranch LCU and bordered by the Open Space LCU to the south and east.

TL 6965
The viewshed from the transmission corridor is generally contained by development within the Otay Ranch LCU and foreground views perpendicular to the corridor. Undeveloped lands of the Open Space LCU are visible in the middleground and background to the north and south and parallel to the corridor.

Miguel Substation
The viewshed of Miguel Substation includes SR-125 in the foreground to the south; foreground and middleground views of Otay Ranch to the south, east and northwest; and, views of Mother Miguel and San Miguel Mountains to the northeast. Miguel Substation is located within the Miguel Substation LCU.

Staging Yards
There are four staging yard areas associated with the proposed project:

- Within the proposed substation site (see proposed substation viewshed)
- Miguel staging yard
- Eastlake Parkway staging yard
- Hunte Parkway staging yard

Alternative staging areas have also been identified at the OTC, should additional locations be required.

The Miguel staging yard is located in the Miguel LCU and the viewshed is detailed in the description of the Miguel LCU. The primary visual receptors of the Miguel staging yard are motorists on SR-125 and recreationists using local trails. The viewshed exhibits a highly industrialized visual character.

The Eastlake Parkway staging yard is located north of Eastlake Parkway within the Otay Ranch LCU. The landscape characterization of the viewshed is urbanized and industrial. Primary visual receptors include motorists and residents of multi- and single-family residences.

The Hunte Parkway staging yard is located at the intersection of Discovery Falls Drive and Crossroads Street within the Otay Ranch LCU. Multi-family residential land uses are present north and east of the staging yard. The landscape characterization of this staging yard is

disturbed open space. The primary visual receptors of this staging yard are residents and motorists.

The OTC staging yards include five potential areas on the north and south ends of OTC. The landscape characterization of the OTC staging yard viewshed is urbanized and disturbed open space. Primary visual receptors of these staging yards include in-training athletes, motorists, and residents. The OTC staging yards are located within the OTC LCU.

Viewer Sensitivity

Viewer activity, view duration, distance away from seen objects (foreground, middleground, and background), adjacent land uses, and special planning designations, such as scenic route designation, are used to characterize viewer sensitivity. Potentially affected viewers are characterized below.

Motorists

Travelers along SR-125 include residents traveling out of town, regional commuters, tourists, and all forms of commercial truck traffic. Travelers along the local road network include residents, local commuters, and light commercial truck traffic. Motorists are expected to have a low to moderate sensitivity to visual change because the proposed project area is generally in view for a relatively brief period of time for travelers on any roadway due to topography and development that shield views.

Residents

Two-story residences adjacent to Hunte Parkway have southern views over the proposed substation site to open space lands. These views are partially filtered or completely blocked by trees and other tall shrubs planted in the Hunte Parkway ROW. Hundreds of residences align the existing transmission line corridor passing through the Otay Ranch residential development. Residents are considered to have a high sensitivity level because of the greater amount of time they spend in their homes.

Shoppers and Business Park Workers

The existing transmission corridor is visible in the foreground from a shopping center and business park. The primary visual interest of both shoppers and office workers is likely focused on their immediate setting and activities that are more important to them than the larger landscape. The sensitivity level of these receptors is considered low.

Recreationists

The proposed project area is visible from a number of trails and recreational areas. The proposed substation site is adjacent to Hunte Parkway and the Hunte Parkway Trail. Hunte Parkway is also a designated bicycle route. A proposed Otay Valley Regional Park Trail is identified in the City of Chula Vista Greenbelt Master Plan; the trail would be perpendicular to Hunte Parkway and east of the proposed substation, paralleling the existing transmission corridor. The California Riding and Hiking Trail is south of the proposed substation within the Otay Valley Regional Park. A number of local and community parks are adjacent to the existing transmission corridor (refer to Figures 4.13-1 and 4.13-2, and Table 4.13-1 in Section 4.13:

Recreation). Local trails along Hunte and Olympic Parkways go through the existing ROW. Developed and informal local trails are located within and parallel to the transmission corridor. Miguel Substation is within view of the trail system of the San Diego National Wildlife Refuge.

Recreationists are divided into two groups: passive and active. Active recreational activities are usually associated with sports or exercise (e.g., baseball, soccer) that require focused attention on the activity; passive recreationists participate in more leisurely activities (i.e., hiking, bird-watching), which affords the receptor the opportunity to be more aware of and familiar with their surroundings (NPS 1968). Recreationists engaged in passive forms of recreation generally have a high sensitivity to visual change. Recreationists involved in more active forms of recreation generally have a moderate sensitivity to visual change because their attention is focused on the activity in which they are engaged.

Scenic Highways

Federal

Federal scenic highways include highways that are eligible for designation as scenic highways under the National Scenic Byways Program. There are no designated or eligible National Scenic Byways or All-American Roads in the project area.

State

California's Scenic Highway System includes highways that are eligible for designation as scenic highways and designated scenic highways. There are no designated or eligible scenic highways in the project area (Caltrans 2014). The nearest State-designated scenic highway is a 2-mile portion of SR-125 located over 10 miles north of the project area. However, the project area is not visible from any State-designated or eligible scenic highway.

Local

The County of San Diego General Plan identifies roads within the unincorporated County that are part of the County's scenic highway system. There are two County-designated scenic highways in the project vicinity: (1) Otay Lakes Road from the City of Chula Vista limits to SR-94, and (2) Proctor Valley Road from the City of Chula Vista limits to SR-94. These routes in the County are not within the viewshed of the project area.

The City of Chula Vista's General Plan designates the following routes that cross the project area as "scenic roadways":

- Hunte Parkway
- Olympic Parkway
- Telegraph Canyon Road/Otay Lakes Road
- Proctor Valley Road

Scenic Vistas

The County of San Diego General Plan does not identify any scenic vistas within view of the project area. The Land Use and Transportation element of the City of Chula Vista General Plan (Chapter 5, Section 3.1) defines the following vistas in the vicinity of the project:

- Otay River Valley and the Otay River Valley Park
- Upper and Lower Otay Lakes
- Sweetwater River Valley and Sweetwater Reservoir
- San Miguel and Mother Miguel Mountains
- San Diego Bay

The project area is within the viewshed of San Miguel and Mother Miguel Mountains and is not within the viewshed of other City of Chula Vista scenic vistas.

Light and Glare

Sources of light in and around the project area include street lights, parking area lights, automobile headlights, security lighting, decorative landscape lighting, and lights from residential, commercial, and institutional buildings.

Glare is often categorized by its intensity as follows:

- **Distracting glare:** Glare bright enough to be annoying, such as bright oncoming headlights in an otherwise dark environment. Distracting glare can also be produced by reflected light off a specular (i.e., reflective) surface. This level of glare can create eye fatigue.
- **Discomfort glare:** Glare that is intense and may cause a receptor to blink or look away. The sun reflecting off still water or intense sunlight reflecting off fresh snow are good examples of this type of glare. This level of glare can affect visual acuity by reducing the receptor's ability to distinguish variations of contrast.
- **Disability glare (also called veiling glare):** Glare so intense the eye automatically reacts to avoid damage. Visual acuity is diminished significantly, and latent images (thus the term veiling) of the glare source can last until the retina can recover from the injury.

The most pervasive sources of glare in the project area are window glass, polished steel architectural elements, and reflections from moving cars.

4.1.2 Regulatory Setting

Federal and State

There are no federal or state regulations that pertain to the proposed project because there are no federal or state scenic resources in the project area.

Local

County of San Diego

The County of San Diego General Plan includes goals and policies for development projects regarding aesthetics. The County General Plan identifies the following relevant policies (County of San Diego 2011):

Goal COS-11, Preservation of Scenic Resources

Policy COS-11.1 Requires the protection of scenic highways, corridors, regionally significant scenic vistas, and natural features, including prominent ridgelines, dominant landforms, reservoirs, and scenic landscapes.

Policy COS-11.2 Promotes the connection of regionally significant natural features, designated historic landmarks, and points of regional historic, visual, and cultural interest via designated scenic corridors, such as scenic highways and regional trails.

Policy COS-11.3 Requires development within visually sensitive areas to minimize visual impacts and to preserve unique or special visual features, particularly in rural areas, through the following:

- Creative site planning
- Integration of natural features into the project
- Appropriate scale, materials, and design to complement the surrounding natural landscape
- Minimal disturbance of topography
- Clustering of development so as to preserve a balance of open space vistas, natural features, and community character
- Creation of contiguous open space networks

Policy COS-11.5 Pertains to collaboration with Private and Public Agencies and coordination with the CPUC, power companies, and other public agencies to avoid siting energy generation, transmission facilities, and other public improvements in locations that impact visually sensitive areas, whenever feasible. It requires the design of public improvements within visually sensitive areas to blend into the landscape.

Goal COS-12, Preservation of Ridgelines and Hillsides

Policy COS-12.2 Requires development to preserve the physical features by being located down and away from ridgelines so that structures are not silhouetted against the sky.

Goal LU-2, Maintenance of the County's Rural Character

Policy LU-2.8 Requires measures that minimize significant impacts to surrounding areas from uses or operations that cause excessive noise, vibrations, dust, odor, aesthetic impairment and/or are detrimental to human health and safety.

Goal LU-6, Development – Environmental Balance

Policy LU-6.9 Requires development to conform to the natural topography to limit grading; incorporate and not significantly alter the dominant physical characteristics of a site; and utilize natural drainage and topography in conveying stormwater to the maximum extent practicable.

City of Chula Vista General Plan

The Chula Vista General Plan (City of Chula Vista 2005) establishes goals and objectives to provide guidance in the growth of the City. The Land Use and Transportation (LUT) Element in Chapter 5 addresses community image and character, including designated scenic resources, and identifies the following aesthetics objectives and policies. The following aesthetics objectives were identified in the City of Chula Vista General Plan:

Objective LUT 4	Establish policies, standards, and procedures to minimize blighting influences and maintain the integrity of stable residential neighborhoods.
Policy LUT 6.2	Require that proposed development plans and projects consider and minimize project impacts upon surrounding neighborhoods.
Policy LUT 6.7	Require that outdoor storage areas or salvage yards be screened from any public ROW.
Objective LUT 7	Appropriate transitions should be provided between land uses.
Policy LUT 7.3	Require that commercial and industrial development adjacent to residential or educational uses be adequately screened and buffered to minimize noise, light, glare, and any other adverse impacts upon these uses.
Objective LUT 10	Create attractive street environments that complement private and public properties, create attractive public rights-of-way, and provide visual interest for residents and visitors.
Policy LUT 10.7	Work with utility providers to coordinate the design of utility facilities (e.g., substations, pump stations, switching buildings, etc.) to ensure that the facilities fit within the context of their surroundings and do not cause negative visual impacts.
Objective LUT 13	Preserve scenic resources in Chula Vista, maintain the City's open space network, and promote beautification of the City.
Policy LUT 13.1	Identify and protect important public viewpoints and viewsheds throughout the Planning Area, including features within and outside the planning area, such as: mountain; native habitat areas; San Diego Bay; and historic resources.

4.1.3 Applicant Proposed Measures

SDG&E proposes to implement measures that would reduce environmental impacts. The following relevant APMs are considered part of the proposed project (Table 4.1-3). The significance of the impact, however, is first considered prior to application of the APM and a significance determination is made. The implementation of the APM is then considered as part of the project when determining whether impacts would be significant and require mitigation. These APMs would be incorporated as part of any CPUC approval of the project, and SDG&E

would be required to adhere to the APMs as well as any identified mitigation measures. The APMs are included in the Mitigation Monitoring and Reporting Plan (MMRP) for the project (refer to Section 9: Mitigation and Monitoring and Reporting Plan of this Draft EIR), and the implementation of the measures would be monitored and documented in the same manner as mitigation measures.

Table 4.1-3 Applicant Proposed Measures for Visual Impacts

APM Number	Requirement
APM AES-1: Visual Screening	The Hunte Parkway and Eastlake Parkway staging yards will have opaque mesh installed along the fence to screen the view of the staging yards from public vantage points, such as roads and residences.
APM AES-2: Night Lighting	All lights will be shielded and pointed down to minimize glare onto surrounding properties and natural habitats. Lights will not be left on at night, with the exception of the gate entry light and lights required for nighttime work and/or an emergency.
APM AES-3: Glare	Engineered poles (poles requiring foundations) will be dull galvanized to reduce glare compared to typical galvanized coatings. Direct bury poles will either be dull galvanized or weathered steel.

4.1.4 Significance Criteria

Appendix G of CEQA Guidelines (14 CCR 15000 *et seq.*) provides guidance on assessing whether a project will have significant impacts on the environment. Consistent with Appendix G, a project would have significant aesthetic impacts if the project would:

a. Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway or designated scenic roadway
b. Substantially degrade the existing visual character or quality of the site and its surroundings
c. Have a substantial adverse effect on a scenic vista
d. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area

4.1.5 Environmental Impacts and Mitigation Measures

Approach to Impact Assessment

This visual impact analysis follows the CEQA Guidelines and is supplemented by the guidelines provided in *Visual Impact Assessment for Highway Projects*, which uses a numerical evaluation approach (FHWA 1988). This methodology was selected because the project includes a linear feature and because the majority of identified KOPs were along the local transportation network of roads and trails (see Section 4.1.1).

