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5.1 AESTHETICS

Would the project:		Potentially Significant Impact	Potentially Significant Unless APMs Incorporated	Less than Significant Impact	No Impact
a.	Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c.	Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d.	Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

5.1.1 Introduction

This section of the PEA describes the existing conditions relating to visual and aesthetic resources within the Proposed Project area and potential impacts to these resources that could result from the construction, operation, or maintenance of the Proposed Project.

Visual or aesthetic resources are generally defined as both the natural and built features of the landscape that are seen and that contribute to the public's experience and appreciation of the environment. Visual or aesthetic resource impacts are generally defined in terms of a project's physical characteristics and potential visibility and the extent to which its presence would alter the perceived visual character and quality of the environment. Potential impacts of the Proposed Project to aesthetic resources would be less than significant.

5.1.2 Methodology

The visual analysis is based on review of technical data including Proposed Project maps and drawings provided by SDG&E, aerial and ground level photographs of the Proposed Project area, local planning documents, and computer-generated visual simulations. Field observations were conducted in May and October 2015 to document existing visual conditions in the Proposed Project area and to identify potentially affected sensitive viewing locations. This visual study employs assessment methods based, in part, on the U.S. Department of Transportation (DOT), Federal Highway Administration's (FHWA), and other accepted visual analysis techniques as summarized by Smardon, et al. This study also addresses the *CEQA Guidelines* for visual impact analysis. This section systematically documents the visual setting and evaluates visual changes associated with the Proposed Project. To convey a sense of existing visual conditions, a set of 22 photographs are included that show representative public views of the Proposed Project area. As depicted in these photographs, public views of the Proposed Project area currently include electric transmission, power line, distribution, and substation facilities. These existing conditions constitute the baseline from which visual impacts are evaluated.

Consistent with FHWA methods, this impact analysis describes changes to existing visual resources and assesses probable viewer responses to those changes. Central to this assessment is an evaluation of representative views from which the Proposed Project would be visible to the public. To document the visual change that would occur, visual simulations show the Proposed Project from key representative public viewpoints, or Key Observation Points (KOPs). The visual impact assessment is based on evaluation of the changes to the existing visual resources that would result from construction and operation of the Proposed Project. These changes were assessed, in part, by evaluating the after views provided by the computer-generated visual simulations and comparing them to the existing visual environment.

5.1.2.1 Visual Simulation Methods

As part of the PEA aesthetics analysis, a set of computer-generated visual simulations were prepared using established technical methods to illustrate before and after visual conditions in the Proposed Project area, as seen from viewpoints that comprise a subset of representative views where the project corridor would be most visible to the public and/or be seen at close range from key observation points (KOPs). Taken together, the set of simulations illustrate the representative visual change associated with the Proposed Project. The following viewing locations were determined to be potentially sensitive:

- Locations along designated scenic roadways;
- Nearby residences;
- Publicly accessible locations where visible Project changes could be particularly noticeable.

Figures 5.1-7 through 5.1-11 visual simulations produced by Environmental Vision are the results of an objective computer-assisted process including systematic digital photography, computer modeling, and rendering techniques described briefly below.

Photographs were taken using a digital single-lens reflex (SLR) camera with standard 50mm lens equivalent which represents an approximately 40-degree horizontal view angle. Photography viewpoint locations were documented systematically using photo log sheet notation, Global Position System (GPS) recording and base-map annotation. Digital aerial photographs and Proposed Project design information supplied by SDG&E provided the basis for developing a three-dimensional (3-D) computer model of the new Proposed Project components (transmission poles, conductors, and substation structures). For each simulation viewpoint, viewer location was input from GPS data, using five feet as the assumed eye level. Computer "wireframe" perspective plots were overlaid on the simulation photographs to verify scale and viewpoint location. Digital visual simulation images were then produced based on computer renderings of the 3-D model combined with digital versions of the selected site photographs.

Digital photographs taken by Environmental Vision and computer modeling and rendering techniques were also employed by Black & Veatch engineers to produce two visual simulations that portray the appearance of Artesian Substation (Figures 5.1-5 and 5.1-6).

The final "hardcopy" visual simulation images contained in this visual analysis were printed from the digital image files and produced in color on 11x17 inch sheets. The simulation figures

present two images per sheet - an existing view with a simulation below that portrays the Proposed Project from the corresponding KOP. A summary of the ten simulation views and a description of the particular Proposed Project changes portrayed in each of the views are included in Section 5.1.4.

5.1.3 Existing Conditions

5.1.3.1 Regional and Local Landscape Setting

Figures 5.1-1 and 5.1-2 include a map and an annotated aerial photograph that show the Proposed Project location within a regional and local landscape context. The Proposed Project is located on the coastal plain of western San Diego County, approximately 20 miles north of San Diego Bay and approximately 6 miles south of the city of Escondido. Set against a backdrop of California's Peninsular Range that rises approximately 10 miles to the east, the Project occupies a landscape of light-colored sedimentary formations consisting of rolling hills and mesas, ranging in elevation from approximately 500 to 850 feet, and that are bisected by numerous ravines and seasonally dry river channels. Distant views of the Laguna Mountains are available from some elevated locations, while isolated peaks such as the 1,500 foot high Black Mountain, located approximately three miles south of the Proposed Project, are visible natural landscape features. Rainfall in the region is limited, and native vegetation is typically sparse, consisting of low growing chaparral and coastal sage scrub with open areas of exposed rock and soil commonly visible. In a few locations where streams flow for part or all of the year, more dense vegetation associated with riparian corridors line the ravine bottoms; among the largest of these is the San Dieguito River that passes approximately 1.5 miles north and west of the Proposed Project site. The Proposed Project is situated partially within the city limits of San Diego and otherwise in San Diego County, in proximity to two major regional transportation corridors that include Interstate 5 (I-5), located approximately 7.5 miles to the west, and Interstate 15 (I-15), less than a mile to the east. As indicated on Figure 5.1-2, the area surrounding the Proposed Project consists predominantly of planned developments in a rapidly urbanizing region that includes a mix of residential subdivisions, commercial centers and low-rise office/industrial parks interspersed with areas of public open space and partially developed privately held land.

Although much of the electrical utility grid is underground in this area, above-ground electric utility components, including substations, poles and other support structures, and overhead conductors associated with existing power lines are established landscape features in the immediate Proposed Project vicinity. The existing Artesian Substation occupies a two-acre site along Camino Del Sur, a four-lane arterial roadway that runs along the northern boundary of the City of San Diego between the residential communities of Santa Fe Valley to the north and Black Mountain Ranch to the south. Bernardo Substation is located approximately 2.2 miles to the east, between the 4S Ranch and Rancho Bernardo residential subdivisions along a stretch of Rancho Bernardo Road, a county-designated scenic highway corridor that forms the boundary between an area of open space preserve and an office park complex west of I-15. An existing SDG&E electric utility corridor is located immediately west of the Artesian Substation site, while overhead power lines connecting Artesian and Bernardo Substations follow or closely parallel existing thoroughfares and natural areas, and come in close proximity to several residential and commercial developments.

The Proposed Project will expand the Artesian Substation footprint to include a new 230kV component, as well as reconductor an existing double-circuit 69kV power line located between the Artesian and Bernardo Substations. A number of existing wood power line structures will be removed as a result of the installation of new underground 69kV powerline getaways outside both substations, while some existing wood structures will be replaced with new steel structures. Minor modifications at the existing Bernardo and Rancho Carmel Substations within their existing footprints is also anticipated. (This is described in more detail in Section 3, Proposed Project Description and the visual impacts of the proposed changes are assessed in 5.1.4 below.)

5.1.3.2 Proposed Project Viewshed

The Proposed Project viewshed is defined as the general area from which the Project is visible or can be seen. For purposes of describing a project’s visual setting and assessing potential visual impacts, the viewshed can be broken down into distance zones of foreground, middleground, and background. The foreground is defined as the zone within a quarter to a half-mile from the viewer. Landscape detail is most noticeable and objects generally appear most prominent when seen in the foreground. The middleground can be defined as a zone that extends from the foreground up to three to five miles from the viewer, and the background extends from about three to five miles to infinity.


