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4.1 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 checked="" type="checkbox"/>	<input 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"/>

4.1.1 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 resource or aesthetic 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. Implementation of APMs will ensure that potential impacts of the Proposed Project to aesthetic resources will be less than significant.

4.1.2 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 March and November 2008, June 2010, September 2011, and February 2012 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. (1986). This study also addresses the *CEQA Guidelines* for visual impact analysis. Included are systematic documentation of the

visual setting and an evaluation of visual changes associated with the Proposed Project. In order to convey a sense of existing visual conditions, a set of 36 photographs depict representative public views of the Proposed Project area. As depicted in these photographs, public views of the Proposed Project area currently include extensive electric transmission, distribution, and substation facilities. These existing conditions constitute the baseline from which visual impacts are evaluated.

Consistent with FHWA methods, this impact analysis describes change to existing visual resources and assesses viewer response to that change. Central to this assessment is an evaluation of representative views from which the Proposed Project would be visible to the public. In order to document the visual change that would occur, visual simulations, presented as “before” and “after” images, 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.

4.1.2.1 Visual Simulation Methods

As part of the aesthetic impact evaluation of the Proposed Project, visual simulations were produced using computer-modeling and rendering techniques. The simulations illustrate the visual change associated with the Proposed Project as seen from publicly accessible KOPs within the Proposed Project area. The visual simulations are the results of an objective computer modeling process; the technical methods employed for producing the computer-generated simulation images are outlined below.

Digital photographs and computer modeling and rendering techniques were employed to produce a set of images that illustrate "before" and "after" visual conditions in the Proposed Project transmission line features. These images employ photographs taken using a digital single lens reflex (SLR) camera with a 50 millimeter (mm) equivalent lens which represents a horizontal view angle of 40 degrees. The simulations portray the location, scale, and appearance of the Proposed Project as seen from selected KOPs.

Three-dimensional modeling for proposed transmission structures was developed using engineering design data supplied by SDG&E and combined with geographic information system (GIS) and engineering data and digital aerial photographs of the existing site to produce digital modeling for visual analysis and simulation of the Proposed Project. For the simulation viewpoints, photograph locations were incorporated based on global positioning system (GPS) field data, using 5 feet as the assumed eye level.

Computer "wireframe" perspective plots were overlaid on the photographs to verify scale and viewpoint locations. Digital visual simulation images were then produced based on computer renderings of the 3-D modeling combined with selected digital site photographs. 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. 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 4.1.4.7.

In addition to the set of visual simulations prepared specifically for this visual analysis, three existing photographic views and computer renderings that portray the new San Juan Capistrano Substation were prepared as part of the substation design and community outreach processes, and have been included within this section of the PEA. These renderings portray the Proposed Project, including conceptual landscaping and perimeter wall along the Proposed Project's Camino Capistrano street frontage where applicable.

4.1.3 Existing Conditions

4.1.3.1 Regional and Local Landscape Setting

The Proposed Project area is situated in southern California, amidst a series of mountain ranges that generally run north to south. The landscape's geography includes the Peninsular Ranges to the east, a group of mountain ranges running approximately north-south and stretching from Los Angeles south into Baja Mexico with peaks over 10,000 feet. Landforms include the Santa Ana Mountains to the north and lower ranges of hills that slope directly to the coastline. Creeks running south to the Pacific Ocean provide more level, valley areas, where development tends to occur. Elevations along the Proposed Project route range from 130 feet to 750 feet above sea level. Figure 4.1-1, Existing Landscape Context, shows the Proposed Project's regional context.

Along much of the Proposed Project route native vegetation has been replaced with landscaping at residential and other developments. The entire route the Proposed Project would follow currently has existing electric transmission and distribution facilities located in the immediate vicinity. Existing transmission and distribution structures in the Proposed Project area include substation facilities as well as steel lattice towers, steel poles, wood utility poles and overhead power lines. The Proposed Project route currently contains from three to six existing electric transmission or distribution lines. The majority of the undeveloped areas surrounding the Proposed Project are located at the Prima Deshecha Landfill site.