FHWA criteria for analyzing changes to the visual quality of the area include vividness, intactness, and unity, which are defined in Table 4.1-1. Visual changes resulting from the proposed project are determined based on how the project blends with and complements the natural setting or the man-made development (unity and intactness), or the degree to which the project contrasts with them (vividness).

Key Observation Points

Key Observation Points (KOPs) provide a perspective of the project from representative vantage points within each characteristic landscape unit. KOPs were selected to provide representative views of the project area within each LCU. KOPs typically include publicly accessible locations

such as parks, recreational areas, and areas along roadways or travel corridors. Table 4.1-4 provides a description of the location and direction of the view as well as viewer sensitivity at that KOP. Figure 4.1-2 depicts the locations of the KOPs used in the analysis. Baseline condition photographs from each KOP are provided in Appendix F.

The University Village future development site (KOP 14) and the City of Chula Vista Greenbelt (KOP 15) are included as KOPs to represent a future baseline condition. Both the University Village Project (City of Chula Vista 2014) and the City of Chula Vista Greenbelt (City of Chula Vista 2003) were proposed prior to the NOP and have been approved by the City of Chula Vista. Both projects are reasonably foreseeable. This EIR therefore includes analysis of impacts on viewers from these future projects to provide meaningful information to the public and decision makers.

Visual Simulations

Visual simulations were developed for the 15 KOPs shown on Figure 4.1-2. The visual simulations were referenced in a quantitative analysis to calculate the change in visual quality between the baseline conditions and after project implementation, described below. The KOP visual simulations are provided in Appendix F.

Methodology

Each KOP was evaluated with a numerical rating system to determine the change in visual quality that the proposed project would cause. The evaluation involved five steps:

1. Identify, define the visual character, and assign a numerical rating for each LCU identified in the viewshed of the project.
2. Analyze, describe, and assign a numerical rating for existing visual quality for each of three criteria: vividness, intactness, and unity (for definitions, refer to Table 4.1-1).
3. Analyze, describe viewer response, and define numerical rating based on viewer sensitivity and viewer exposure (for definitions, refer to Table 4.1-1). The visual experience of many different viewers was considered in the evaluation.
4. Depict the visual appearance of the proposed project through photo-simulations.
5. Assess the change in visual quality based on the presence of the proposed project (define new numerical rating). Visual change measures the difference between existing visual quality and visual quality after construction of the proposed project.

A numerical rating scale was used to determine visual quality and viewer response:

0 = None	No or very low degree of visual change to the existing visual resource.
1 = Low	Minor adverse change to existing visual quality, with low viewer response to change in the visual environment. Impacts would be less than significant.
2 = Moderate	Moderate adverse change to existing visual quality with moderate viewer response. Impact can be reduced within 5 years using conventional visual resource mitigation measures of facilities including landscaping.
3 = Moderately	Moderate adverse change to existing visual quality with high viewer response; or high adverse visual resource change with moderate viewer

High	response. Conventional visual resource mitigation measures of facilities including landscape treatment practices will generally reduce impacts.
4 = High	A high level of adverse change to the visual quality or a high level of viewer response to visual change such that architectural design and landscape treatment cannot reduce the impacts to below a significant level. Viewer response level is high. An alternative project design or location may be required to avoid highly adverse impacts.

The ratings for change in visual quality and viewer response were then multiplied to produce a cumulative score (refer to rating sheets in Appendix F). The cumulative scoring relationship to overall visual impact and potential need for mitigation is as follows:

0	**Neutral visual impact.** There is no visual impact. No mitigation is required.
-1 to -4	**Low visual impact.** There is a less than significant level of visual impact. No mitigation is required.
-4 to -9	**Moderate visual impact.** Mitigation may be required depending on the level of viewer response to reduce the impact to a less than significant level.
-9 to -13	**Moderately high visual impact.** Mitigation would reduce the impact to a less than significant level.
-13 or below	**High visual impact.** The project may require design changes along with mitigation measures to reduce the impact.

Impacts with a score of moderately high to high are considered significant and require mitigation.

Definition of Visual Impact

The visual impact reflects the composite visual changes to both the directly-affected landscape and from sensitive viewing locations (public views). The visual impact levels referenced in this Draft EIR indicate the relative degree of overall change to the visual environment that the project would create.

The significance of the impact is determined based on combined factors of viewer response and the degree of change to visual quality that the proposed project would cause. The interrelationship of these two factors in determining whether adverse visual impacts are significant is shown in Table 4.1-5.

Table 4.1-4 Description of Key Observation Points and Viewer Sensitivity at Each Location

KOP	Location of Viewpoint	Direction of View	Project Elements	Description of Views	Viewer Sensitivity
1	East H Street west of SR-125 near the northbound on-ramp	Northeast	TL 6965	Foreground: East H Street Middleground: SDG&E ROW and proposed pole 56	Low
2	Otay Lakes Road just east of SR-125 near the southbound on-ramp to SR-125	North	TL 6965	Foreground: Otay Lakes Road Background: proposed pole 25, SDG&E ROW, and on- and off-ramps to SR-125	Low
3	Sunset View Park off of South Greensview Drive	Southwest	TL 6965	Foreground: Sunset View Park Middleground: proposed pole 15 Background: Otay Ranch community	High
4	The intersection of Olympic Parkway and SDG&E ROW	Southeast	TL 6965	Fore- to middleground: proposed poles 6 through 10 and SDG&E ROW Background: Otay Regional Open Space Preserve	Moderate to Moderately High
5	The baseball field in Windingwalk Park off of Exploration Falls Drive	North	TL 6965	Foreground: Windingwalk Park Middleground: proposed poles 6 and 7 Background: Hills in the open space	High
6	The intersection of Windingwalk Street and SDG&E ROW	Southeast	TL 6965	Fore- to middleground: proposed poles 1 through 4, SDG&E ROW Background: Otay Valley Regional Park and open space	Moderate
7	Hunte Parkway Trail, southwest of Exploration Falls Drive and northeast of High Tech Elementary School	Northeast	TL 6965 and Proposed Substation	Foreground: TL 6965 and the proposed substation Middleground: Otay County Open Space Preserve and open space	High
8	Hunte Parkway between Exploration Falls Drive and SDG&E ROW	Southeast	TL 6965	Foreground: Roadway, meridian, and sidewalk of Hunte Parkway Background: TL 6965, Otay Valley Regional Park, and open space	High

KOP	Location of Viewpoint	Direction of View	Project Elements	Description of Views	Viewer Sensitivity
9	The intersection of Hunte Parkway and SDG&E ROW	Southeast	TL 6965 and Proposed Substation	Foreground: TL 6965, proposed substation, and open space Background: Otay Valley Regional Park and open space	High
10	The intersection of Hunte Parkway and Hidden Path Drive	South	TL 6965	Foreground: TL 6965	High
11	A designated trail in Otay Valley Regional Park	Northwest	TL 6965 and Proposed Substation	Foreground: Otay Valley Regional Park Middleground: SDG&E ROW and proposed substation Background: Otay Ranch community	High
12	A trail from Hunte Parkway to Otay Valley Regional Park	South	TL 6965 and Proposed Substation	Foreground: Otay Valley Regional Park Middleground: SDG&E ROW and proposed substation Background: Otay Ranch community	High
13	The proposed Otay Valley Regional Park Trail adjacent to the proposed substation site	West	Proposed Substation	Foreground: proposed substation Background: Hunte Parkway and Otay Ranch community	High
14	A trail at the University Village future development site	Northwest	TL 6965 and Proposed Substation	Foreground: Otay Ranch Preserve Background: TL 6965 and proposed substation	Moderate
15	The intersection of a trail and the SDG&E ROW in the City of Chula Vista Greenbelt (Otay Ranch Preserve)	Northwest	TL 6965 and Proposed Substation	Foreground: Otay Ranch Preserve Background: TL 6965 and proposed substation	Moderate

Figure 4.1-2 KOP Locations

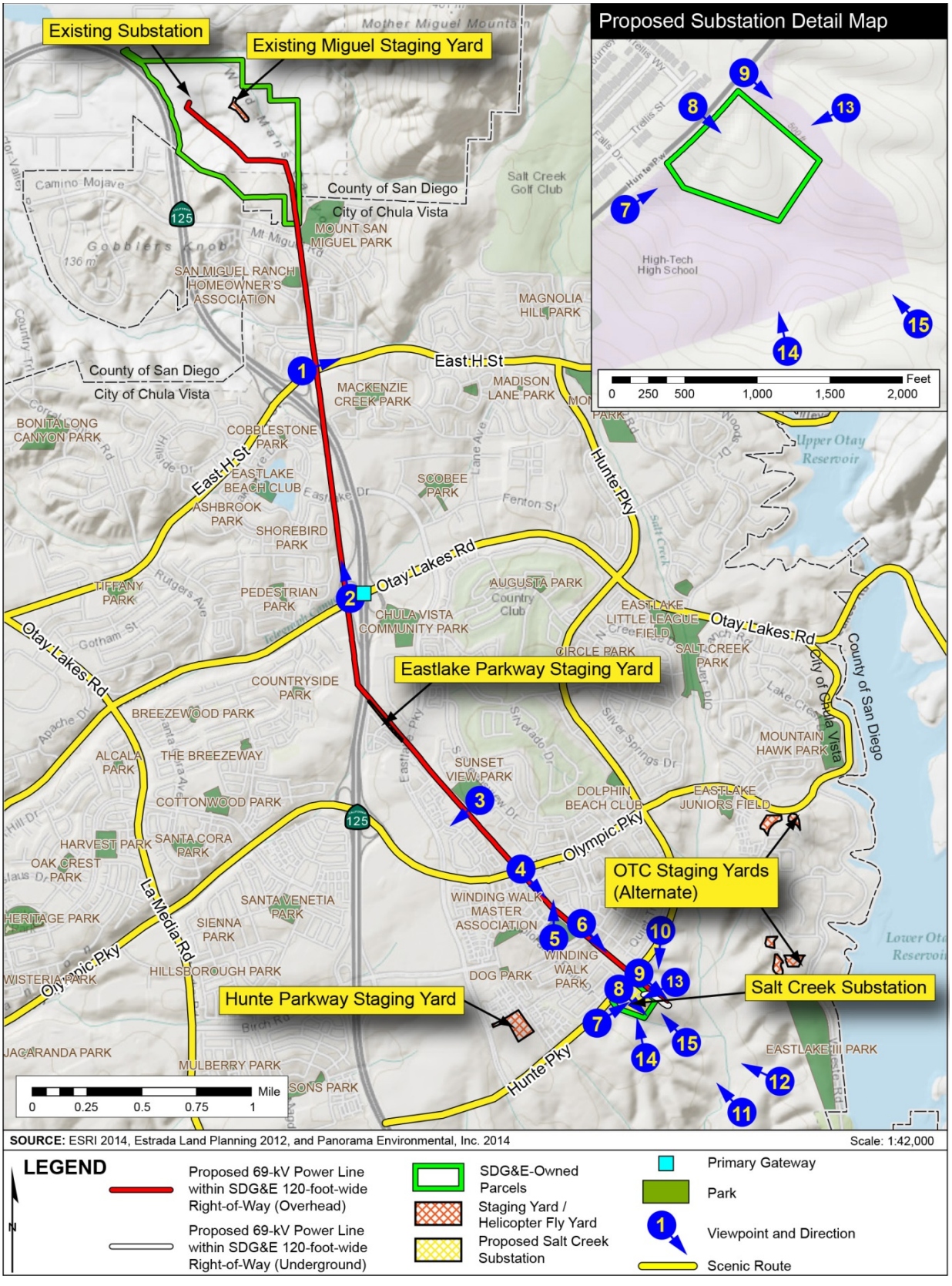


Table 4.1-5 Guidelines for Determining Adverse Visual Impact Significance

Overall Viewer Response	Overall Visual Change				
	Low	Low to Moderate	Moderate	Moderate to High	High
Low	Not Significant	Not Significant	Adverse, Not Significant	Adverse, Not Significant	Adverse, Not Significant
Low to Moderate	Not Significant	Adverse, Not Significant	Adverse, Not Significant	Adverse, Not Significant	Adverse, Not Significant
Moderate	Adverse, Not Significant	Adverse, Not Significant	Adverse, Not Significant	Adverse, Potentially Significant	Adverse, Potentially Significant
Moderate to High	Adverse, Not Significant	Adverse, Not Significant	Adverse, Potentially Significant	Adverse, Potentially Significant	Significant
High	Adverse, Not Significant	Adverse, Potentially Significant	Adverse, Potentially Significant	Significant	Significant

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

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

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

Significant. Impacts with feasible mitigation may be reduced to less than significant levels or avoided all together. Without mitigation or avoidance measures, significant impacts would exceed environmental thresholds.