Analysis of the Proposed Project primarily considers the potential effects of Proposed Project elements on foreground viewshed conditions, although consideration is also given to middleground and background views. As described below, the Proposed Project will be visible from some nearby locations along public roads. In addition, it will be seen from a limited number of residential and public recreation areas. In many locations, intervening elements of the urban environment, including buildings, roadway berms and other infrastructure, together with residential and roadside landscaping, partially or fully screen public views of the Proposed Project. Given these conditions, the Proposed Project will not be visible in its entirety from any single viewing location.

5.1.3.3 Proposed Project Visual Setting and Representative Views

For purposes of describing existing visual conditions and landscape character, the following discussion is divided into three main sub-areas within which the Proposed Project components are located (refer to Section 3.3, Proposed Project Description). The sub-areas include Artesian Substation Area, the 69 kV power line alignment, and Rancho Carmel Substation. It should be noted that the Artesian Substation subarea includes both the substation and the 230kV tie-in while the 69 kV power line subarea includes both the power line and Bernardo Substation components. Due to the temporary nature of staging yards, they are not included under these three main sub-areas. However, they are discussed in Section 5.1.4.4.

Table 5.1-1, Summary of Proposed Project Components, summarizes respective location, primary affected viewers, and numbers for the representative photographic views of each component. Figure 5.1-2, Photograph Viewpoint Locations, shows the Proposed Project and photograph viewpoint locations. Figures 5.1-4a through 5.1-4k, Photographs of Existing Facilities and Environmental Setting, present a set of 22 photographs that show representative visual conditions and existing public views within the Proposed Project area.



 Proposed Alignment

0 5 10 Miles

Artesian Substation Expansion Project
 Regional Landscape Context
Figure 5.1-1



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BACK OF FIGURE 5.1-1



Artesian Substation Expansion Project

Photograph Viewpoint Locations

Figure 5.1-2

- 6 ● → Photograph Viewpoint Location and Direction
- ① → Simulation Viewpoint Location and Direction
- 69 kV Reconductor
- Overhead to be Removed
- ▨ Proposed Substation Expansion
- ▨ Existing Substation
- - - Existing Access Road



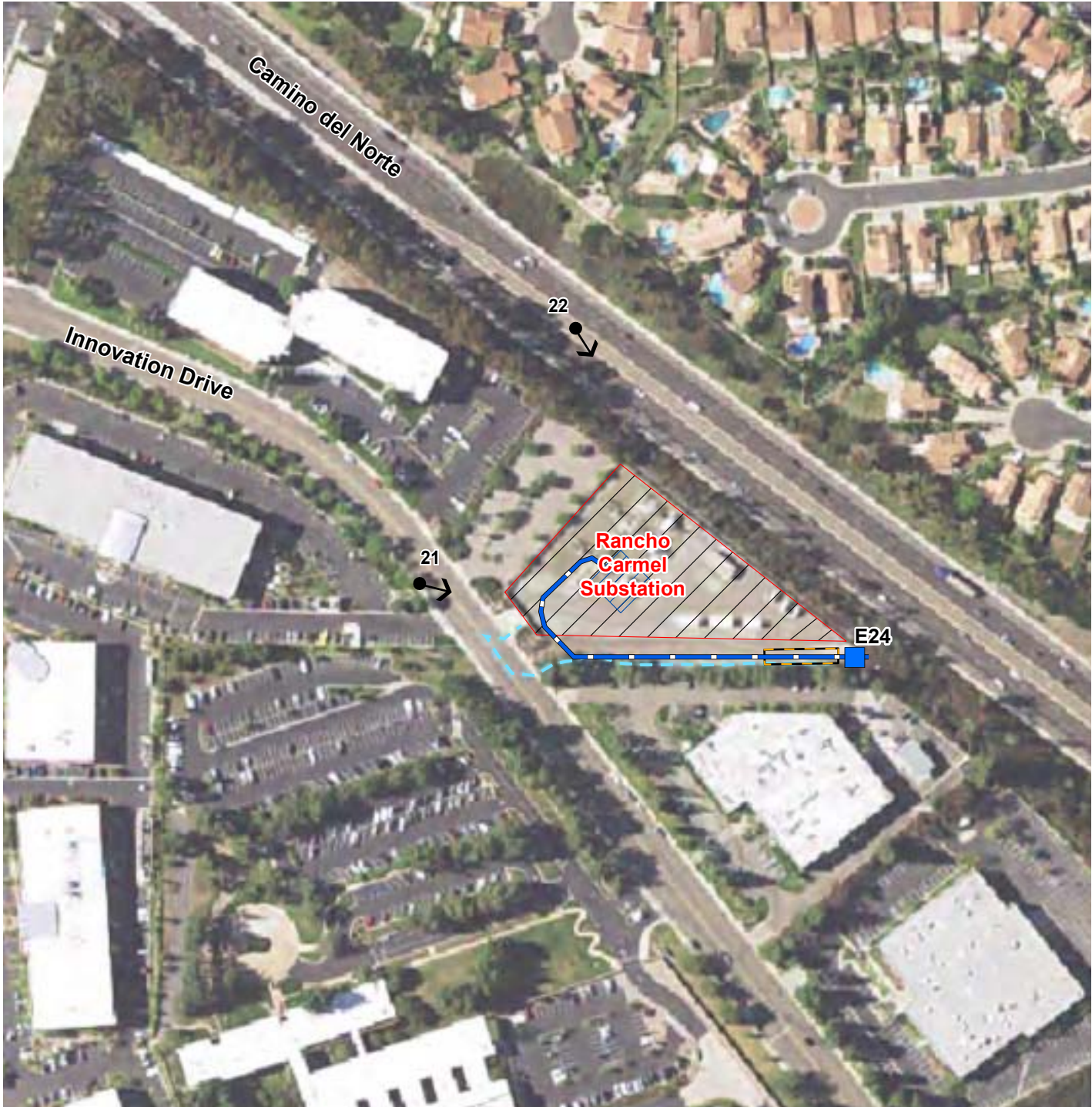
 A Sempra Energy utility

0 500 1,000 1,500 Feet



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BACK OF FIGURE 5.1-2





Artesian Substation Expansion Project

Photograph Viewpoint Locations Rancho Carmel Substation Figure 5.1-3

- 21 ●→ Photograph Viewpoint Location and Direction
- New Cable in Existing Conduit
- Existing Substation
- Existing Access Road

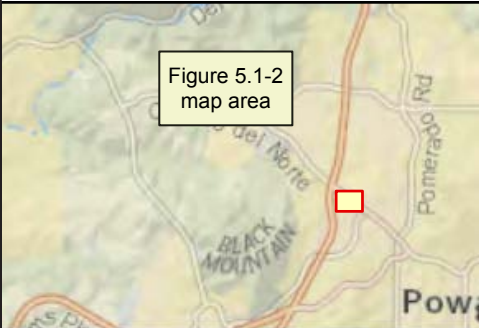



 11/23/2015


A Sempra Energy utility



0 110 220 330 Feet



Sources: SDGE, 2015; TRC, 2015; NatGeo, Esri, DeLorme, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, IPC, Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, Environmental Vision

G:\ISDG&E_ArtesianExpansion\MXD\Artesian_DetailedRoute.mxd

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BACK OF FIGURE 5.1-3

Table 5.1-1: Summary of Proposed Project Components

Proposed Project Components	Location	Primary Affected Viewers¹	Representative Photograph Numbers²	Representative Simulation Figure
Artesian Substation (substation; poles and overhead conductors)	Camino Del Sur between Maranatha Drive and Babcock Street <i>City of San Diego</i>	Motorists, residents	1, 2, 6, 7, 8 and 9	5.1-5 and 5.1-6
230 kV Tie in	Near Camino Del Sur, west of Artesian substation <i>City of San Diego</i>	Motorists, residents	2, 7, and 8	NA
69 kV Power Line (Approx. 2.2 miles of reconductoring and pole replacement)	Between Artesian and Bernardo substations <i>(Approximately 40% in City of San Diego and 60 % in San Diego County)</i>	Residents, motorists, recreationalists	3, 4, 5, 7 and 10 through 20	5.1-7 through 5.1-11
Bernardo Substation	Ranch Bernardo Road at Via Del Campo <i>City of San Diego</i>	Motorist, limited number of residents	19 and 20	NA
Rancho Carmel Substation (cable pole)	Innovation Drive east of I-15 <i>City of San Diego</i>	Motorists	21 and 22	NA
Notes: ¹ Section 5.1.3.4 includes a discussion of potentially affected viewers ² Refer to Figures 5.1-2 and 5.1.3 for viewpoint locations				

Artesian Substation Area (Photographs 1-9)

Located along Camino Del Sur approximately 250 feet east of Maranatha Drive in an area of low rolling hills, Artesian Substation is situated at the confluence of several residential developments interspersed with areas of open space. Along its western perimeter is a detention basin bordering a shallow ravine; an apartment complex and subdivision overlook the site from higher ground to the south and west. Directly opposite the facility to the north is an area of open land, bordered by developed parcels that include the Maranatha School campus to the northwest and a residential subdivision to the northeast. Beyond are unpaved roadways leading to larger estate-style homes, an agricultural facility and nearby portions of the Santa Fe Valley Open Space Preserve. A partially landscaped berm along the north side of Camino Del Sur separates the substation from residences occupying lower lying terrain to the northeast.