The Proposed Project is located primarily in South Orange County within urbanized areas in the cities of San Clemente, a community of 34,000 residents, and San Juan Capistrano, a community with 50,000 residents, and within unincorporated portions of the county. Both cities maintain trail systems for public recreational use. In addition, the Proposed Project includes some changes that involve the relocation of adjacent existing power lines at Camp Pendleton, a United States Marine Corps (USMC) facility in San Diego County. Although the Proposed Project area was settled as early as the 1700s, when the Mission San Juan Capistrano was established, most development along the route occurred since the 1950s and, most recently, the Talega area in northern San Clemente was developed within the past decade.

I-5 runs north-south through the area connecting the region with Los Angeles and the Central California Valley to the north and San Diego to the south. SR-74, known as the Ortega Highway, runs approximately east-west through the area connecting the coast with inland areas.

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**South Orange County Reliability Enhancement Project
Regional Landscape Context
Figure 4.1-1**

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Date: 4/25/2012	
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- Proposed Transmission Line
- Substation
- County Boundary



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BACK OF FIGURE 4.1-1

The Proposed Project route also crosses and parallels other local arterials including Avenida Pico and Avenida Vista Hermosa in San Clemente and Rancho Viejo Road and San Juan Creek Road in San Juan Capistrano.

Nighttime lighting in the Proposed Project area includes highway and street lighting, as well as localized lighting sources associated with residential and commercial development, public facilities such as parks and schools, and the existing San Juan Capistrano and Talega Substations.

4.1.3.2 Proposed Project Viewshed

The Proposed Project viewshed is defined as the general area from which a 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.

For the purpose of this analysis, the potential effects on foreground viewshed conditions are emphasized, particularly those areas within 0.25 mile of the Proposed Project. Given topographic conditions and the presence of intervening vegetation as well as the length of the overall Proposed Project route, the Proposed Project would not be visible in its entirety from any single viewing location. Portions of the Proposed Project would be visible from residential areas, public roadways, and/or open space. However, as seen from many places within the surrounding area, intervening landform and vegetation would partially or fully screen views of the Proposed Project.

Within the Proposed Project area, transmission structures, including steel and wood poles, lattice towers, and overhead conductors, associated with several existing transmission lines including the Proposed Project, are established features seen within the landscape setting.

4.1.3.3 Landscape Units and Representative Views

The Proposed Project area includes the existing Capistrano and Talega Substations and the 7.75-mile route that follows an existing transmission line connecting these two substations. A set of five distinct sub-areas, or landscape units, have been identified for purposes of documenting and describing the Proposed Project's foreground viewshed. Table 4.1-1, Summary of Landscape Units, summarizes the landscape units identified within the Proposed Project viewshed. Figure 4.1-2a and 4.1-2b (Photograph Viewpoint Locations) delineate the Proposed Project route, and photograph viewpoint locations. Figures 4.1-3a through 4.1-3r (Photographs of the Project and Vicinity) present a set of 36 photographs that show representative visual conditions and existing public views within the Proposed Project area, from the points shown on Figures 4.1-2a and 4.1-2b.

As depicted in the photographs of representative views, extensive electric transmission, distribution and substation facilities are visible in all of the landscape units and throughout the entire Proposed Project area.

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Continued on Figure 4.1-2b

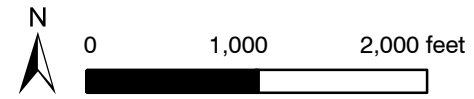
Created For: Mary Turley
 Created By: ENVIRONMENTAL VISION
 Date: 4/25/2012

SDG&E is providing this map with the understanding that the map is not survey grade.