Glare

The location of visual receptors and intensity of glare were used to determine the significance of glare from the proposed project. Fugitive glare, caused by incident sunlight reflecting off specular surfaces, is predictable. According to the Law of Reflection, the angle at which light hits a reflective surface equals the angle that the light will be reflected off the surface (Merriam-Webster 2015). The Law of Reflection is demonstrated in Figure 4.1-3.

At the latitude of the project area, the sun's rays shine from the southern sky. Visual receptors south of specular project components are therefore most likely to witness glare. The area affected by the fugitive glare also changes as the sun's position in the sky changes throughout the day so glare is temporal in any given area. The lower the sun angle (early morning and late evening), the more likely fugitive glare would be reflected to terrestrial-based receptors.

Impact Assessment

This section presents a summary of the aesthetic impacts resulting from construction, and operation and maintenance of the proposed project facilities. Table 4.1-6 provides the level of visual impact resulting from the constructed 69-kV power line.

Figure 4.1-3 Law of Reflection

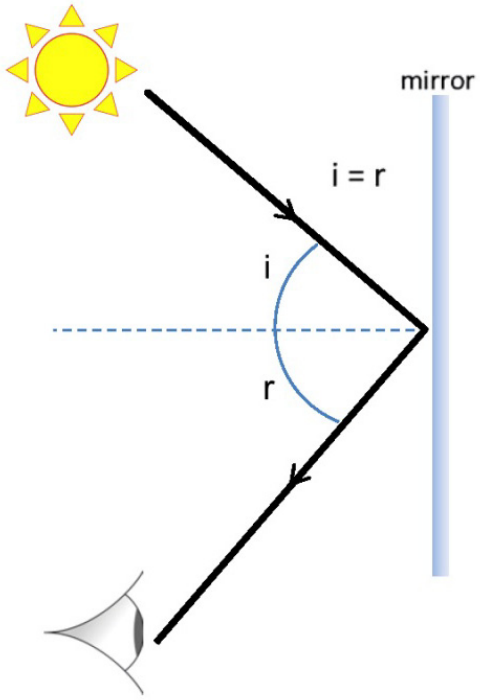


Table 4.1-6 Level of Visual Impact of the Proposed Power Line

KOP #	Visual Impact before Mitigation	Numeric Rating before Mitigation: Immediately Post-Construction[1,2]
1	None	0.0
2	Low	-1.5
3	Low	-3.5
4	Low	-2.25
5	Low	-4.0
6	Low	-2.0

Notes:

[1] Numeric Rating Scale:

0 = Neutral visual impact (no impact)

-1 to -4 = Low; less than significant level of visual impact

-4 to -9 = Moderate visual impact

-9 to -13 = Moderately high visual impact

-13 or below = High visual impact

[2] Visual simulations of the proposed TL 6965 power line only represent immediately post-construction views. No mitigation is proposed to screen the poles; therefore there is no mitigation applied in these simulations and associated impact ratings.

Table 4.1-7 provides the level of visual impact resulting from addition of the proposed ~~power line~~ substation. The visual impact of project operation and maintenance at the proposed substation was considered in two phases: (1) after initial planting and establishment of ground cover vegetation, and (2) after mitigation, when trees have established, approximately five years after the end of construction. No trees are proposed within the transmission corridor; therefore, the visual impact analysis for TL 6965 only considers the impact after construction. The numeric evaluation corresponds with the visual simulation for each of these scenarios. Rating sheets that detail the numeric evaluation for all KOP baseline photos and photo simulations are provided in Appendix F. Table 4.1-8 provides a summary of the significance of potential aesthetic impacts.

Table 4.1-7 Level of Visual Impact of the Proposed Substation

KOP #	Visual Impact before Mitigation	Numeric Rating before Mitigation: Immediately Post-Construction[1]	Numeric Rating before Mitigation: Ground Cover Established[1]	Numeric Rating after Mitigation: Trees Established[1]	Visual Impact after Mitigation
7	High	-15.75	-10.5	-4.5	Moderate
8	Low[2]	N/A	-1.5	N/A	N/A
9	Moderately High[3]	–	-10.0	-8.0	Moderate
10	Low[2]	N/A	-2.0	N/A	N/A
11	Low[2]	N/A	-2.0	N/A	N/A
12	Low[2]	NA	-2.0	N/A	N/A
13	High	-13.75	-9.6	-2.75	Low
14	High	-15.0	-5.0	-1.25	Low
15	Moderately High	-12.5	-7.5	-2.5	Low

Notes:

[1] Numeric Rating Scale:

0 = Neutral visual impact (no impact)

-1 to -4 = Low; less than significant level of visual impact

-4 to -9 = Moderate visual impact

-9 to -13 = Moderately high visual impact

-13 or below = High visual impact

[2] A visual simulation of the proposed substation immediately post-construction and after mitigation was not prepared for KOPs where there is limited visibility of the proposed substation. The impact at these KOPs would be low without mitigation; therefore no mitigation would be necessary and no simulations were prepared for the mitigated condition.

[3] A numeric rating for visual impacts immediately post-construction was not calculated for KOP #9 because the rating after establishment of ground cover vegetation was sufficient to assess visual impacts from KOP #9. Impacts at KOP #9 immediately post-construction would be similar to impacts at KOP #7.

N/A – A visual simulation was not prepared for these categories of views. Where the impact was low prior to mitigation, the impact with the mitigation would also be low; therefore, a visual simulation and numeric assessment of the mitigated view is not necessary from these viewpoints.

Table 4.1-8 Summary of Potential Impacts to Aesthetics

Significance Criteria	Project Phase	Significance Prior to APMS	Significance After APMs and Before Mitigation	Significance After Mitigation
Impact Aesthetics-1: Potential to substantially degrade the existing visual character or quality of the site and its surroundings during construction	Construction	Significant	Significant APM AES-1	Significant and Unavoidable MM Aesthetics-1 MM Aesthetics-2
Impact Aesthetics-2: Potential to substantially degrade the existing visual character or quality of the site and its surroundings during operation and maintenance	Operation and Maintenance	Significant	Significant	Less than significant MM Aesthetics-1 MM Aesthetics-2
Impact Aesthetics-3: Potential to substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway or designated scenic roadway during construction	Construction	Significant	Significant APM BIO-4	Significant and Unavoidable MM Aesthetics-1 MM Aesthetics-2
Impact Aesthetics-4: Potential to substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway or designated scenic roadway during operation and maintenance	Operation and Maintenance	Significant	Significant	Less than significant MM Aesthetics-1 MM Aesthetics-2
Impact Aesthetics-5: Potential to have a substantial adverse effect on a scenic vista	Construction	Less than significant	Less than significant	Less than significant
	Operation and Maintenance	Less than significant	Less than significant	Less than significant
Impact Aesthetics-6: Potentially create a new source of substantial light or glare that would adversely affect day or nighttime views in the area	Construction	Significant	Significant APM AES-3	Less than significant MM Aesthetics-3 MM Aesthetics-4
	Operation and Maintenance	Significant	Significant APM AES-2 APM AES-3	Less than significant MM Aesthetics-3 MM Aesthetics-4

Impact Aesthetics-1: Substantially degrade the existing visual character or quality of the site and its surroundings during construction (*Significant and unavoidable*)

Project construction would introduce construction equipment to the visual landscape and result in landscape alterations through vegetation removal, mass grading, and erection of structures. Construction of the proposed project would result in short-term views of construction vehicles and equipment and long-term changes to the visual quality of the site through land modifications and erection of permanent structures.

Proposed Substation

Construction of the proposed substation would introduce large earth-moving and construction equipment into an unoccupied landscape adjacent to roads and development. Grading and construction of the substation site would create a moderately high to high visual change in the landscape at the substation. Substation construction activities and approximate duration of each activity is shown in Table 4.1-9.

Table 4.1-9 Construction Activity Duration

Construction Activity	Duration
Site and access road grading including clearing and grubbing	3 months
Retaining wall construction	1 month
10- to 12-foot-high masonry wall installation	1 month
Storm drain system and erosion control	1 month
Access road paving	1 month
Substation below-grade construction	4 months
Substation above-grade construction	2 months
Substation wiring and telecom	3 months
Trenching and installation of underground structures	6 months
Cable pulling	1.5 months
Relay testing, energization, and 69kV cutover	2 months

Sources: SDG&E 2013a, SDG&E 2013b

The proposed substation construction would modify approximately 11 acres of currently undeveloped and sparsely vegetated land adjacent to existing transmission and power lines. Grading required for the proposed substation would alter the existing gently sloping terrain to create a level pad with long linear cut and fill slopes. The substation pad and slopes would be highly visible from Hunte Parkway, Hunte Parkway Trail, Otay Valley Regional Park, and developments adjacent to the park. Substation features that would potentially reduce the level of intactness, unity, and visual quality include:

- Cut and fill slopes (approximately 62,600 cubic yards of cut and 83,100 cubic yards of fill)

- 2- to 23-foot-high mechanically stabilized earth retaining walls on the downslope (south of the substation) and upslope (between the access road and Hunte Parkway) sides of the substation access road
- New road with asphalt concrete pavement (approximately 30 feet wide)
- Stormwater containment basin
- A 10- to 12-foot-high masonry screening wall and gate around the perimeter of the substation
- Substation equipment that would extend above the perimeter screening wall

Views from Hunte Parkway and Trail (KOPs #7 through #10)
Visibility of the substation would vary along Hunte Parkway (a City-designated scenic roadway) and Hunte Parkway Trail as presented in KOPs #7, #8, #9, and #10 (Figures 4.1-4 through 4.1-7, respectively). Views from Hunte Parkway are dominated by the middleground and background vistas out and over the open space lands to the east and south. At its closest point, the substation would be approximately 200 feet south of Hunte Parkway Trail. When seen, the substation would be in the foreground, but approximately ~~35 to 38~~47 feet below the grade of Hunte Parkway. The tallest substation feature (bank terminal structure) would be approximately 15.5 feet tall. Vistas to the south and east of open space lands as seen from Hunte Parkway and its trail would not be blocked by the facility because none of the substation features would extend above the grade of Hunte Parkway.

The substation is not visible along Hunte Parkway traveling south due to the depressed substation site location; this lack of visibility due to the lower elevation of the substation is shown in KOPs #8 and #10 (Figures 4.1-5 and 4.1-7) where there are no views of the substation site in the simulation. The proposed substation would have a low visual impact from KOPs #8 and #10, and impacts to visual character and quality would be less than significant.

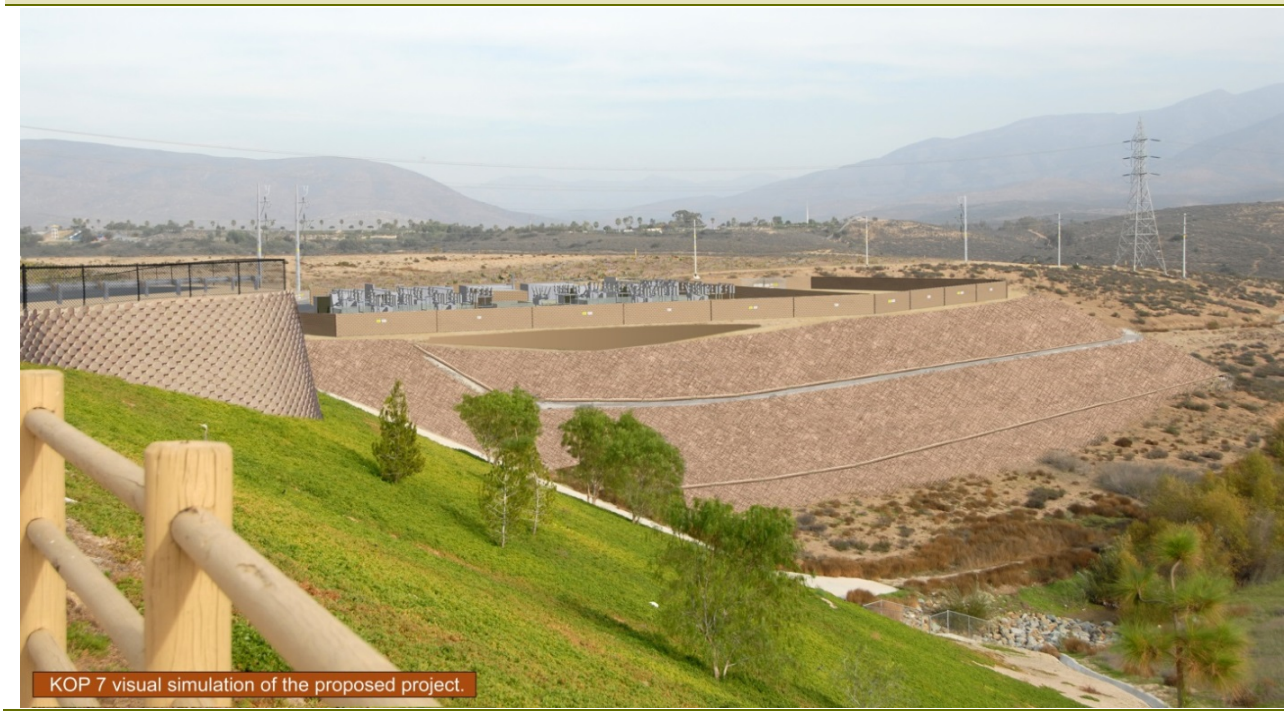
The substation would be in view to motorists traveling north on Hunte Parkway and pedestrians along Hunte Parkway Trail. The substation would be in open view to motorists for a short period of time (approximately 30 seconds) and to a greater extent to pedestrians. These views are represented in KOPs #7 and #9 (Figure 4.1-4 and 4.1-6). Pedestrians on Hunte Parkway Trail would have views down into the substation facilities, and the perimeter wall would provide limited screening of the substation equipment. The proposed substation would have a high and moderately high impact from KOPs #7 and #9, respectively, on the existing visual character and quality of the site and its surroundings.