Photograph 1 depicts a motorist's view toward the walled substation perimeter from eastbound Camino Del Sur at the Maranatha Drive intersection. Cobra light standards and traffic signals, along with numerous overhead conductors supported by wood utility poles, including one cable pole, are prominent foreground elements. Roadside and substation perimeter landscaping partially screen views of the concrete wall surrounding the facility. In the center of the image, substation components protrude slightly above the wall, beyond which a portion of the apartment complex overlooking the facility can be seen. **Photograph 2**, looking southwest from Camino Del Sur at the intersection of Babcock Street, is an existing foreground view toward the substation expansion site, currently occupied by portable buildings and a parking lot and surrounded by wood fencing and partially screened by semi-mature perimeter landscaping. Roadway median trees, partly visible on the right of the photograph, block views of the substation beyond from the perspective of westbound motorists along this well-traveled roadway. In a view looking northeast from Camino Del Sur at Maranatha Drive (**Photograph 3**), wood utility poles, along with overhead conductors of the existing 69 kV power line and distribution underbuild, can be seen along the elevated berm, receding in the distance against the sky. The poles are partially screened by landscaping along the roadway median and along the north side of the road. Overhead conductors cross the roadway in the foreground. **Photograph 4** is a view along Camino Del Sur looking northwest, showing wood poles and conductors of the existing 69 kV power line, as seen by westbound motorists approaching the Babcock Street intersection. Foreground elements include a cobra light standard and traffic signal, and, partly hidden behind roadside trees, a steep sided berm supported by a concrete-block retaining wall and partially cloaked in native chaparral vegetation. **Photograph 5** illustrates a view toward the Proposed Project from within the gated subdivision located northeast of the substation. A concrete perimeter wall, a typical feature of residential developments in the area, is visible behind the residence depicted in the photograph. Together with landscaping visible outside the wall and along the berm, it provides a measure of screening toward the lower portion of wood poles supporting the power line seen in photographs 2 through 4, as well as toward the roadway beyond. **Photograph 6** is an elevated view of the Camino Del Sur/Babcock Street intersection, looking north toward the substation expansion site. Seen in this motorist's view, it is partially obscured by intervening landscaping along Babcock Street. Wood poles and conductors of the existing 69 kV power line along Camino Del Sur are somewhat noticeable against the distant mountain backdrop.



1. Camino del Sur at Maranatha Drive looking southeast *



2. Camino del Sur at Babcock Street looking southwest *

*Simulation Viewpoint
 Refer to Figure 5.1-2 for photograph viewpoint locations



3. Camino del Sur at Maranatha Drive looking northeast *



4. Camino del Sur near Babcock Street looking northwest *

*Simulation Viewpoint
Refer to Figure 5.1-2 for photograph viewpoint locations



5. White Alder Court looking south *



6. Babcock Street south of Camino del Sur looking northwest

*Simulation Viewpoint
Refer to Figure 5.1-2 for photograph viewpoint locations

Photograph 7 is a view looking north along the ravine to the west of Artesian Substation from Paseo Del Sur, southwest of the apartment complex that overlooks the Substation site. This photograph also approximates a view from some nearby residences. Steel lattice towers and wood H-frame structures supporting a 230 kV transmission line and a 138 kV power line of an existing utility corridor, extending north and south of the Substation but not currently connected to the facility, can be seen lining the ravine in the foreground and continuing beyond Camino Del Sur to a ridgetop approximately 1.25 miles in the distance. Although a part of the substation perimeter wall, along with transformer banks within the facility-- visible in the center of the photograph-- can be seen from this elevated view, vegetation lining the ravine in the foreground largely constrains views toward the Substation from the perspective of passers-by along Paseo Del Sur. **Photograph 8** depicts a view looking east toward the utility corridor seen in photograph 7, from the perspective of residences at the northeast corner of the subdivision west of the substation. A concrete block perimeter wall and semi-mature trees partially obstruct views beyond the subdivision. Nevertheless, the tops of a wood H-frame structure and several wood poles, including the cable pole connecting Artesian Substation with the 69 kV power line described above, along with overhead conductors, constitute noticeable elements against the sky backdrop. This is further illustrated in **Photograph 9**, a view from the Maranatha School campus entrance along Maranatha Drive, approximately 600 feet northwest of the substation, where multiple utility structures and conductors dominate the skyline above the Camino Del Sur intersection. Landscaping along Camino Del Sur seen in the foreground partially obstructs views of the Substation, partially visible on the left; the apartment complex noted in photographs 1 and 7 can be seen above the substation site in the distance.

69 kV Power Line Alignment (Photographs 10-20)

The vicinity of the Proposed Project component that involves reconductoring approximately 2.2 miles of existing power line between Artesian and Bernardo Substations is characterized by a diverse mix of land use that includes areas of open space and recreation trails, as well as single and multi-unit residential, office and commercial development. Initially following Camino Del Sur eastward from near Maranatha Drive for approximately 0.5 mile, the line subsequently diverges from the roadway to bypass a small subdivision and crosses Rancho Bernardo Road near the Camino Del Sur/Camino Del Norte intersection. The line then follows a riparian open space for approximately 1.25 miles, roughly paralleling Camino Del Norte eastward for approximately 0.5 mile, before veering in a northeasterly direction where it rejoins Rancho Bernardo Road and connects to Bernardo Substation. **Photograph 10** is a view from Four Gee Road looking west from near Camino Del Sur, showing the existing 69 kV power line alongside a gravel path with restricted vehicle access that extends approximately 2.5 miles west from Four Gee Road. Looking east from the same location.

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7. Paseo del Sur looking north



8. Via Montenero looking east



9. Maranatha Drive at Maranatha School entrance looking southeast



10. Four Gee Road near Tallus Glen looking west

Refer to Figure 5.1-2 for photograph viewpoint locations

Photograph 11 shows the line passing along the periphery of a residential development, adjacent to an outlier of the Santa Fe Valley Open Space Preserve that extends north and west of this location and is bisected by informal recreation trails, visible in this photograph on the left behind the equestrian crossing sign. While open views across the landscape are partially available to the north, views to the south and east, as demonstrated by this photograph, are largely constrained by structures that include wood poles and conductors of the existing power line and closely spaced multi-story residential buildings. In **Photograph 12**, a close range motorist's view looking north along Rancho Bernardo Road, where the Proposed Project route briefly turns south, then east as it crosses this landscaped parkway, the tops of multi-armed poles and overhead conductors (including 69kV power lines and distribution underbuild) are prominent elements against the sky backdrop. In a view from Rancho Bernardo Road looking southwest from a distance of approximately 500 feet (**Photograph 13**), intervening landscaping somewhat constrains views toward the power line and distribution underbuild as seen by motorists as well as nearby residences.

