# 4.2 AESTHETICS

This section presents the environmental setting and impact analysis for the aesthetic resources that would be affected by the Proposed Project and its alternatives. The section addresses background information, applicable regulations, known resources, environmental impacts, and mitigation measures to reduce or avoid significant effects. Appendix F presents a technical evaluation of candidate key observation points (KOPs) considered for the visual simulations presented here and considered in the analysis of aesthetics impacts.

## 4.2.1 Definitions

Aesthetics refers to the nature and appreciation of beauty in both form and appearance as perceived through the visual sense only. Aesthetic resources include the visual character and quality of an area, consisting of both the landscape features and the social environment from which it is viewed. The landscape features may be natural (e.g., mountain views) or manmade (e.g., a city's skyline). Aesthetic resources include, but are not limited to:

- Federal, state, and local designated scenic resources
- Places of cultural importance, such as traditional cultural properties
- Designated federal, state, and local historic properties
- Areas of high visual quality (i.e., scenic vistas, scenic hiking trails, scenic rivers, and scenic highways)
- Recreation areas characterized by high numbers of users with sensitivity to visual quality (such as parks and preserves)
- Landscape features, including canyons and gorges, valleys, and mountains
- Natural lightscapes (such as dark night skies)

Terms used to describe aesthetic resources are defined in Table 4.2-1.

## 4.2.2 Approach to Data Collection

Aesthetic resources in the Proposed Project area (including important historic, cultural, and archaeological locations) were identified through aerial photography, site visits, scoping comments, review of data provided by SDG&E, and land use cover maps. Designated scenic highways and vistas in the vicinity of the Proposed Project were identified through a review of applicable federal, state, and local regulations, plans, and standards, described in Section 4.2.4.

### 4.2.2.1 Visual Impact Assessment Guidance

The CPUC has not adopted a specific method for assessing visual character and quality under CEQA. The existing visual character and quality in the Proposed Project area was, therefore, assessed using the Federal Highway Administration (FHWA) *Guidelines for the Visual Impact Assessment of Highway Projects* (2015 guidance) (FHWA 2015b). Under this guidance, the Proposed Project also required that an Expanded Visual Impact Assessment (VIA) be prepared.

## Table 4.2-1 Definition of Visual Resources Terms

| Term | Definition |
|---|---|
| Color | The light reflecting off of an object at a particular wavelength that creates hue (green, indigo, purple, red, etc.) and value (light to dark hues). |
| 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 to or detract from the unity of the landscape. |
| Distance Zones | Distance zones are based on the position of the viewer in relation to the landscape. They are measured from one static point, such as the location of a key view. There are three defined distance zones:<br>• Foreground: 0.25–0.5 mile from the viewer<br>• Middle ground: Extends from the foreground zone to 3–5 miles from the viewer<br>• Background: Extends from the middle ground zone to infinity |
| Form | The unified mass or shape of an object that often has an edge or outline and can be defined by surrounding space. For example, a high-rise building would have a highly regular, rectangular form whereas a hill would have an organic, mounded form. |
| 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 | A location from which a viewer (traveler or neighbor) can see either iconic or representative landscapes, with or without the highway, of the project corridor. Usually there is at least one key view for each landscape unit. Used for visual simulations. |
| Landscape Character Unit | Defined areas within the area of visual effect that have similar visual features and homogeneous visual character and frequently, a single viewshed. An "outdoor room." Typically the spatial unit used for assessing visual impacts. |
| Line | The well-defined edges of shapes or masses created in the visual landscape by horizons, silhouettes, or human-made features. Perceived when there is a change in form, color, or texture and where the eye generally follows this pathway because of the visual contrast. For example, a city's high-rises can be seen silhouetted against the blue sky and be seen as a skyline, a river can have a curvilinear line as it passes through a landscape, or a hedgerow can create a line where it is seen rising up against a flat agricultural field. |
| Scenic Vista | A scenic vista is a distant public view that is recognized or valued for its visual quality, located along or through an opening or corridor. |
| Simulations | Two or three dimensional depictions of the visual character of a future state. Simulations range from artistic renderings to computer animations. |

| Term | Definition |
|---|---|
| Texture | The perceived coarseness of a surface that is created by the light and shadow relationship over the surface of an object. For example, a rough surface texture (e.g., a rocky mountainside) would have many facets resulting in a number of areas in light and shadow and, often, with distinct separations between areas of light and shadow. Conversely, a smooth surface texture (e.g., a beach) would have fewer facets, larger surface areas in light or shadow, and gradual gradations between light and shadow. |
| 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 | Viewer exposure is a measure of proximity (the distance between viewer and the visual resource being viewed), extent (the number of viewers viewing), and duration (how long of a time visual resources are viewed). The greater the exposure, the more viewers will be concerned about visual impacts. |
| Viewer Awareness | Viewer awareness is a measure of attention (level of observation based on routine and familiarity), focus (level of concentration), and protection (legal and social constraints on the use of visual resources). The greater the attention, the more viewers will be concerned about visual impacts. |
| Viewer Sensitivity | The degree to which viewers are sensitive to changes in the visual character of visual resources. It is the consequence of two factors, viewer exposure and viewer awareness. |
| Viewshed | All of the surface area visible from a particular location (e.g., an overlook) or sequence of locations (e.g., a roadway or trail). |
| Visual Character | The description of the visible attributes of a scene or object typically using artistic terms such as form, line, color, and texture. |
| Visual Compatibility | Defined as the ability of environment to visually absorb the proposed project as a result of the project and the environment having compatible visual characters. The proposed project can be considered compatible or incompatible. By itself, compatibility of the impact should not be confused or conflated with the value of the impact. |
| Visual Contrast | The opposition or unlikeness of different forms, lines, colors, or textures in a landscape. |
| Visual Quality | What viewers like and dislike about visual resources that compose the visual character of a particular scene. Different viewers may evaluate specific visual resources differently based on their interests in natural harmony, cultural order, and project coherence. Neighbors and travelers may, in particular, have different opinions on what they like and dislike about a scene. |
| Viewer | 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. |
| Visual Resource | Components of the natural, cultural, or project environments which are capable of being seen. |
| Vividness | The visual power or memorability of the visual impression received from contrasting landscape elements as they combine in distinctive visual patterns. |

*Sources: FHWA 2015b; FHWA 1998*

Data was collected for the Proposed Project consistent with the Expanded VIA approach. The Expanded VIA requires establishment of the area of visual effect based on landscape constraints and limits of human sight, and inventory of the visual quality in the area.

#### 4.2.2.2 Establishment of the Area of Visual Effect

The area of visual effect in the Proposed Project area was divided into representative landscape character units (LCUs). Each LCU has landscape conditions that are generally similar and have common basic visual characteristics of line, plane, form, color, texture, and scale. The LCUs are described in the Proposed Project Setting with representative photographs of each LCU. The LCUs correlate to the Proposed Project segments described in the Project Description. The segment-based approach corresponds with the existing tower structure types in the Proposed Project area. This is an important consideration because visual resource management stresses that the visual change is assessed through consideration of the compatibility of the visual impact (FHWA 2015b).

#### 4.2.2.3 Inventory of Visual Quality

**Visual Quality**

Visual quality in the Proposed Project area was rated and assigned a value. The existing visual quality of the landscape was evaluated numerically for KOPs within each LCU using three criteria:

1. **Vividness:** The visual power or memorability of landscape components as they combine in distinctive visual patterns.
2. **Intactness:** The memorability of the visual impression received from contrasting landscape elements as they combine to form a striking and distinctive visual pattern.
3. **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.

Vividness, intactness, and unity were scored on a scale of 0 to 4 (corresponding to none, low, moderate, moderately high, and high). The scores were then summed to determine the overall baseline visual quality.

**Affected Population (Viewers)**

Land uses along the Proposed Project alignment were reviewed to identify the types of viewers that may be exposed to views of the existing transmission facilities and the Proposed Project components.

**Key Observation Points**

KOPs depict representative public views of the Proposed Project. KOPs were inventoried through photo documentation and quantitative screening of sixty candidate KOPs (cKOPs). A sensitivity matrix was used to identify the cKOP views that would be most impacted within each LCU. The inventoried cKOPs represent the range of views and viewers in the Proposed Project viewshed including residential, business, commercial, recreational, and transportation-

related views and viewers (e.g., motor vehicles, pedestrians, and bicyclists). The inventory of visual quality at each cKOP, approach to cKOP screening, and the screening results are provided in Appendix F. Fifteen KOPs were selected for visual analysis in this EIR as a result of cKOP screening.

## 4.2.3 Environmental Setting

### 4.2.3.1 Regional Setting

The Proposed Project is located in a diverse regional landscape. Land uses in the Proposed Project vicinity include densely developed suburban areas, business parks, master planned communities, commercial district, freeway, parks, and ecological preserves. Landforms in the area generally consist of rolling hills and mesas, or flat-topped outcroppings dissected by canyons. Hillsides and peaks are prominent landscape features of the distant views. Dominant landmarks in the Proposed Project vicinity are Black Mountain, with a peak of approximately 1,500 feet (amsl), and Los Peñasquitos Canyon and its tributary canyons. Los Peñasquitos Canyon is an east-west lying coastal ravine that is approximately 250 feet in depth and almost 1 mile wide.

### 4.2.3.2 Proposed Project Setting

**Landscape Character Units**

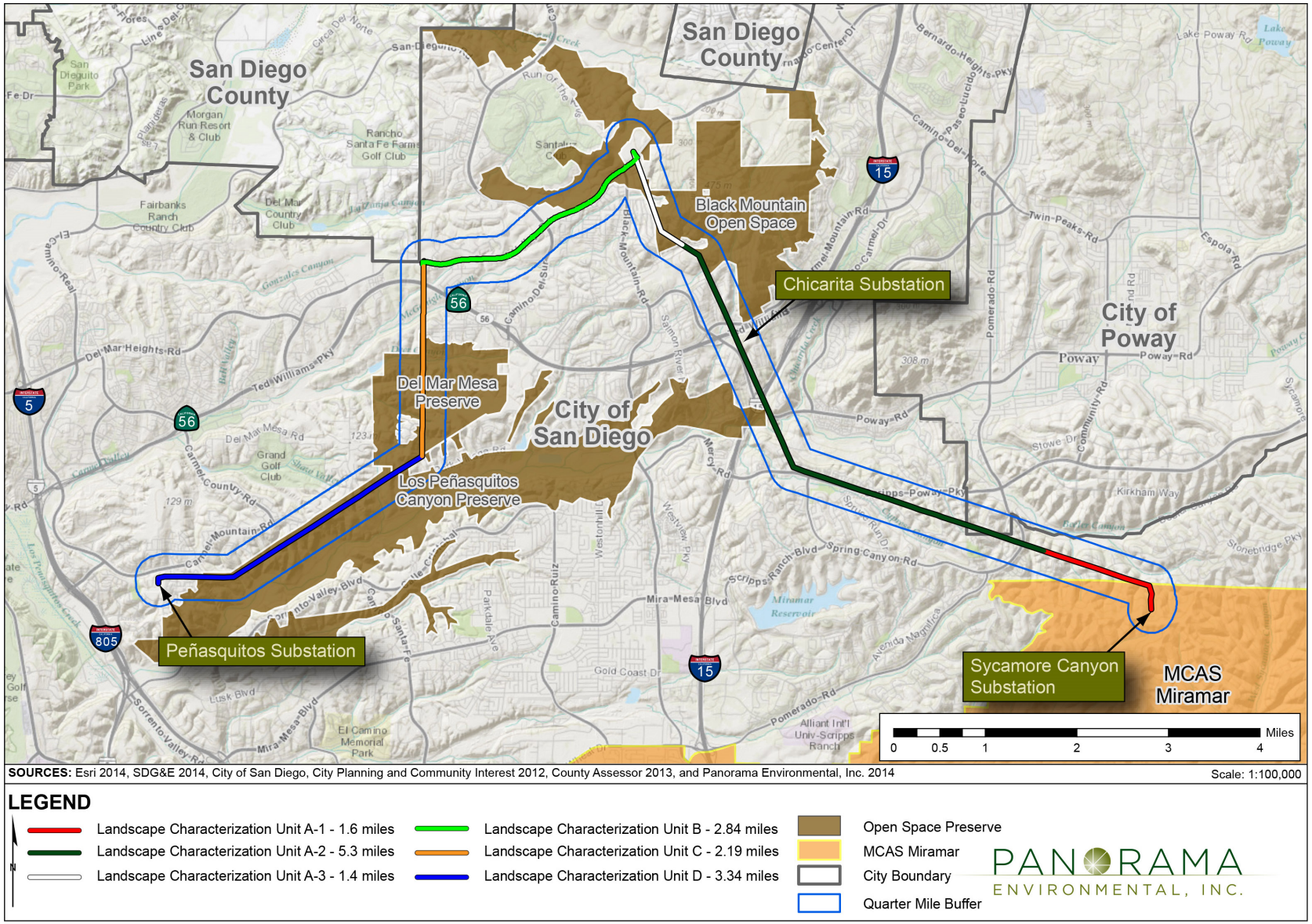
The locations of the Proposed Project LCUs are shown on Figure 4.2-1. Proposed Project Segment A is subdivided into three LCUs, LCU A-1, A-2 and A-3. Proposed Project Segments B, C, and D are characterized by LCU B, LCU C, and LCU D, respectively. The existing visual conditions and representative photos of each LCU are presented in Table 4.2-2. The table describes the location, characteristic features, and visually dominant features in each LCU. The table also identifies the intactness, unity, vividness, and visual quality of the LCU. The representative photographs of the LCU presented in Table 4.2-2 document characteristic features of each LCU and differ from the KOP photos, which are provided in Section 4.2.8.

**Transmission Line**

The existing setting along the Proposed Project transmission line alignment includes views of natural areas and canyons, such as open space preserves and parks. Developed areas include residential subdivisions, office parks, commercial, and industrial land uses. See Table 4.2-2 for further details on the transmission line setting.

SDG&E ROW in Segments A, C, and D includes existing electrical infrastructure including wood and steel poles, steel lattice towers, conductor, and dirt or gravel maintenance pads and access roads. The existing electrical infrastructure has a high level of visual contrast with the surrounding residential, commercial, and open space areas. The visual contrast of the existing structures is greatest when the structure is skylined and its form contrasts against the sky. Transmission structures appear darker when back lit than structures viewed from a front lit perspective. The same is true for the conductors, which are shadowed and appear almost black when viewed from below, but appear silver when they are front lit.

## Figure 4.2-1 Landscape Character Units



## Table 4.2-2 Description of Landscape Character Units

| Description | Representative Image |
|---|---|
| **LCU A-1** | |
| **Location.** Extends northwest 1.6 miles from Sycamore Substation to Miramar Ranch North.<br>**Characteristic features.** The LCU includes single-family residential land use, MCAS Miramar, and recreational areas. The existing electrical infrastructure includes H-frame structures 60 to 75 feet in height, steel lattice towers (SLT) that are galvanized steel and vary in height from 80 to 125 feet along the existing lines and SLTs and tubular steel poles (TSP) near Sycamore Substation which are 140 feet in height.<br>**Visually dominant features.** Visually dominant features include Sycamore Canyon Substation, marker balls on transmission line spans near Sycamore Canyon Substation, Doppler weather radar, and surrounding mountains.<br>**Intactness.** Moderate<br>**Unity.** Moderate<br>**Vividness.** Moderately High<br>**Visual Quality.** Moderate |  |

| Description | Representative Image |
|---|---|
| **LCU A-2** | |
| **Location.** 5.3 miles in length, extending northwesterly from Miramar Ranch North to Sundevil Way.<br>**Characteristic features.** Land uses in the LCU include business parks, commercial, light industrial, and high density residential. The eastern extent of Los Peñasquitos Canyon Preserve is south of where the existing ROW crosses I-15. Existing 230-kV conductors are supported by TSPs that have been color treated with a light green color.<br>**Visually dominant features.** Visually dominant features include open space canyons, I-15 and SR-56 highways, and existing transmission towers and marker balls.<br>**Intactness.** Moderate<br>**Unity.** Moderate<br>**Vividness.** Moderate<br>**Visual Quality.** Moderate |  |

| Description | Representative Image |
|---|---|
| **LCU A-3** | |
| **Location.** 1.4 miles in length beginning at Sun Devil Way in northern Rancho Peñasquitos and continuing into Black Mountain Open Space Park (BMOSP).<br>**Characteristic features.** The majority of this LCU is located within the BMOSP. Land use is primarily recreational. Existing light silver SLTs contrast and are visible against the dark silhouette of Black Mountain, while the existing wood H-frame structures are less visible.<br>**Visually dominant features.** Black Mountain, the communication tower at the summit with existing Federal Aviation Administration (FAA) hazard lighting are visually dominant features in the area. A green SDCWA's Second San Diego Aqueduct water reservoir is also visually prominent.<br>**Intactness.** Moderately High<br>**Unity.** Moderate<br>**Vividness.** Moderately High<br>**Visual Quality.** Moderately High |  |

| Description | Representative Image |
|---|---|
| **LCU B** | |
| **Location.** LCU B is 2.84 miles long and extends from Black Mountain Ranch Community Park along Carmel Valley Road to its intersection with Via Abertura.<br>**Characteristic features.** Carmel Valley Road is a gently curving thoroughfare with a landscaped median and edges. The thoroughfare also has Class II bike lanes in each direction. The western end of LCU B is urban with residential development on both sides of the road. The eastern end of the LCU B is located in open space.<br>**Visually dominant features.** Black Mountain is a dominant feature in this viewshed.<br>**Intactness.** Moderately High<br>**Unity.** Moderate<br>**Vividness.** Moderately High<br>**Visual Quality.** Moderately High (due to proximity to Black Mountain Ranch Park and open space) |  |

| Description | Representative Image |
|---|---|
| **LCU C** | |
| **Location.** Extends 2.19 miles south beginning near Via Abertura to Peñasquitos Junction. The northern section crosses through residential development then crosses SR-56. The southern section is within the Del Mar Mesa Preserve and terminates at Peñasquitos Junction (Figure 4.2-1).<br>**Characteristic features.** The LCU traverses residential development and natural, rugged terrain. Existing lattice steel towers support six conductors. Peñasquitos Junction, which consists of an array of tower structures, in-line dead end structures, access roads, and conductor spans.<br>**Visually dominant features.** Views are dominated by the open space canyons of Del Mar Mesa Preserve. The existing FAA marker balls, transmission towers, and conductors in the ROW over Deer Canyon.<br>**Intactness.** Moderately High<br>**Unity.** Moderately High<br>**Vividness.** Moderately High<br>**Visual Quality.** Moderately High |  |

| Description | Representative Image |
|---|---|
| **LCU D** | |
| **Location.** Traverses 3.34 miles in a southwesterly direction from Peñasquitos Junction to Peñasquitos Substation.<br>**Characteristic features.** The majority of this LCU is located within the Los Peñasquitos Canyon Preserve. Land use is primarily recreational and residential. There are panoramic views of the canyon's open space landscape. Residential development is located along the mesa and is oriented to maximize southern views towards Los Peñasquitos Canyon.<br>**Visually dominant features.** Los Peñasquitos Canyon open space dominates views in the LCU. The existing ROW contains a 138-kV and two 69-kV lines on two sets of towers located on the northern rim of Los Peñasquitos Canyon. There are marker balls on existing spans where they turn west from Peñasquitos Junction.<br>**Intactness.** High<br>**Unity.** Moderately High<br>**Vividness.** Moderately High<br>**Visual Quality.** High |  |

There are marker balls on some existing transmission line spans in SDG&E ROW, adjacent to the Proposed Project. Marker balls are required by the FAA when lines could impact aircraft safety, and are 36 inches in diameter, weigh approximately 20 to 30 pounds, and are typically made of light but durable materials (FAA 2007). If a span requires three or fewer marker balls, then the marker balls on the span are aviation orange. If a span requires more than three marker balls, then the marker balls alternate between aviation orange, white, red, and yellow. Marker balls are designed to be highly visible to pilots, which inherently makes them visible to other visual receptors. Similar to other project elements, their visibility is a function of perspective and lighting. When marker balls are viewed from a front lit perspective their bright colors are very noticeable. The balls are less noticeable and appear shadowed when they are back dropped against the built environment or back lit. Marker balls in the existing ROW are placed on shield wires attached to the top of the tower structures.