SDG&E has proposed landscape plantings along the substation perimeter to visually screen the substation facility. The impact would be significant if the proposed landscaping may not be successful if the vegetation does not grow tall enough to visually screen the facility or if planting efforts fail, resulting in a significant visual impact (plants die or do not grow). Mitigation Measure Aesthetics-1 includes success criteria, monitoring, and remedial measures to ensure the success of the proposed landscaping. Meeting the success criteria of 80 percent vegetation cover would reduce visual impacts to a less-than-significant level.

Figure 4.1-4 KOP #7—View from Hunte Parkway Trail Southwest of Exploration Falls Drive and Northeast of High Tech Elementary Looking Northeast

Before Proposed Project

After Proposed Project (Visual Simulation)



Sources: AECOM 2015, SDG&E 2015a

Figure 4.1-5 KOP #8—View from Hunte Parkway between Exploration Falls Drive and SDG&E ROW Looking Southeast

Before Proposed Project

After Proposed Project (Visual Simulation)

Sources: AECOM 2015, SDG&E 2015b

Figure 4.1-6 KOP #9—View from Hunte Parkway and SDG&E ROW Looking Southeast

Before Proposed Project

After Proposed Project (Visual Simulation)

Sources: AECOM 2015, SDG&E 2015b

Figure 4.1-7 KOP #10—View from Hunte Parkway and Hidden Path Drive Looking South

Before Proposed Project

After Proposed Project (Visual Simulation)

Sources: Estrada Land Planning 2014, SDG&E 2014

Mitigation Measure Aesthetics-2 requires a color treatment plan to reduce the visual contrast of the facility with the surrounding landscape. Even with mitigation, it would take approximately 5 years for the landscape plantings to begin to mature and partially screen the facility. While vegetation is maturing, the cut and fill slopes and electrical infrastructure at the substation site would degrade the visual quality of the site and the surrounding area. Construction of the substation would have a significant and unavoidable impact on the visual character and quality of the site and its surroundings during construction and vegetation establishment. Impacts would be significant and unavoidable.

Views from Otay Valley Regional Park and Adjacent Development (KOPs #11 through #15)
The substation would be in open view from Otay Valley Regional Park (KOPs #11 and #12 as shown in Figures 4.1-8 and 4.1-9), the proposed Otay Valley Regional Park Trail east of the substation (KOP #13 as shown in Figure 4.1-10), the future University Village (KOP #14 as shown in Figure 4.1-11), and the City of Chula Vista Greenbelt (KOP #15 as shown in Figure 4.1-12).

The proposed substation would be seen from Otay Valley Regional Park as represented by KOPs #11 and #12 (Figures 4.1-8 and 4.1-9). The substation would be seen in middleground views from KOPs #11 and #12, which are located 0.5 mile or farther from the proposed substation site. Foreground and middleground views from the elevations in the Otay Valley Regional Park, which are lower than the elevation of the substation, would remain intact. These include views along the California Riding and Hiking Trail. The proposed substation would either not be seen, or the perimeter wall would screen the majority of substation facilities at a distance of 0.5 mile or more. The substation site would be perceived as an extension of existing development patterns along Hunte Parkway. Developments include the High Tech schools to the east of the substation and south of Hunte Parkway, residences north of Hunte Parkway that form a visual backdrop as seen from Otay Ranch Regional Park, and the cut and fill slopes of Hunte Parkway itself. Any vertical components that may be visible above the perimeter wall would be backdropped and visually absorbed by the textures of the Hunte Parkway corridor and existing Otay Ranch development. The general intactness and unity of the existing vivid edge that is created between the urban development of Chula Vista and undeveloped open space would remain. The proposed substation would have a low impact on views from KOPs #11 and #12, and impacts to visual character and quality to views from Otay Valley Regional Park would be less than significant.

The proposed substation would have no impact on viewers at KOPs #14 and #15 under existing conditions because neither the University Village project nor the City of Chula Vista Greenbelt were developed at the time of the NOP, and there are no existing viewers in these areas under current baseline conditions. As described above, the impact on future viewers in these areas is considered here to provide information to the public and decision makers. The proposed substation would have a high impact on views from the proposed Otay Valley Regional Park Trail located east of the substation as represented by KOP #13 (Figure 4.1-10) after construction of these facilities. The high impact on views from the proposed Otay Valley Regional Park Trail would result from a change in the vividness, intactness, and unity of the landscape at the

Figure 4.1-8 KOP #11—View from a Designated Trail in Otay Valley Regional Park Looking Northwest

Before Proposed Project

After Proposed Project (Visual Simulation)

Sources: AECOM 2015, SDG&E 2015b

Figure 4.1-9 KOP #12—View from a Trail from Hunte Parkway to Otay Valley Regional Park Looking Northwest

Before Proposed Project

After Proposed Project (Visual Simulation)

Sources: AECOM 2015, SDG&E 2015b

Figure 4.1-10 KOP #13—View from a Trail Adjacent to the Proposed Substation Site Looking West

Before Proposed Project

After Proposed Project (Visual Simulation)

Sources: AECOM 2015, SDG&E 2015a

Figure 4.1-11 KOP #14—View from Future University Village Development Site Looking Northwest

Before Proposed Project

After Proposed Project (Visual Simulation)

Sources: AECOM 2015, SDG&E 2015a

Figure 4.1-12 KOP #15—View from Intersection of a Future Trail and SDG&E ROW in Otay Ranch Preserve (City of Chula Vista Greenbelt)

Before Proposed Project

After Proposed Project (Visual Simulation)

Sources: AECOM 2015, SDG&E 2015a

viewing location. Because the proposed substation site is located directly adjacent to the Otay Valley Regional Park Trail, the substation would occupy a large portion of the view from the trail as recreationists enter the park system.

The substation would have a high impact to views from KOP #14 (Figure 4.1-11), the future University Village, and a moderately high impact to views from KOP #15 (Figure 4.1-12), the City of Chula Vista Greenbelt System. These locations provide a direct view towards the substation facility, and the substation cut and fill slopes would occupy a large portion of the landscape due to the proximity to the substation.

Construction of the substation would result in significant impacts to the visual character and quality of the site and its surroundings from the future Otay Valley Regional Park Trail, the future University Village, and City of Chula Vista Greenbelt System. SDG&E has proposed landscape plantings along the substation perimeter to visually screen the substation facility. If the proposed landscaping is not successful and does not screen the site, the proposed substation would have a significant impact on the visual character and quality of the area. Mitigation Measure Aesthetics-1 defines specific performance criteria for the landscaping to provide visual screening of the substation, and Mitigation Measure Aesthetics-2 requires SDG&E to implement a color treatment plan. Even with mitigation, it would take approximately 5 years for the landscape plantings to mature and screen the facility. While vegetation is maturing, the cut and fill slopes and electrical infrastructure at the substation site would impact the visual quality of the site and the surrounding area. Construction of the substation would have a significant and unavoidable impact on the visual character and quality of the site and its surroundings during construction and vegetation establishment. Impacts would be significant and unavoidable.

TL 6965

TL 6965 construction activities include:

- Removal of vegetation within the pole work areas using a road grader/blade
- Minor grading at the permanent work pads using scrapers, excavators road graders, and bulldozers
- Temporary construction-limit fencing
- Truck-mounted drills and cranes used for drilling holes for foundations and transporting and lifting galvanized steel poles
- Installing the steel poles using cranes
- Conductor stringing using helicopters and bucket trucks

Vegetation removal and grading at the work pads would be limited to the approximately 30-foot diameter pole work areas. These pole work areas are dispersed along the corridor and spaced approximately 200 to 1,000 feet apart. TL 6965 activities would be conducted at each pole site for approximately three days to erect the poles, and stringing will take approximately one week. Construction activities would therefore only be visible for a short duration.

TL 6965 traverses all the LCUs of the project area and would be seen in foreground views, except where the power line would be undergrounded near the proposed substation. TL 6965 would add a third set of electrical power structures to a ROW containing an existing power line

on wood poles (TL 6910) and two transmission lines on a steel tower (TL 23041/42). The existing TL 23041/42 is much taller than TL 6965 and is strung on highly visible steel lattice towers. TL 6910 is smaller in scale and is in a form that is unified with the proposed TL 6965. The proposed power line structures would be entirely visible from the local street system along SR-125 (KOPs #1 and #2 as shown in Figures 4.1-13 and 4.1-14), where it crosses ROWs (KOPs #4, #6, #8, #9, #10 as shown in Figures 4.1-15, 4.1-16, 4.1-5, 4.1-6, and 4.1-7, respectively), from trails adjacent to the ROWs (KOPs #7 and #13 as shown in Figures 4.1-4 and 4.1-10), and from residences and parks that abut the ROW (KOPs #3 and #5 as shown in Figures 4.1-17 and 4.1-18).

The existing, skylined transmission line lattice towers of the visually dominant TL 23041/42 and, to a lesser extent, the single poles of TL 6910 and street lights along area roadways visually command the foreground views for motorists and recreationists travelling along roads, bikeways, and trails in the project area and for recreationists using parks and public recreational facilities near the proposed power line.

The additional TL 6965 poles and related conductor would be visible in foreground views east of TL 23041/42. TL 6965 is shorter and would be less vivid than TL 23041/42. TL 6965 would use poles that are unified in form with the existing TL 6910 poles. The addition of TL 6965 to the ROW would repeat the form, line, color, and texture of TL 6910. The taller scale of the TL 23041/42 would remain the dominant feature of the corridor. Thus, TL 6965 and the temporary work areas for construction of TL 6965 would not significantly change the overall intactness of the immediate landscape, and visual impacts from KOPs #1 through #6, #8 through #10, and #13 would be low. Impacts to the existing visual quality and character of the site and surrounding area during construction of TL 6965 would be less than significant, and no mitigation is required.

Miguel Substation Modifications

Modifications to the existing Miguel Substation required to accommodate TL 6965 would require construction equipment to make the modifications, such as adding steel supports, disconnect switches, gas circuit breakers, and associated relays and controls to support the new 69-kV rack. Construction equipment such as forklifts, boom trucks, and pickup trucks would install the new components. The new components would be located within the existing substation yard and are similar in character to the existing facilities. The installation of the equipment would not be noticeable to motorists on SR-125 or recreationists in the surrounding open space lands. Modifications to Miguel Substation would not disrupt the existing visual character and quality of the site, and impacts would be less than significant.

Staging Yards

Staging Yard at the Proposed Substation Site

Temporary visual impacts resulting from construction of the staging yard would be encompassed in the temporary impacts resulting from construction of the proposed substation.

Figure 4.1-13 KOP #1— View from East H Street West of SR-125 Near the Northbound On-ramp Looking Northeast

Before Proposed Project

After Proposed Project (Visual Simulation)

Sources: Estrada Land Planning 2014, SDG&E 2014

Figure 4.1-14 KOP #2— View from Otay Lakes Road East of SR-125 Near the Southbound On-ramp Looking North

Before Proposed Project

After Proposed Project (Visual Simulation)

Sources: Estrada Land Planning 2014, SDG&E 2014

Figure 4.1-15 KOP #4— View from Olympic Parkway and SGD&E ROW Looking Southeast

Before Proposed Project

After Proposed Project (Visual Simulation)

Sources: Estrada Land Planning 2014, SDG&E 2014

Figure 4.1-16 KOP #6— View from Windingwalk Street and SGD&E ROW Looking Southeast

Before Proposed Project

After Proposed Project (Visual Simulation)

Sources: Estrada Land Planning 2014, SDG&E 2014

Figure 4.1-17 KOP #3— View from Sunset View Park Off of South Greensview Drive Looking Southwest

Before Proposed Project

After Proposed Project (Visual Simulation)

Sources: Estrada Land Planning 2014, SDG&E 2014

Figure 4.1-18 KOP #5— View from Windingwalk Park off of Exploration Falls Drive Looking North

Before Proposed Project

After Proposed Project (Visual Simulation)

Sources: Estrada Land Planning 2014, SDG&E 2014

Hunte Parkway Staging Yard
Two- and three-story residences are located immediately across Crossroads Street and Discovery Road Drive approximately 120 feet from the proposed Hunte Parkway staging yard. These residents would have direct views over the proposed staging yard perimeter fencing into the work areas. The Hunte Parkway staging yard would be used during construction for up to 24 months. Construction activities and associated materials and equipment would be visible to adjacent residences. Use of this staging yard would require vegetation removal, fencing of the substation site, and temporary storage of construction materials.