From Rancho Bernardo Road, the power line enters the 4S Ranch Community, a large-scale planned development, where it follows riparian open space that runs behind a multi-unit residential complex and commercial center, and crosses several major roadways. In a view looking west from 4S Ranch Parkway, **Photograph 14** shows the power line coming within approximately 100 feet of the residences bordering the densely vegetated ravine. **Photograph 15** illustrates the view from Dove Canyon Road, a multi-lane thoroughfare near the north entrance to the commercial center mentioned above. Vegetation lining the channel visible on the left, along with roadway landscaping, partially screen views of commercial and residential buildings and the relatively barren hills in the distance. Prominent built elements in the foreground include, beside a wood utility pole and multiple overhead conductors of the 69 kV power line, numerous cobra light standards, traffic signal arms and roadside and building signage. The power line continues to follow the trajectory of the drainage channel northeast of Dove Canyon Road, passing along the periphery of several corporate/industrial campuses within a dedicated business park (**Photograph 16**) before rejoining Rancho Bernardo Road approximately 750 feet southwest of Bernardo Substation.

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11. Four Gee Road at Tallus Glen looking east



12. Rancho Bernardo Road at Camino del Norte looking north *

*Simulation Viewpoint
 Refer to Figure 5.1-2 for photograph viewpoint locations



13. Rancho Bernardo Road near Silver Crest Lane looking southwest



14. 4S Ranch Parkway near Camino del Norte looking northwest

Refer to Figure 5.1-2 for photograph viewpoint locations



15. Dove Canyon Road looking northwest



16. Goldentop Road at Coastwood Road looking southeast

Refer to Figure 5.1-2 for photograph viewpoint locations

Artesian Substation Expansion Project
Representative Photographs
Figure 5.1-4h

Photograph 17, looking northeast toward the substation, shows overhead conductors emerging from a stand of tall trees lining the roadway and connecting with wood utility poles on the opposite side. Overhead conductors re-cross the road opposite the facility in the distance, not visible in this image due to intervening topography and vegetation. **Photograph 18** is a view of the power line looking southwest along Rancho Bernardo Road near where it crosses the roadway to connect to the Substation. Prominently visible in the foreground are two corner poles with multiple guy wires that re-orient the alignment as it crosses the roadway adjacent to the Substation, whose entry drive is partly visible to the left. Also visible is a wood pole and overhead conductors of an adjacent power line that connects to the Substation. These can be seen in the following two photographs, which approximate residential and motorists' views of the Proposed Project respectively from this location. **Photograph 19** is an elevated view toward the Substation, partially obscured by surrounding vegetation, taken from the northwestern periphery of Rancho Bernardo, where residences have open views of adjacent county open space preserve (MSCP Preserve Land), seen on the right, and views toward Black Mountain, visible beyond the substation in the distance. **Photograph 20**, looking southwest from the perspective of motorists along Rancho Bernardo Road, shows several converging power lines crossing the roadway and entering the Substation, visible across the intersection to the left. Included in this view are overhead conductors and two adjacent terminal cable poles of the existing 69 kV power line connecting Artesian and Bernardo Substations, that can be seen to the left of the traffic signal arm.

Rancho Carmel Substation (Photographs 21 & 22)

As outlined in the Proposed Project Description, the Proposed Project includes minor modifications to Rancho Carmel Substation, including the upgrade of an existing bay and bus tie position, as well as the replacement of the underground 69kV power line between an existing cable pole located at the southeast corner of the substation and the existing bay position. **Photograph 21**, taken near the substation entrance along Innovation Drive, shows the top of the pole above the substation perimeter fencing against the sky backdrop. In **Photograph 22**, in a view seen by motorists looking southeast along Camino Del Norte, overhead conductors connected to the pole seen in the previous image are barely discernible against the sky, while the pole is mostly obscured by perimeter landscaping along the embankment separating the substation from the roadway below.

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17. Rancho Bernardo Road near Camino San Bernardo looking northeast *



18. Rancho Bernardo Road at Via del Campo looking west

*Simulation Viewpoint
Refer to Figure 5.1-2 for photograph viewpoint locations



19. Via del Campo looking south towards Rancho Bernardo Substation



20. Rancho Bernardo Road at Via del Campo looking southwest

Refer to Figure 5.1-2 for photograph viewpoint locations



21. Innovation Drive looking east



22. Camino del Norte looking southeast toward Rancho Carmel Substation

Refer to Figure 5.1-3 for photograph viewpoint locations

Artesian Substation Expansion Project
Representative Photographs
Figure 5.1-4k

5.1.3.4 Potentially Affected Viewers

Accepted visual assessment methods, including those adopted by FHWA, establish sensitivity levels as a measure of public concern for changes to scenic quality. Viewer sensitivity, one of the criteria for evaluating visual impact significance, can be divided into high, moderate, and low categories. Factors considered in assigning a sensitivity level include viewer activity, view duration, viewing distance, adjacent land use, and special management or planning designation. According to the U.S. Department of Transportation *Visual Impact Assessment for Highway Projects*, research on the subject suggests that certain activities tend to heighten viewer awareness of visual and scenic resources, while others tend to be distracting. For example, recreational activities tend to favor attention to scenery, while commuting in heavy traffic tends to be distracting (U.S. Department of Transportation 2015). In general, the degree of visual impact tends to be more substantial where the sensitivity of affected viewers is highest. It should be noted that existing transmission and power lines and substation facilities are established visible elements within the landscape setting.

Motorists

Motorists represent the largest viewer group that could be affected by the Proposed Project, consisting primarily of those traveling on Camino Del Sur and Rancho Bernardo Road in addition to adjacent local streets. Local travelers, who are familiar with the visual setting, are the primary motorists in the Proposed Project area. Motorists using these roads on a less regular basis include those seeking access to scenic and recreation locations in the vicinity, such as the Black Mountain Open Space Park. Affected motorists' views are generally brief in duration, typically lasting less than a few minutes. Viewer sensitivity is considered low to moderate.

Residents

A secondary viewer group is comprised of residents who inhabit residential developments south and west of Artesian Substation as well as those located in the vicinity of the 69 kV alignment within parts of Black Mountain Ranch, 4S Ranch and Rancho Bernardo residential communities. Residential views tend to be long in duration; sensitivity to visual change for this viewer group is considered moderate to high.

Recreationalists

Recreationalists constitute another potentially affected viewer group, and include hikers, equestrians, and cyclists using trails and informal paths in the vicinity of the Proposed Project. View duration for this group could range from several minutes to several hours, and viewer sensitivity is considered moderate to high.

5.1.3.5 Regulatory Background

The Proposed Project is located within the City of San Diego and unincorporated San Diego County. The Proposed Project involves modifications within an existing utility corridor, that includes existing ROW, franchise position (city/county roadways), and SDG&E fee-owned property. Due to the presence of existing substations and transmission and power line facilities, and because the proposed visual change will only be incremental, as discussed in Section 5.1.4

Potential Impacts and Significance Criteria, the Proposed Project conforms with the pertinent visual policies outlined below.

Federal

No federal regulations apply to the project with respect to visual resources.

State

California Department of Transportation (Caltrans): Scenic Highway Program

California's Scenic Highway Program was created by the Legislature in 1963. Its purpose is to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways. The State Scenic Highway System includes highways that are either eligible for designation as scenic highways or have been designated as such. The status of a state scenic highway changes from "eligible" to "officially designated" when the local jurisdiction adopts a scenic corridor protection program, applies to the Caltrans for scenic highway approval, and receives the designation from Caltrans. A city or county may propose adding routes with outstanding scenic elements to the list of eligible highways. However, state legislation is required for designation.

The nearest Designated State Scenic Highway, SR-125 is over 16 miles south of the Proposed Project and the Proposed Project is not visible from this road. The nearest Eligible State Scenic Highway is I-5, approximately 7 miles west of the Proposed Project, and the Proposed Project is also not visible from this road.

Local

Because the California Public Utilities Commission (CPUC) has exclusive jurisdiction over the siting, design, and construction of the Proposed Project, the Proposed Project is not subject to local discretionary land use regulations. The following analysis of the local regulations relating to aesthetic resources is provided for informational purposes. As outlined in the following subsections, the construction and operation of the Proposed Project will not conflict with any environmental plans, policies, or regulations related to aesthetic resources.

County of San Diego

The portion of the Proposed Project 69 kV reconductoring alignment which extends east from Rancho Bernardo Road near Camino Del Norte to the Bernardo Substation lies in San Diego County.