Marker balls are used on the existing transmission lines in Segments A, C, and D at the following locations:

- Canyon crossings in Segment A
- Sycamore Canyon Substation
- Interstate-15 (I-15) freeway crossing
- McGonigle and Deer Canyon in Del Mar Mesa Preserve
- Canyon crossings in Segment D

**Substations**

The environmental setting for substation modifications includes the existing substation sites at Sycamore Canyon, Peñasquitos, San Luis Rey, Chicarita, and Mission Substations. These substation properties appear highly industrial. The substations appear visually complex and are characterized by existing dead-end structures, circuit breakers, disconnect switches, communication interfaces, metering equipment, and fencing. The visual quality at the substations is low. These areas have low viewer sensitivity because of the existing low visual quality at the substation and low number of viewers.

**Encina Hub Modifications and Mission—San Luis Rey Phase Transposition**

Encina Hub is an area where existing transmission and power line corridors intersect just south of Cannon Road in Carlsbad, CA. The environmental setting at the Encina Hub and the Mission—San Luis Rey Phase Transposition areas consists of existing transmission lines and support structures within an SDG&E ROW, similar to the transmission line segments. The visual quality of Encina Hub is influenced by the existing steel lattice towers, wood poles, conductors, and access roads. The visual quality is low and the area has low viewer sensitivity.

The Mission—San Luis Phase Transposition work areas include two existing 230-kV transmission lines that extend between San Luis Rey Substation in North San Diego County to Mission Substation near Mission Valley in San Diego. The visual quality in the area is low and has low viewer sensitivity.

**Staging Yards**

The Proposed Project's staging yards include previously disturbed areas that are currently vacant land, previously graded areas within a developed wholesale/retail nursery, and a previously graded and fenced parcel located in a commercial/industrial area. Staging yard locations are shown on Figures 2.2-1 through 2.2-7. The visual quality and viewer sensitivity at staging yards varies by location and is similar to nearby LCUs, since most of the proposed staging is near the transmission line corridor.

### 4.2.3.3 Designated Scenic Resources

There are no federal, state, county, or city designated scenic resources in the Proposed Project area of visual effect. The closest designated scenic resource is Scripps Poway Parkway from SR-67 west to the City of Poway city limits, more than 2 miles east of the Proposed Project. The Proposed Project area is not visible from this segment of Scripps Poway Parkway due to topography and vegetation along Scripps Poway Parkway, which screen the Proposed Project area from view.

### 4.2.3.4 Light and Glare

Visual effects from outdoor lighting are generally attributable to light pollution, light trespass and encroachment, and glare. Light pollution is generally associated with ground-reflected light, which results in the sky glow found in urban areas. Light trespass or encroachment and nuisance glare results from unwanted light affecting viewers at an adjacent property. Glare ranges in severity from unwanted brightness that creates a nuisance to levels causing physical discomfort or disability.

**Sources of Light in the Proposed Project Area**

There are no nighttime lights on structures within the existing ROW. Facilities on ridgelines and mountain tops (e.g., radar, communications tower) near transmission line Segment A have FAA hazard lighting. Existing sources of nighttime lighting in the region include:

- Residential, commercial, and institutional buildings
- Street lights
- Parking area lights
- Automobile headlights
- Security lighting
- Area and decorative landscape lighting

The Palomar and Mount Laguna Observatories are the nearest facilities to the Proposed Project that are designated for dark night skies. These facilities are located over 30 miles from the Proposed Project area.

Although usually not noticeable, visible light from existing overhead transmission lines in the Proposed Project area may be observed as tiny bluish glows or plumes in dark conditions, as a result of corona discharge. Corona is the electrical breakdown of air into charged particles caused by the electrical field at the surface of conductors, insulators, and hardware. Corona

discharges occur where the electric field has been enhanced by protrusions, such as nicks, dust, insects, or water drops.

**Sources of Glare in the Proposed Project Area**
Pervasive sources of glare in the Proposed Project area include window glass, polished steel architectural elements, and reflections from moving cars.

## 4.2.4 Applicable Regulations, Plans, and Standards

### 4.2.4.1 Federal

**Federal Designated Scenic Resources**
Several federal laws and programs designate scenic resources; however, no federally designated scenic resources are located in the Proposed Project area.

**Navigable Airspace**
Navigable airspace regulations at 14 Code of Federal Regulations (CFR) Part 77 establish standards for determining obstructions in navigable airspace, including height limitations on structures taller than 200 feet or within 20,000 feet (approximately 3.8 miles) of an airport. FAA issues determinations recommending the installation of marker balls on certain transmission line spans and aviation lights on certain transmission structures. These lighting and marking recommendations are based on the FAA Advisory Circular 70/7460-1K, Obstruction Marking and Lighting (FAA 2007).

**Coastal Zone Management Act**
The Encina Hub and a portion of Segment D are located in the coastal zone. The Coastal Zone Management Act (CZMA) of 1972 establishes a national policy to preserve, protect, develop, and, where possible, restore or enhance the resources of the Nation's coastal zone, including preservation of "*esthetic coastal features*" (16 United States Code § 1452 (2)(F)). The CZMA creates a framework for planning and approving coastal projects between the federal, state, and local governments. California, as a coastal State, has a federally approved Coastal Zone Management Program (CZMP) discussed further in Section 4.2.4.2.

### 4.2.4.2 State

**State Designated Scenic Resources**
California's Scenic Highway Program was created by the California State Legislature in 1963 and is managed by Caltrans. No state-designated scenic resources are located in the project area.

**California Coastal Zone Management Program**
California's federally approved CZMP is administered through a partnership between state and local governments. Within southern California, the two state coastal management agencies include the State Coastal Conservancy and the California Coastal Commission (CCC). The California Coastal Act (CCA) of 1976 requires all jurisdictions within the Coastal Zone to establish Local Coastal Programs to govern decisions on a local level. Section 30251 of the CCA

states that "the scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance." Development within the coastal zone may not occur until the CCC or a local government with a CCC-certified Local Coastal Program has issued a Coastal Development Permit. The San Diego Coast Area Local Coastal Program is applicable to the Proposed Project and is discussed below under regional and local plans, policies, and regulations.

### 4.2.4.3 Local

**City of San Diego General Plan**

The City of San Diego General Plan includes an Urban Design Element and Conservation Element with specific goals, policies, and strategies pertaining to aesthetics. The City General Plan identifies the following relevant policies (City of San Diego 2015):

***Urban Design Element Policy A, Natural Features***

Policy UD-A.3 Design development adjacent to natural features in a sensitive manner to highlight and complement the natural environment in areas designated for development.

(g) Screen development adjacent to natural features as appropriate so that development does not appear visually intrusive, or interfere with the experience within the open space system;

(i) Ensure that the visibility of new development from natural features and open space areas is minimized to preserve the landforms and ridgelines that provide a natural backdrop to the open space systems. For example, development should not be visible from canyon trails at the point the trail is located nearest to proposed development. Lines-of-sight from trails or the open space system could be used to determine compliance with this policy;

(l) Protect views from public roadways and parklands to natural canyons, resource areas, and scenic vistas.

Policy UD-A.16 Minimize the visual and functional impact of utility systems and equipment on streets, sidewalks, and the public realm.

***Conservation Element Policy B, Open Space and Landform Preservation***

Policy CE-B.1 Protect and conserve the landforms, canyons lands, and open spaces that: define the City's urban form; provide public views/vistas; serve as core biological areas and wildlife linkages; are wetland habitats; provide buffers within and between communities; or provide outdoor recreational opportunities.

**City of Poway General Plan**

The City of Poway General Plan includes a Community Development Element with specific goals, policies, and strategies pertaining to aesthetics. The General Plan identifies the following relevant policies (City of Poway 1991):

Policy A – Scenic Vistas

Scenic areas prominent vistas and open space areas that typify Poway s rural history and image should be preserved and protected through appropriate land use policies.

Policy B – Distribution of Land Uses

Policy B-2 Large contiguous areas of open space shall be encouraged throughout the City and shall not be fenced or otherwise constricted.

Policy C – Site Design

Policy C-13 All loading and storage areas shall be adequately screened from view from the street and adjacent residential areas.

Policy C-23 Where visible slopes are created adjacent to areas of natural vegetation similar plant materials shall be introduced for erosion control and to mitigate the visual impact of land alteration.

Policy D – Grading

Policy D-4 All exposed graded slopes shall be revegetated with plant materials compatible with surrounding vegetation.

Policy H – Walls and Fencing

Policy H-5 All walls and fences which are adjacent to arterial roadways shall be enhanced by pilasters or offsets and landscaping shall be provided to soften the visual impact.

Policy I – Lighting Lighting should provide for public convenience and safety but not conflict with the rural nature of the community.

Policy I-3 All lighting shall be shielded and directed so as to not shine on adjoining properties.

**City of Carlsbad General Plan**

The City of Carlsbad General Plan, Open Space and Conservation Element and Circulation Element address policies for aesthetics applicable to the Proposed Project (City of Carlsbad 2015):

***Open Space and Conservation Element***

Policy C.10 Preserve open space areas in as natural a state as possible.

Policy C.12 Develop and retain open space in all categories of land use.

| | |
|---|---|
| Policy C.15 | Preserve panoramic viewpoints, as identified in the Open Space and Conservation Resource Management Plan, and where possible, provide public access. |
| Policy C.17 | Prevent incompatible development of areas that should be reserved or regulated for scenic, historic, conservation, or public health and safety purposes. |
| Policy C.18 | Conserve and encourage the use of appropriate forms of vegetation and sensitive grading techniques needed to (a) prevent erosion, siltation, and flooding, (b) protect air and water resources, and (c) protect and enhance visual resources. |
| Policy C.19 | Preserve natural resources by: protecting fish, wildlife, and vegetation habitats; retaining the natural character of waterways, shoreline features, hillsides, and scenic areas and viewpoints; safeguarding areas for scientific and educational research; respecting the limitations for air and water resources to absorb pollution; encourage legislation that will assist logically in preserving these resources, and protecting archaeological and paleontological resources. |

*Circulation Element*

| | |
|---|---|
| Policy C.1 | Implement the policies, standards, and guidelines contained within the Carlsbad Scenic Corridor Guidelines. |
| Policy C.6 | Enhance and preserve the natural and developed environments along each designated scenic route. |

**Local Coastal Program**

Local governments use Local Coastal Programs, in partnership with the CCC, as basic planning tools to guide development in the coastal zone consistent with the Coastal Act. Local Coastal Programs provide the requirements for future development and protection of coastal resources in the coastal zone including scenic resources. The western extent of the proposed transmission line in Segment D is within the boundaries of and subject to the City of San Diego Local Coastal Program. Encina Hub is located within the boundaries of and subject to the City of Carlsbad Local Coastal Program. Development within the coastal zone may not occur until the CCC or a local government with a CCC-certified Local Coastal Program has issued a Coastal Development Permit.

### 4.2.5 Applicant Proposed Measures

SDG&E has proposed measures to reduce environmental impacts. The significance of the impact is first considered prior to application of APMs and a significance determination is made. The implementation of APMs is then considered as part of the project when determining whether impacts would be significant and thus would require mitigation. These APMs would be incorporated as part of any CPUC project approval, 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 for the Proposed Project (refer to Chapter 9 of this EIR), and the implementation of the measures would be monitored and documented in the same manner as mitigation measures. The APMs that are applicable to the aesthetics analysis are provided in Table 4.2-3.

**Table 4.2-3 Applicant Proposed Measures to Reduce Aesthetic Impacts**

| APM Number | Requirements |
|---|---|
| **APM AES-1: Visual Screening** | Where staging yards are visible to the public, opaque mesh or slats (or equivalent material) will be installed along the fence that will screen view of the staging yards from public vantage points, such as roads and residences. |
| **APM AES-2: Restore Temporarily Disturbed Areas** | When Proposed Project construction has been completed, all temporarily disturbed terrain will be restored, to the extent practical, to approximate preconstruction conditions while maintaining adequately safe work areas for operation and maintenance activities, as needed. Re-vegetation will be used, where appropriate (re-vegetation in certain areas is not possible due to vegetation management requirements related to fire safety) to re-establish a natural appearing landscape and reduce potential visual contrast between disturbed areas and the surrounding landscape. In addition, all construction materials and debris will be removed from the Proposed Project area and recycled or properly disposed of off-site. |
| **APM AES-3: Landscaping for Cable Poles** | Final design of the eastern and western cable poles will consider design measures, such as landscaping installed outside of new perimeter chain-link fencing. |
| **APM AES-4: Temporary Lighting** | Temporary security lighting at staging and storage areas will be directed on site and away from any sensitive receptors. |
| **APM AES-5: Glare Reduction** | New pole structures are designed utilizing dulled galvanized steel to minimize the potential for visual impacts relating to glare. Non-specular conductors are used to reduce potential glare. New fencing installed as part of the Proposed Project, including fencing around new cable poles, will be a dull, non-reflective finish or vinyl coated to reduce potential glare. |

### 4.2.6 CEQA Significance Criteria

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

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

### 4.2.7 Approach to Impact Analysis

This impact analysis considers whether implementation of the Proposed Project or alternatives would result in significant impacts to aesthetics. The analysis focuses on reasonably foreseeable effects of the Proposed Project and alternatives as compared with baseline conditions. The analysis uses significance criteria based on the CEQA Appendix G Guidelines. The potential direct and indirect effects of the Proposed Project and alternatives are addressed; cumulative effects are addressed in Chapter 5: Cumulative Impacts. Effects that would result from operation and maintenance of the Proposed Project and alternatives are also addressed. Applicable APMs are identified and mitigation is defined to avoid or reduce significant impacts to aesthetics.

Impacts to aesthetic resources are generally defined in terms of the compatibility of the project's scale, form, materials, and character with the existing visual environment. The impact analysis includes an evaluation of the changes to the existing aesthetic conditions in each LCU and at KOPs, which could result from construction, operation, and maintenance of the Proposed Project. This visual impact analysis supplements the CEQA Guidelines with guidelines provided in the *Visual Impact Assessment for Highway Projects*, which uses a numeric evaluation approach to assess the degree of impact (FHWA 1988). This methodology was selected because the Proposed Project includes a linear feature and because the majority of identified KOPs were along the local transportation network of roads and trails. The FHWA released new guidance for visual impact assessments in January 2015 (FHWA 2015b). The new guidance was used to document baseline conditions as previously described in Section 4.2.2, and the 1988 guidance was used to assess the level of impact at each KOP because the new guidance does not include a method for quantitative assessment of impacts. The CPUC prefers the 1988 quantitative approach to impact analysis because it is replicable and provides a consistent approach for analysis across KOPs. Mitigation measures were developed in part based on American Society of Civil Engineers (ASCE) guidance found in *The Aesthetic Mitigation—The Challenge Confronting Future Expansion of Transmission Lines* (ASCE 2009).

#### 4.2.7.1 Analysis of Visual Quality Impacts

KOPs are representative view points of the Proposed Project. Fifteen KOPs were selected to analyze visual impacts of the Proposed Project (refer to Appendix F for details on the KOP screening method). Figure 4.2-4 shows the locations of the KOPs used in this analysis. Photographs of existing conditions were taken at each of the fifteen KOPs to represent the baseline conditions. Visual photo-simulations were then developed for each KOP to represent views of the Proposed Project and to evaluate the impact of the Proposed Project on the visual quality in the area.

The photograph of existing conditions and visual simulation for each KOP was evaluated quantitatively with a numerical rating system to analyze the Proposed Project's impact on visual quality. The evaluation involved the following steps:

1. Use the baseline photograph to analyze, describe, and assign numerical ratings for existing visual quality using three criteria: vividness, intactness, and unity (defined in Table 4.2-1).
2. Analyze, describe viewer response, and define numerical ratings for viewer sensitivity and viewer exposure (defined in Table 4.2-1). The visual experience of many different viewers was considered in the evaluation.
3. Prepare photo-simulations of the Proposed Project.
4. Analyze the photo-simulation and assign numerical ratings for the Proposed Project's visual quality using three criteria: vividness, intactness, and unity (see Appendix F).
5. Calculate visual change as the difference between existing visual quality using the numeric rating of the baseline photo and visual quality after construction of the Proposed Project using the numeric rating of the visual simulation.
6. Assess resulting visual quality before and after mitigation.

The ratings for change in visual quality and viewer response were multiplied together to produce an overall score (refer to rating sheets in Appendix F for detailed calculations at each KOP). For example:

| | |
|---|---|
| Visual Quality Change (VQC) | -3.0 |
| Viewer Response Visual (VR) | 3.5 |
| Impact (VQC × VR) | -10.5 (Moderately High) |

The composite visual impact score reflects both the degree of visual quality change resulting from the Proposed Project and the viewer response to the change. The interrelationship of these two factors in determining whether visual impacts would be significant is shown in Table 4.2-4. Overall visual impact scores of moderately high and high are considered significant under CEQA and require mitigation. The scoring relationship between overall visual change or impact and potential need for mitigation is provided in Table 4.2-5.

#### 4.2.7.2 Analysis of Construction Visual Quality Impacts

The analysis of construction impacts considers visual impacts that would result from earth moving, presence of construction equipment and vehicles, workers, and helicopters. The duration of the impact (viewer exposure) and viewer sensitivity are considered when determining the significance of the impact. A photo-simulation of a construction scenario was developed to show a representative view of a high level of construction activity in a transmission line segment. The visual impacts of construction activities are analyzed for Proposed Project elements and activities (e.g., pole installation, retaining wall installation). The effects of construction light and glare are also analyzed.

#### 4.2.7.3 Light and Glare

The location of viewers and intensity of existing light and glare were evaluated to determine the significance of new light and glare effects of the Proposed Project. Fugitive glare, caused by incident sunlight reflecting off reflective 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 4.2-2.

## Table 4.2-4 Guidelines for Determining Adverse Visual Impact Significance

| Overall Viewer Response | Overall Visual Change/Impact | | | | |
|---|---|---|---|---|---|
| | Low (0-<1) | Low to Moderate (1-<2) | Moderate (2-<3) | Moderately High (3-4) | High (>4) |
| **Low (0-<1)** | Not Significant | Not Significant | Adverse, Not Significant | Adverse, Not Significant | Adverse, Not Significant |
| **Low to Moderate (1-<2)** | Not Significant | Adverse, Not Significant | Adverse, Not Significant | Adverse, Not Significant | Adverse, Not Significant |
| **Moderate (2-<3)** | Adverse, Not Significant | Adverse, Not Significant | Adverse, Not Significant | Adverse, Potentially Significant | Adverse, Potentially Significant |
| **Moderate to High (3-<4)** | Adverse, Not Significant | Adverse, Not Significant | Adverse, Potentially Significant | Adverse, Potentially Significant | Significant |
| **High (4)** | 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.