The Hunte Parkway staging yard was previously graded for future development as a school site. The site contains ruderal vegetation. Removal of the vegetation and staging of material within the site would have a significant adverse impact on visual quality during construction. APM AES-1 requires the installation of opaque mesh along the fence for the Hunte Parkway and Eastlake Parkway staging yards to screen the view of the staging yards from roadways near the staging yards. APM AES-1 would reduce the visual contrast of the staging yard. Impacts would be less than significant, and no mitigation is required.

Eastlake Parkway Staging Yard
The Eastlake Parkway staging yard is currently used as a staging yard for other projects in the utility corridor. Two-story residences along Aruba Cove and Latigo Cove (approximately 70 feet away) overlook the Eastlake Parkway staging yard, and residences would have direct views into the work areas. However, the use of this staging yard for construction of the proposed project would be consistent with the current uses of the site and would not substantially degrade the character or quality of the site or its surroundings. Impacts from use of the Eastlake Parkway staging yard would be less than significant.

Olympic Training Center Staging Yards
The OTC staging yards are not visible from public roadways surrounding the OTC because the nearby roadways are below the elevation of the staging yards, and the staging yards would be set back from the edge of the slope, thereby screened from view. The staging yards would be visible within the OTC itself. The staging yards would have a low impact on the visual quality of the area due to the moderate or low sensitivity of views in the OTC. Impacts from use of the OTC staging yards would be less than significant, and no mitigation is required. While less than significant, Optional Measure Aesthetics-1 suggests installation of opaque mesh along the fence for the OTC staging yards if they are used for project staging.

Mitigation Measures: Aesthetics-1 and Aesthetics-2

> **Mitigation Measure Aesthetics-1:** SDG&E shall submit a Landscaping and Irrigation Plan to the CPUC for review and approval no less than ~~3~~ 120 days prior to acquisition of landscape materials ~~construction~~. The purpose of the Landscaping and Irrigation Plan is to ensure successful revegetation of the substation slope to partially screen the facility from view within a period of 5 years after construction. The Landscaping and Irrigation Plan shall conform to the species and irrigation approach presented in the Conceptual

Landscape Plan (Appendix B of this EIR). The Plan shall be reviewed by a geotechnical engineer for consistency with the slope stabilization approach proposed for the site prior to submittal to the CPUC. The Plan shall not conflict with the slope stabilization approach as described in the geotechnical report prepared for the substation site (Kleinfelder 2008; the report is included in Appendix H). The Landscaping and Irrigation Plan will include:

1. Specimen Name, Location, and Container Size for all Trees, Shrubs and Groundcover, including at a minimum:
   a. Adequate container size for each tree species to provide visual screening of the substation facility within a period of 5 years
2. Temporary and Permanent Irrigation Line Locations
3. Thickness of topsoil and soil compaction range for selected plant species
4. Success Criteria, including at a minimum:
   a. 80 percent success for all container plantings with a tree canopy height of 12 feet or more
   b. 85 percent of pre-project vegetative cover for shrub and herbaceous vegetation
   c. Less than 5 percent invasive weeds
5. Remedial Actions, including at a minimum:
   a. Replacement of container plantings if the success criteria are not met by year 2
   b. Additional seeding if the success criteria for shrub and herbaceous vegetation is not met by year 2
   c. Soil treatments, as appropriate
   d. Extended irrigation for areas not meeting success criteria or change in the frequency and duration of irrigation
   e. Invasive weed removal by hand, mechanical, or chemical application
6. Monitoring Methods, Location, Frequency, and Reporting including:
   a. Landscape monitoring reports that document plant mortality and replacement and include photo-documentation of the vegetated cover from a minimum of eight photo locations
   b. Quarterly monitoring for the first year following construction
   c. Bi-annual monitoring in the spring and fall for the remainder of the monitoring period
   d. Monitoring for at least 5 years and until the success criteria have been met

The SDG&E Landscaping and Irrigation Plan shall be prepared by a California-licensed landscape architect or a restoration ecologist with experience in southern California ecosystems. The plantings defined in the Landscaping and Irrigation Plan shall be planted on the site within 3 months of the completion of substation construction. SDG&E shall submit the landscape monitoring reports to the CPUC throughout the

duration of monitoring. Landscape monitoring reports shall be prepared by a California licensed landscape architect or a botanist.

Mitigation Measure Aesthetics-2: SDG&E shall prepare a Facilities Color Treatment Plan describing the application of colors to all new facility buildings, walls and fences at the Salt Creek Substation. The proposed color treatments shall minimize visual intrusion and contrast by blending the facilities with the landscape. Color specifications for the verdura retaining wall and masonry walls will be based on standard color palettes from the providers. The Plan shall be submitted to CPUC for review and approval at least 90 days prior to (a) ordering the first exterior building components to be color treated, or (b) construction of any exterior building component, whichever comes first. The Facilities Color Treatment Plan shall include:

- Specification, and 11 x 17 inch color simulations ~~at life-size~~ to scale, of the treatment proposed for use on project structures
- List of each major project structure, building, ~~tower and/or pole,~~ and fencing specifying the color(s) and finish proposed for each (colors must be identified by name and by vendor brand or a universal designation)
- Two sets of brochures and/or color chips for each proposed color
- A detailed schedule for completion of the treatment
- A procedure to ensure proper treatment maintenance for the life of the project

SDG&E shall not specify to the vendors the treatment of any buildings or structures treated during manufacture or perform the final treatment on any buildings or structures treated onsite during construction until SDG&E receives notification of approval of the Color Treatment Plan by the CPUC.

Optional Measure Aesthetics-1: SDG&E should install opaque mesh along the fence of all staging yards, with the exception of the Miguel Substation staging yard, used for the proposed project to screen the view of the staging yards from public vantage points, such as roads.

Significance after Mitigation: Significant and unavoidable.

Impact Aesthetics-2: Substantially degrade the existing visual character or quality of the site and its surroundings during operation and maintenance (*Less than significant with mitigation*)

Proposed Substation

The proposed substation would be visible to northbound traffic on Hunte Parkway (KOPs #7 and KOP #9), recreationists on nearby trails (KOPs #11, #12 and #13), and residents and recreationists at the future University Village (KOP #14) and City of Chula Vista Greenbelt System (KOP #15). This impact analysis assumes that the University Village and City of Chula Vista Greenbelt projects are constructed in the future because both projects have been approved by the City of Chula Vista. The impact of the proposed project on the University Village and City of Chula Vista Greenbelt are evaluated to provide information to the public and decision

makers. The substation electrical infrastructure and cut and fill slopes would substantially degrade the visual quality of the surrounding area, resulting in a significant impact. Mitigation Measure Aesthetics-1 defines specific performance criteria for the landscaping to provide visual screening of the substation. The landscaping will unify the substation cut and fill slopes with the surrounding landscape as the vegetation matures (refer to Table 4.1-7 and Appendix F). Views of the substation from KOPs #7, #9, #13, #14, and #15 after establishment of SDG&E's proposed landscaping are shown on Figures 4.1-19 through 4.1-21. Significant impacts to visual quality from the substation cut and fill slopes would be temporary, lasting up to 5 years while vegetation matures. Mitigation Measures Aesthetics-1 and Aesthetics-2 would reduce the permanent impacts to the visual character and quality of the area to a less than significant level by reducing visual contrast and screening the substation facility. Impacts would be less than significant with mitigation.

TL 6965 and Miguel Substation Modifications

The impact on the visual character or quality from operation and maintenance of TL 6965 and Miguel Substation would be consistent with the impact described for construction of these facilities above. No additional structures or facilities would be introduced to the area during operation and maintenance. All TL 6965 poles and power lines and Miguel Substation modifications would remain for the operational life of the project. These modifications would have either no or a low impact on the visual character and quality of the area, and impacts would be less than significant. No mitigation is required.

Mitigation Measures: Aesthetics-1 and Aesthetics-2

Significance after Mitigation: Less than significant.

Impact Aesthetics-3: Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a City-designated scenic roadway during construction (*Significant and unavoidable*)

There are no scenic trees, rock outcroppings, or historic buildings (refer to Section 4.5: Cultural and Paleontological Resources) that would be affected by the proposed project. The project area is not visible from a federal or state designated scenic highway. There are no County-designated scenic highways or roadways within the viewshed of the project area.

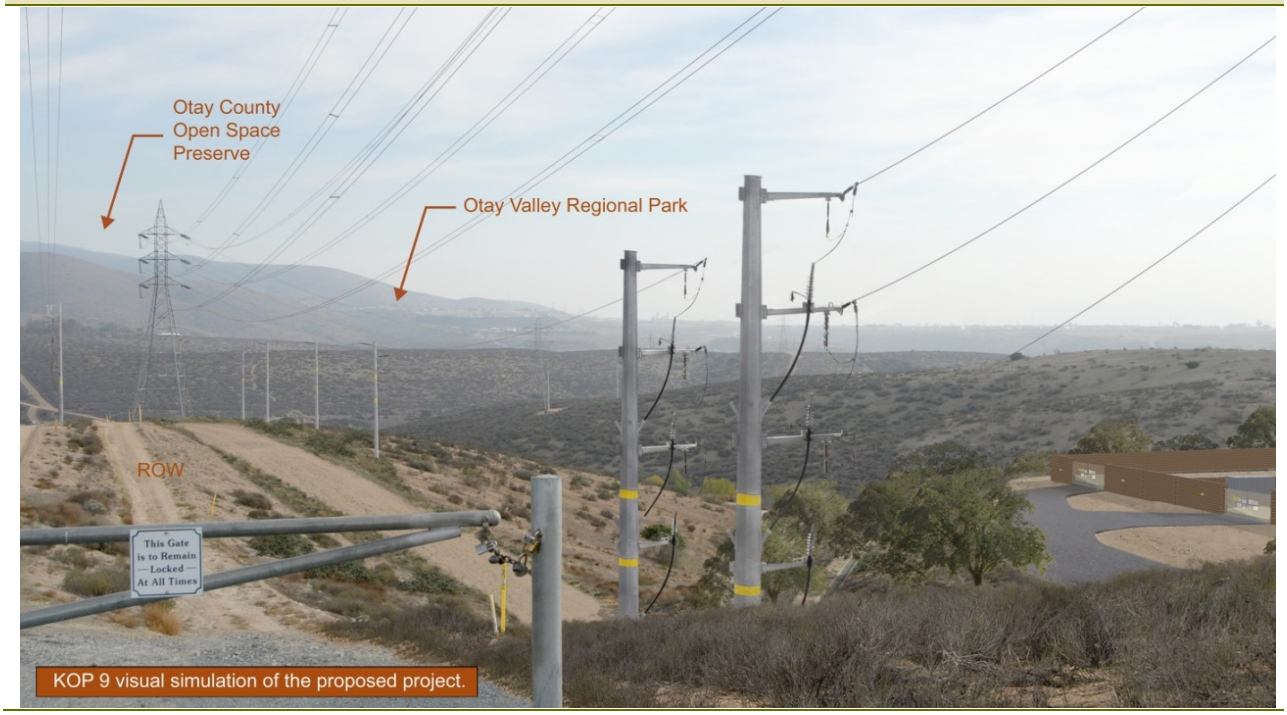
The City's General Plan designates the following routes that cross the project area as "scenic roadways":

- Hunte Parkway
- Olympic Parkway
- Telegraph Canyon Road/Otay Lakes Road
- Proctor Valley Road

Figure 4.1-19 Views of the Proposed Substation from Hunte Parkway Approximately 5 Years after Construction

KOP #7

KOP #9



Sources: SDG&E 2015a, SDG&E 2015b, AECOM 2015

Figure 4.1-20 Views of the Proposed Substation from the Future Otay Valley Regional Park Trail Approximately 5 Years after Construction

KOP #13

Sources: SDG&E 2015a, SDG&E 2015b, AECOM 2015

Figure 4.1-21 Views of the Proposed Substation from Future University Village and City of Chula Vista Greenbelt ~~Otay Ranch Preserve~~ Approximately 5 Years after Construction

KOP #14

KOP #15

Sources: SDG&E 2015a, AECOM 2015

This impact analysis considers impacts to views from the City-designated scenic roadways. Table 4.1-10 provides the approximate times of motorists' visual exposure to the project features. Miguel Substation modifications are not visible from any City-designated scenic

Table 4.1-10 Motorist Exposure to Project Features

Route	Speed Limit (miles per hour [mph])	Project Feature	Approximate Exposure Time
Hunte Parkway traveling north[1]	45 mph	Proposed Substation	30 seconds
Hunte Parkway traveling south (intermittent view because of street trees)	45 mph	Proposed Substation	0 seconds Not visible
Hunte Parkway traveling north	45 mph	TL 6965	30 seconds
Hunte Parkway traveling south	45 mph	TL 6965	40 seconds
Olympic Parkway traveling south	45 mph	TL 6965	45 seconds
Olympic Parkway traveling east	45 mph	TL 6965	53 seconds
East Lake Parkway traveling north	45 mph	TL 6965	15 seconds
East Lake Parkway traveling south	45 mph	TL 6965	13 seconds
San Miguel Ranch Road (both directions)	45 mph	TL 6965	15 seconds
SR-125 traveling north	65 mph	Miguel Substation	30 seconds
SR-125 traveling south	65 mph	Miguel Substation	15 seconds
SR-125 traveling (both directions)	65 mph	TL 6965	75 seconds

Note:

[1] Longer duration (depending on signal length) if stopped at traffic signal at Exploration Falls Drive

roadways, and there would be no impact to views from City-designated roadways from construction or operation of the Miguel Substation modifications.