San Diego County General Plan

The *San Diego County General Plan: Conservation and Open Space Elements* (2011) contains provisions regarding scenic roads and the county scenic highways. These County Plan elements address unincorporated areas of the county and do not include designated scenic roads within the City of San Diego (San Diego County, 2011, Figure C-5). Del Dios Highway, 1.5 miles north of the Proposed Project in the unincorporated county, is the nearest county scenic highway; however, the Proposed Project is not visible from this road.

The *Conservation and Open Space Elements* additionally contain the following goals and policies pertaining to visual resources within the Project area:

GOAL

COS-11 Preservation of Scenic Resources. Preservation of scenic resources, including vistas of important natural and unique features, where visual impacts of development are minimized.

POLICIES

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

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

COS-11.5 Collaboration with Private and Public Agencies. Coordinate with the California Public Utilities Commission, power companies, and other public agencies to avoid siting energy generation, transmission facilities, and other public improvements in locations that impact visually sensitive areas, whenever feasible.

COS-11.7 Underground Utilities. Require new development to place utilities underground and encourage “undergrounding” in existing development to maintain viewsheds, reduce hazards associated with hanging lines and utility poles, and to keep pace with current and future technologies.

Figure C-1 [of the General Plan] shows portions of the Proposed Project area as Multiple Species Conservation Program (MSCP) Preserve Areas, specifically the area to the north of Artesian Substation and Artesian Creek riparian area south of Rancho Bernardo Road. The plan does not contain policies regarding scenic resources on preserve areas.

San Dieguito Community Plan

The portion of the Proposed Project's 69 kV power line reconductoring alignment that lies within San Diego County and outside the City of San Diego boundary falls within the *San Dieguito Community Plan* (2014) area.

This plan designates all Mobility Element Roads as scenic highway corridors. These Roads include Camino Del Norte, Rancho Bernardo Road, and Camino San Bernardo Drive (Mobility Element Network Appendix).

POLICIES AND RECOMMENDATIONS

1. It shall be appropriate to add Scenic (S) Special Area Regulations to the zoning of all properties adjacent to any Mobility Element Road. Land within the Scenic Viewshed of a Mobility Element Road shall also be subject to the standards and criteria of the "S" Designator.

San Diego County Zoning Ordinance

The *County of San Diego Zoning Ordinance* (2014) includes regulations pertaining to areas within scenic corridors:

PART FIVE: SPECIAL AREA REGULATIONS

5200 SCENIC AREA REGULATIONS

e. Above Ground Utilities. Utilities shall be constructed and routed underground except in those situations where natural features prevent undergrounding or where safety considerations necessitate above ground construction and routing. Above ground utilities shall be constructed and routed to minimize detrimental effects on the visual setting of the designated area. Where it is practical, above ground utilities shall be screened from view from either the scenic highway or the adjacent scenic, historic, or recreational resource by existing topography, by the placement of buildings and structures, or by landscaping and plantings which harmonize with the natural landscape of the designated area

Santa Fe Valley Specific Plan

The *Santa Fe Valley Specific Plan* (2014) covers the area in San Diego County to the north of Artesian Substation and Camino Del Sur. The plan restates guidelines regarding scenic resources from the *San Dieguito Community Plan*. Most of the guidelines emphasize scenic resources in the San Dieguito River Valley and areas along Del Dios Highway, located 1.5 miles to the north of the Proposed Project and not within view of Proposed Project components.

The undeveloped area to the north of Artesian Substation is designated as “Open Space II” defined as “those lands suitable for passive and active recreational uses, located to provide a buffer between developed areas and the permanent open space areas of the Open Space 1 designated lands.” (Figure 3-3, *Conservation and Open Space Plan*)

4S Ranch Specific Plan

The *4S Ranch Specific Plan* (1988) covers the San Diego County area where the existing power line will be reconducted from Camino Del Norte at Rancho Bernardo Road to the City boundary at Bernardo Substation. This includes areas along the Artesian Creek Riparian Area north of Camino Del Norte, and comprises approximately 60 percent of the Proposed Project 69 kV power line. The plan contains general provisions regarding scenic resources and restates provisions found in the *San Dieguito Community Plan*, including designating an area along Artesian Creek in the vicinity of the Proposed Project as a natural park, and the undeveloped hillsides north of Rancho Bernardo as open space.

City of San Diego

City of San Diego General Plan

The *City of San Diego General Plan 2008* indicates that the City is divided into 50 Community Plan areas each with its own adopted community plan. In some cases, these are precise or specific plans. The Artisan Substation site, 230 kV tie-in and a portion of the 69 kV power line are in the Black Mountain Ranch Subarea Plan area and the Bernardo Substation is in the Rancho Bernardo Community Plan Area. Policies regarding aesthetics contained in these plans focus on designing aesthetically pleasing streets and residential areas and preserving open space and views. Several of the plans also recommend undergrounding utilities; however, these generally refer to distribution lines and power lines of less than 69 kV.

City of San Diego, Black Mountain Ranch Subarea Plan

Artesian Substation and a portion of the 69 kV power line along Camino Del Sur lie in the City of San Diego's *Black Mountain Ranch Subarea Plan* (2009):

As described in the draft *Black Mountain Park Master Plan* (City of San Diego, November 1987), the park will ultimately develop a variety of passive recreational facilities, trail systems that include pedestrian, equestrian, and bike trails, scenic viewpoint areas, an amphitheater, and an interpretive center.

The area directly to the west and south of the substation is listed as Open Space and a Multiple Habitat Planning Area (MHPA):

A. MHPA Land Use Adjacency Guidelines

Section 1.4.2 of the MSCP Subarea Plan includes general planning principles and design guidelines that are to be used in planning of projects located adjacent to or within the MHPA. These policies and guidelines address the construction and maintenance of roads and utilities, fencing, lighting, signage, materials storage, mining /extraction/processing facilities, and flood control. The goal of these policies and guidelines is to ensure minimal impact to the MHPA. In Subarea I, these development guidelines will be implemented as project conditions during the processing of project permits.

The following approved guidelines for the Black Mountain Ranch Vesting Tentative Map/Planned Residential Development (VTM/PRD) will be a requirement of all guidelines concerning exterior lighting for private and public facilities in Subarea I:

- The intensity of exterior lighting shall be kept to a minimum to promote a rural character and limit impacts to the wildlife which will occupy the extensive open space system at Black Mountain Ranch.
- In general, exterior lights should be directed downward and the light source should be shielded.
- Development of properties immediately adjacent to natural open space areas shall be specifically designed so that light or glare shall not be cast on the open space lot.

Invasive Species:

The approved Black Mountain Ranch VTM/PRD has a listing of appropriate landscape plantings for residences and in amenity open space that restrict non-native plant species and will prevent the introduction of invasive species. The landscape guidelines are described in Appendix B and shall be required as conditions of approval for future development within Subarea I.

APPENDIX B. Landscape Guidelines for Approved and Prohibited Plants lists appropriate plant species.

City of San Diego: Carmel Mountain Ranch Community Plan

The Rancho Carmel Substation is in the *Rancho Bernardo Community Plan* area adjacent to the *Carmel Mountain Ranch Community Plan* area (2005). The Plan contains general comments about scenic resources within the plan area. Figure 19 Landform and Visual Analysis delineates views and other visual amenities in the plan area. The substation is adjacent to an existing topographic visual barrier alongside Camino Del Norte.

City of San Diego: Rancho Bernardo Community Plan

The *Rancho Bernardo Community Plan* (1988) lists the area north of Bernardo Substation on Rancho Bernardo Road as proposed open space. The plan does not contain specific provisions regarding preserving scenic resources in this area (Figure 14).

City of San Diego Municipal Code

Chapter 6 of the Municipal Code (2015) sets forth guidelines for establishing underground utility districts. The area around Rancho Bernardo Substation is listed as a planned underground utility district slated for construction in 2019 (City of San Diego, Underground Utility Project GIS, 2015). Chapter 4 of the Municipal Code includes landscape guidelines for new development.

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5.1.4 Potential Impacts and Significance Criteria

5.1.4.1 Significance Criteria

The significance criteria for assessing the impacts to aesthetics come from the CEQA Environmental Checklist. According to the CEQA checklist, a project will cause a potentially significant impact if it will:

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

Factors considered in applying these criteria to determine significance include the extent of Proposed Project visibility from residential areas, public open space and any designated scenic routes; the extent of change in the landscape's composition and character; the degree to which the various Proposed Project elements would contrast with or be integrated into the existing landscape; and the number and estimated sensitivity of viewers.