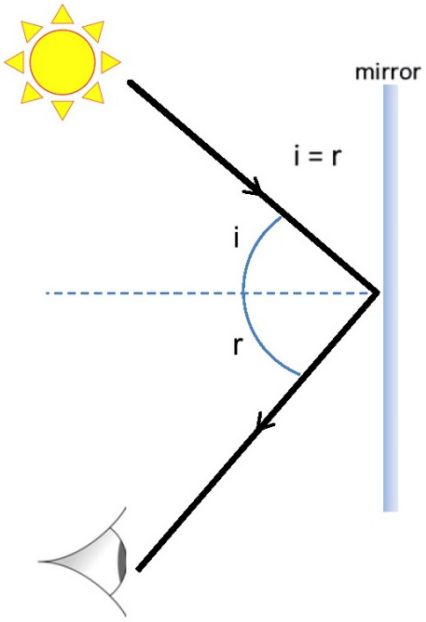
## Table 4.2-5 Visual Impact Score Description

| Score | Description |
|---|---|
| **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.** The impact is potentially significant. Mitigation may be required to reduce the impact to a less than significant level, depending on the level of viewer response. |
| **-9 to -13** | **Moderately high visual impact.** Mitigation could 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. |

*Source: FHWA 2015b*

At the latitude of the Proposed Project area, the sun's rays shine from the southern sky. Viewers south of reflective project components are 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. Therefore, 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 onto sensitive viewers.

**Figure 4.2-2 Law of Reflection**




## 4.2.8 Proposed Project Impacts and Mitigation Measures

Table 4.2-6 presents a summary of the aesthetic impacts resulting from construction and operation and maintenance of the Proposed Project facilities.

**Table 4.2-6 Summary of Proposed Project Impacts to Aesthetics**

| Significance Criteria | Project Phase | Significance prior to APMs | Significance after APMs and before Mitigation | Significance after Mitigation |
|---|---|---|---|---|
| Impact Aesthetics-1: Have an adverse effect on a scenic vista or substantially damage scenic resources | Construction | No Impact | --- | --- |
| | Operation and Maintenance | No Impact | --- | --- |
| Impact Aesthetics-2: Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway | Construction | No impact | --- | --- |
| | Operation and Maintenance | No impact | --- | --- |

| Significance Criteria | Project Phase | Significance prior to APMs | Significance after APMs and before Mitigation | Significance after Mitigation |
|---|---|---|---|---|
| Impact Aesthetics-3: Substantially degrade the existing visual character or quality of the site and its surroundings | Construction | Significant | Significant<br>APM AES-1<br>APM AES-2 | Less than significant<br>MM Aesthetics-1<br>MM Biology-6 |
| | Operation and Maintenance | Significant | Significant<br>APM AES-2<br>APM AES-3 | Significant and unavoidable<br>MM Biology-6<br>MM Aesthetics-1<br>MM Aesthetics-2<br>MM Aesthetics-3<br>MM Aesthetics-4 |
| Impact Aesthetics-4: Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area | Construction | Significant | Significant<br>APM AES-4<br>APM AES-5 | Less than significant<br>MM Aesthtetics-5 |
| | Operation and Maintenance | Significant | Less than significant<br>APM AES-5 | --- |

**Impact Aesthetics-1: Would the Proposed Project have a substantial adverse effect on a scenic vista or substantially damage scenic resources? (*No impact)***

The Proposed Project would not be visible from any designated or eligible federal-, state-, or city-designated scenic resources, including scenic vistas (City of San Diego 2015; City of Poway 2015; City of Carlsbad 2015; FHWA 2015a; FHWA 2015b; National Wild and Scenic Rivers System 2015; NRT 2015; BLM 2015).

The closest designated scenic resource is Scripps Poway Parkway, which extends from the City of Poway city limits to State Route 67. This Parkway is part of San Diego County's scenic highway system (County of San Diego 2015). This segment of Scripps Poway Parkway is located about 2.7 miles east of the proposed Stowe Staging yard. The staging yard would not be visible from this segment of Scripps Poway Parkway due to intervening topography (rolling hills) and the density and intensity of the built environment in the business park, which block views of the staging yard. This designated portion of Scripps Poway Parkway is also located about 2.7 miles northeast of the proposed transmission line in LCU A-1. Neither construction nor operation of the Proposed Project would be visible from this segment of the road because the topography along the scenic portion of Scripps Poway Parkway blocks views of the Proposed Project area. There would be no impact from construction, operation, or maintenance of the Proposed Project.

**Mitigation Measures: None required.**

**Impact Aesthetics-2: Would the Proposed Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? (*No impact)***

There are no scenic trees, rock outcroppings, or historic buildings that would be affected by the Proposed Project. A landscape evaluation was conducted to evaluate impacts on historical resources in the Proposed Project viewshed. As described in Section 4.3: Cultural Resources, no designated historical resources (pursuant to CEQA Guidelines §15064.5) would be visually impacted by the Proposed Project, including scenic trees, rock outcroppings, or historic buildings. The Proposed Project area is not visible from a state designated scenic highway (Caltrans 2015). There would be no impact from construction, operation, or maintenance of the Proposed Project.

**Mitigation Measures: None required.**

**Impact Aesthetics-3: Would the Proposed Project substantially degrade the existing visual character or quality of the site and its surroundings? (*Significant and unavoidable*)**

**Construction**

Proposed Project construction would introduce construction equipment to the visual landscape and result in landscape alterations through vegetation removal, mass grading, and erection of structures. Overhead transmission line construction activities including site clearing and grading, construction of retaining walls, installation of poles and foundations, and conductor stringing would be visible from surrounding areas. Underground transmission line construction activities include trenching, conductor and vault installation, and cable pole installation would be visible from roadways along the underground alignment.

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. The long-term impacts of the new transmission structures, conductor, and permanent work pads are analyzed under operation and maintenance, below.

*Overhead Transmission Line Segments A, C and D*

**Vegetation Removal and Grading.** Clearing and grading of temporary work areas and permanent maintenance pads would temporarily introduce large earth-moving and construction equipment to the landscape. Erection of new poles would require clearing and grading of an area approximately 50 feet by 75 feet (3,750 square feet) at each new pole. Clearing and grading activities would last approximately 1 to 2 days at each work area. Views of the graded work area would persist after construction because it would take time for vegetation to reestablish in areas that are temporarily disturbed by construction. The resulting impact to visual quality from vegetation removal and grading would be significant because the denuded land surface would contrast with the surrounding vegetation and suburban development. SDG&E would implement APM AES-2 as part of the Proposed Project, which requires restoration of temporarily disturbed areas. While APM AES-2 would reduce the impact

from vegetation removal and grading, the impact would remain significant because the revegetation efforts in APM AES-2 may be unsuccessful. Mitigation Measure Biology-6 requires restoration of areas of temporary disturbance with native vegetation and specifies methods to achieve successful revegetation. Impacts to aesthetics from vegetation removal and grading during construction would be less than significant with implementation of this mitigation.

**Retaining Walls.** The Proposed Project would include constructing eight retaining walls (four in Segment A and four in Segment D), anticipated to range in height from 5 to 26 feet and range in length from 60 to 477 feet, as shown in Table 2.4-4 in the Project Description. The retaining walls would be constructed with alternating layers of compacted soil and stabilizing geogrid fabric, with the fabric attached to stabilize the walls. A matrix of stone blocks would be used to finish the wall faces. The duration of construction activities would vary by size of the retaining wall, and is expected to range between 7 and 14 days for the smallest and largest walls, respectively. The retaining wall blocks would be visually prominent and would contrast substantially with the adjacent vegetation and surrounding views of development and open space areas in Segments A and D. While the installation of the retaining walls would last approximately one to two weeks, and the level of visual change would be high, the viewer response to the temporary visual impact from construction equipment and activity would be low due to the short duration of construction in each area. The resulting visual impact would be less than significant. No mitigation is required.

**Poles and Foundations.** Sixty-one new poles and foundations would be installed within Segments A and D of the Proposed Project alignment. Large construction equipment, such as a concrete trucks, flatbed trucks, cranes, and drilling rigs, would be used to install poles and foundations. Construction at each pole location would typically last approximately 4 days (the long-term impact to visual quality from the presence of new poles and foundations is addressed under operation and maintenance below). The form, line, and color of the construction equipment would contrast substantially with the visual setting of the surrounding open space and suburban community. The level of visual change would be high, but the viewer response to the temporary visual impact from construction equipment and activity would be low due to the short duration of construction in each area. The resulting visual impact would be less than significant. No mitigation is required.

**Transmission Line Stringing and Helicopter Use.** Helicopters would be used during construction for stringing overhead conductors, installing or removing structures, and transporting equipment and personnel. Based on the current anticipated construction schedule of approximately 1 year, the project could potentially use multiple helicopters. At a minimum, one helicopter would be used for approximately 7 to 10 months during the construction period. An additional helicopter may be used for up to approximately four months during the construction period if multiple types of activities requiring helicopter operation (such as conductor stringing and material transport) occur simultaneously. Helicopters would generally travel along the ROW during construction and may hover in a location for several minutes during conductor installation on a pole or to deliver materials. The Proposed Project is in the vicinity of MCAS Miramar and helicopter activity is common in the area; however, the type of

flying for construction is more distracting than the military traffic because helicopters for construction would hover close to the ground at work locations along the transmission line whereas military traffic is generally viewed in transit and at higher elevations. The helicopters would contrast with the natural sky line and result in a high level of visual change as represented by the visual simulation in Figure 4.2-3. Viewer response to the visual change would be low due to the very short exposure to helicopter views in any area (minutes). The resulting impact to visual quality would be less than significant. No mitigation is required.

**Structure Removal.** A total of fifty-seven existing H-frame structures, two TSPs, and five wood poles would be removed in Segments A and D. Metal poles and attached components would be dismantled using cranes, bucket trucks, and hand tools. Wood poles would be removed fully or cut about 2 feet below grade. Remaining concrete foundations would be jackhammered to approximately 2 feet below grade, and the debris would be removed. The remaining hole would be backfilled with soil or materials similar to the surrounding area. Removal of each structure would last approximately 1 day. Views of construction equipment and vehicles during structure removal would contrast with the surrounding landscape. The short-term degree of change to the existing visual quality during structure removal would be moderately high. While the change to visual quality would be moderately high during structure removal, viewer response to the impact would be low due to the short exposure (a day) to views of

**Figure 4.2-3 Photo-Simulation of Proposed Project Construction**

structure removal. The resulting impact to visual quality would be less than significant. No mitigation is required.

***Underground Transmission Line Segment B***

**Trenching.** Trenching is required in Segment B to construct an open trench ranging in width from 3.5 feet to 8.8 feet along the underground alignment for Segment B. Vaults would be installed at 10 locations along the road and require a 30-foot work area to set the vaults. The trench would be constructed within the paved roadway and would not impact vegetation. The vault work area would extend beyond the roadway and could result in impacts to vegetation within the landscaped road median or on the road shoulder. Up to five landscape trees could be removed from Carmel Valley Road to provide sufficient room for construction. Construction equipment, including backhoes, bulldozers, concrete trucks, and dump trucks, would be visible adjacent to the trench. Views of the equipment would be transient as equipment moves along the work area. Views of construction are expected to last only a few weeks in any area along the underground alignment. Vaults and duct bank placed in the trench would be backfilled and trenched areas that were paved prior to excavations would be repaved.

Views of construction equipment would contrast with the existing views from residential areas abutting the underground alignment. The presence of construction equipment, an underground trench, and traffic control devices would have a moderately high level of visual change. The viewer response to this change would be low due to the short exposure to the impact (a few weeks) and because viewers are aware that construction is temporary. The resulting impact from views of construction activity would be less than significant.

Removal of landscape trees would cause a moderately high level of visual change in the immediate vicinity of the removed trees because it would remove landscaped screening of the road. The tree removal would cause long-term impacts to visual quality of the roadway and this impact would be significant. Mitigation Measure Aesthetics-1 requires replacement of removed trees to replace the landscape screening of the roadway. The impact from tree removal would be less than significant with mitigation.

**Cable Pole Installation.** Steel cable poles (eastern cable pole P41 and western cable pole P42) would be installed at each end of Segment B. The cable poles are required for transitioning the transmission line from overhead to underground and underground back to overhead. Recreationalists' views would be impacted by the installation of the eastern cable pole, located in Black Mountain Ranch Community Park. The cable pole construction activities would last approximately one week. Views of construction equipment including a drill rig, crane, and trucks would have a short-term moderately high visual change to the existing visual quality because the construction equipment would contrast with the surrounding views of open space and residential development. The viewer response to this impact would be low due to the short duration of the exposure (one week). The resulting impact from views of construction activity during cable pole installation would be less than significant. No mitigation is required.

***Substations***

All minor construction work at substations would occur within the existing fenced and graveled pads. The work would not be visible from areas outside of the substation. Changes to the existing visual quality would be short-term and the construction would be compatible with the surrounding visual quality at the substations, which are industrial facilities with low existing visual quality. Construction impacts would be less than significant. No mitigation is required.

***Encina Hub Modifications***

Removal of an existing 230-kV transmission line at the Encina Hub would involve use of aerial bucket trucks and potentially a helicopter for one week to relocate wires and potentially replace a pole. The degree of visual change would be high because the construction equipment would contrast substantially with the surrounding native vegetation and the helicopter would be very visible against the sky. The viewer response to this impact would be low due to the short exposure to views of the construction activity (a few minutes for helicopter views and 1 week for construction equipment). The resulting impact to visual quality would be less than significant. No mitigation is required.

***Mission—San Luis Rey Phase Transposition***

The Mission – San Luis Rey Phase Transposition work would involve use of aerial bucket trucks for 1 week to relocate existing lines. No new infrastructure would be installed. The short-term degree of change to the existing visual quality would be moderately high because the bucket trucks and equipment would contrast with the surrounding native vegetation in the area. The viewer response to this change would be low due to the short duration of the activity (1 week). The resulting impact would be less than significant. No mitigation is required.

***Staging Yards***

Material and construction equipment storage and staging and helicopter take-off and landing would take place at six staging yards located near the Proposed Project alignment, as shown in Figure 2.1-2 in the Project Description. Activities would take place for up to 12 months. Staging yards are primarily located in areas that were previously disturbed. Five of the six staging yards would be visible to the public from adjacent roadways. The Stonebridge staging yard would be visible from Stonebridge Parkway. Stowe staging yard would be visible from Stowe Drive. Camino Del Sur and Carmel Valley Road staging yards would be visible from Camino Del Sur and Carmel Valley Road. SR-56 staging yard would be visible from Carmel Valley Road. The Evergreen Nursery staging yard would not be visible from Carmel Valley Road because the Evergreen Nursery has an existing wall that screens the view of the property.

Use of the staging yards would introduce vehicles and equipment, construction materials (e.g., conductor, steel poles, concrete, gravel, rock), and helicopters during take-off and landing. The increased activity level and presence of materials and equipment during staging would contrast with the existing landscape resulting in a moderately high visual change. Staging yards would be visible throughout the 12-month construction period. The viewer response to this impact would be moderate due to the extended duration of the activity. The resulting impact to visual quality would be significant. SDG&E would implement APM AES-1 as part of the Proposed

Project, which requires visual screening of staging areas. This APM would reduce the level of visual change by screening views of the staging yard equipment, materials, and activities and thereby reducing the level of visual change. Impacts to visual quality after implementation of APM AES-1 would be less than significant. No mitigation is required.

**Operation and Maintenance**

***Overview of Transmission Line Effects***

**Project Features by Segment.** Permanent structures would be installed along the Proposed Project alignment, while others would be removed. The installed and removed structures, summarized in Table 4.2-7, would result in long-term visual changes that are discussed by segment, below.

**Views from KOPs.** The locations of the Proposed Project LCUs and KOPs are shown on Figure 4.2-4. Figures 4.2-5 to 4.2-34 show the views of existing conditions and simulated views of the project facilities from each KOP. The visible Proposed Project elements from each of the 15 KOPs are summarized in Table 4.2-8.

**Table 4.2-7 Summary of the Visible Features of the Proposed Project by Transmission Line Segment**

| Transmission Line Segment | Segment Length (Miles) | KOPs in Segment | Proposed Project Features |
|---|---|---|---|
| A | 8.3 | KOP 1, 2, 3, 4, 5, 6, and 7 | • Thirty-seven new 230-kV TSPs<br>• Two new 138-kV TSPs<br>• Removal of existing wooden H-frame structures<br>• One new 138-kV H-frame structure<br>• Six new 230-kV conductors<br>• Ground clearing around each new pole<br>• Four retaining walls<br>• Marker balls on up to eight spans |
| B | 2.8 | KOP 8 | • Two new 230-kV cable poles<br>• Underground transmission line through Carmel Valley Road (not visible) |
| C | 2.2 | KOP 9 and 10 | • One new TSP<br>• Removal of one steel lattice tower<br>• Six new conductors<br>• Bundling of existing conductors<br>• One span may require marker balls |
| D | 3.3 | KOPs 11, 12, 13, 14, 15 | • 17 new 69-kV TSPs<br>• Replace two wood cable poles with steel cable poles<br>• Removal of existing wood H-frames<br>• Six new 230-kV conductors<br>• Ground clearing around each new pole<br>• Four retaining walls<br>• Marker balls on up to three spans |

## Figure 4.2-4 Key Observation Points

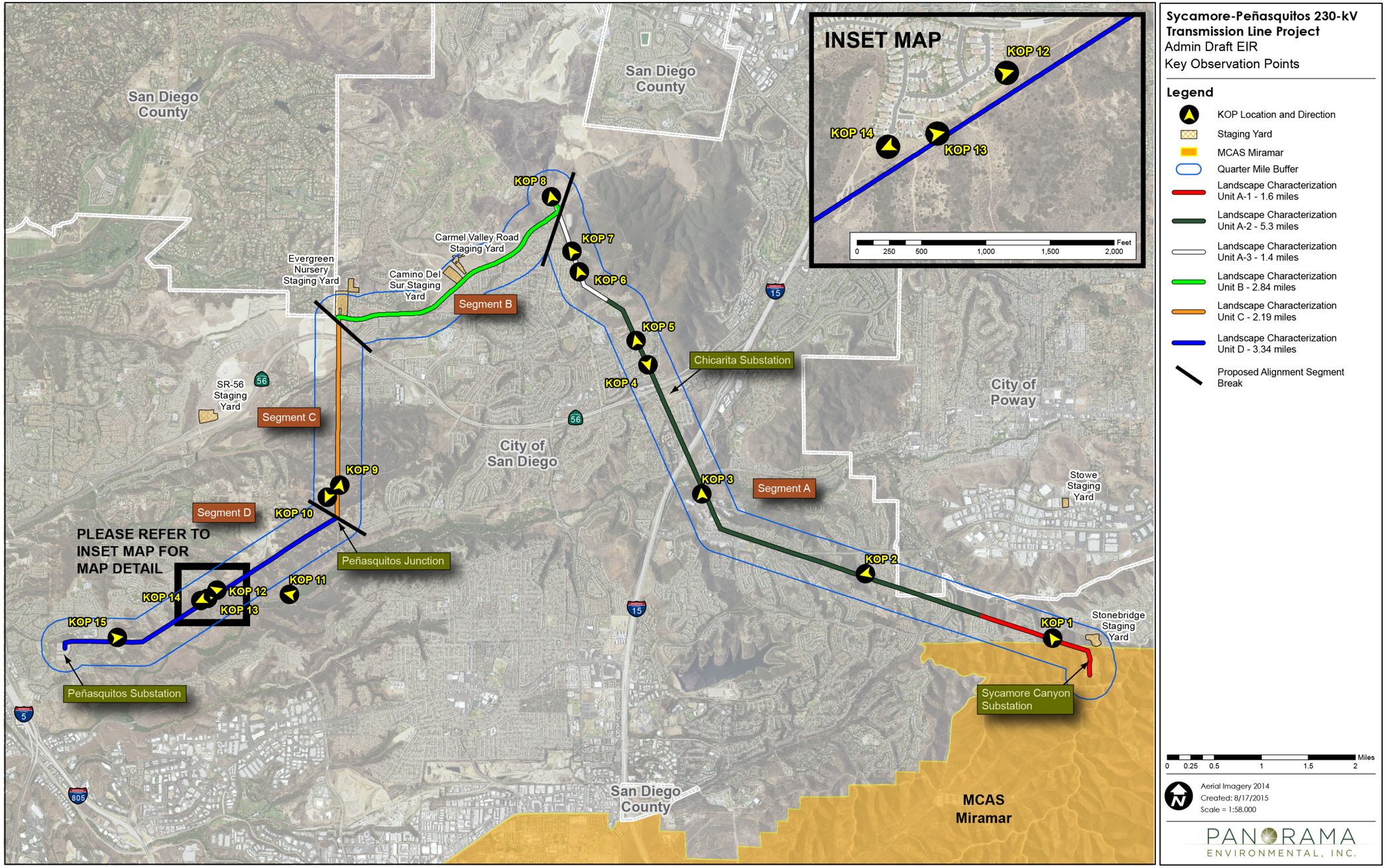


**Figure 4.2-5 KOP 1 – Baseline Photo (Before Proposed Project) – View from Stonebridge Athletic Field Looking Northwest**