Proposed Substation

Visibility of the substation would vary along Hunte Parkway, as presented in KOPs #7, #8, #9, and #10 (Figures 4.1-4, 4.1-5, 4.1-6, and 4.1-7). The views from Hunte Parkway are dominated by the middleground and background views of open space lands to the east and south. The substation would be in the foreground, approximately ~~35 to 38~~47 feet below the Hunte Parkway road bench as shown in KOPs #7 and #9 (Figures 4.1-4 and 4.1-6). The substation would not be visible from Hunte Parkway traveling south, from Hunte Parkway, directly adjacent to the substation (KOP #8; Figure 4.1-5), or north of the substation (KOP #10; Figure 4.1-7).

Substation facilities, including the masonry wall surrounding the site and substation equipment (e.g., transformers and buildings), would be visible from Hunte Parkway during and following construction. Construction of the proposed substation would result in a high and moderately high visual impact from to views from Hunte Parkway at KOPs #7 and #9, respectively (Figures

4.1-4 and 4.1-6; Table 4.1-7). There would be no visual impact and a low visual impact to views from KOPs #8 and #10, respectively (Figures 4.1-5 and 4.1-7), because the substation would be located below the grade of Hunte Parkway and would not block views of the surrounding open space areas. The substation would be located adjacent to existing electrical infrastructure and housing development, which have reduced the existing visual quality of the substation area. The high and moderately high visual impact at KOPs #7 and #9, respectively, reflect views of the project immediately post-construction, as shown in Figures 4.1-4 and 4.1-6 and represent the impact during construction and prior to establishment of landscape plantings.Construction of the proposed substation would have an adverse effect on scenic resources from Hunte Parkway, a designated scenic roadway, as represented by KOPs #7 and #9 (Figures 4.1-4 and 4.1-6) and would be considered a significant impact. As discussed previously, SDG&E has proposed landscaping around the substation facility to screen the substation from Hunte Parkway. Mitigation Measures Aesthetics-1 includes success criteria, monitoring, and remedial measures to ensure the success of the future landscaping. Mitigation Measure Aesthetics-2 requires a color treatment plan to reduce the visual contrast of the facility with the surrounding landscape. It would take approximately five years for the landscape plantings to mature and screen the facility. The cut and fill slopes and electrical infrastructure at the substation site would have a significant and unavoidable impact on the scenic resources viewed from a City-designated scenic roadway for the period (estimated five years) before the vegetation is mature. Impacts would be significant and unavoidable.

TL 6965

Four locally-designated scenic roadways cross the transmission corridor. Views from these designated scenic roadways in and near the transmission corridor are represented by the following KOPs:

- KOP #1: Proctor Valley Road/East H Street (Figure 4.1-13)
- KOP #2: Otay Lakes Road (Figure 4.1-14)
- KOP #4: Olympic Parkway (Figure 4.1-15)
- KOP #7, #8, #9, and #10: Hunte Parkway (Figures 4.1-4, 4.1-5, 4.1-6, and 4.1-7)

The view of TL 6965 construction activities would be visible for approximately 15 to 53 seconds for motorists travelling along these roads, as shown in Table 4.1-10. TL 6965 is proposed within an existing transmission corridor and would be located approximately 45 feet east of the existing 230-kV transmission lines and 90 feet east from an existing 69-kV power line. KOPs along TL 6965 are summarized in Table 4.1-4. The visual impact from these KOPs is summarized in Table 4.1-6. There would be no visual impact at KOP #1 or #8 (Figures 4.1-13 and 4.1-5) and a low visual impact resulting from the TL 6965 construction at KOP #2, #4, and #10 (Figures 4.1-14, 4.1-15, and 4.1-7). The high and moderately high visual impact at KOPs #7 and #9, (Figures 4.1-4 and 4.1-6) reflect the impact from constructing the proposed substation as discussed above. TL 6965 is not visible from KOP #9 and the additional poles and power line represent a relatively minor change to the landscape from KOP #7. SDG&E has proposed APM BIO-4 to reduce visual impacts from temporary pole work areas by restoring the temporary work areas and planting with native seeds. Construction of another power line within the utility corridor would not substantially change the visual quality of views from Hunte Parkway,

Olympic Parkway, Otay Lakes Road, or Proctor Valley Road/East H Street. Construction of TL 6965 would have a less than significant impact on scenic resources from a designated scenic roadway. Impacts would be less than significant, and no mitigation is required.

Miguel Substation Modifications

Miguel Substation is not visible from a City-designated scenic roadway. Construction within Miguel Substation would have no impact on a scenic roadway.

Staging Yards

The Miguel staging yard and Eastlake Parkway staging yard are not visible from any City-designated scenic roadways. Temporary visual impacts resulting from construction of the staging yard are encompassed in the temporary impacts resulting from construction of the proposed substation.

The Hunte Parkway staging yard and the two OTC alternate staging yards are located in the vicinity of City-designated scenic roadways, Hunte Parkway and Olympic Parkway, respectively. These staging yards are generally screened from view by existing berms and landscaping along Hunte Parkway and Olympic Parkway, and views of the staging yards would be temporary (up to 24 months during project construction). Additionally, the staging yards would remain in view to drivers for short periods of time (one minute or less depending on traffic conditions). The temporary use of these staging yards during construction of the proposed project would not substantially impact resources within a scenic roadway, and impacts would therefore be less than significant and no mitigation is required. Implementation of APM AES-1 would further screen the Hunte Parkway and Eastlake Parkway staging yards from view and minimize visual impacts from the temporary use of the yards. Although impacts would be less than significant, Optional Measure Aesthetics-1 suggests opaque mesh around OTC staging yard fences to further reduce effects to views from scenic roadways.

Mitigation Measures: Aesthetics-1 and Aesthetics-2

Significance after Mitigation: Significant and Unavoidable.

Impact Aesthetics-4: Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a City-designated scenic roadway during operation and maintenance (*Less than significant with mitigation*)

Proposed Substation

The proposed substation area is visible from Hunte Parkway, a City-designated scenic roadway, as discussed above. The substation facilities including the electrical infrastructure, masonry wall, mechanically stabilized earth walls, and detention basin installed during construction of the substation would remain during operation. Operation and maintenance of the proposed substation would not require placement of additional infrastructure in the viewshed, and all operation and maintenance activities would be conducted within the walled substation perimeter.

The visual impact of the substation facility on the visual quality of views from a City-designated scenic roadway would initially be significant during operation while vegetation is maturing around the substation facility (approximately five years). The impact would be reduced by Mitigation Measure Aesthetics-1 and Aesthetics-2. Mitigation Measure Aesthetics-1 defines success criteria and requires monitoring and contingency measures for the landscape plantings to ensure they provide successful screening of the facility. Mitigation Measure Aesthetics-2 requires color treatment of the facility so that the structures blend with the color of the landscape to the extent feasible. The impact to views from Hunte Parkway is expected to decrease over time during operation of the facility because the landscaping that would be implemented during construction would mature and provide visual screening of the facility (refer to Figure 4.1-19). Visual screening comparable with the simulations in Figure 4.1-19 is expected to take approximately five years after construction of the substation is complete. Impacts from operation and maintenance of the facility would be less than significant with mitigation.

TL 6965

TL 6965 access roads, poles, and conductors installed during construction of the power line would remain in place during operation of the project. Operation and maintenance of the power line would involve inspection and maintenance work in the TL 6965 area. Inspections would be conducted by helicopter (consistent with current inspection methods in the transmission corridor), and maintenance would be conducted by trucks and other equipment such as bucket trucks (see Section 2.8 of the Project Description for a description of maintenance activities). No additional infrastructure would be constructed within the viewshed during operation and maintenance. The additional conductors and poles would have a low visual impact, as described for construction above. Maintenance of TL 6965 would be similar to the current activities and impacts would be less than significant.

Mitigation Measures: Aesthetics-1 and Aesthetics-2

Significance after Mitigation: Less than significant with mitigation.

Impact Aesthetics-5: Substantial adverse effect on a scenic vista (*Less than significant; no mitigation required*)

The City of Chula Vista General Plan defines the following areas as scenic vistas:

- Otay River and Sweetwater River Valleys
- Upper and Lower Otay Lakes
- Sweetwater Reservoir
- San Miguel/Mother Miguel Mountains
- San Diego Bay

The City of Chula Vista designated scenic vista areas are shown on Figure 4.1-22.

Construction

Proposed Substation

The proposed substation construction would be visible from trails that lead to the summit of San Miguel and Mother Miguel Mountains. The proposed substation would be approximately 5 miles away from the trail and in the background view. High quality distant views of the ocean and Coronado Island from the trail and the summit would not be affected by construction of the proposed substation. Construction of the proposed substation would result in a low visual impact because, at a distance of 5 miles or more, the substation would be nearly imperceptible to the average viewer and appear as an extension of the landscape of the Otay Ranch residential and commercial development. The impact to the scenic vistas would be less than significant and no mitigation is required.

TL 6965

The construction and poles in the northern portion of TL 6965 would be visible from vistas at San Miguel and Mother Miguel Mountains. TL 6965 construction would be approximately 3 miles away from scenic vistas on San Miguel and Mother Miguel Mountains. The construction area would be within the industrial setting of Miguel Substation and within the transmission corridor, which is surrounded by residential and commercial development. TL 6965 construction activities would include use of heavy equipment, installation of power poles, and minor earthwork at the power pole locations. Project construction would have a minimal impact on scenic vistas at San Miguel and Mother Miguel Mountains because the construction activities and constructed facilities would be located at a distance from the scenic vista and would be visually similar to the surrounding landscape. Impacts to scenic vistas would be less than significant, and no mitigation is required.

Miguel Substation Modifications

The Miguel Substation modifications would occur within the existing Miguel substation yard. Miguel Substation is visible from San Miguel and Mother Miguel Mountains. The proposed construction and substation modifications would be consistent with the surrounding visual character of the substation. The changes at the site would be minor and blend in with existing facilities. Impacts to scenic vistas would therefore be less than significant, and no mitigation is required.

Figure 4.1-22 Designated Scenic Vistas

Staging Yards

The Hunte Parkway and Eastlake Parkway staging yards are not visible from scenic vistas, and therefore use of the yards would not impact a scenic vista. Temporary impacts resulting from construction of the staging yard are encompassed in the temporary impacts resulting from construction of the proposed substation. The southern OTC alternative staging yards are visible from scenic vistas at the Otay Regional Park. The Miguel Substation staging yard is visible from San Miguel Mountain.

The two alternate staging yards sites located at the entrance to OTC are generally screened from view by existing berms and landscaping along Olympic Parkway and Olympic Training Center Drive. The three remaining alternative staging areas would be in the foreground and partially screened by adjacent OTC facilities from vistas at the Otay River Regional Park and Otay Lake. There would be no grading or ground disturbance within the OTC staging yards, and the temporary use of these yards for material storage and staging would not substantially impact a scenic vista because these areas for staging would be generally consistent with the visual quality at the OTC. Impacts to a scenic vista would be less than significant, and no mitigation is required.

The Miguel Substation staging yard is an existing staging yard. The temporary use of this staging yard during construction of the proposed project is consistent with the existing visual quality of the Miguel Substation landscape and would have no impact on a scenic vista; no mitigation is required.

Operation and Maintenance

Operation and maintenance of the proposed substation, TL 6965, and Miguel Substation facilities would generally have the same impact to scenic vistas as the impacts described for construction. The constructed facilities would remain during operation and maintenance. The proposed substation would be difficult to distinguish from the scenic vista at San Miguel and Mother Miguel Mountains because: (1) the distance to the proposed substation is over 5 miles from the trail and summits, and (2) the proposed substation would appear similar in form, line, and color to architectural elements in the adjacent Otay Ranch community at this distance.