- Proposed Transmission Line - Overhead
- Proposed Transmission Line - Underground
- City Boundary

Base Image: ESRI

- Viewpoint Location and Direction
- Simulation Viewpoint Location and Direction
- Rendering Viewpoint Location and Direction

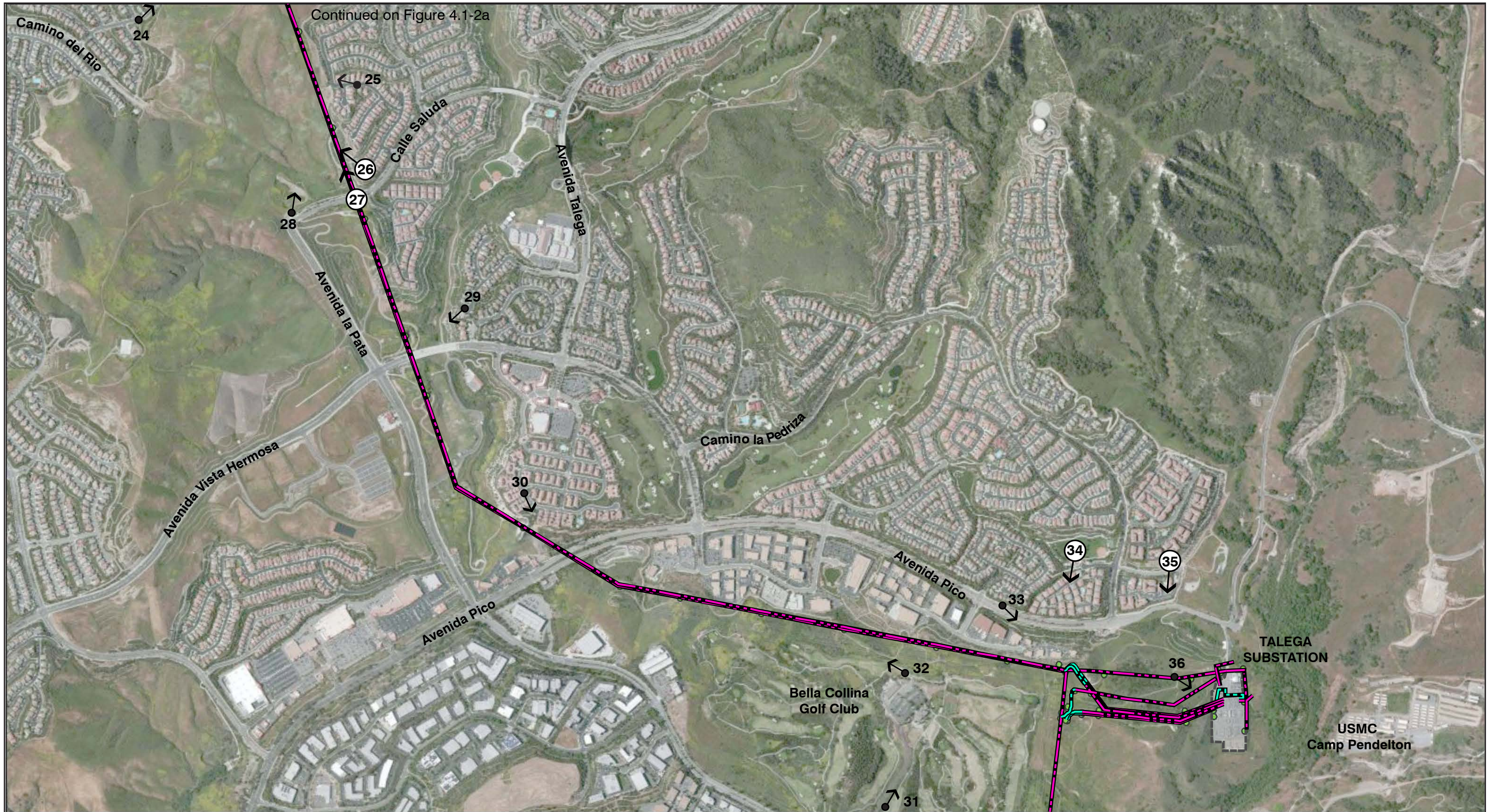


South Orange County Reliability Enhancement Project
 Photograph Viewpoint Locations - San Juan Capistrano
Figure 4.1-2a