**Figure 4.2-6 KOP 1 – Photosimulation (After Proposed Project) – View from Stonebridge Athletic Field Looking Northwest**

**Figure 4.2-7 KOP 2 – Baseline Photo (Before Proposed Project) – View from Angelique Street Looking Southwest**

**Figure 4.2-8 KOP 2 – Photosimulation (After Proposed Project) – View from Angelique Street Looking Southwest**

**Figure 4.2-9 KOP 3 – Baseline Photo (Before Proposed Project) – View from Los Peñasquitos Canyon Preserve Trans County Trail Looking North**

**Figure 4.2-10 KOP 3 – Photosimulation (After Proposed Project) – View from Los Peñasquitos Canyon Preserve Trans County Trail Looking North**

**Figure 4.2-11 KOP 4 – Baseline Photo (Before Proposed Project) – View from Quinton Road Looking Southeast**

**Figure 4.2-12 KOP 4 – Photosimulation (After Proposed Project) – View from Quinton Road Looking Southeast**

**Figure 4.2-13 KOP 5 – Baseline Photo (Before Proposed Project) – View from Bassmore Drive Looking Northwest**

**Figure 4.2-14 KOP 5 – Photosimulation (After Proposed Project) – View from Bassmore Drive Looking Northwest**

**Figure 4.2-15 KOP 6 – Baseline Photo (Before Proposed Project) – View from Black Mountain Open Space Park Trail Looking Northwest**

**Figure 4.2-16 KOP 6 – Photosimulation (After Proposed Project) – View from Black Mountain Open Space Park Trail Looking Northwest**

**Figure 4.2-17 KOP 7 – Baseline Photo (Before Proposed Project) – View from Maler Road Looking Northwest**

Figure 4.2-18 KOP 7 – Photosimulation (After Proposed Project) – View from Maler Road Looking Northwest

**Figure 4.2-19 KOP 8 – Baseline Photo (Before Proposed Project) – View from Black Mountain Ranch Park Looking North-Northwest**

**Figure 4.2-20 KOP 8 – Photosimulation (After Proposed Project) – View from Black Mountain Ranch Park Looking North-Northwest**

**Figure 4.2-21 KOP 9 – Baseline Photo (Before Proposed Project) – View from Del Mar Mesa Preserve Trails at Peñasquitos Junction Looking North**

**Figure 4.2-22 KOP 9 – Photosimulation (After Proposed Project) – View from Del Mar Mesa Preserve Trails at Peñasquitos Junction Looking North**

**Figure 4.2-23 KOP 10 – Baseline Photo (Before Proposed Project) – View from Del Mar Mesa Preserve Trail Looking Southwest**

**Figure 4.2-24 KOP 10 – Photosimulation (After Proposed Project) – View from Del Mar Mesa Preserve Trail Looking Southwest**

**Figure 4.2-25 KOP 11 – Baseline Photo (Before Proposed Project) – View from LPCP Trail Looking West-Northwest**

**Figure 4.2-26 KOP 11 – Photosimulation (After Proposed Project) – View from LPCP Trail Looking West-Northwest**

**Figure 4.2-27 KOP 12 – Baseline Photo (Before Proposed Project) – View from Gablewood Way Looking East-Northeast**

**Figure 4.2-28 KOP 12 – Photosimulation (After Proposed Project) – View from Gablewood Way Looking East-Northeast**

**Figure 4.2-29 KOP 13 – Baseline Photo (Before Proposed Project) – View from Heather Run Looking East**

**Figure 4.2-30 KOP 13 – Photosimulation (After Proposed Project) – View from Heather Run Looking East**

**Figure 4.2-31 KOP 14 – Baseline Photo (Before Proposed Project) – View from Briarlake Wood Road Looking West-Southwest**

**Figure 4.2-32 KOP 14 – Photosimulation (After Proposed Project) – View from Briarlake Wood Road Looking West-Southwest**

**Figure 4.2-33 KOP 15 – Baseline Photo (Before Proposed Project) – View from Manorgate Drive Looking East**

**Figure 4.2-34 KOP 15 – Photosimulation (After Proposed Project) – View from Manorgate Drive Looking East**

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## Table 4.2-8 Description of Proposed Project Key Observation Points and Viewer Sensitivity at Each Location

| KOP | Location of Viewpoint | Direction of View | Transmission Line Segment | View and Project Components | Viewer Sensitivity |
|---|---|---|---|---|---|
| 1 | Stonebridge Athletic Field | Northwest | A | Foreground: athletic field with six additional conductor spans overhead<br>Middle ground: Two proposed TSPs with marker balls, and a retaining wall | High |
| 2 | Angelique Street | Southwest | A | Fore- to middle ground: proposed marker balls, one proposed TSP, six additional conductors, and chaparral cleared at the base of the proposed TSP in open space<br>Middle ground: Miramar Ranch North community | High |
| 3 | Los Peñasquitos Canyon Preserve Trans County Trail | North | A | Fore- to middle ground: proposed TSP structures P23 through P26, two proposed retaining walls, marker balls, and six additional conductors within the SDG&E ROW<br>Middle ground: The communities of Rancho Peñasquitos and Sabre Springs | High |
| 4 | Quinton Road in Rancho Peñasquitos community | Southeast | A | Foreground: one proposed TSP with six additional conductors within the SDG&E ROW<br>Middle ground: four proposed TSPs and additional conductors and the community of Rancho Peñasquitos | High |
| 5 | Bassmore Drive | Northwest | A | Foreground: one proposed TSP with six additional conductors and optical ground wire and disturbed soil at the base of the pole within the SDG&E ROW in the northern Rancho Peñasquitos | High |
| 6 | Black Mountain Open Space Park Trail | Northwest | A | Fore- to middle ground: five proposed TSPs with conductor and marker balls within the SDG&E ROW, water utility infrastructure in open space<br>Background: open space | High |
| 7 | Maler Road in Black Mountain Ranch community | Northwest | A | Fore- to middle ground: proposed marker balls, one proposed TSP, six additional conductors, the topped pole and its distribution line, with chaparral cleared at the base of the proposed TSP in open space | High |
| 8 | Black Mountain Ranch Park | North-Northwest | B | Foreground: proposed transmission cable pole with chain-linked fence and high voltage warning signs, six additional conductors | Moderately High |

| KOP | Location of Viewpoint | Direction of View | Transmission Line Segment | View and Project Components | Viewer Sensitivity |
|---|---|---|---|---|---|
| 9 | Del Mar Mesa Preserve Trail at Peñasquitos Junction | North | C | Fore- to middle ground: bundled conductor and six additional conductors within the SDG&E ROW and open space<br>Background: open space | High |
| 10 | Del Mar Mesa Preserve Trail | Southwest | D | Foreground: open space<br>Middle ground: four proposed TSPs with additional marker balls on one segment and additional conductor | High |
| 11 | Los Peñasquitos Canyon Preserve Trail | West-Northwest | D | Fore- to middle ground: open space<br>Distant middle ground: four proposed TSPs with additional conductor within the SDG&E ROW, cleared chaparral visible at the base of one of the proposed TSPs and marker balls on one span | High |
| 12 | Los Peñasquitos Canyon Preserve Trailhead at Gablewood Way | East-Northeast | D | Immediate foreground: one proposed TSP with additional conductor and chaparral cleared at the base in open space<br>Fore- to middle ground: three proposed TSPs with additional conductor within the SDG&E ROW | High |
| 13 | Heather Run Court | East | D | Foreground: one proposed TSP with additional conductor and retaining wall<br>Middle ground: two proposed TSPs and additional conductor within the SDG&E ROW | High |
| 14 | Briarlake Wood Road | West-Southwest | D | Foreground: one proposed TSP with additional conductor and chaparral cleared at the base, marker balls, open space<br>Middle ground: four proposed TSPs and additional conductors and a second consecutive marker ball span within the SDG&E ROW, open space and the community of Torrey Hills | High |
| 15 | Manorgate Drive | East | D | Foreground: open space<br>Middle ground: four proposed TSPs with additional conductors and two marker ball spans | High |

**Summary of Visual Impacts at KOPs.** Table 4.2-9 provides the rating and level of visual impact resulting from the long-term presence of the Proposed Project's facilities. Rating sheets that provide the numeric evaluation for all KOP baseline photos and photo-simulations are provided in Appendix F.

***Transmission Line Segment A***

Visual impacts along Segment A are represented by photo simulations at KOP #1 through KOP #7 (Figures 4.2-6, 4.2-8, 4.2-10, 4.2-12, 4.2-14, 4.2-16, and 4.2-18). The existing electrical infrastructure in Segment A includes wood H-frame structures that support a 138-kV power line and a combination of steel lattice towers and TSPs that support a 230-kV transmission line and 69-kV power line. The Proposed Project would cause a long-term visual change from removal of the existing wood H-frame structures and installation of taller (approximately 120 feet tall) 230-kV TSPs to support the new 230-kV transmission line and existing 138-kV power line. The Proposed Project also includes up to eight spans of marker balls and four new retaining walls (see description of retaining walls under construction above). The new poles, conductor, marker balls, and retaining walls would result in long-term impacts to the visual quality of the area surrounding Segment A. The level of visual impact in Segment A would range from low to moderately high, as shown in Table 4.2-9. The degree of visual impact depends on the visibility of project elements and viewer sensitivity and exposure along the alignment. The impacts are described in more detail below

**Table 4.2-9 Summary of Visual Impacts for Key Observation Points**

| KOP | Transmission Line Segment | Visual Impact before Mitigation (Impact Rating) | Visual Impact after Mitigation (Impact Rating) |
|---|---|---|---|
| 1 | A | Moderately High (-10.5) | Moderate (-7.0) |
| 2 | A | Moderate (-8.75) | Moderate (-8.75) |
| 3 | A | Moderately High (-12.0) | Moderate (-7.5) |
| 4 | A | Moderate (-8.75) | Moderate (-8.75) |
| 5 | A | Low (-3.75) | Low (-3.75) |
| 6 | A | Moderately High (-9.625) | Moderately High (-9.075) |
| 7 | A | Moderately High (-9.63) | Moderately High (-9.0) |
| 8 | B | Moderately High (-12.0) | Moderately High (-10.5) |
| 9 | C | Low (-2.75) | Low (-2.75) |
| 10 | D | Moderate (-7.5) | Moderate (-7.5) |
| 11 | D | Moderately High (-9.3) | Moderately High (-9.0) |
| 12 | D | Moderate (-5.5) | Moderate (-5.5) |
| 13 | D | Moderately High (-9.0) | Moderate (-7.5) |
| 14 | D | Moderately High (-10.5) | Moderately High (-9.0) |
| 15 | D | Moderately High (-11.38) | Moderately High (-9.75) |

**Moderately High Visual Impacts at KOPs #1, 3, 6 and 7.** The presence of new TSPs, conductor, marker balls, and large retaining walls in areas of high visibility would result in a moderately high visual impact at KOPs #1, 3, 6 and 7 (Figures 4.2-6, 4.2-10, 4.2-16, and 4.2-18). The Proposed Project's industrial infrastructure would contrast substantially with the surrounding open space and recreational landscape. The new TSPs would contrast with the form of the adjacent steel lattice towers and color of adjacent TSPs, where TSPs occur in the corridor. The retaining walls would contrast with the form and color of the existing landscape. The viewer response in these areas is high due to the high sensitivity of residential and recreational viewers to landscape changes and the high level of viewer exposure to the Proposed Project elements. The resulting impact to visual quality would be significant.

Mitigation Measures Aesthetics-2 and Aesthetics-3 would be applied to reduce the visual impacts at KOPs #1, 3, and 7. Mitigation Measure Aesthetics-2 requires SDG&E to select retaining wall blocks that match the natural soil color and plant the retaining wall to provide visual screening of the wall. Mitigation Measure Aesthetics-3 requires preparation of a Facilities Color Treatment Plan to minimize the color contrast of the new TSPs. Figure 4.2-35 and 4.2-36 illustrate the reduction in visual impacts from implementation of Mitigation Measures Aesthetics-2 and Aeshetics-3. These mitigation measures would reduce the impact on visual quality at KOPs #1 and 3 to a moderate and, therefore, less than significant level. The visual impact at KOPs #6 and 7 would remain moderately high and significant after implementation of mitigation. Impacts at KOPs #6 and 7 would be significant and unavoidable.

**Moderate and Low Visual Impacts at KOPs #2, 4, and 5.** The Proposed Project would add new TSPs in areas where there are existing adjacent TSPs at KOPs #2, 4, and 5. The resulting visual impact would be low to moderate because the new TSPs would be similar in height to the existing TSPs and would be compatible with the form and line of the existing TSPs. The resulting impact to visual quality in these areas would be less than significant. No mitigation is required.

***Transmission Line Segment B***

The long-term impact to aesthetic resources within Segment B would only occur at the cable poles on either end of the 2.84-mile underground segment. The underground transmission line would be buried and, therefore, would have no impact on visual quality after construction is complete. The cable poles P41 and P42 are larger than the TSPs used to support the transmission line. The large size of the cable pole increases their visibility and industrial appearance. Each cable pole would be surrounded by a chain link fence topped with 3 strands of barbed-wire and high voltage warning signs. The eastern cable pole would contrast substantially with the surrounding recreational and open space landscape as shown in Figure 4.2-20, and the western cable pole would contrast with the residential development that is under construction in the area. The visual change at the cable poles would be high. The viewer response is moderately high at KOP #8 where the cable pole would be installed in Black Mountain Ranch Community Park. Viewer response would be high at the western cable pole where future residential development is under construction adjacent to the cable pole. The

**Figure 4.2-35 KOP 3 – Photosimulation (After Proposed Project) – View from Los Peñasquitos Canyon Preserve Trans County Trail Looking North**

**Figure 4.2-36 KOP 3 – Photosimulation (After Implementation of APMs and Mitigation Measures) – View from Los Peñasquitos Canyon Preserve Trans County Trail Looking North**

visual impact resulting from the proposed cable poles would be moderately high due to the high visual change and moderately high viewer sensitivity. This impact would be significant.

SDG&E would implement APM AES-3 as part of the Proposed Project to reduce visual impacts at the cable poles. APM AES-3 requires that the final design of the eastern and western cable poles incorporate features to minimize visual impacts such as installing landscaping outside of the cable pole perimeter chain-link fencing, if feasible. Even with implementation of this APM, the visual effects of the new cable poles would remain significant due to the mass and complex architecture of the infrastructure required for the cable poles, which would constitute a substantial change in visual character. Mitigation Measure Aesthetics-4 would further reduce impacts by requiring SDG&E to prepare a landscape design for the cable pole and provide CPUC review of the design. Mitigation Measure Aesthetics-4 would reduce the visual intrusion of the cable pole foundation; however, the visual impact of the cable poles would remain significant after mitigation because the cable poles would be a visually dominant feature in the viewshed and would result in a substantial change to the visual quality. The visual impact of the cable poles would be significant and unavoidable.

***Transmission Line Segment C***

The proposed improvements in Segment C involve installing one new TSP and bundling six additional phases of conductors on the existing transmission towers. The additional conductors would be parallel to the existing conductors and would be secured by a series of 18-inch spacers that keep the conductors from arcing. The additional conductors may be difficult to visually discern depending on distance and viewing perspective. They would be most apparent when the viewer is under or nearly under the transmission line. KOP #9 (Figure 4.2-22) provides a representative view of the proposed conductor separators along Segment C. The impacts of the bundling of the lines would be consistent with the existing elements in the landscape, would not create a dominant change, and would have a low visual impact that would be less than significant. No mitigation is required.

Marker balls may be required on one span between structures E7 and E8 just south of the terminus of Segment B after the ROW crosses SR-56. The existing transmission span in this area, where it crosses Deer Canyon, currently has marker balls. The new marker balls would be vivid, but would be similar in form and line to the existing marker balls. The level of visual change resulting from the new marker balls would, therefore, be low to moderate. Motorists on SR-56, residential receptors in Torrey Santa Fe, and recreationists in Del Mar Mesa Preserve would have unobstructed views of the new marker ball span proposed in Segment C. The impact of the additional marker balls would be less than significant due to the low to moderate level of visual change.

***Transmission Line Segment D***

The Proposed Project would result in installation of 17 69-kV TSPs, 2 69-kV steel cable poles, and 4 retaining walls along Segment D of the proposed alignment. The H-frame structures visible in the baseline photos for KOPs #10 through 15 would be replaced with taller TSPs and six new conductor spans overhead. Visible marker balls would be installed on some of the new

conductor spans in Segment D (KOPs #10, 14, and 15). New TSPs and conductors would be visible to the public from all KOPs along Segment D (KOPs #10 through 15). Baseline and simulated views for KOPs #10 through 15 are shown in Figures 4.2-23 through 4.2-34.

Visual impacts along Segment D would range from moderate to moderately high, as shown in Table 4.2-9. The range of visual impacts is due to variation in viewer sensitivity and exposure along the alignment, as well as variation in the visual contrast of the proposed features against baseline features within the SDG&E ROW. The impacts are discussed further, below.

**Moderately High Visual Impact.** The Proposed Project would add marker balls, new retaining walls, steel TSPs and additional conductor to residential and recreational views at KOPs #11, 13, 14, and 15. These industrial features would contrast substantially with the surrounding open space landscape of Los Peñasquitos Canyon and would result in a moderately high level of visual change. Los Peñasquitos Canyon has high viewer sensitivity due to its proximity to the perennial Los Peñasquitos Creek and waterfalls, one of the main attractions of the Los Peñasquitos Canyon Preserve. The ROW access roads shown from KOP #13 also provide multiple trails for non-motorized recreational use and access to the population centers of Torrey Hills and Rancho Peñasquitos.

The moderately high visual change in areas with high viewer sensitivity would result in a significant impact to visual quality. SDG&E would implement APM AES-2 as part of the Proposed Project, which requires removal of construction debris and revegetation of temporarily disturbed terrain after construction. Impacts would remain significant after implementation of APM AES-2. Mitigation Measures Aesthetics-1, Aesthetics-3, and Biology-6 would further reduce the visual impacts at KOPs #11, 13, 14, and 15. Mitigation Measure Aesthetics-2 requires retaining wall screening. Mitigation Measure Aesthetics-3 requires preparation of a Facilities Color Treatment Plan to minimize visual intrusion and contrast of new structures. Mitigation Measure Biology-6 would reduce the visual effect of vegetation removal at the pole base through revegetation of areas of temporary disturbance. The APMs and mitigation measures would reduce the impact at KOP #13 to moderate and less than significant, but the visual impact at KOPs #11, 14 and 15 would remain moderately high and significant after implementation of mitigation. The impact on visual quality would remain significant and unavoidable.