The TL 6965 power line and Miguel Substation modifications would not be visible at a distance from San Miguel and Mother Miguel Mountains. The additional transmission line towers would be visually consistent with the existing power lines and electrical infrastructure in the utility corridor. The modifications at Miguel Substation would be similar to the equipment currently in place within the substation facility. The impacts to scenic vistas from operation and maintenance would be less than significant, and no mitigation is required.

Mitigation Measures: None required.

Significance after Mitigation: Less than significant.

Impact Aesthetics-6: Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area (*Less than significant with mitigation*)

Construction

Construction would generally occur within the daylight working hours of 7 AM to 7 PM, Monday through Friday, and between the hours of 8 AM and 7 PM on Saturdays. Construction activities that are anticipated outside of the standard daytime work hours include concrete pours, transformer oil filling, conductor splicing and stringing, and cutovers of transmission tie lines and distribution circuits. Lighting would be used to the extent required by safety and operational needs for the construction activities in these circumstances. Floodlights in the immediate area of the construction activity would be operated as needed and would be directed away from adjacent land uses, particularly residential areas and native habitats.

Proposed Substation

There are no residents immediately adjacent to the proposed substation site; the closest residence is located 233 feet to the north of the site. Residents would be unable to see the substation because the substation would be located below the grade of Hunte Parkway and shielded from residential views. The substation's lower elevation would limit any potential nighttime light trespass or glare from temporary lighting associated with periodic construction activities, vehicles, and equipment. Impacts from night lighting would be less than significant, and no mitigation is required.

Glare from substation equipment, if it were to occur, would be noticeable by receptors at the High Tech schools as well as recreationists in areas east, south, and west of the proposed substation in Otay Valley Regional Park. Steel electrical equipment (e.g., transformers, deadend structures, lightning arresters, busses, racks) would be installed within the proposed substation during construction. Specifications for the steel have not been identified. Particular types of steel (e.g., hot-dipped galvanized steel) are specular (i.e., reflective) and create glare. Fugitive glare from sunlight reflecting off of specular surfaces (galvanized steel) would be most pronounced when the incident light is at lower angles. Fugitive glare would be most intense during the mornings and evenings and during the winter months when sunlight is at a lower angle because the light reflected off specular surfaces is more likely to be reflected towards sensitive receptors. Viewers at the High Tech schools and recreationists south of the proposed substation would experience more intense glare during the winter months given their location south of the substation and higher elevation than the substation.

The impacts of fugitive glare from the substation equipment would be significant to viewers at the High Tech schools and Otay Valley Regional Park near the substation. Mitigation Measure Aesthetics-3 requires surface treatment of steel structures within the substation to reduce fugitive glare. Impacts on viewers from Otay Valley Regional Park and the High Tech schools would be less than significant with mitigation.

Glare reflected off steel surfaces at the proposed substation may also be noticeable or distracting to motorists on Hunte Parkway or recreationists on Hunte Parkway Trail. While the intensity of glare may be distracting to motorists and recreationists, the exposure to glare would be brief.

Motorists on Hunte Parkway, particularly southbound motorists, would have only brief and intermittent views of the substation site because the substation would be at a lower elevation than Hunte Parkway and the mature ornamental landscaping along the edge and median of Hunte Parkway would partially screen the substation. Northbound motorists on Hunte Parkway would have brief views of the substation south of Exploration Falls Drive in the vicinity of the High Tech schools. The transitory, brief views at the posted speed limit would last for a few seconds. Given the temporal nature of glare from the proposed substation, impacts to motorists and recreationists along Hunte Parkway and Hunte Parkway Trail would be less than significant, and no mitigation is required.

TL 6965

Nighttime construction activities for TL 6965 would occur when conductor is routed over SR-125. Crews would mobilize at approximately 3 or 4 AM on a Sunday morning, and work would consist of moving bucket and boom trucks and wire pulling equipment into position in order to be ready to work at first light. If any nighttime lighting is required for stringing of TL 6965, the use of night lighting would be very short-term (i.e., a few hours on a single day). Impacts would be less than significant, and no mitigation is required.

The TL 6965 power line includes two major potential sources of glare: the transmission line poles and circuits. Untreated galvanized steel poles can produce substantial glare and cause a significant impact. APM AES-3 requires SDG&E to install galvanized steel poles that are dulled to reduce glare. Per APM AES-3, direct bury poles will either be dull galvanized or weathered steel. Dulled steel has a low reflectivity because the surface has been treated to reduce glare; however weathered steel may not substantially reduce glare from the new poles, resulting in a significant impact. Mitigation Measure Aesthetics-4 requires SDG&E to install dull galvanized steel poles. Potential glare from the dulled steel poles of TL 6965 would be less than significant with mitigation.

Specular (mirror like reflectivity) conductors are proposed for the overhead transmission circuits. These would potentially reflect sunlight and create glare that would be seen in foreground views from City roadways and trails, in foreground and middleground views from the Otay Valley Regional Park trail system, and from other surrounding open space lands, resulting in a significant impact. Mitigation Measure Aesthetics-4 requires SDG&E to use non-specular (i.e., non-reflective) conductor to reduce glare from the power line. Impacts would be less than significant with mitigation.

Insulators that can glow from the sun being refracted from their complex form when the tower structure is directly in line with the rising or setting sun could be a minor source of glare. The insulators for TL 6965 are planned to be silicone rubber polymer. The potential for glare from silicone rubber insulators is generally less than glazed porcelain glass insulators, and the level of impact would be less than significant. No mitigation is required.

Miguel Substation Modifications

No nighttime construction activities are proposed at Miguel Substation. There will be no impacts from nighttime construction lighting during construction. The proposed modifications

to Miguel Substation would be located within the internal portions of the existing substation. There is no potential for glare from new untreated steel because the steel will be located within the interior of the existing substation. There would be no impact, and no mitigation is required.

Staging Yards

There is no construction proposed that would require night-lighting at staging yards. There would be no impact from night lighting at the staging yards. The staging yards would temporarily house steel structures, which could create a temporary source of glare during construction. Any potential glare would not be substantial due to the topographic screening of the staging yards from nearby roadways, and impacts would be less than significant. The potential glare would be further reduced with implementation of APM AES-3 and Mitigation Measure Aesthetics-3, which require treatment of steel structures to reduce glare.

Operation and Maintenance

Proposed Substation

Lighting at the proposed substation would be used to provide for safe entry and exit from the substation; safe driving around buses/racks, corners, and roadways; and, to allow for a preliminary visual inspection of the substation during operation of the substation facility. A mixture of high-pressure sodium (typically used for gate entry lights) and metal halide lights would be used at the proposed substation.

Permanent new light sources at the proposed substation include: one light at the main gate, one light on each side of the enclosed all-weather structure, and a minimum of two lights on each substation wall. Lights may also be installed on the end of the steel rack, if required. Outdoor lighting would be restricted to the use of a high-pressure sodium light at the entry gate. All other lighting would be located within the limits of the substation's 10- to 12-foot high masonry wall enclosing the site and used during emergencies to allow for inspections and repairs. The only night lighting at the substation would be the light at the main gate and lighting for infrequent nighttime and/or emergency maintenance, as needed. The substation location below the adjacent roadways and homes and within the 10- to 12-foot-high masonry wall would limit potential light trespass generated at the substation. While the new lighting would be limited in location and duration, the new sources of lighting could affect nighttime views, resulting in a significant impact. APM AES-2 requires night lighting to be shielded and pointed downward to reduce impacts on views of the night sky. Impacts from night lighting at the substation would be less than significant, and no mitigation would be required.

No additional structures would be installed within the substation during operation and maintenance of the facility. The steel structures and electrical equipment would remain potential sources of glare on Hunte Parkway and surrounding trails, as explained above in greater detail. Mitigation Measure Aesthetics-3 would reduce the potential for glare during operation and maintenance of the facility. Impacts would be less than significant with mitigation.

TL 6965

No permanent lights are proposed for the TL 6965 power line. Night lighting may be used during emergency maintenance of TL 6965. The use of night lighting for emergency maintenance activities would be limited in frequency and duration (e.g., during repair of damaged structures), and the impact from night lighting would be less than significant.

The power poles and conductors installed during project construction would remain throughout the operational life of TL 6965. The galvanized steel poles and conductor could cause substantial glare and result in a significant impact. APM AES-3 requires use of either weathered or dulled steel galvanized steel poles to reduce the potential for glare. Weathered steel poles could still produce substantial glare. Mitigation Measure Aesthetics-4 requires the use of dulled galvanized steel and non-specular conductors to reduce the glare from the poles and conductors. Impacts from glare would be less than significant with mitigation.

Miguel Substation Modifications

No new external light sources would be installed at Miguel Substation. The Miguel Substation modifications will not produce glare, as discussed above. There would be no impact.

Mitigation Measures: Aesthetics-3 and Aesthetics-4

> **Mitigation Measure Aesthetics-3:** SDG&E shall submit to the CPUC a Surface Treatment Plan describing the structural steel specifications used at the Salt Creek Substation. Steel specifications in the Surface Treatment Plan must reduce the potential for daytime structural glare. The Surface Treatment Plan shall include samples showing at least three (3) samples of post-production dulling agents applied to the steel structural members. Finishes will be durable, factory or manufacturer-applied, of an appropriate color, and non-specular. The Surface Treatment Plan will also include maintenance and inspection protocols. The Surface Treatment Plan shall be submitted to the CPUC for approval at least 90 days prior to (a) ordering the first structures, or (b) construction of the Salt Creek Substation, whichever comes first. The CPUC shall approve the Surface Treatment Plan, or otherwise inform SDG&E what modifications to the Surface Treatment Plan are necessary, within 30 days after the Plan's submittal by SDG&E. SDG&E shall not begin construction of the Salt Creek Substation until the Plan has been approved by the CPUC.
>
> **Mitigation Measure Aesthetics-4:** SDG&E will use dulled metal finish transmission structures and non-specular (non-reflective) conductors along TL 6965 to minimize reflectivity and general visibility of the line.

Significance after Mitigation: Less than significant.

4.1.6 Project Alternatives

Table 4.1-11 provides a summary of the visual impacts resulting from each project alternative.

Table 4.1-11 Summary of Impacts from Alternatives by Significance Criteria

Significance Criteria	No Project Alternative	Alternative 1	Alternative 2	Alternative 3
Impact Aesthetics-1: Potential to substantially degrade the existing visual character or quality of the site and its surroundings during construction	Less than significant	Significant and unavoidable APM AES-1 MM Aesthetics-1 MM Aesthetics-2	Significant and unavoidable APM AES-1 MM Aesthetics-1 MM Aesthetics-2	Significant and unavoidable APM AES-1 MM Aesthetics-1 MM Aesthetics-2
Impact Aesthetics-2: Potential to substantially degrade the existing visual character or quality of the site and its surroundings during operation and maintenance	No impact	Significant and unavoidable APM AES-1 MM Aesthetics-1 MM Aesthetics-2	Less than significant APM AES-1 MM Aesthetics-1 MM Aesthetics-2	Less than significant APM AES-1 MM Aesthetics-1 MM Aesthetics-2
Impact Aesthetics-3: Potential to substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway or designated scenic roadway during construction	Less than significant	Significant and unavoidable APM AES-1 MM Aesthetics-1 MM Aesthetics-2	Significant and unavoidable APM AES-1 MM Aesthetics-1 MM Aesthetics-2	Significant and unavoidable APM AES-1 MM Aesthetics-1 MM Aesthetics-2
Impact Aesthetics-4: Potential to substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway or designated scenic roadway during operation and maintenance	No impact	Significant and unavoidable APM AES-1 MM Aesthetics-1 MM Aesthetics-2	Less than significant APM AES-1 MM Aesthetics-1 MM Aesthetics-2	Less than significant APM AES-1 MM Aesthetics-1 MM Aesthetics-2
Impact Aesthetics-4: Potential to have a substantial adverse effect on a scenic vista	No impact	Less than significant	Less than significant	Less than significant
Impact Aesthetics-5: Potentially create a new source of substantial light or glare that would adversely affect day or nighttime views in the area	Less than significant	Less than significant APM AES-2 MM Aesthetics-3	Less than significant APM AES-2 MM Aesthetics-3	Less than significant APM AES-2 MM Aesthetics-3

Alternative 1: 230/12-kV Substation and 230-kV Loop-in

Environmental Setting

The environmental setting for Alternative 1 is described in Section 4.1.1. This alternative would involve construction of a 230/12-kV substation within the SDG&E fee-owned parcel south of Hunte Parkway. Visual resources for the proposed substation and Hunte Parkway and OTC staging yards described in Section 4.1.1 would apply to this alternative.

Alternative 1 would not involve construction of a new power line. The environmental setting for TL 6965 and Miguel Substation do not apply to Alternative 1.