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BACK OF FIGURE 4.1-2A



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 Date: 4/25/2012

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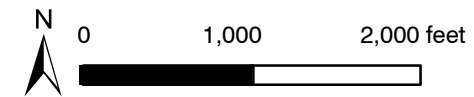
Proposed Transmission Line - Overhead
 Proposed Transmission Line - Underground

Viewpoint Location and Direction
 Simulation Viewpoint Location and Direction

Base Image: ESRI

South Orange County Reliability Enhancement Project
 Photograph Viewpoint Locations - San Clemente

Figure 4.1-2b



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Table 4.1-1: Summary of Landscape Units

Landscape Unit (Approximate length/size)	Primary Affected Viewers	Representative Photograph Numbers*	Representative Simulation KOPs*
Capistrano Substation (6.4 acre)	Motorists, residents, recreationalists	1 through 8	A-C (substation) 1 and 2 (transmission line)
Capistrano Substation to Juliana Farms (2 miles)	Motorists, residents	9 through 20	9, 13, 17 and 20
Juliana Farms to Forster Ridge (2.5 miles)	San Juan Hills High School students, local motorists, recreationalists	21 through 23	22
Forster Ridge to Talega Substation (3 miles)	Local motorists, residents, recreationalists	24 through 36	26, 27, 34 and 35
* Refer to Figures 4.1-2a and 4.1-2b for viewpoint locations			

Capistrano Substation (Photographs 1 through 8)

Located within the city of San Juan Capistrano, 0.5 mile north of the historic Mission San Juan Capistrano and 700 feet west of I-5, Capistrano Substation lies within a developed area that is primarily residential. The substation site is bordered by Camino Capistrano, Calle Santa Rosalia, and Calle Bonita. Portions of the substation are visible from places along public streets as well as from limited nearby residential areas.

Photograph 1 (refer to Figure 4.1-3a) is a view from Avenida De La Vista of the western end of the Proposed Project route, where two new steel cable poles would be installed in place of existing steel poles and overhead conductor adjacent to an existing condominium complex. Two transmission poles and overhead conductors are visible against the sky, near the center of the photograph. Photographs 2 and 3 (refer to Figures 4.1-3a and 4.1-3b), from Camino Capistrano, represent both motorists’ views and views from an adjacent public greenway. From these vantage points mature landscaping screens most of the substation site. A wall provides additional screening with respect to views of the substation; however, two transmission poles and several sets of overhead lines can be clearly seen from the road.

Portions of the substation are somewhat more visible from the residential streets surrounding the south and east sides of the site, and from Junipero Serra Park, located to the east, across Calle Santa Rosalia. In Photograph 4 (refer to Figure 4.1-3b), a view from Calle Bonita, taken near Camino Capistrano, perimeter landscaping partially screens the substation structures; however, transmission poles, lattice towers, and upper portions of the substation are visible, against the sky, near the center of the photograph. As shown in Photographs 5 through 8 from Via El Rosario and Calle Santa Rosalia (refer to Figures 4.1-3c and 4.1-3d), taller structures including transmission poles and other substation components are visible beyond the perimeter fence. Street lights, street signs, wood utility poles and other vertical elements are part of this landscape setting. In Photographs 5 and 6 (refer to Figure 4.1-3c) vehicles parked in a storage facility

adjacent to the site appear in the foreground. In these views substation elements are visible against the sky and/or a backdrop of distant hillsides.

Primary viewers in this landscape unit include motorists on Camino Capistrano and local roadways as well as recreationalists such as people using Junipero Serra Park. In addition there are a limited number of nearby residential viewers.