**Moderate Visual Impact at KOPs #10 and 12.** The Proposed Project's marker balls, TSPs, and conductors would be visible from KOP #10. At a distance of 0.5 mile or more, the Proposed Project features begin to blend in with the distant views of the urban development (e.g., tall buildings) south of Los Peñasquitos Canyon. While the viewer sensitivity is high at KOP #10, the degree of visual change at KOP#10 is low to moderate due to its distance from Proposed Project features and the compatibility of the Proposed Project elements with the urban cityscape in the background. The resulting impact to visual quality at KOP #10 would be less than significant. No mitigation is required.

The Proposed Project 69-kV TSPs and conductor would be visible from KOP #12; no retaining walls or marker balls are visible from KOP#12. The TSPs proposed in Segment D are shorter and

less robust than the 230-kV TSPs in Segment A because the Segment D TSPs would support smaller 69-kV conductors. The TSPs would appear similar in height to the adjacent steel lattice towers and would be moderately compatible with the existing structures due to the height and color of the TSPs and conductor. The resulting impact to visual quality from the new TSPs and conductor at KOP #12 would be moderate and less than significant. No mitigation is required.

***Substations, Encina Hub, and Mission—San Luis Rey Phase Transposition***

Substation modifications would not introduce new visual elements. Minor modifications would include adjusting configurations of transmission and power lines, adjusting relays, upgrading line protection, and installing new circuit breakers, disconnects, and capacity voltage transformers. At the Encina Hub, the existing transmission lines would be reconfigured on existing structures. The Mission—San Luis Rey Phase Transposition modifications would also utilize existing lines on existing structures.

Aesthetic impacts resulting from operation and maintenance of the Proposed Project at the substations, Encina Hub, and the Mission—San Luis Rey Phase Transposition site would be similar to existing conditions. There would be no substantial change to the existing visual character and quality of these areas. Impacts would be less than significant. No mitigation is required.

***Maintenance Activities***

SDG&E maintenance on Segments A, C, and D would be substantially the same in intensity, frequency, duration, and type as existing maintenance activities, given that there are existing facilities along all of these proposed aboveground segments. Typical activities include routine inspections and preventative maintenance. SDG&E would use helicopters for annual inspections of the overhead facilities; this activity would take about one day and would likely be combined with the current annual inspections for the existing lines. The inspections may require some additional time to complete. Ground patrols would also be used. Inspections are used to identify corrosion, equipment misalignment, loose fittings, and other common mechanical problems. Typical maintenance would include access repairs, repairs and replacements of equipment, and insulator washing. Helicopters would be used in the case of an outage or service curtailment to patrol transmission lines in areas with no vehicle access or with rough terrain. Viewer exposure to helicopters for one day per year would result in a low viewer sensitivity to the visual impact from facility inspections and, therefore, a less than significant impact on visual quality.

Inspections of the undergrounded Segment B would be conducted annually from the ten new vaults. SDG&E would implement traffic control to access the vaults. Inspections would be performed visually, as entry into the vaults with energized lines is not permitted. Inspections could also be performed with infrared, partial discharge monitoring, and other diagnostic instrumentation. Each vault inspection would take less than one day. Maintenance could include cable repair and cable connection repair. The visual impacts resulting from underground maintenance would be very infrequent and short-term.

Aesthetic impacts resulting from inspection and maintenance activities for the Proposed Project would be less than significant. No mitigation is required.

**Mitigation Measures: Aesthetics-1, Aesthetics-2, Aesthetics-3, Aesthetics-4, and Biology-6 (refer to Section 4.1: Biological Resources)**

**Mitigation Measure Aesthetics-1: Replace Landscape Trees.** SDG&E shall coordinate with the City of San Diego to replace any landscape trees within the City of San Diego road right-of-way that are impacted during construction. SDG&E may either directly replace the trees, if approved by the City of San Diego, or SDG&E may pay a fee to the City of San Diego for replacement of the landscape trees. Tree replacement shall occur at 1:1 ratio. All replacement trees shall be maintained for a period of 5 years. Any trees that do not survive during the maintenance period shall be replaced.

**Mitigation Measure Aesthetics-2: Retaining Wall Screening.** Retaining walls shall use blocks that accommodate plants along the wall face. The block color shall be similar in hue and value to the native soil or up to 2 shades darker. All retaining walls shall be planted with native vegetation common to the area. SDG&E shall submit a retaining wall design and vegetation plan to the CPUC for review and approval. The retaining wall design shall show the planting pockets in the blocks and the color of the blocks for all project retaining walls. SDG&E shall not order or procure the blocks until CPUC approves the design and color of the blocks. The vegetation plan shall include a list of all species to be planted in the retaining walls and the container size for the plantings. Vegetation planted in the retaining walls shall be maintained and watered as needed until plant material is established. Plants that die shall be replaced with similar specimens. SDG&E shall monitor the vegetation planted in the retaining wall pockets for three years or until plants are fully established.

**Mitigation Measure Aesthetics-3: Facilities Color Treatment Plan.** SDG&E shall prepare a Facilities Color Treatment Plan describing the application of colors to all new structures. The proposed color treatments shall minimize visual intrusion and contrast by matching the new structure's color to the adjacent existing structures and surroundings. Ancillary structures shall use colors that are congruent with the landscape in which they are proposed. Color treatments shall reduce new structure contrast making new structures less noticeable. The Plan shall be submitted to CPUC for review and approval at least 90 days prior to ordering the first structure to be color treated. The Facilities Color Treatment Plan shall include:

- Specification, and 11 × 17 inch color simulations at real-world scale, of the treatment proposed for use on project structures from identified KOPs. Structures include TSPs, retaining wall faces, and fences for cable poles and staging areas

- List of each major project structure, specifying the color and finish proposed
- Two sets of brochures and/or color chips for the proposed color for each project element
- 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 structures treated during manufacture or perform the final treatment on any structures treated onsite during construction until SDG&E receives notification of approval of the Color Treatment Plan by the CPUC.

**Mitigation Measure Aesthetics-4: Cable Pole Screening.** SDG&E shall prepare a Landscape Plan that details the landscape treatment and fence design around the cable poles. The Landscape Plan shall include vegetation to screen the base of the cable pole and fence to the extent feasible. Vegetation around the cable pole shall consist of container plantings due to the need to visually screen the cable pole. The vegetation type selected shall be compatible with the surrounding vegetation communities.

Vegetation planted around the cable pole shall be maintained and watered as needed until plant material is established. Plants that die shall be replaced with similar specimens. SDG&E shall monitor the vegetation around the cable pole until all container plants are fully established.

SDG&E shall submit the Landscape Plan to the CPUC for review and approval at least 60 days prior to construction of the cable pole. No work shall be conducted at the cable pole prior to CPUC approval of the Landscape Plan.

**Significance after mitigation: Significant and unavoidable.**

**Impact Aesthetics-4: Would the Proposed Project create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area? (*Less than significant with mitigation*)**

**Construction**

***Transmission Line Segments, Substations, Encina Hub, Mission—San Luis Rey Phase Transposition, and Temporary Work Areas***

**Light.** Lighting would be used to the extent required by safety and operational needs for construction activities. 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, conductor splicing and stringing, and cutovers of transmission tie lines and distribution circuits. If required, lighting during nighttime construction activities would be very

short term and intermittent (i.e., a few hours on a single evening). Even short-term nighttime lighting from construction activities could significantly impact sensitive viewers, particularly residential areas and adjacent native habitats. Nighttime lighting impacts would be significant.

SDG&E would implement APM AES-4 as part of the Proposed Project, which requires redirection of temporary security lighting away from sensitive receptors. Even with implementation of APM AES-4 the temporary effects of nighttime construction lighting would remain significant as APM-AES-4 only addresses security and other lighting at staging areas. Mitigation Measure Aesthetics-5 requires that nighttime lighting used for construction be directed away from sensitive receptors and adjacent native habitats. Implementation of Mitigation Measure Aesthetics-5 would reduce lighting impacts to less than significant.

**Glare.** Construction of the transmission line would include two potential sources of substantial glare: the transmission line poles and the circuits. Untreated galvanized steel poles and specular conductor can produce substantial glare and cause a significant impact. SDG&E would implement APM AES-5 as part of the Proposed Project, which requires use of dulled galvanized steel poles, non-specular conductor, and non-reflective fences. The dulled galvanized steel poles, non-specular conductor, and dull non-reflective or vinyl-coated fences required by APM AES-5 do not create substantial glare. Impacts would be less than significant with APM AES-5. No mitigation is required.

Insulators, which can glow from the sun being refracted from their complex form when the tower structure holding the insulator is directly in line with the rising or setting sun, could be a minor source of glare. Polymer insulators would be used on the transmission line. The potential for glare from polymer insulators is generally less than glazed porcelain glass insulators. Therefore, impacts from insulators would be less than significant. No mitigation is required.

**Operation and Maintenance**

***Transmission Line Segments***

**Light.** The FAA may require lighting on structures that trigger notification under Title 14 CFR Part 77. Lighting on proposed structures, where required, would be in accordance with the FAA Advisory circular 70/7460-1 K (FAA 2007). The exact number and specific towers that would require lights would be determined when formal FAA consultation is initiated by SDG&E. To conduct a conservative analysis, the CPUC assumed that any structure that requires notification under 14 CFR Part 77 would require lighting. Nine project structures would trigger FAA notification related to exceedance of obstruction standards and could therefore require lighting (structures E2, E3, P1, P2, P3, and P4 within LCU A-1 and P35, P36, and P37 within LCU A-3).

Lighting on structures less than 150 feet above ground level (E2, E3, P4, and P37) would be a dual steady burn red light. Lighting on structures greater than 150 feet above ground level (P1, P2, P3, P35, and P36) would be a flashing red beacon light installed at the top of the structures. Actual lighting may vary based on final determinations from FAA and subsequent discussion between SDG&E and FAA.

Tower-mounted red hazard lights would create light sources in the night landscape: a constant red glow from the lower intensity L-810 lights and a rhythmic 20 to 40 flashes per minute from the higher intensity L-864 lights. FAA-required hazard lighting is intended to draw a pilot's attention to an obstruction by clearly marking its location in contrast with its surroundings.

The lit structures in LCU A-1 near Sycamore Canyon Substation would be visible from Sycamore Canyon Park and streets and residential areas in Ranch Encantada. The three structures in LCU A-3 would be located in or adjacent to the Black Mountain Open Space Park. There is currently prominent bright white FAA hazard lighting in these areas at a higher elevation, including the Doppler weather radar near Sycamore Canyon Substation and a communications facility at the summit of Black Mountain. Figure 4.2-37 depicts representative nighttime lighting conditions of the FAA hazard lights proposed in Black Mountain Open Space Park viewed from a distance of 0.3 miles. In the context of the existing lighting of the surrounding suburban area and lighting of other tall structures, the tower hazard lighting would not introduce a substantial amount of light to the night landscape. FAA hazard lighting impacts resulting from the Proposed Project would be less than significant. No mitigation is required.

Visual corona levels on a 230-kV line are very low and corona on the conductors would be observable only under the darkest conditions and only with the aid of binoculars, if at all. Without a period of adaptation for the eyes and without intentionally looking for the corona, corona is typically not noticeable. Therefore, corona would not introduce a substantial source of light to the area and the impacts from corona light would be less than significant.

**Glare.** As described under construction above, the Proposed Project would introduce two significant sources of glare to the area: steel poles and conductor. Implementation of APM AES-5 as part of the Proposed Project would treat the sources of glare: steel poles, conductors, and fences. Implementation of APM AES-5 would treat the sources of substantial glare. Impacts from glare would be less than significant during operation of the Proposed Project. No mitigation is required.

***Substations, Encina Hub, and Mission—San Luis Rey Phase Transposition***

Light and glare during operation and maintenance would be similar to existing conditions at the substation, Encina Hub, and the Mission—San Luis Rey Phase Transposition sites. No new lighting or structures that could result in substantial glare are proposed. There would be no impact from light or glare as a result of the Proposed Project.

**Mitigation Measures: Aesthetics-5**

> **Mitigation Measure Aesthetics-5: Nighttime Lighting.** SDG&E shall ensure that all nighttime lighting used for construction is shielded, pointed down, and directed away from surrounding properties and adjacent natural habitats.

**Significance after mitigation: Less than significant.**

**Figure 4.2-37 Representative Photo of Nighttime Lighting on a Structure**

### 4.2.9 Alternative 1: Eastern Cable Pole at Carmel Valley Road (Avoids Cable Pole in Black Mountain Ranch Community Park)

Alternative 1 would involve installation of a new cable pole immediately south of and adjoining Carmel Valley Road within existing SDG&E ROW, transitioning the Segment A overhead transmission line directly into the proposed Carmel Valley Road Segment B underground alignment. Alternative 1 would avoid installation of a cable pole and underground duct bank within the Black Mountain Ranch Community Park. This alternative is described in more detail in Chapter 3: Alternatives.

#### 4.2.9.1 Alternative 1 Environmental Setting

The Alternative 1 cable pole is adjacent to Carmel Valley Road and the pole would be visible to motorists, bicyclists, and pedestrians traveling on Carmel Valley Road and the upper portion of the cable pole would be visible from Black Mountain Ranch Community Park. The cable pole would be partially visible from residential areas. The nearest residential area is approximately 0.5 mile west of the cable pole.

**Scenic Vistas**

There are no scenic vistas or designated scenic resources in proximity to Alternative 1. Alternative 1 is not visible from any scenic vista or designated scenic resource.

**Scenic Highways**
Alternative 1 is not located in proximity to any state designated scenic highways.

**Landscape Character**
Alternative 1 is located within Landscape Character Unit B described in Table 4.2-2. Carmel Valley Road in the vicinity of the Alternative 1 cable pole is a gently curving four lane boulevard with a landscaped median, bicycle lanes and sidewalk. Open space areas are visible to the north, west, and south of the road. The visual quality of the area is moderately high due to views of open space to the north, south, and west. The roadway including adjacent landscaping, are the visually dominant features in the area. Viewer sensitivity is moderately high.

**View Exposure**
The Alternative 1 cable pole would be visible to motorists traveling east and west on Carmel Valley Road; however, views of the cable pole on southbound Carmel Valley Road would be screened by topography until motorists are more than 850 feet northeast of the cable pole. The upper approximately 100 feet of the cable pole would be visible from Black Mountain Ranch Community Park across Carmel Valley Road and the bottom 50 feet would be screened by topography. The base of the cable pole would be screened by topography and vegetation from neighboring residential areas in Black Mountain Ranch to the south and the north of Alternative 1.

**Alternative 1 View Point**
The Alternative 1 view point is located on Carmel Valley Road west of the Alternative 1 cable pole (Figure 4.2-38). The view point was selected to capture a typical view of the cable pole from Carmel Valley Road.

### 4.2.9.2 Alternative 1 Environmental Impacts and Mitigation Measures

Table 4.2-10 summarizes the impacts on aesthetics from Alternative 1.

**Table 4.2-10 Summary of Alternative 1 Impacts to Aesthetics**

| Significance Criteria | Project Phase | Significance Prior to APMs | Significance after APMs and before Mitigation | Significance after Mitigation |
|---|---|---|---|---|
| Impact Aesthetics-1: Have an adverse effect on a scenic vista or substantially damage scenic resources | Construction | No Impact | --- | --- |
| | Operation and Maintenance | No Impact | --- | --- |
| Impact Aesthetics-2: Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway | Construction | No Impact | --- | --- |
| | Operation and Maintenance | No Impact | --- | --- |

| Significance Criteria | Project Phase | Significance Prior to APMs | Significance after APMs and before Mitigation | Significance after Mitigation |
|---|---|---|---|---|
| Impact Aesthetics-3: Substantially degrade the existing visual character or quality of the site and its surroundings | Construction | Less than significant | --- | --- |
| | Operation and Maintenance | Significant | Significant<br>APM AES-3 | Significant and unavoidable<br>MM Aesthetics-4 |
| Impact Aesthetics-4: Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area | Construction | No Impact | --- | --- |
| | Operation and Maintenance | Significant | Less than significant<br>APM AES-5 | --- |

Alternative 1 would have no impact on two CEQA significance criteria for Aesthetics: Impacts Aesthetics-1, and -2, as indicated in Table 4.2-10 above. Alternative 1 would have no impact on these criteria because Alternative 1 is not visible from a designated scenic vista, scenic resource, or scenic highway

**Impact Aesthetics-3: Would Alternative 1 substantially degrade the existing visual character or quality of the site and its surroundings? (*Significant and unavoidable*)**

**Construction Views**

***Staging Yard and Substation Impacts***

Alternative 1 would involve use of the same staging yards and substations as the Proposed Project. The construction effects and mitigation described in Section 4.2.8 for substations and staging yards would apply to Alternative 1 (refer to Section 4.2.8, Impact Aesthetics-3).

***Transmission Line Construction***

Alternative 1 includes a cable pole directly adjacent to and south of Carmel Valley Road. Installation of the Alternative 1 eastern cable pole would be readily visible to motorists on Carmel Valley Road. The installation of the cable pole south of Carmel Valley Road would substantially change the visual character and quality of the work area and surroundings during construction due to the presence of drill rigs, cranes, graders, and other heavy equipment required to install the cable pole, construct the foundation, and build the retaining wall. This equipment would contrast substantially with the existing views from Carmel Valley Road shown in Figure 4.2-39. Views of the equipment at the cable pole and underground duct bank are expected to last only a few weeks during construction of the alternative cable pole and pad. As a result, affected viewers would be aware of the temporary nature of project construction impacts, which would decrease their sensitivity to the impact. The resulting impact from construction activity would be less than significant. No mitigation is required.

**Operation and Maintenance**

The Alternative 1 cable pole would be located adjacent to Carmel Valley Road and would be visible to motorists, bicyclists, and pedestrians traveling on Carmel Valley Road. The cable pole would be surrounded by a chain link fence topped with 3 strands of barbed-wire and high voltage warning signs. Figures 4.2-39 and 4.2-40 show the baseline conditions and a simulated view of the Alternative 1 eastern cable pole from the Alternative 1 view point on Carmel Valley Road. The Alternative 1 cable pole would be highly visible from the roadway and would have a moderately high level of visual change, which would be a significant impact due to the moderately high viewer sensitivity.

Implementation of APM AES-3 (landscaping installed outside of cable pole perimeter chain-link fencing) would reduce impacts; however, APM AES-3 does not include any review of the design to ensure the effectiveness of the mitigation. Mitigation Measure Aesthetics-4 would further reduce impacts by requiring SDG&E to prepare a landscape design for the cable pole with CPUC's review of the design. The mitigation would reduce the visual impact of the cable pole fence and would screen the base of the cable pole and the retaining wall, but impacts on visual quality would persist after mitigation because the cable pole would be 150 feet high and there is no mitigation available to reduce the permanent visual effects of the cable pole. The visual impact of the Alternative 1 cable pole would be significant and unavoidable.

**Mitigation Measures: Aesthetics-4 (refer to Section 4.2.8)**

**Significance after mitigation: Significant and unavoidable.**

**Impact Aesthetics-4: Would Alternative 1 create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? (*Less than significant; no mitigation required*)**

**Construction**

Alternative 1 includes construction of a cable pole at Carmel Valley Road. The cable pole construction would not require the use of night lighting because nighttime construction activities would not be required for cable pole construction. Construction also would not result in glare. There would be no impact from lighting or glare.