Impacts and Mitigation Measures

Construction. Construction of Alternative 1 would result in short-term views of construction and equipment, land modifications, and erection of permanent structures. Construction of the substation under Alternative 1 would be expected to last 24 to 30 months; thus, the visual impact of construction activities would last 6 to 12 months longer than the proposed project. Similar to the proposed project, there are no scenic trees, rock outcroppings, or historic buildings that would be affected by construction of the substation, and the substation site would not visible from a state-designated scenic highway.

The 230/12-kV substation would be taller than the proposed substation and would cause a greater visual change than the proposed project. The tallest component of the substation, the bank deadend, would be approximately 55 feet tall and thus would extend roughly ~~20~~8 feet above the grade of Hunte Parkway. The rest of the substation would be sited below the grade of Hunte Parkway and would not block vistas to the south and open space lands to the east as seen from Hunte Parkway and Hunte Parkway trail.

The 230/12-kV substation equipment and 150-foot tall cable pole required for the underground loop-in of the 230-kV transmission line would be seen from locations along Hunte Parkway (a City-designated scenic roadway), Hunte Parkway Trail, Otay Valley Regional Park, the proposed Otay Valley Regional Park Trail, the future University Village, and the City of Chula Vista Greenbelt. Unlike the proposed project, the bank deadend and other substation components would be visible to motorists traveling in both directions along Hunte Parkway, as well as residences and businesses on the north side of the roadway.

Similar to the proposed project, the entire substation would be in view to pedestrians along Hunte Parkway Trail; pedestrians on the trail would have views down into the substation facilities. The perimeter wall would provide limited screening of the larger and taller substation equipment, and the substation would impede vistas to the south and east of the open space from the trail. Visual simulations from Hunte Parkway Trail are shown on Figure 4.1-23 and 4.1-24. Large-scale simulations can be found in Appendix F.

The substation and 40-foot tall retaining wall surrounding the substation facility would also be in open view and highly visible from Otay Valley Regional Park, the proposed Otay Valley Regional Park Trail east of the substation, the future University Village to the west, and the City

Figure 4.1-23 View of Alternative 1 from KOP #7

Immediately after Construction (Visual Simulation)

Approximately 5 Years after Construction (Visual Simulation)

Source: AECOM 2015, SDG&E 2015b

Figure 4.1-24 View of Alternative 1 from KOP #8

Immediately after Construction (Visual Simulation)

Source: AECOM 2015, SDG&E 2015b

of Chula Vista Greenbelt to the south once the facilities are constructed. There would be no impact on viewers at KOP #14 or #15 under existing conditions because there are currently no viewers in these areas. Visual simulations from Otay Valley Regional Park are shown on Figure 4.1-25 (large-scale simulations can be found in Appendix F). While the larger substation would disturb the same acreage of land as the proposed substation, the larger and taller retaining wall and larger and taller substation structures would degrade the visual quality to a greater extent than the proposed substation. The retaining wall and electrical infrastructure would substantially disrupt the unity and intactness of the views from the open space areas south of the substation and from Hunte Parkway. The larger and taller electrical infrastructure would contrast with the surrounding open space and disrupt the unity and intactness of the views from parks and Hunte Parkway to a greater extent than the proposed project. There would be a moderately high to high visual impact on views from the park and open space; impacts to visual quality and character would be significant. Mitigation Measure Aesthetics-1 defines specific performance criteria for the landscaping to provide visual screening of the substation; however, the landscaped slope in the proposed project would be replaced with a taller, vertical retaining wall in Alternative 1, and it would be infeasible to fully screen the substation with vegetation. Mitigation Measure Aesthetics-2 requires SDG&E to prepare a color treatment plan to reduce the visual contrast of the substation facility; however, the visual contrast would remain after the color treatment is considered because of the large size of substation structures. The perimeter retaining wall and electrical structures would be prominent features in views

Figure 4.1-25 View of Alternative 1 from KOP #14

Immediately after Construction (Visual Simulation)

Approximately 5 Years after Construction (Visual Simulation)

Source: AECOM 2015, SDG&E 2015b

from Hunte Parkway and trails. Impacts to the visual quality of the area from construction of the substation would be significant and unavoidable.

Alternative 1 would conduct staging at the proposed substation site, Hunte Parkway, and potentially OTC staging yards. Use of the substation site, Hunte Parkway, and OTC staging yards would be the same as the proposed project, and impacts to views would be less than significant. Implementation of APM AES-1, which requires screening of the staging yards, would further reduce visual impacts. Aesthetic impacts from staging yard use would be less than significant, and no mitigation is required.

Similar to the proposed project, lighting would be used to the extent required by safety needs for construction activities. Impacts from lighting during construction would not be significant, and no mitigation is required. The steel structures for the transformers and dead-end structures within the substation would produce glare similar to that described above for the proposed project, resulting in significant impacts to viewers at Hunte Parkway, nearby trails, and the High Tech schools. Mitigation Measure Aesthetics-3 requires treatment of the structures to reduce daytime structural glare from the substation. Impacts from glare would be less than significant with mitigation.

Alternative 1 would have no visual impacts associated with the power line between the existing Miguel Substation and proposed substation because no power line would be built for this alternative.

Operation and Maintenance. Operation and maintenance would substantially degrade the visual quality of the project site and surrounding area. Similar to the proposed project, the majority of maintenance activities would be performed within the substation and would not substantially change the appearance of the substation. The large retaining wall surrounding the substation would be approximately 40 feet tall. Visual impacts prior to implementation of mitigation would be significant. While Mitigation Measures Aesthetics-1 and Aesthetics-2 would reduce the visual contrast of these facilities, the impact would remain significant with mitigation (refer to Appendix F for numeric ratings). It would be impractical and likely infeasible to screen the substation wall and facility from Hunte Parkway, the Otay Valley Regional Park, the future University Village, and City of Chula Vista Greenbelt (Figures 4.1-23 through 4.1-25) because the vertical retaining wall (40 feet) in addition to the substation equipment (55 feet for the tallest structure) would be taller than the height of the landscape plantings. The impact on the visual quality of the area would be significant and unavoidable over the operational life of the project.

The new sources of lighting during operation could result in significant impacts to residences and native habitats. SDG&E proposed APM AES-2 to limit lights at night to those required for nighttime work and/or an emergency and to angle lights downward when in use. Impacts from lighting would be less than significant, and no mitigation is required. Impacts from glare at the substation would be significant, as described above. Mitigation Measure Aesthetics-3 requires treatment of substation structures to reduce glare. Impacts would be less than significant with mitigation.

Alternative 2: 69/12-kV Substation and Generation at Border and Larkspur Electric Generating Facilities

Environmental Setting

The environmental setting for Alternative 2 is described in Section 4.1.1. Alternative 2 would involve construction of a 69/12-kV substation, distribution lines, and TL 6910 loop-in in the same manner as the proposed project. Visual resources for the proposed substation and Hunte Parkway and OTC staging yards described in Section 4.1.1 would apply to this alternative. The visual setting for the TL 6965 transmission corridor and Miguel Substation would not apply to this alternative because Alternative 2 would not involve construction of a power line in the transmission corridor.

Impacts and Mitigation Measures

Construction. Visual impacts of the 69/12-kV substation under Alternative 2 would be the same as the proposed project substation and TL 6910 loop-in because Alternative 2 involves construction of a 69/12-kV substation, loop-in of TL 6910, and distribution line construction in the same manner and at the same location as the proposed project. Similar to the proposed project, impacts to visual resources would be significant. Implementation of APMs AES-1 and AES-2, and Mitigation Measures Aesthetics-1, Aesthetics-2, and Aesthetics-3 would reduce impacts from degradation of visual quality and new sources of light and glare. Impacts from light and glare would be less than significant with mitigation. Similar to the proposed project, construction of Alternative 2 would result in a temporary significant and unavoidable impact on the visual quality of the area surrounding the proposed substation including Hunte Parkway, a City-designated scenic roadway. Impacts from construction of the substation would be significant and unavoidable.

Alternative 2 would have no visual impacts associated with the power line between Miguel Substation and the proposed substation because no power line would be built for this alternative. Similarly, no additional aesthetic impact would occur from power generation at the Border and Larkspur electric generating facilities because these facilities already exist, and no additional structures or equipment would be required at these facilities.

Operation and Maintenance. Visual impacts of the Alternative 2 substation would be the same as the proposed project substation. The visual impact of the substation is expected to decrease over time during operation of the facility because the landscaping implemented during construction would mature and provide visual screening of the facility over time (approximately 5 years). Mitigation Measures Aesthetics-1 and Aesthetics-2 would reduce the visual impact of the substation to a less-than-significant level (refer to Figures 4.1-19 through 4.1-21), and APM AES-2 and Mitigation Measure Aesthetics-3 would reduce impacts of lighting and glare. Impacts from operation and maintenance of Alternative 2 would be less than significant.

There would be no visual impact in the transmission corridor because a new power line would not be built in Alternative 2.

Alternative 3: 69/12-kV Substation and Underground 69-kV Power Line within Public ROW

Environmental Setting

The environmental setting for Alternative 3 is described in Section 4.1.1. Visual resources described for the proposed substation and Hunte Parkway and OTC staging yards would apply to this alternative. This alternative involves construction of an underground power line instead of the proposed overhead TL 6965 power line. The environmental setting for visual resources along the underground alignment is described in Section 4.1.1. The underground alignment is located within the Otay Ranch LCU. There are no additional scenic highways or scenic vistas along the underground alignment.

Impacts and Mitigation Measures

Construction

69/12-kV Substation. Visual impacts of the 69/12-kV substation under Alternative 3 would be the same as the proposed project substation and TL 6910 loop-in because Alternative 3 involves construction of a 69/12-kV substation, loop-in of TL 6910, and distribution line construction in the same manner and at the same location as the proposed project. Impacts to visual quality and scenic roadways would be significant. Implementation of APM AES-1 and AES-2, and Mitigation Measures Aesthetics-1, Aesthetics-2, and Aesthetics-3 would reduce impacts from degradation of visual quality and new sources of light and glare. Impacts from light and glare would be less than significant with mitigation. Similar to the proposed project, construction of Alternative 3 would result in a temporary significant and unavoidable impact on the visual quality of the area including Hunte Parkway, a city-designated scenic roadway, for a period of up to 5 years.

Alternative 3 would have no visual impacts associated with the overhead power line between Miguel Substation and the proposed substation because an overhead power line would not be constructed in the transmission corridor.

69-kV Underground Power Line. Motorists, pedestrians, and bicyclists would have views of the open trench and construction equipment along the underground alignment during construction. Construction would move along the underground alignment such that views of the open trench and construction equipment would only be visible in any area along the alignment for a few weeks. Construction and equipment would have a less than significant impact on the visual quality along public roadways because construction would be temporary, and vehicles and equipment are congruent with visual character along Mountain Miguel Road, Proctor Valley Road, and Hunte Parkway. Alternative 3 would have no visual impacts associated with the power line between Miguel Substation and the proposed substation, since the power line would be installed underground in public roadways.

Operation and Maintenance

Visual impacts of Alternative 3 operation and maintenance would be similar to those for the proposed project. Like the proposed project, minimal maintenance would be required for the underground power line, and visual impacts of maintenance work on the underground line would be minimal because work would be short-term and temporary. Maintenance of the

substation would be identical for Alternative 3 and the proposed project. The visual impact of the proposed substation is expected to decrease over time during operation of the facility because the landscaping that would be implemented during construction would mature and provide visual screening of the facility over time. However, impacts would be significant during the vegetation establishment period (approximately 5 years). Mitigation Measures Aesthetics-1 and Aesthetics-2 would reduce the visual impact of the substation to a less than significant level (refer to Figures 4.1-19 to 4.1-21), and APM AES-2 and Mitigation Measure Aesthetics-3 would reduce impacts of lighting and glare to less than significant. Impacts from operation and maintenance of Alternative 3 would be less than significant with mitigation.

No Project Alternative

Under the No Project Alternative, SDG&E would add two additional transformer banks at the Proctor Valley Substation (to fully build-out the substation) and install additional distribution circuits in the Otay Ranch area. None of the facilities associated with the proposed project or alternatives evaluated in this EIR would be constructed. Therefore, none of the visual impacts of the proposed project would occur.

Upgrades to Proctor Valley Substation would occur within the approved substation facility. Installation of two transformer banks would be consistent with the visual quality of the substation and would therefore minimally affect any views that include the substation. These upgrades would also occur even if the proposed project were constructed because the build-out of the Proctor Valley Substation is needed in addition to the Salt Creek Substation area to meet the electric demand of the area once the planned development occurs in the area. SDG&E would also install up to 6 to 7 miles of new distribution circuits. The distribution circuits would be installed underground and visual impacts from the underground distribution circuits would be limited to temporary views of equipment during underground construction, similar to Alternative 3, above. Visual impacts of maintenance work on the underground distribution circuits would be minimal because work would be short-term and temporary. Impacts of the No Project Alternative would be less than significant.

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