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1. Avenida De La Vista near Calle San Diego looking south*



2. Camino Capistrano looking southeast

South Orange County Reliability Enhancement Project

Photographs of the Existing Project and Vicinity

Figure 4.1-3a

* Photograph used for simulation on Figure 4.1-5

Refer to Figure 4.1-2a for photograph viewpoint locations



3. Camino Capistrano near Calle Bonita looking north



4. Calle Bonita near Camino Capistrano looking east

South Orange County Reliability Enhancement Project

Photographs of the Existing Project and Vicinity

Figure 4.1-3b

Refer to Figure 4.1-2a for photograph viewpoint locations



5. Via El Rosario looking north



6. Calle Santa Rosalia at Calle Bonita looking northwest

South Orange County Reliability Enhancement Project
Photographs of the Existing Project and Vicinity

Figure 4.1-3c

Refer to Figure 4.1-2a for photograph viewpoint locations



7. Serra Park looking west



8. Calle la Bomba at Calle Santa Rosalia looking southwest

South Orange County Reliability Enhancement Project
Photographs of the Existing Project and Vicinity

Figure 4.1-3d

Refer to Figure 4.1-2a for photograph viewpoint locations

Capistrano Substation to Juliana Farms (Photographs 9 through 20)

From the Capistrano Substation the route runs southeast, for approximately two miles, through residential areas in the northern and eastern parts of the city of San Juan Capistrano. In this landscape unit the transmission line that would be replaced by the Proposed Project is paralleled by an adjacent transmission line that is similar in appearance.

Photograph 9 taken at Junipero Serra Park (refer to Figure 4.1-3e), on Calle Santa Rosalia, shows the transmission line that would be replaced by the Proposed Project as well as an adjacent transmission line. From the park, the route crosses I-5 where overhead conductors and transmission poles are visible from the roadway (refer to Photograph 10 on Figure 4.1-3e).

East of I-5 the route continues through residential neighborhoods in eastern San Juan Capistrano (Photographs 11 through 20). Photograph 11 (refer to Figure 4.1-3f), taken from Rancho Viejo Road, shows dense mature roadside vegetation with upper portions of two transmission poles and overhead conductors silhouetted against the sky. As shown in Photograph 12 (refer to Figure 4.1-3f), the line that would be replaced by the Proposed Project and the parallel transmission lines are visible from Marbella Country Club, although vegetation screens the lower portions of the poles. Photographs 13 through 15 (refer to Figures 4.1-3g and 4.1-3h) demonstrate that, although vegetation typically provides some screening, the transmission poles are a relatively prominent landscape element in some views from this residential area. Approximately one-mile from the Capistrano Substation, the transmission line crosses SR-74. Photograph 14, a view from this roadway, includes the upper part of a Proposed Project route transmission pole, seen against the sky, near the center of the photograph. A line of utility poles that runs parallel to the highway appears to the left of the roadway. In addition a lattice steel tower on the adjacent line is barely discernible to the right of this pole. Overhead conductors of both lines are visible against the sky. Photographs 17 through 19 (refer to Figures 4.1-3i and 4.1-3j) show the area where steel poles support the existing line along the Proposed Project route and lattice steel towers support the adjacent line. These photographs portray close-range views of the poles silhouetted against the sky, from both residential streets and public parks. South of San Juan Creek Road, the Proposed Project route transitions from San Juan Capistrano residential areas into open terrain. Within this transition area the existing transmission line along the Proposed Project route is supported by structures comprised of multiple wood poles; Photograph 20 (refer to Figure 4.1-3j), taken from San Juan Creek Road at Juliana Farms Road, shows two of these wood multi-pole transmission structures. Near the center of this photograph, lattice steel towers of the adjacent line are visible, and wood poles of an adjacent utility line can be seen to the right.

Primary viewers in this landscape unit include residents in the northern portions of San Juan Capistrano as well as motorists using I-5, SR-74 and San Juan Creek Road and numerous roadways. A smaller viewer group includes people using nearby public spaces such as Arroyo Park and recreational trails within the city of San Juan Capistrano.