**Operation and Maintenance**

The Alternative 1 cable pole and fence located south of Carmel Valley Road could introduce a substantial source of glare to the area, which would be a significant impact. APM AES-5 (use of dulled galvanized steel poles, non-specular conductors, and dull, non-reflective finish or vinyl coated fences) would reduce operational impacts from glare by treating potential sources of glare. Impacts would be less than significant with APM AES-5. No mitigation is required.

**Mitigation Measures: None required.**

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## Figure 4.2-38 Alternative Representative View Locations

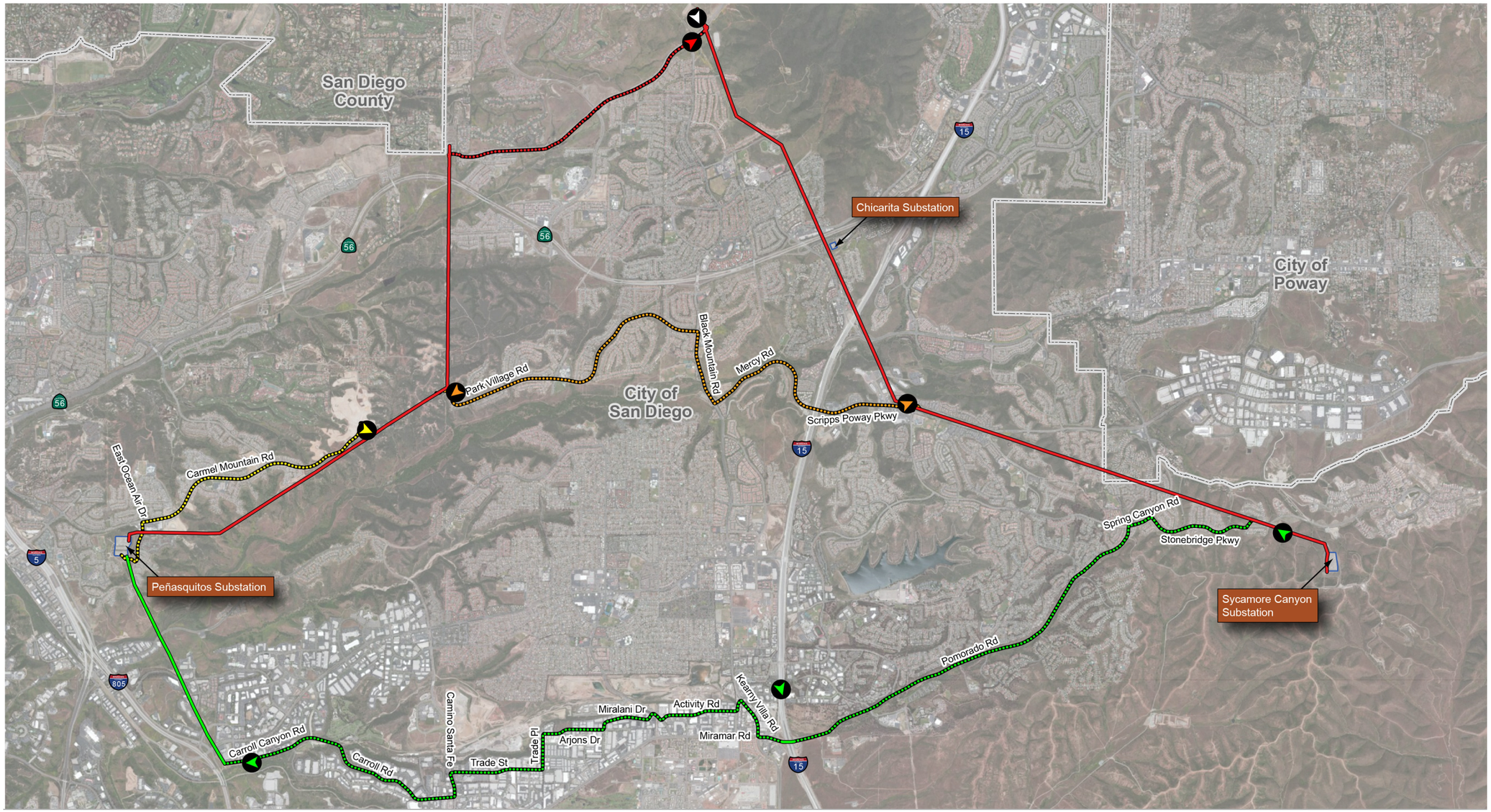

**Figure 4.2-39 Alternative 1 View Point Existing Conditions**

**Figure 4.2-40 Alternative 1 View Point Simulation**

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### 4.2.10 Alternatives 2a and 2b: Eastern Cable Pole at Pole P40 and Underground Alignment through City Open Space or City Water Utility Service Road (Avoids Cable Pole in Black Mountain Ranch Community Park)

Alternative 2 would involve installation of a new cable pole in the same location for both Alternatives 2a and 2b, approximately 300 feet south of Carmel Valley Road within existing SDG&E ROW, transitioning the Segment A overhead transmission line into the proposed Carmel Valley Road Segment B underground alignment via one of two underground alignment options. Alternative 2a would locate the underground duct bank west of SDG&E ROW through City of San Diego open space and into Carmel Valley Road. Alternative 2b would locate the underground duct bank east of SDG&E ROW through a City of San Diego water utility service road and into Carmel Valley Road. Both Alternative 2a and 2b would avoid installation of a cable pole and underground duct bank within the Black Mountain Ranch Community Park. This alternative is described in more detail in Chapter 3: Alternatives.

#### 4.2.10.1 Alternative 2 Environmental Setting

The Alternative 2 cable pole is located 300 feet south of Carmel Valley Road at the top of a hill slope. The cable pole would be visible to motorists traveling on Carmel Valley Road and recreationists in Black Mountain Ranch Community Park and Black Mountain Open Space Preserve. The cable pole would be partially screened from residential neighborhoods by vegetation. The nearest residential area is approximately 0.5 mile west of the cable pole.

**Scenic Vistas**

There are no scenic vistas or designated scenic resources in proximity to Alternative 2. Alternative 2 is not visible from any scenic vista or designated scenic resource.

**Scenic Highways**

Alternative 2 is not located in proximity to any state designated scenic highways.

**Landscape Character**

Alternative 2 is located at the intersection of Landscape Character Unit A-3 and Landscape Character Unit B described in Table 4.2-2.

LCU A-3 defines the area within Black Mountain Ranch Open Space Preserve. Alternative 2 would be located within Black Mountain Ranch Open Space Preserve. The land use in the area is primarily recreational. Existing light silver SLTs contrast and are visually prominent against the dark silhouette of Black Mountain, while the existing wood H-frame tower structures are less visible. Black Mountain, the existing steel lattice towers, and the San Diego water storage tank are visually prominent in the area. The visual quality in the area is moderately high.

LCU B defines the area along Carmel Valley Road. Carmel Valley Road in the vicinity of the Alternative 2 cable pole is a gently curving four-lane boulevard with a landscaped median, bicycle lanes and sidewalks. Open space areas are visible to the west and south of the road. The visual quality of the area is moderately high due to views of open space to the south and west.

The roadway including adjacent landscaping are the visually dominant features in the area. Viewer sensitivity on Carmel Valley Road is moderately high.

**View Exposure**

The Alternative 2 cable pole would be visible to motorists traveling east and west on Carmel Valley Road and to a lesser extent motorists travelling west on Carmel Valley Road. The cable pole would be on top of the hill slope at a similar elevation to the Black Mountain Ranch Community Park and the Alternative 2 location is therefore fully visible from the community park across Carmel Valley Road. The cable pole would be partially screened by topography and vegetation from neighboring residential areas in Black Mountain Ranch to the south and the north of Alternative 2.

**Alternative 2 View Point**

The Alternative 2 view point is located in Black Mountain Ranch Community Park due north of the cable pole (Figure 4.2-38). The view point was selected to capture a recreationist view of the cable pole from the baseball field.

### 4.2.10.2 Alternative 2 Environmental Impacts and Mitigation Measures

Table 4.2-11 summarizes the impacts on aesthetics from Alternative 2.

**Table 4.2-11 Summary of Alternative 2 Impacts to Aesthetics**

| Significance Criteria | Project Phase | Significance Prior to APMs | Significance after APMs and before Mitigation | Significance after Mitigation |
|---|---|---|---|---|
| Impact Aesthetics-1: Have an adverse effect on a scenic vista or substantially damage scenic resources | Construction | No impact | --- | --- |
| | Operation and Maintenance | No impact | --- | --- |
| Impact Aesthetics-2: Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway | Construction | No impact | --- | --- |
| | Operation and Maintenance | No impact | --- | --- |
| Impact Aesthetics-3: Substantially degrade the existing visual character or quality of the site and its surroundings | Construction | Less than significant | --- | --- |
| | Operation and Maintenance | Significant | Significant<br>APM AES-3 | Significant and Unavoidable<br>MM Aesthetics-4 |
| Impact Aesthetics-4: Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area | Construction | No impact | --- | --- |
| | Operation and Maintenance | Significant | Less than significant<br>APM AES-5 | --- |

Alternative 2 would have no impact on two CEQA significance criteria for Aesthetics: Impact Aesthetics-1, and -2, as indicated in Table 4.2-11 above. Alternative 2 would have no impact on these criteria because Alternative 1 is not visible from a designated scenic vista, scenic resource, or scenic highway.

**Impact Aesthetics-3: Would Alternative 2 substantially degrade the existing visual character or quality of the site and its surroundings? (*Significant and unavoidable*)**

**Construction Views**

***Staging Yard and Substation Impacts***

Alternative 2 would involve use of the same staging yards and substations as the Proposed Project. The construction effects and mitigation described in Section 4.2.8 for substations and staging yards would apply to Alternative 2 (refer to Section 4.2.8, Impact Aesthetics-3).

***Transmission Line Construction***

Alternative 2 includes a cable pole 300 feet south of Carmel Valley Road and underground duct bank through either City open space or a City water utility service road. Installation of the Alternative 2 eastern cable pole and construction of the underground duct bank and vaults would be visible to motorists on Carmel Valley Road and recreationists at Black Mountain Ranch Community Park. The construction of the cable pole south of Carmel Valley Road would substantially change the visual character and quality in the vicinity of the work area, due to the presence of drill rig, crane, graders, and other heavy equipment required to install the cable pole and construct the foundation and underground duct bank. This equipment would contrast substantially with the existing views from Black Mountain Ranch Community Park as shown in Figure 4.2-41. Views of the equipment at the cable pole and underground duct bank are expected to last only a few weeks during construction of the alternative cable pole and underground transmission line. As a result, affected viewers would be aware of the temporary nature of project construction impacts, which would decrease their sensitivity to the impact. The resulting impact from construction activity would be less than significant. No mitigation is required.

**Operation and Maintenance**

The 159-foot tall cable pole would be surrounded by a chain link fence topped with 3 strands of barbed-wire and high voltage warning signs. Figures 4.2-41 and 4.2-42 show the baseline conditions and a simulated view of the Alternative 2 eastern cable pole from Black Mountain Ranch Community Park.

Residential views of the alternative cable pole from the Black Mountain Ranch neighborhood southeast of Carmel Valley road would be screened by an existing masonry wall and abundant landscaping, and the homes are setback and slightly below grade. Although Alternative 2 involves locating the eastern cable pole outside of Black Mountain Ranch Community Park and 300 feet south of Carmel Valley Road, recreational views would be impacted. Existing transmission infrastructure in the area predates construction of the park; however, the alternative cable pole would be larger, more architecturally complex, and more intrusive than

existing structures. The visual impact of the cable pole on Black Mountain Ranch Community Park would be moderately high. This would be a significant impact.

Implementation of APM AES-3 (landscaping installed outside of cable pole perimeter chain-link fencing) would reduce impacts; however, APM AES-3 does not include any review of the design to ensure the effectiveness of the mitigation. Mitigation Measure Aesthetics-4 would further reduce impacts by requiring SDG&E to prepare a landscape design for the cable pole that includes CPUC's review of the design. Mitigation Measure Aesthetics-4 would reduce the visual intrusion of the cable pole foundation; however, the visual impact of Alternative 2 would remain significant after mitigation because Alternative 2 is adjacent to the Black Mountain Ranch Community Park and within the Black Mountain Open Space Preserve. The 159-foot tall cable pole would be a visually dominant feature in the viewshed of both the Park and the Preserve. The visual impact of the Alternative 2 cable pole would be significant and unavoidable.

**Mitigation Measures: Aesthetics-4 (refer to Section 4.2.8)**

**Significance after mitigation: Significant and unavoidable.**

**Impact Aesthetics-4: Would Alternative 2 create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? (*Less than significant; no mitigation required*)**

**Construction**

The Alternative 2 cable pole and underground transmission line construction south of Carmel Valley Road would not require the use of night lighting because nighttime construction activities would not be required for cable pole or underground transmission line construction. Construction also would not result in glare. There would be no impact from lighting or glare.

**Operation and Maintenance**

Alternative 2 would not introduce a new source of light to the area. There would no impact from permanent lighting.

The Alternative 2 cable pole and fence south of Carmel Valley Road could introduce a substantial source of glare to the area, which would be a significant impact. Implementation of APM AES-5 (use of dulled galvanized steel poles, non-specular conductors, and dull, non-reflective finish or vinyl coated fences) would reduce operational impacts from glare by treating potential sources of glare. Impacts would be less than significant with APM AES-5. No mitigation is required.

**Mitigation Measures: None required.**

**Figure 4.2-41 Alternative 2 View Point Existing Conditions**

**Figure 4.2-42 Alternative 2 View Point Simulation**

### 4.2.11 Alternative 3: Los Peñasquitos Canyon Preserve – Mercy Road Underground Alternative (Avoids Overhead North Segment A, Underground Segment B, and Overhead Segment C)

Alternative 3 would include installing an underground alignment starting at a new cable pole where the existing SDG&E ROW crosses Ivy Hill Road and ending at a new cable pole approximately 550 feet west of the Peñasquitos Junction (i.e., where Proposed Project Segments C and D meet). The underground alignment would follow Scripps Poway Parkway, Mercy Road, Black Mountain Road, and finally Park Village Road. Alternative 3 would bypass the northern half of Proposed Project Segment A and all of Proposed Project Segments B and C. This alternative is described in more detail in Chapter 3: Alternatives.

#### 4.2.11.1 Alternative 3 Environmental Setting

The only permanent above ground structures that would be a part of Alternative 3 are the two cable poles on either end of the underground alignment. Alternative 3 includes a 159.5 foot-tall steel, 230-kV cable pole that would be installed south of Ivy Hill Drive and east of Mercy Canyon Road. Alternative 3 also includes a 159.5 foot tall, 230-kV steel cable pole with a 200 foot long retaining wall that would be installed near Peñasquitos Junction where the line would transition from underground back to overhead.

**Scenic Vistas**

There are no scenic vistas or designated scenic resources in proximity to Alternative 3. Alternative 3 is not visible from any scenic vista or designated scenic resource.

**Scenic Highways**

Alternative 3 is not located in proximity to any state-designated scenic highways.

**Landscape Character**

The Alternative 3 eastern cable pole would be located in LCUA-2. The Alternative 3 western cable pole would be located at the intersection of LCU C and LCU D, described in Table 4.2-2.

The area of the eastern cable pole would be visible from Scripps Poway Parkway, a commercial area (Scripps Ranch Marketplace) south of Scripps Poway Parkway, Spring Canyon Park, and a multi-family residential area north of the cable pole. The cable pole structure would be located at street level between two elevated berms. The foreground in the vicinity of the cable pole is a suburban residential landscape dominated by a transportation corridor and an adjacent transmission line corridor with different types of transmission structures exhibiting considerable industrial character. These structures are discordant built landscape features. Also visible in the landscape are nearby commercial and residential developments. There is also considerable roadside landscaping, which provides limited screening of the adjacent transmission line facilities, which are situated on an elevated berm approximately 15 to 20 feet above the grade level of Scripps Poway Parkway. The visual quality in the area is moderate. Motorists along Scripps Poway Parkway have moderate viewer sensitivity due to the short duration of views and focus on the roadway. Residents and bicyclists have high viewer sensitivity due to longer duration of views and attention to the surrounding environment.

The area of the western cable pole is visible from Los Peñasquitos Canyon Preserve and the residential areas south and north of the cable pole. The cable pole would be located west of Peñasquitos Junction in an area that is characterized by open space views of the canyon to the south and an array of tower structures, in-line dead end structures, access roads and conductor spans at Peñasquitos Junction. Peñasquitos Junction is characterized by a large number of transmission line structures of incongruent architectural forms in a small, constrained viewshed. The viewshed is constrained by the dense, tall chaparral and the steep and narrow finger canyon running north from Los Peñasquitos Canyon. The cable pole would be in open view from a trail kiosk located near the cable pole. Residential development is visible on the mesa tops to the north and south of the cable pole. The visual quality in the area is moderately high to high and viewer sensitivity for recreationists and residents is high.

**View Exposure**

Views of the eastern cable pole are partially screened by roadside landscaping and trees. The eastern cable pole would be visible in the foreground from Scripps Poway Parkway. Views of the cable pole are intermittent and mostly screened by topography and vegetation from Spring Canyon Park and neighboring residential and commercial areas.

The western cable pole would be in open view from trails to the south and east of the cable pole. The pole would be located in a canyon and it would be screened by topography from areas west or east of the cable pole. The pole would be located below the canyon rim and would be partially to fully screened by topography from areas north of the cable pole.

**Alternative 3 View Points**

The Alternative 3 view point for the eastern cable pole is located on Scripps Poway Parkway (Figure 4.2-38). The view point was selected to capture a typical motorist's or bicyclist's view of the cable pole and because there were no view points from the neighboring residential areas or Spring Canyon Park where the cable pole was highly visible because of the mature ornamental landscaping along the road.

The view point for the western cable pole is located at a trailhead access at the end of Park Village Drive (Figure 4.2-38). There is a kiosk with maps and notices and the location acts as staging for recreationists. The viewpoint was selected because it captures the impact on the sensitivity of the recreational views and residential views because the residences are at a similar elevation to the trail kiosk.

### 4.2.11.2 Alternative 3 Environmental Impacts and Mitigation Measures

Table 4.2-12 summarizes the impacts on aesthetics from Alternative 3.

**Table 4.2-12 Summary of Alternative 3 Impacts to Aesthetics**

| Significance Criteria | Project Phase | Significance prior to APMs | Significance after APMs and before Mitigation | Significance after Mitigation |
|---|---|---|---|---|
| Impact Aesthetics-1: Have an adverse effect on a scenic vista or substantially damage scenic resources | Construction | No impact | --- | --- |
| | Operation and Maintenance | No impact | --- | --- |
| Impact Aesthetics-2: Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway | Construction | No impact | --- | --- |
| | Operation and Maintenance | No impact | --- | --- |
| Impact Aesthetics-3: Substantially degrade the existing visual character or quality of the site and its surroundings | Construction | Less than significant | --- | --- |
| | Operation and Maintenance | Significant | Significant<br>APM AES-3 | Significant and unavoidable<br>MM Aesthetics-2<br>MM Aesthetics-4 |
| Impact Aesthetics-4: Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area | Construction | No impact | --- | --- |
| | Operation and Maintenance | Significant | Less than significant<br>APM AES-5 | --- |

Alternative 3 would have no impact on two CEQA significance criteria for Aesthetics: Impact Aesthetics-1, and -2, as indicated in Table 4.2-12 above. Alternative 3 would have no impact on these criteria because Alternative 1 is not visible from a designated scenic vista, scenic resource, or scenic highway.