The Proposed Project would expand and re-build an existing substation, replace and/or relocate existing electric transmission and power line structures within existing utility corridors, utility-owned property, and existing franchise position within city streets. The Proposed Project would also perform minor upgrades within the existing perimeter of two additional substations. The following analysis evaluates potential short-term visual impacts of the Proposed Project during the construction phase, as well as permanent visual impacts that would result from the operation and maintenance of the Proposed Project.

As documented in Section 5.1.3.3 Visual Setting and Representative Views, the Proposed Project area includes existing overhead transmission and power lines as well as substation facilities that are visible elements within the public viewshed. The presence of these existing facilities is a baseline condition from which impacts are measured.

5.1.4.2 Question 1a –Would the project have a substantial adverse effect on a scenic vista?

Construction and Operation & Maintenance – No Impact

The Proposed Project involves modifications to existing utility structures that are situated along existing roadways and adjacent low lying terrain, where distant views are constrained by roadside topography, vegetation and adjacent structures. Visual changes introduced by the Proposed Project will be incremental and will not obstruct views toward distant ridgelines and mountains.

For purposes of this evaluation, a scenic vista is defined as a distant public view along or through an opening or corridor that is recognized and valued for its scenic quality. There are no designated scenic vistas in the Proposed Project area; therefore, there will be no impact.

5.1.4.3 Question 1b – Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Construction and Operation & Maintenance – No Impact

There are no Designated State Scenic Highways within the Proposed Project viewshed. The nearest Eligible State Scenic Highway, I-5, lies approximately 7 miles west of the Proposed Project with intervening topography; therefore the Proposed Project is not visible from this roadway. Thus, the Proposed Project would not substantially damage scenic resources within a State Scenic Highway, and no impacts would result.

Camino Del Norte, Camino San Bernardo Drive and Rancho Bernardo Road in the vicinity of the Project are designated county scenic highway corridors where they pass within the San Dieguito Community Plan area, portions of which are within the Proposed Project viewshed. As described in detail below under CEQA question “C” and demonstrated in the Figure 5.1-9 and 5.1-10 visual simulations, the Proposed Project would not substantially alter the existing landscape or visual character experienced by the public when traveling along these roadways.

5.1.4.4 Question 1c – Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Construction – Less than Significant Impact

Visual impacts associated with construction of the Proposed Project would not substantially degrade the existing visual character or quality of the site and its surroundings. Construction-related visual impacts would result from the temporary presence of equipment, materials, and work crews at the Artesian, Bernardo and Rancho Carmel substation sites, along the existing 2.2 mile 69 kV alignment between Artesian and Bernardo substations, as well as at a number of material storage and staging yards and temporary staging areas in the immediate Proposed Project vicinity. While construction activity is expected to take place over a period of approximately 30 months, work on the 69 kV reconductor alignment would take considerably less time.

Access to Proposed Project work areas will be via existing utility access roads. During construction, public roadways would be used to access structures in some areas, and may include installation of temporary guard structures at roadway crossings. When Proposed Project construction has been completed, all temporarily disturbed terrain will be restored, to the extent practical, to approximate preconstruction conditions. Re-vegetation will be used where appropriate to re-establish a natural appearing landscape and reduce potential visual contrast between disturbed areas and the surrounding landscape. Staging yards in locations visible to the public (such as the Carmel Valley Road staging yard) will be fenced and opaque mesh or slats (or equivalent material) will be installed along the fence that will soften the view of the staging

yard from public vantage points, where the staging yards would be visible to public views. Upon completion of the Proposed Project all construction related materials will be removed from the Proposed Project area and recycled or properly disposed of off-site.

Proposed Project related construction activities will take place along established roadway corridors in an urban context, where open views of the landscape are constrained by intervening built structures and urban landscape elements. Although, to varying degrees, construction activities could be noticeable to residents in close proximity to the Proposed Project, motorists traveling along adjacent roadways, as well as users of nearby open space areas, such as the Artesian Creek open space, these visual effects would be relatively short-term. As a result of their temporary nature, impacts would not substantially degrade the existing visual character or quality of the site and its surroundings. With implementation of standard operating procedures of construction activities, construction-related visual impacts would be less than significant.

Operation & Maintenance – Less than Significant Impact

The Proposed Project involves the expansion and rebuilding of the existing 69/12 kV Artesian Substation into a new combined 230/69/12 kV Substation. The Artesian Substation expansion includes adding a 230 kV component and tie in with the existing transmission corridor west of the facility and replacing existing overhead 69 kV getaways with below-ground structures, as well as reconductoring the existing 69 kV power line located between Artesian and Bernardo Substations. Minor modifications within the existing perimeters of Bernardo and Rancho Carmel Substations will also be performed, but since this would be seen within the context of these existing substation facilities, the change would constitute an incremental visual effect that would not be noticeable to the public. Operation and maintenance activities at the expanded Artesian Substation, while similar to those currently performed at the existing facility, would increase slightly due to the increase in substation equipment and facilities. No change in SDG&E's operations and maintenance practices and restrictions along the reconducted 69 kV power line, per requirements in General Order 95 and Public Resources Code (PRC) 4292, is anticipated. Routine vegetation maintenance would continue to occur at each substation and along the alignment between Artesian and Bernardo Substations for purposes of safety, access, and aesthetics.

For the purpose of assessing permanent visual impacts of the Proposed Project on the visual character or quality of the landscape setting, a set of seven before and after visual simulations depicting the Proposed Project's appearance as seen from KOPs in the vicinity of Artesian Substation, as well as along the 69 kV alignment between Artesian and Bernardo Substations, have been prepared. As described below, the KOPs are a subset of the photographs discussed in Section 5.1.3.3, and were chosen to portray visible Proposed Project changes as seen from sensitive locations and/or by the greatest number of viewers. These KOPs were chosen to represent key representative public viewpoints, as further explained in Section 5.1.2, above. The location of each simulation view is depicted on Figure 5.1-2. An overview of the visual simulations in terms of the location of each view, the visual changes depicted, and approximate viewing distance to the nearest visible Proposed Project element is presented in Table 5.1-2, Summary of Simulation Views.

As described in detail below and as shown on Figures 5.1-5 through 5.1-11, the Proposed Project represents an incremental visual change within a visual setting that includes existing overhead transmission and power lines and substation facilities. As a result, the overall change resulting from the Proposed Project would not substantially degrade the existing visual character or quality of the landscape setting. Therefore, permanent visual impacts would be less than significant.

Table 5.1-2: Summary of Simulation Views (KOPs)

Viewpoint (VP) Location and Number (Figure Number¹)	Visible Proposed Project Change	Distance² to nearest Proposed Project element
Artesian Substation		
Camino Del Sur at Maranatha Drive looking southeast-- VP 1 (Figure 5.1-5)	Removal of one approximately 70-foot tall wood monopole & one 70-foot tall wood cable pole; addition of up to 60-foot tall substation structures; addition of 130 and 135-foot tall tubular steel 230kV poles and new 230kV conductor	350 feet
Camino Del Sur at Babcock Street looking southwest-- VP 2 (Figure 5.1-6)	New perimeter wall and up to 60-foot tall substation structures; addition of 130 and 135-foot tall tubular steel 230 kV poles	180 feet
69 kV Power Line		
Camino Del Sur at Maranatha Drive Looking northeast—VP-3 (Figure 5.1-7)	Removal of six wood monopoles, ranging in height from approximately 58-70 feet, along with overhead 69kV conductors and distribution underbuild; addition of three 85-foot tall steel cable poles	260 feet
Camino Del Sur near Babcock Street looking northwest—VP-4 (Figure 5.1-8)	Removal of four wood monopoles ranging in height from approximately 58-70 feet; addition of three 85-foot tall steel cable poles	300 feet
White Alder Court looking southwest—VP-5 (Figure 5.1-9)	Removal of two wood monopoles ranging in height from approximately 60-70 feet; addition of two 85-foot tall steel cable poles	360 feet
Rancho Bernardo Road at Camino Del Norte—VP-12 (Figure 5.1-10)	Replacement of three wood monopoles (67 -73 feet) with tubular steel poles (65 - 75 feet); removal of 2 guy poles (25 - 43 feet); removal of distribution underbuild	280 feet
Rancho Bernardo Road near Camino San Bernardo –VP-17 (Figure 5.1-11)	Replacement of two wood monopoles ranging in height from approximately 55 -64 feet with tubular steel poles ranging in height from 70-85 feet; removal of three wood monopoles ranging in height from 65-74 feet; addition of two 85-foot tall steel cable poles	250 feet
Notes: ¹ Refer to Figure 5.1-2 for simulation viewpoint locations. ² Approximate distance.		