**Impact Aesthetics-3: Would Alternative 3 substantially degrade the existing visual character or quality of the site and its surroundings? (*Significant and unavoidable*)**

### Construction Views

#### *Staging Yard and Substation Impacts*

Alternative 3 would involve use of the same staging yards and substations as the Proposed Project. The construction effects and mitigation described in Section 4.2.8 for substations and staging yards would apply to Alternative 3 (Refer to Section 4.2.8, Impact Aesthetics-3).

#### *Transmission Line Construction*

Installation of the Alternative 3 cable poles and construction of the underground duct bank within Ivy Hill Drive, Scripps Poway Parkway, Mercy Road, Black Mountain Road, and Park Village Road would substantially change the visual character and quality of the work area and surroundings during construction due to the presence of a drill rig, crane, graders, and other

heavy equipment required to install the cable poles. The visual quality would also be impacted by the presence of traffic control devices, trucks, motor graders, and other equipment necessary to construct the underground duct bank and resurface the roadway. This equipment would contrast substantially with the existing views from residential areas and from recreational areas along the alignment. It is not feasible to screen views of the equipment, cable pole, open trench, and material stockpiles. Views of the equipment would be transient and views of construction are expected to last only a few weeks in any one area. As a result, affected viewers would be aware of the temporary nature of project construction impacts, which would decrease their sensitivity to the impact. The resulting impact from construction activity would be less than significant. No mitigation is required.

**Operation and Maintenance**

***Underground Transmission Line***

The underground transmission line would be buried under roadways. There would be no lasting aesthetic impacts from the underground transmission line.

***Cable Poles***

The eastern cable pole would be approximately 159 feet tall and would extend above the tree line along Scripps Poway Parkway. Figures 4.2-43 and 4.2-44 show the existing view and simulated view of the Alternative 3 eastern cable pole from Scripps Poway Parkway. The cable pole would be located adjacent and to the north of Scripps Poway Parkway, and about 15 to 20 feet below the grade of the adjacent berm that supports the utility corridor. The cable pole would be partially screened by roadside vegetation. The location of the cable pole below the grade of the adjacent transmission lines and the partial screening of the cable pole by the existing vegetation would help to limit visibility and reduce the structure's prominence. The industrial character of the structure would contrast with the surrounding suburban landscape, although it would share some architectural similarities with the adjacent transmission line tower structures, which would be shorter than the cable pole. The resulting visual contrast would be moderate. The moderate visual contrast, in combination with the moderately high visual sensitivity for the corridor, would result in a less-than-significant visual impact. No mitigation is required.

The 159-foot tall western cable pole, surrounding fence, graded pad, and retaining wall would be highly visible from the key view near Peñasquitos Junction. Figures 4.2-45 and 4.2-46 show the existing view and simulated view of the Alternative 3 western cable pole. The cable pole would be constructed into the hill slope requiring a flat pad and retaining wall to support the structure. The retaining wall and cable pole would be fully visible to recreationists at Peñasquitos Junction. While the structure would be similar in form, line, and color to the transmission structures at Peñasquitos Junction, the structure would have a high level of contrast with the color and texture of the surrounding views of open space. The moderately high degree of visual change in combination with the high viewer sensitivity of recreationists and nearby residents would result in a significant impact.

**Figure 4.2-43 Key View of Alternative 3 Eastern Cable Pole Existing Conditions**

**Figure 4.2-44 Key View of Alternative 3 Eastern Cable Pole Simulation**

**Figure 4.2-45 Key View of Alternative 3 Western Cable Pole Existing Conditions**

**Figure 4.2-46 Key View of Alternative 3 Western Cable Pole Simulation**

Implementation of APM AES-3 (landscaping installed outside of cable pole perimeter chain-link fencing) would reduce impacts; however, APM AES-3 does not include any review of the design to ensure the effectiveness of the mitigation. Mitigation Measure Aesthetics-2 and Aesthetics-4 would require that the CPUC review and approve the landscape design. The measures also require vegetative screening of the cable pole and retaining wall. These mitigation measures would reduce the visual intrusion of the cable pole fence and retaining wall; however, the visual contrast of the cable pole would remain moderately high, even after mitigation. The resulting impact would be significant and unavoidable.

**Mitigation Measures: Aesthetics-2 and Aesthetics-4 (refer to Section 4.2.8)**

**Significance after mitigation: Significant and unavoidable.**

**Impact Aesthetics-4: Would Alternative 3 create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area? (*Less than significant; no mitigation required*)**

**Construction**

The Alternative 3 cable poles and underground transmission line construction would not require the use of night lighting because nighttime construction activities would not be required for cable pole or underground transmission line construction. Construction also would not result in glare. There would be no impact from lighting or glare.

**Operation and Maintenance**

Alternative 3 would not introduce a new source of light to the area. There would be no impact from lighting during operation and maintenance.

The Alternative 3 cable poles and security fence could introduce a substantial source of glare to the area in proximity to the cable poles, which would be a significant impact. Implementation of APM AES-5 would reduce operational impacts from glare by treating potential sources of glare through the use of dulled galvanized steel poles, non-specular conductors, and dull, non-reflective finish or vinyl-coated fences. Impacts would be less than significant with APM AES-5. No mitigation is required.

**Mitigation Measures: None required.**

### 4.2.12 Alternative 4: Segment D 69-kV Partial Underground Alignment (Reduces New TSPs in Segment D)

Alternative 4 would include the installation of a double 69-kV underground alignment starting at two new cable poles (P48AA and P48BB) in Proposed Project Segment D near existing lattice tower E17. The underground alignment would follow Carmel Mountain Road and East Ocean Air Drive, ending at the Peñasquitos Substation. Within Proposed Project Segment D, an existing 69-kV line would be removed from the existing steel lattice towers, and a second 69-kV power line on existing H-frame structures would be de-energized and left in place. Construction within Proposed Project Segment D would be reduced under Alternative 4. The

230-kV transmission line would be installed on the existing steel lattice towers similar to the Proposed Project; however, the H-frame structures would not be removed, and no new TSPs would be installed between lattice tower E17 and the Peñasquitos Substation. This alternative is described in more detail in Chapter 3: Alternatives.

#### 4.2.12.1 Alternative 4 Environmental Setting

The only permanent above ground structures to be added under Alternative 4 are the two 83-foot tall 69-kV cable poles within Los Peñasquitos Canyon Preserve. All other infrastructure for Alternative 4 would be installed below grade, within roadways.

**Scenic Vistas**

There are no scenic vistas or designated scenic resources in proximity to Alternative 4. Alternative 4 is not visible from any scenic vista or designated scenic resource.

**Scenic Highways**

Alternative 4 is not located in proximity to any state-designated scenic highways.

**Landscape Character**

The Alternative 4 cable poles would be located in LCU D, which is described in Table 4.2-2. The cable poles would be located in the immediate vicinity of the Alta Del Mar residential community, which is under development along Carmel Mountain Road. The area includes numerous multi-use trails along Los Peñasquitos Canyon's northern rim and the Alta Del Mar trail is located in proximity to the proposed cable poles. The visual quality of the open space areas in the vicinity of the proposed cable pole is moderately high and is characterized by the existing transmission infrastructure in the ROW and adjacent open space views along the Canyon. Viewer sensitivity is high for recreationists and residential areas along Los Peñasquitos Canyon in proximity to the cable poles.

**View Exposure**

The trail system in this area is extensive and well used. The Alta Del Mar trail offers an unobstructed view of the two cable poles proposed at this location.

**Alternative 4 View Points**

The Alternative 4 view point for the cable poles is located on Alta Del Mar Trail. The view point was selected to capture typical recreational views of the cable pole; the viewpoint is also representative of residential views north of the cable poles.

#### 4.2.12.2 Alternative 4 Environmental Impacts and Mitigation Measures

Table 4.2-13 summarizes the impacts on aesthetics from Alternative 4.

**Table 4.2-13 Summary of Alternative 4 Impacts to Aesthetics**

| Significance Criteria | Project Phase | Significance Prior to APMs | Significance after APMs and before Mitigation | Significance after Mitigation |
|---|---|---|---|---|
| Impact Aesthetics-1: Have an adverse effect on a scenic vista or substantially damage scenic resources | Construction | No impact | --- | --- |
| | Operation and Maintenance | No impact | --- | --- |
| Impact Aesthetics-2: Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway | Construction | No impact | --- | --- |
| | Operation and Maintenance | No impact | --- | --- |
| Impact Aesthetics-3: Substantially degrade the existing visual character or quality of the site and its surroundings | Construction | Less than significant | --- | --- |
| | Operation and Maintenance | Significant | Significant<br>APM AES-3 | Significant and unavoidable<br>MM Aesthetics-4 |
| Impact Aesthetics-4: Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area | Construction | No impact | --- | --- |
| | Operation and Maintenance | Significant | Less than significant<br>APM AES-5 | --- |

Alternative 4 would have no impact on two CEQA significance criteria for Aesthetics: Impact Aesthetics-1, and -2, as indicated in Table 4.2-13, above. Alternative 4 would have no impact on these criteria because Alternative 1 is not visible from a designated scenic vista, scenic resource, or scenic highway.

**Impact Aesthetics-3: Would Alternative 4 substantially degrade the existing visual character or quality of the site and its surroundings? (*Significant and unavoidable*)**

### Construction Views

#### *Staging Yard and Substation Impacts*

Alternative 4 would involve use of the same staging yards and substations as the Proposed Project. The construction effects and mitigation described in Section 4.2.8 for substations and staging yards would apply to Alternative 5 (refer to Section 4.2.8, Impact Aesthetics-3).

#### *Transmission Line Construction*

Installation of the Alternative 4 69-kV cable poles would substantially change the visual character and quality of the work area during construction due to the presence of a drill rig, crane, graders, and other heavy equipment required to install the cable poles. Construction of the underground duct bank and vaults within Carmel Mountain Road and East Ocean Air

Drive would change the visual quality of the area through the presence of traffic control devices, trucks, motor graders, and other equipment necessary to construct the underground duct bank and resurface the roadway. The cable pole construction would have a high level of contrast with the open space views from recreational areas in Los Peñasquitos Canyon and the adjacent Alta Del Mar community. Construction equipment would also contrast substantially with the existing views from residential areas abutting the underground alignment. It is not feasible to screen views of the equipment, cable pole, open trench, and material stockpiles. Views of the equipment would be transient and only expected to last only a few weeks in any one area along the alignment. As a result, affected viewers would be aware of the temporary nature of project construction impacts, which would decrease their sensitivity to the impact. The resulting impact from construction activity would be less than significant. No mitigation is required.

**Operation and Maintenance**

***Underground Transmission Line***

The underground transmission line would be buried under roadways. There would be no lasting aesthetic impact from the underground transmission line.

***Cable Poles***

Two 83-foot tall steel 69-kV double circuit cable poles would be installed at P48 to transition the two 69- kV power lines underground. Figure 4.2-47 shows the existing condition from Alta del Mar trail and Figure 4.2-48 shows a simulated view of the 69-kV cable poles. The Alternative 4 cable poles would contrast with the adjacent transmission infrastructure including the existing lattice steel towers and wood H-frames and would be more architecturally complex, and more intrusive than existing structures. The visual impact of the cable pole would be moderately high and significant.

Implementation of APM AES-3 (landscaping installed outside of cable pole perimeter chain-link fencing) would reduce impacts; however, APM AES-3 does not include any review of the design to ensure the effectiveness of the mitigation. Mitigation Measure Aesthetics-4 would further reduce impacts by requiring SDG&E to prepare a landscape design for the cable pole and would include CPUC's review of the design. Mitigation Measure Aesthetics-4 would reduce the visual intrusion of the cable pole fence and foundation when the cable pole is in the immediate foreground along the Alta del Mar trail. The Alternative 4 cable poles would still result in a moderately high level of visual change because the majority of the cable pole (above the height of the landscaping) would not be screened from view and would contrast with the surrounding structures and views. The visual impact of Alternative 4 would remain significant after mitigation because of the high viewer sensitivity in the area. The visual impact of the Alternative 4 cable poles would be significant and unavoidable.

**Mitigation Measures: Aesthetics-4 (refer to Section 4.2.8)**

**Significance after mitigation: Significant and unavoidable.**

**Figure 4.2-47 Key View Alternative 4 Existing Conditions**

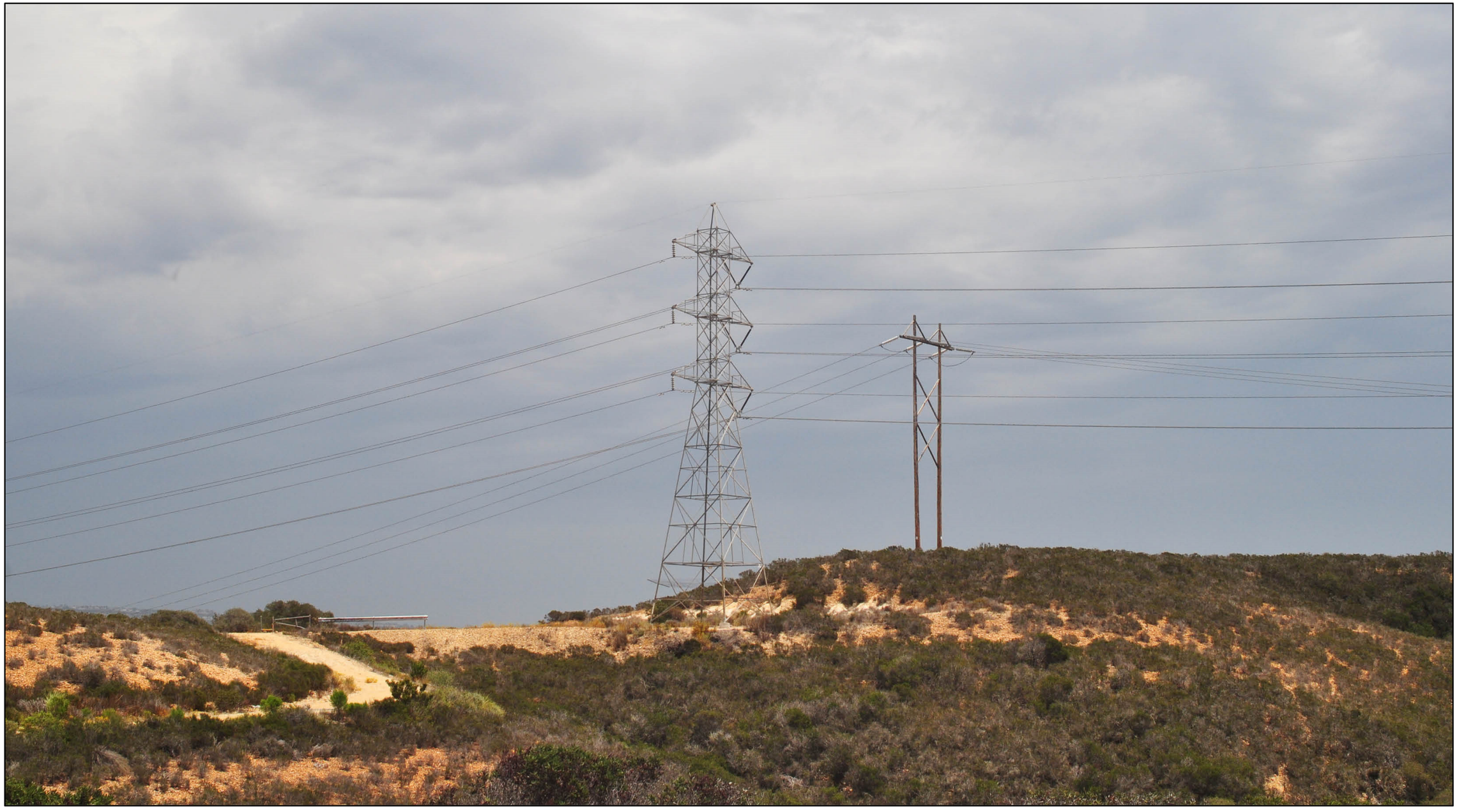
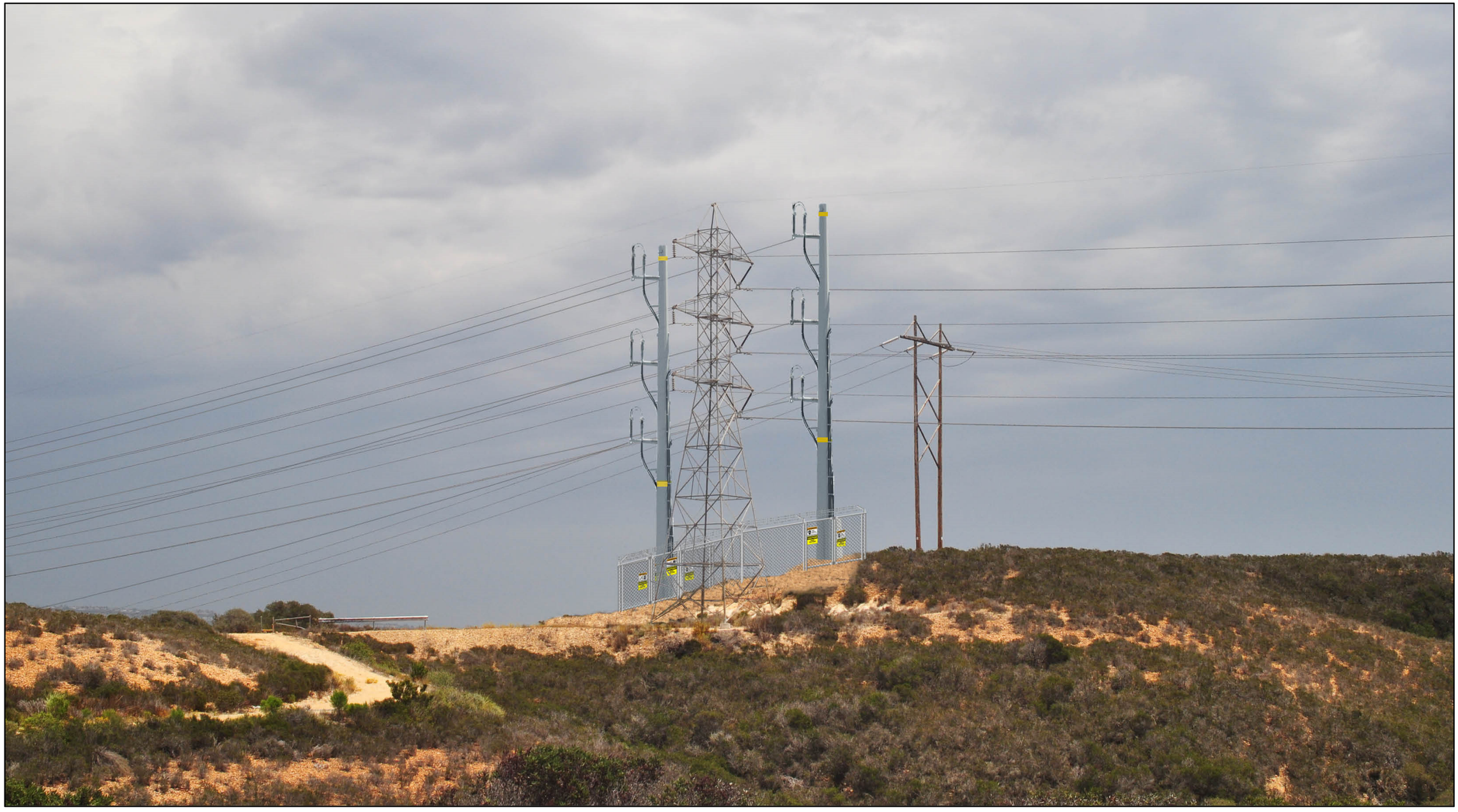


**Figure 4.2-48 Key View Alternative 4 Simulation**



**Impact Aesthetics-4: Would Alternative 4 create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area? (*Less than significant; no mitigation required*)**

**Construction**

The Alternative 4 cable poles and underground transmission line construction would not require the use of night lighting because nighttime construction activities would not be required for cable pole or underground transmission line construction. Construction also would not result in glare. There would be no impact from lighting or glare.