Artesian Substation Area

As outlined in Section 3.0 Proposed Project Description, the existing approximately 2-acre Artesian Substation site will be expanded to encompass an additional 2.65 acres immediately east of the present location, and the Substation will be rebuilt into a combined 230/69/12 kV facility. Along with installation of upgraded transformer and circuit breaker structures within the confines of the new substation, the expansion will necessitate extending the existing concrete perimeter security wall currently enclosing the site to encompass the enlarged facility, in addition to enlarging the existing storm water detention basin located outside the wall. New landscaping will be installed outside the new perimeter wall along the south side of Camino Del Sur (northern boundary of the substation) as well as along the western side of Babcock Street (eastern boundary of the substation property) at the Artesian Substation site. Landscaping may include a mixture of drought tolerant shrubs and trees. The new landscaping will conform to SDG&E requirements for planting near substation facilities. The draft Conceptual Landscape Plan is included within Appendix 3-A.

Proposed modifications in this area also entail reconfiguring existing utility structures located outside the substation perimeter, including the permanent removal of 11 existing wood utility poles and the introduction of two tubular steel transmission structures, and three steel cable poles west and north of the facility. In addition, construction of new underground getaways north and east of the facility will eliminate overhead conductors of 69 kV power lines currently paralleling and crossing Camino Del Sur immediately north of the Substation.

Figure 5.1-5 shows the existing view from VP-1 and represents a motorist's view toward the Substation along eastbound Camino Del Sur near Maranatha Drive. A portion of the existing concrete perimeter wall, partially screened by landscaping, can be seen enclosing the facility, which is located on a slightly elevated terrace. In this view, all but the uppermost portion of transformers and other components within the substation yard are screened by the wall. Traffic signals and cobra head street lights at the intersection, along with a wood utility structure supporting distribution lines and two wood poles connecting the substation with the existing 69 kV power line, are noticeable foreground elements. Numerous overhead conductors associated with an existing utility corridor that include the 230kV transmission line currently bypassing the substation can be seen crossing the intersection. In the **Figure 5.1-5** simulation, the existing 69 kV poles have been removed and conductors relocated to new underground getaways. New 130 and 135-foot-tall 230 kV tubular steel poles will be installed to the west of the substation. One of these new poles is visible on the right in the foreground, and overhead conductor can be seen connecting to the 60-foot tall dead-end structures within the substation. New 230 kV substation components can be seen above the perimeter wall, in the center of the view, and, on the left, the relocated 69kV components in the expanded substation are visible beyond the existing street trees. While the new structures are taller than the structures being removed, the new poles and substation components are similar in both form and color to the existing substation structures. Moreover, the simulation indicates that the combination of existing street trees and new landscaping will provide a measure additional screening when these plantings mature. As a result, the introduction of Proposed Project elements in this location will represent an incremental visual change that will not inherently change the visual character of the landscape.

Figure 5.1-6 (VP-2) shows an existing view toward the substation expansion site, as seen traveling westbound along Camino Del Sur. Portable buildings currently occupying the site are partially screened by roadside landscaping in this close range view taken approximately 180 feet from the site's northeast corner at the intersection of Babcock Street. The **Figure 5.1-6** visual simulation shows a new concrete perimeter wall and the upper portions of new substation elements visible against the sky. The height of the new wall is comparable to the height of existing buildings currently situated at the site, seen in the existing view. New substation components, including 25 and 65 foot tall dead-end structures, can be seen beyond the wall in the foreground. A new 230 kV tubular steel pole, seen in the background on the right, is partially screened by existing street trees. Mature trees in the roadway median, partly visible on the left and right side of the photograph, block much of new substation structures when viewed from locations east of the intersection. New landscaping planted outside the new perimeter wall along both the Camino Del Sur and Babcock Street frontage partially screens the substation site. With the presence of this landscape screening, the proposed substation expansion will be less noticeable to most motorists and other roadway users in this location and the resulting visual impact will be less than significant.

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Existing view from Camino del Sur at Maranatha Drive looking southeast (VP 1)



Visual simulation of proposed project

Refer to Figure 5.1-2 for photograph viewpoint location.
Exact structure heights may vary depending upon field conditions.

Artesian Substation Expansion Project
Existing View and Visual Simulation from Camino del Sur
Figure 5.1-5

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BACK OF FIGURE 5.1-5



Existing view from Camino del Sur at Babcock Street looking southwest (VP 2)



Visual simulation of proposed project

Refer to Figure 5.1-2 for photograph viewpoint location.
 Exact structure heights may vary depending upon field conditions.

Artesian Substation Expansion Project
 Existing View and Visual Simulation from Camino del Sur
 at Babcock Street
Figure 5.1-6

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69 kV Power Line

The existing 69 kV power line connection between the Artesian and Bernardo Substations will be reconducted with new upgraded conductors and some existing wood poles will be replaced with new self-weathering steel poles. In addition, some existing wood poles will be permanently removed from service. Additional modifications to the alignment will include the introduction of two steel cable poles adjacent to Bernardo Substation, where similar to Artesian Substation, underground getaways would replace overhead 69 kV conductors currently connected to the substation. The majority of the new poles (10 out of 14) will be similar in height, form, and color to the existing poles. Self-weathering tubular steel poles will have a matte brown finish, similar to the color of existing wood poles while the steel cable poles will be gray with a dulled, galvanized finish.

Figure 5.1-7 (VP-3), from the Camino Del Sur/Maranatha Drive intersection looking northeast, shows the existing view toward the 69 kV power line north of the Substation, seen by eastbound motorists near where the alignment crosses the roadway and connects to the substation. An adjacent 69 kV power line circuit, not currently connected to the substation, merges with the one connected to the substation. Overhead conductors of the two lines, visible against the sky in the foreground are supported by an array of partially visible wood poles that recede into the distance. The **Figure 5.1-7** visual simulation shows that six wood poles, overhead 69kV conductors, and distribution underbuild located along Camino Del Sur across from the substation have been removed and a new steel cable pole can be seen approximately 300 feet away, in the immediate foreground. The new cable pole is in approximately the same location of one of the wood poles seen in the existing view. Two new steel cable poles are also visible in the distance, partially obscured by roadway landscaping. Most of the overhead conductors seen in the existing view have been relocated underground. A comparison of the **Figure 5.1-7** existing view and simulation demonstrates that the elimination of existing poles, power line conductors, and distribution underbuild would result in fewer visible utility structures seen by motorists along the stretch of roadway east of Maranatha Drive. The new steel cable poles, while similar in form, are somewhat taller and larger in diameter than the wood poles that have been removed, which could be noticeable to viewers. However, the dull, non-reflective finish of the new structures will lessen their visibility when seen against the sky under typical viewing conditions, compared with the darker appearance of the existing wood poles that will be removed. Additionally, given the presence of numerous existing utility structures immediately north and south of this location, including steel lattice towers that are similar in height and color to the new cable poles, the visual change would be incremental and will not substantially alter the visual character of views from this roadway.