**Operation and Maintenance**

Alternative 4 would not introduce a new source of light to the area. There would be no impact from lighting during operation and maintenance.

The Alternative 4 cable poles and security fence could introduce a substantial source of glare to the area in proximity to the cable poles, which would be a significant impact. Implementation of APM AES-5 (use of dulled galvanized steel poles, non-specular conductors, and dull, non-reflective finish or vinyl coated fences) would reduce operational impacts from glare by treating potential sources of glare. Impacts would be less than significant with APM AES-5. No mitigation is required.

**Mitigation Measures: None required.**

### 4.2.13 Alternative 5: Pomerado Road to Miramar Area North Combination Underground/Overhead Alternative (Avoids All Proposed Project Segments)

Alternative 5 would include underground installation of the transmission line with the exception of the east and west ends where the transmission line would be installed in an overhead within existing SDG&E ROWs. Under this alternative, the alignment would exit the Sycamore Canyon Substation at MCAS Miramar an overhead line and travel westerly within an existing SDG&E ROW toward Stonebridge Parkway. The transmission line would transition to underground beneath Stonebridge Parkway in the vicinity of Greenstone Court, then continue underground on Pomerado Road, Miramar Road, Kearny Villa Road, Black Mountain Road, Activity Road, Camino Ruiz, Miralani Drive, Arjons Drive, Trade Place, Camino Santa Fe, Carroll Road/Carroll Canyon Road and Scranton Road. The transmission line would temporarily transition to an overhead alignment via two new cable poles and two new interset poles, where it would cross I-15. At the western end of the underground portion, the line would transition back to overhead structures located within an existing SDG&E ROW heading northward into the Peñasquitos Substation. Alternative 5 would avoid construction within the Proposed Project alignment with the exception of approximately 3,400 feet of existing SDG&E ROW in Segment A connecting to the Sycamore Canyon Substation. This alternative is described in more detail in Chapter 3: Alternatives.

### 4.2.13.1 Alternative 5 Environmental Setting

Alternative 5 would include four new TSPs that would transition the overhead transmission line to underground between Sycamore Canyon Substation and the cable pole structure near Stonebridge Parkway. The alternative requires two cable poles and two interest TSPs adjacent to I-15 and north of Pomerado Road/Miramar Road to cross I-15. A new cable pole would be required adjacent to I-805 in the vicinity of Carroll Canyon Drive to transition the transmission line back to overhead in SDG&E's ROW. The transmission line would be installed overhead on existing structures between the new cable pole near I-805 and Peñasquitos Substation.

**Scenic Vistas**

There are no scenic vistas or designated scenic resources in proximity to Alternative 5. Alternative 5 is not visible from any scenic vista or designated scenic resource.

**Scenic Highways**

Alternative 5 is not located in proximity to any state-designated scenic highways.

**Landscape Character**

The eastern segment of the Alternative 5 overhead transmission line between Sycamore Canyon Substation and Stonebridge Parkway is located in LCU A-1. This LCU is described in Table 4.2-2. Visual quality in the area is moderately high and viewer sensitivity is high.

The Alternative 5 overhead transmission line segment at I-15 is dominated by views of the I-15 highway and Miramar Road. There is a bike lane along Pomerado Road/Miramar Road. Miramar Road is a high volume six-lane road in the vicinity of the Alternative 5 crossing of the highway. These transportation features are the dominant elements in the landscape. There is no existing transmission infrastructure in the area. Visual quality in the area is low, due to I-15, as the highway takes up the majority of the view. Visual quality is moderate to moderately high on Pomerado Road west of the I-15 overcrossing. Viewers in this area are primarily motorists. The viewer sensitivity is moderate because motorists are focused on the road and pay less attention to the surrounding landscape.

The Alternative 5 western cable pole is located near I-805 and an SDG&E distribution substation. The I-805 bridge over Carroll Creek towers over the western cable pole location. Freeway access ramps add to the viewshed clutter and create obstructions to views of the cable pole. There is an office complex to the east of the cable pole location. The transmission line corridor at the western cable pole location exhibits an incongruent set of architectural elements that adds cumulatively to the areas low baseline scenic quality.

**View Exposure**

The eastern overhead alignment between Sycamore Canyon Substation and Stonebridge Parkway is in open view to recreationists at Sycamore Canyon Park and motorists, bicyclists, and pedestrians on Stonebridge Parkway. The overhead line and cable pole would also be visible to residential areas in proximity to the transmission line.

The crossing of I-15 would be in open view to motorists on the I-15 highway. View duration would be a few seconds for motorists traveling at the posted speed limit. The crossing would be partially screened by topography and vegetation from Pomerado Road.

The western cable pole for Alternative 5 is located in a very constrained viewshed. It is visible from Carroll Canyon Road for a short distance. It is screened from views outside of the immediate pole vicinity due to adjacent highway on-ramps and topography.

**Alternative 5 View Points**

Three viewpoints were selected to show the Alternative 5 above ground infrastructure. The first view point is located at KOP #1 shown on Figure 4.2-4. KOP #1 provides a view of the eastern cable pole and associated retaining wall, where the overhead transmission line would transition to underground in the vicinity of Stonebridge Parkway. The view point is located in Sycamore Canyon Park and is representative of recreational and residential views in the area. The second view point is directly adjacent to southbound I-15 facing the I-15 overpass at Pomerado Road/Miramar Road. The third view point is on Carroll Canyon Road facing the I-805 overpass and cable pole location. Figure 4.2-38 shows the locations of the I-15 and Carroll Canyon Road viewpoints.

### 4.2.13.2 Alternative 5 Environmental Impacts and Mitigation Measures

Table 4.2-14 summarizes the impacts on aesthetics from Alternative 5.

**Table 4.2-14 Summary of Alternative 5 Impacts to Aesthetics**

| Significance Criteria | Project Phase | Significance Prior to APMs | Significance after APMs and before Mitigation | Significance after Mitigation |
|---|---|---|---|---|
| Impact Aesthetics-1: Have an adverse effect on a scenic vista or substantially damage scenic resources | Construction | No impact | --- | --- |
| | Operation and Maintenance | No impact | --- | --- |
| Impact Aesthetics-2: Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway | Construction | No impact | --- | --- |
| | Operation and Maintenance | No impact | --- | --- |
| Impact Aesthetics-3: Substantially degrade the existing visual character or quality of the site and its surroundings | Construction | Less than significant | --- | --- |
| | Operation and Maintenance | Significant | Significant<br>APM AES-2<br>APM AES-3 | Significant and unavoidable<br>MM Aesthetics-2<br>MM Aesthetics-3<br>MM Aesthetics-4 |

| Significance Criteria | Project Phase | Significance Prior to APMs | Significance after APMs and before Mitigation | Significance after Mitigation |
|---|---|---|---|---|
| Impact Aesthetics-4: Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area | Construction | Significant | Significant<br>APM AES-4 | Less than significant<br>MM Aesthetics-5 |
| | Operation and Maintenance | Significant | Less than significant<br>APM AES-5 | --- |

Alternative 5 would have no impact on two CEQA significance criteria for Aesthetics: Impacts-1, and -2, as indicated in Table 4.2-14 above. Alternative 5 would have no impact on these criteria because Alternative 1 is not visible from a designated scenic vista, scenic resource, or scenic highway.

**Impact Aesthetics-3: Would Alternative 5 substantially degrade the existing visual character or quality of the site and its surroundings? (*Less than significant*)**

**Construction Views**

***Staging Yard and Substation Impacts***

Alternative 5 would involve use of the same staging yards and substations as the Proposed Project. The construction effects and mitigation described in Section 4.2.8 for substations and staging yards would apply to Alternative 5 (refer to Section 4.2.8, Impact Aesthetics-3).

***Transmission Line Construction***

Construction impacts on visual resources would result from the presence of construction vehicles, equipment, materials, and work forces along the transmission line overhead and underground routes. Construction impacts on visual resources would also result from the temporary alteration of landforms and vegetation along the eastern overhead transmission line alignment. Vehicles, heavy equipment, project components, and workers would be visible during access and spur road clearing and grading, structure erection, conductor stringing, and site/ROW clean-up and restoration. Construction equipment and activities would be seen by various viewers in close proximity to the ROW including residents as well as travelers and recreationists on highways and local roads. The primary viewing opportunities of concern are located along the underground alignment where open trenches, traffic control, and construction vehicles and equipment would be visible during installation of the duct banks and vaults. View durations from the Stonebridge, Mill Creek, and Scripps Legacy residential developments, as well as Stonebridge Parkway and northbound Pomerado Road would vary from moderate to extended. Construction activities would result in a high level of visual contrast; however, construction activities along the transmission line route would be transient and of short duration as construction progresses along the route. As a result, affected viewers would be aware of the temporary nature of project construction impacts, which would decrease their sensitivity to the impact. The resulting visual impacts would be less than significant. No mitigation is required.

**Operation and Maintenance**

***Underground Transmission Line***

The underground transmission line would be buried under roadways. There would be no lasting aesthetic impact from the underground transmission line.

***Eastern Overhead Transmission Line and Cable Pole***

Four new 230-kV TSPs and a 230-kV cable pole would be located in the Alternative 5 eastern overhead transmission line route. Alternative 5 would also introduce lighting for new TSPs near MCAS Miramar and would introduce marker balls on conductor spans. The new conductor would cross the Sycamore Canyon Park and would terminate at a cable pole on a hill slope north of Stonebridge Parkway. Figures 4.2-49 and 4.2-50 provide representative views of the existing condition and a simulation of the Alternative 5 eastern cable pole and conductor from KOP #1. The cable pole, marker balls, retaining wall, and graded slope would have a high degree of contrast with the surrounding suburban landscape and the adjacent lattice steel tower. The visual impact would be significant.

Implementation of APMs AES-2 and AES-3 would reduce significant visual impacts. AES-2 requires removal of construction debris and revegetation of temporarily disturbed terrain after construction has been completed and APM AES-3 requires landscaping outside of cable pole perimeter chain-link fencing. Impacts would remain significant after implementation of APM AES-2 and AES-3 because the retaining wall, cable pole, and marker balls would have a high impact on visual quality even with APMs. Mitigation Measures Aesthetics-2, Aesthetics-3, and Aesthetics-4 would reduce the impact through preparation of a Facilities Color Treatment Plan, CPUC review of the cable pole landscape design, and landscape planting of the retaining wall at the base of the cable pole. These mitigation measures would reduce the level of visual intrusion and contrast of the structure and retaining wall. Impacts of the eastern overhead transmission line and cable pole would remain significant because the impact to visual quality would be moderate to moderately high even with mitigation and the viewer sensitivity in the area is high, particularly in recreational and residential areas adjacent to the overhead line. Impacts would be significant and unavoidable.

***I-15 Crossing***

The overhead crossing of I-15 would add conductor, marker balls, and transmission poles to the I-15 viewshed. No utility-scale transmission lines exist within the viewshed. The cable pole complex would consist of two cable poles on both sides of I-15 and intersect poles inside each of the cloverleaves on the north side of the Miramar/Pomerado Road overpass. Marker balls are proposed on the wire that is attached to the tops of the poles. Figures 4.2-51 and 4.2-52 provide representative views of the existing condition and simulated view of Alternative 5 from the I-15 key view point. The alternative would introduce new elements to the landscape; however, the elements would be similar to the existing transportation elements. The level of visual contrast would be moderate. Due to the low visual sensitivity and short duration of view (a few seconds for motorists traveling at posted speed limits) the impact would be less than significant. No mitigation is required.

*Western Overhead Transmission Line and Cable Pole*

The western overhead transmission line would include installation of additional conductor to existing transmission poles in SDG&E's ROW. The form, line and color of the new conductor would appear similar to the existing conductors on adjacent structures in SDG&E's ROW. The additional conductors would have a low impact to visual quality. The impact from the additional conductors would be less than significant. No mitigation is required.

The transmission line would add a new cable pole at Carroll Canyon Road to transition the line from underground to overhead. Figures 4.2-53 and 4.2-54 provide representative views of the existing condition and simulated views of the Alternative 5 western cable pole. The new cable pole would add another architectural element to the existing cluttered, incongruent set of architectural elements in the cable pole vicinity. The new cable pole would appear similar to the existing power and transmission poles in the vicinity of the eastern cable pole. The resulting impact to visual quality would be low due to the low existing visual quality of the area. The impact of the western cable pole would be less than significant. No mitigation is required.

**Mitigation Measures: Aesthetics-2, Aesthetics-3, and Aesthetics-4 (refer to Section 4.2.8)**

**Significance after mitigation: Significant and unavoidable.**

**Impact Aesthetics-4: Would Alternative 5 create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area? (*Less than significant with mitigation*)**

**Construction**

Alternative 5 construction activities that are anticipated outside of the standard daytime work hours include concrete pours, conductor splicing and stringing, and cutovers of transmission tie lines and distribution circuits. Lighting may be required during nighttime construction activities. Night lighting would be very short term and intermittent (i.e., a few hours on a single evening). Short-term nighttime lighting from construction activities could significantly impact sensitive viewers, particularly residential areas and adjacent native habitats. Nighttime lighting impacts would be significant. Implementation of APM AES-4 (redirection of temporary security lighting) would reduce impacts; however, the temporary effects of nighttime construction lighting would remain significant because APM-AES-4 only addresses security and other lighting at staging areas. Mitigation Measure Aesthetics-5 would reduce impacts from construction lighting by requiring that temporary night lighting be directed away from sensitive receptors and native habitats. Alternative 5 impacts from temporary construction lighting would be less than significant with mitigation.

No impacts from glare would occur from construction. No mitigation is required.

**Figure 4.2-49 Key View Alternative 5 Eastern Cable Pole Existing Conditions**

**Figure 4.2-50 Key View Alternative 5 Eastern Cable Pole Simulation**

**Figure 4.2-51 Key View of Alternative 5 I-15 Crossing Existing Conditions**

**Figure 4.2-52 Key View of Alternative 5 I-15 Crossing Simulation**

**Figure 4.2-53 Key View of Alternative 5 Western Cable Pole Existing Conditions**

**Figure 4.2-54 Key View of Alternative 5 Western Cable Pole Simulation**

**Operation and Maintenance**

*Light*

The alternative 5 transmission poles and cable poles in proximity to MCAS Miramar may require FAA-required airspace hazard lighting. The FAA hazard lighting would introduce anew permanent source of light in the eastern overhead transmission corridor and at the I-15 crossing. There are existing prominent bright FAA hazard lighting at higher elevations in the area, including the Doppler weather radar station near Sycamore Canyon Substation. The red lighting would introduce incrementally more light into the night landscape in the immediate vicinity of the hazard light, but the light would not be substantial (refer to Impact Hazards-4 in Section 4.2-9 for further details on the hazard lighting). Impacts from new sources of light would be less than significant. No mitigation is required.

*Glare*

The Alternative 5 cable poles, TSPs, conductor, and security fence could introduce a substantial source of glare to areas in proximity to the overhead transmission line, which would be a significant impact. Implementation of APM AES-5 (use of dulled galvanized steel poles, non-specular conductors, and dull, non-reflective finish or vinyl coated fences) would reduce operational impacts from glare by treating potential sources of glare. Impacts would be less than significant with APM AES-5. No mitigation is required.

**Mitigation Measures: Aesthetics-5 (refer to Section 4.2.8)**

**Significance after mitigation: Less than significant.**

## 4.2.15 No Project Alternative

The No Project Alternative would involve construction of the CAISO approved Mission—Peñasquitos 230-kV transmission line and Second Poway—Pomerado 69-kV power line. The No Project Alternative would also involve installation of a series reactor at Sycamore Canyon Substation. This alternative is described in more detail in Chapter 3: Alternatives. The impact on aesthetics from the No Project Alternative would be less than the impacts from the Proposed Project because the No Project Alternative would require fewer miles of pole replacements (wood to steel) in areas with high viewer sensitivity (i.e., residential areas) than the Proposed Project.

### 4.2.15.1 Mission—Peñasquitos 230-kV Transmission Line

Construction of the 11.7 mile segment of the 230-kV transmission line between Mission Substation and Peñasquitos Junction would require installation of new 230-kV conductor and relocation of an existing 230-kV transmission line on existing structures, for approximately 7.5 miles, and replacement of wood H-frame structures with steel H-frame structures, for approximately 4.2 miles. The additional conductor on existing structures would have a less than significant impact on visual quality because it would be similar in form, line, and color to the existing conductor on the existing structures. The new steel H-frame structures would primarily be located within and near MCAS Miramar, where visual sensitivity is low to moderate because there are limited sensitive land uses. The steel H-frames would appear more industrial than the

wood H-frames; however, the height and form of the structures would be equivalent to the existing structures. The resulting impact on visual quality would be less than significant because of the low to moderate viewer sensitivity and moderate visual change.

The 3.3-mile segment of the 230-kV transmission line between Peñasquitos Junction and Peñasquitos Substation would require installation of 17 new double-circuit 69-kV TSPs to replace 15 existing 69-kV wood H-frame structures and five wood monopoles. The line would also require additional marker balls on power line segments. Viewer sensitivity for recreationists and residents along the Los Peñasquitos Canyon Preserve is high. The new TSPs would contrast with the existing open space character and would significantly impact visual quality. The resulting impact on aesthetics from the new transmission line would be significant due to the high impact on visual quality and high viewer sensitivity. The specific structures that would be installed in the area and the impact on KOPs would be the same as those shown in Section 4.2.8, Impact Aesthetics-3, under the description of Proposed Project Segment D impacts. Impacts on visual quality could be reduced through implementation of standard mitigation measures similar to those defined for the Proposed Project; however, impacts would remain significant and unavoidable even with mitigation.

#### 4.2.15.2 Second Poway—Pomerado 69-kV Power Line

Construction of the Second Poway—Pomerado 69-kV power line would involve installation of new poles to accommodate the additional 69-kV line on approximately 2.6 miles of the existing ROW. The Poway—Pomerado line traverses through a mix of commercial and industrial land uses along the southernmost portion of the alignment from Pomerado Substation to Stowe Drive. North of Stowe Drive the line would travel through open space areas, rural residential, and suburban residential land uses for approximately 2.5 miles to Poway Substation. Viewer sensitivity in the residential and open space areas is expected to be high. The replacement of wood poles with taller double-circuit TSPs or the installation of new 69-kV TSPs would result in a high degree of visual contrast with the surrounding rural and suburban residential land uses. The resulting impact on visual quality would therefore be significant due to the high viewer sensitivity and high level of contrast from the more industrial TSPs. Impacts on visual quality could be reduced through implementation of standard mitigation measures similar to those defined for the Proposed Project; however, impacts would likely remain significant and unavoidable even with mitigation.

#### 4.2.15.3 Series Reactor at Sycamore Canyon Substation

The series reactor at Sycamore Canyon Substation would appear visually similar to the existing electrical infrastructure within the substation. The series reactor would have a low level of visual impact because the visual quality of the substation is already low. The aesthetic impact of the series reactor would be less than significant.

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