Figure 5.1-8 (VP-4) shows an existing view of the 69 kV power line seen in **Figure 5.1-7** from the perspective of westbound motorists along Camino Del Sur, taken approximately 450 feet from the Babcock Street intersection. This view is near the crest of a topographic rise and existing utility elements are somewhat more prominent against the sky compared to the previous photograph. The **Figure 5.1-8** visual simulation shows two of the new steel cable poles depicted in **Figure 5.1-7** in the foreground, east of the intersection. The new structures are approximately 100 feet apart. Intervening landscaping partially obscures the third new cable pole which is approximately 950 feet to the west, (and seen in the foreground of the **Figure 5.1-7** simulation). This visual simulation also shows removal of all of the existing wood poles and overhead

conductors that are currently seen along the right side of Camino Del Sur. While the new poles are taller than the existing wood poles, as noted in the previous view, their non-reflective gray finish lessens the potential visual contrast of the poles against the sky backdrop at this location. Roadside landscaping, which currently screens the lower portion of the new structures, has the potential to further reduce the visual effect as it matures. Given the reduction in the number of visible utility structures along this stretch of roadway and in light of the brief duration of roadway views, the overall visual impact associated with the introduction of taller structures in this location would not substantially degrade the existing landscape character or quality of roadway views in this area.

Residential views toward the Proposed Project in the vicinity of the Substation are generally constrained by a combination of intervening structures, vegetation and topography. For the most part, only the residences situated near the perimeter of what are typically inward-facing developments have any views toward Proposed Project elements. The **Figure 5.1-9 (VP-5)** existing view is taken near the southern edge of a gated subdivision located north of the substation. This view approximates the closest residential views toward Proposed Project elements along Camino Del Sur. Two multi-story residences, separated by a walled courtyard and ornamental landscaping that includes numerous trees, face a cul-de-sac seen in the immediate foreground. A portion of a concrete perimeter wall that surrounds the subdivision can be seen beyond the courtyard, which, together with dense vegetation planted along the berm outside the wall, limits open views toward the surrounding landscape. Only the uppermost portion of two wood utility poles situated beyond the subdivision, along with overhead conductors, are visible. The **Figure 5.1-9** visual simulation shows the existing wood poles and overhead conductors have been removed and in their place two new cable poles and overhead conductors are visible. The new structures are two of the three new cable poles and the double circuit 69 kV power line depicted in Figure 5.1-8. While the new poles are taller than the existing wood poles, as noted in the previous view, their non-reflective gray finish will minimize potential visual contrast of the poles against the sky backdrop at this location and the incremental visual change will not substantially affect the existing landscape character.

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Existing view from Camino del Sur at Maranatha Drive looking northeast (VP 3)



Visual simulation of proposed project

Refer to Figure 5.1-2 for photograph viewpoint location.
 Exact structure heights may vary depending upon field conditions.

Artesian Substation Expansion Project
 Existing View and Visual Simulation from Camino del Sur
 at Maranatha Drive
Figure 5.1-7

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BACK OF FIGURE 5.1-7



Existing view from Camino del Sur near Babcock Street looking northwest (VP 4)



Visual simulation of proposed project

Refer to Figure 5.1-2 for photograph viewpoint location.
Exact structure heights may vary depending upon field conditions.

Artesian Substation Expansion Project
Existing View and Visual Simulation from Camino del Sur
near Babcock Street
Figure 5.1-8

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BACK OF FIGURE 5.1-8



Existing view from White Alder Court looking south (VP 5)



Visual simulation of proposed project

Refer to Figure 5.1-2 for photograph viewpoint location.
Exact structure heights may vary depending upon field conditions.

Artesian Substation Expansion Project
Existing View and Visual Simulation from White Alder Court
Figure 5.1-9

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BACK OF FIGURE 5.1-9

Figure 5.1-10 (VP-12) shows the view seen by motorists as well as residents along Rancho Bernardo Road near the intersection with Camino Del Norte. Both roadways are County-designated scenic highway corridors. The photograph portrays the existing alignment as it crosses the roadway against a backdrop of undeveloped hillsides. Three wood poles carrying multiple overhead conductors including the 69 kV power line and underbuilt distribution lines, along with three stub pole guy structures are prominent visual elements seen from this location. The **Figure 5.1-10** visual simulation shows three tubular steel replacement poles. The closest pole on the right is approximately two feet taller than the existing pole being replaced. However, because the replacement pole will be set back from the street an additional 30 feet compared to the existing pole and due to its simpler form, the visual change could be only slightly noticeable to roadway travelers as well as a limited number of residences facing Rancho Bernardo Road. Most motorists would experience only fleeting views of this pole. At the same time, because the design of the new poles eliminates the need for stub guy structures and distribution underbuild seen in the existing view, the visual effect will constitute an incremental improvement to the overall visual quality of the site.

Figure 5.1-11 (VP-17) shows the existing roadway view of the alignment along Rancho Bernardo Road near Bernardo Substation. The roadway in this location is a designated County scenic highway corridor, and parallels a segment of MSCP Preserve open space. Mature trees lining the roadway to the right largely block views toward an existing utility pole where the power line emerges from the business park to the southwest. Overhead conductors can be seen crossing the roadway in the foreground while on the opposite side of the road unobstructed views of poles and conductors are seen against the backdrop of open space, sky, and in the distance, landscaping surrounding a residential development. Multiple overhead conductors and poles of the 69 kV power line as well as an adjoining utility corridor converge at the Substation, located adjacent to the Via Del Campo intersection, are visible at the traffic signal in the distance.

The **Figure 5.1-11** visual simulation shows replacement of existing wood structures where the alignment crosses the roadway. In the foreground are two new tubular steel poles, one on either side of the roadway, in addition to two new cable poles, approximately 100 feet apart, on the far side of Rancho Bernardo Road. Connecting to the substation via underground getaways, the cable poles replace three wood poles and overhead conductors at the far end of the alignment, near the intersection, which will be permanently removed. Although the new poles are taller than the existing poles being replaced, the new structures are similar in form and color to these existing poles. Additionally, the overall visibility of the modified power line will be somewhat reduced at this general location, in part due to the elimination of overhead conductors along approximately 425 feet of roadway and where the alignment previously crossed the roadway near the intersection. Because motorists' views in this location are fleeting, given typical roadway speeds, and because the introduction of Project elements along this roadway would not be particularly noticeable, the Proposed Project will not degrade the visual quality of the site or surrounding landscape.

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Existing view from Rancho Bernardo Road at Camino del Norte looking north (VP 12)



Visual simulation of proposed project

Refer to Figure 5.1-2 for photograph viewpoint location.
Exact structure heights may vary depending upon field conditions.

Artesian Substation Expansion Project
Existing View and Visual Simulation from Rancho Bernardo Road
at Camino del Norte
Figure 5.1-10

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BACK OF FIGURE 5.1-10



Existing view from Rancho Bernardo Road near Camino San Bernardo looking northeast (VP 17)



Visual simulation of proposed project

Refer to Figure 5.1-2 for photograph viewpoint location.
Exact structure heights may vary depending upon field conditions.

Artesian Substation Expansion Project
Existing View and Visual Simulation from Rancho Bernardo Road
Figure 5.1-11

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BACK OF FIGURE 5.1-11

5.1.4.5 Question 1d – New Light or Glare

Construction – Less Than Significant Impact

Generally, nighttime construction is not anticipated for the Proposed Project. However, there are some substation tasks (such as filling the transformers with insulating oil) that will be required to take place at night. Otherwise, construction activities would not take place at night unless certain short-term construction procedures are required because of safety considerations, SDG&E has been directed to complete the work at night by a responsible agency (e.g. City of San Diego), or to take advantage of line clearances during off-peak hours. Any required lighting for such work would be directed on site and away from any sensitive receptors. Temporary security lighting may be installed at staging and storage yards. This lighting would be directed on site and away from any sensitive receptors. Therefore, no significant impact would occur.

Operations and Maintenance – No Impact

The Proposed Project area includes electric transmission, power, distribution, and substation facilities that are visible within the public viewshed. These existing facilities constitute the baseline from which impacts are measured. Neither the existing nor proposed transmission and power line facilities require any permanent lighting. New structures will use dulled galvanized steel or weathering steel designed to minimize the potential for glare. Potential glare from overhead conductors will be minimized through the use of non-specular conductors, similar to what currently exists within the Proposed Project area. Therefore, there are no impacts.

5.1.5 Applicant Proposed Measures

There are no significant impacts relating to the Proposed Project aesthetic effects, therefore no Applicant Proposed Measures concerning aesthetics are required or proposed.

5.1.6 Detailed Discussion of Significant Impacts

There are no significant impacts relating to the Proposed Project aesthetic effects.

5.1.7 References

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