9. Serra Park near Calle Santa Rosalia looking east*



10. Interstate 5 northbound looking north

South Orange County Reliability Enhancement Project

Photographs of the Existing Project and Vicinity

Figure 4.1-3e

* Photograph used for simulation on Figure 4.1-6
 Refer to Figure 4.1-2a for photograph viewpoint locations



11. Rancho Viejo Road looking southeast



12. Marabella Country Club looking northwest

South Orange County Reliability Enhancement Project
Photographs of the Existing Project and Vicinity

Refer to Figure 4.1-2a for photograph viewpoint locations

Figure 4.1-3f



13. Via Priorato near Paseo Boveda looking north*



14. Belford-Marabella Trail at Calle de la Rosa looking southeast

South Orange County Reliability Enhancement Project

Photographs of the Existing Project and Vicinity

Figure 4.1-3g

* Photograph used for simulation on Figure 4.1-7
Refer to Figure 4.1-2a for photograph viewpoint locations



15. Calle de la Rosa looking north



16. Highway 74 looking northeast

South Orange County Reliability Enhancement Project
Photographs of the Existing Project and Vicinity
Figure 4.1-3h

Refer to Figure 4.1-2a for photograph viewpoint locations



17. Arroyo Park from Sundance Drive looking southeast*



18. Calle del Campo looking south

South Orange County Reliability Enhancement Project
 Photographs of the Existing Project and Vicinity

* Photograph used for simulation on Figure 4.1-8
 Refer to Figure 4.1-2a for photograph viewpoint locations

Figure 4.1-3i



19. San Juan Creek Road near Avenida La Mancha looking north



20. San Juan Creek Road at Juliana Farms Road looking southeast*

South Orange County Reliability Enhancement Project

Photographs of the Existing Project and Vicinity

Figure 4.1-3j

* Photograph used for simulation on Figure 4.1-9
 Refer to Figure 4.1-2a for photograph viewpoint locations

Juliana Farms to Forster Ridge (Photographs 21 through 23)

The route continues roughly southeast, from the area near San Juan Creek Road and Juliana Farms for approximately 2.5 miles before entering the city of San Clemente near Forester Ridge. This landscape unit consists predominantly of undeveloped land, and, in this area, the Proposed Project site is paralleled by multiple transmission lines.

As the Proposed Project route leaves the residential areas of San Juan Capistrano and enters open space it is roughly followed by the Juliana Farms Trail. Photograph 21 (refer to Figure 4.1-3k) is from this trail, looking northwest, toward the trailhead, approximately 0.5 mile away. Near the center of this view a set of wood multi-pole structures and steel poles that support the Proposed Project line are visible within open undulating terrain and the hillsides of San Juan Capistrano appear in the backdrop. A set of lattice steel towers associated with an adjacent line can be seen to the right of the Proposed Project poles; a line of wood utility poles is also visible to the left. Overhead conductors from all three of these power lines are visible against the sky.

San Juan Hills High School is located in San Juan Capistrano, approximately 1.25 mile south of SR-74 at La Pata Avenue, within a landscape setting of mostly undeveloped rolling hillsides. South of the high school, the Proposed Project line and the adjacent transmission line are transferred underground by a set of cable poles. In Photograph 22 (refer to Figure 4.1-3k), taken from the high school's southern parking area, these cable poles appear near the center of the view, seen partially against the hills of the surrounding open space and partially against the sky. Overhead conductors can be seen against the sky, running from the cable poles, to the right side of the photograph, and several light standards are visible in the parking lot.

Photograph 23 (refer to Figure 4.1-3l) is a view from La Pata Avenue (also known as Cow Pasture Road) looking south toward its intersection with Vista Montana. Two cable poles, one associated with the Proposed Project line and the other with the adjacent line, can be seen near the center of the photograph, to the right of La Pata Avenue, just beyond Vista Montana. The Proposed Project route continues from this location, as an overhead line, in a southerly direction, paralleled by at least three other transmission lines. Numerous vertical elements are visible from this location, including lattice steel towers, wood utility poles, street lights and traffic signals. These elements appear in varying degrees against both the hillsides and the sky. At the end of La Pata Avenue, the Proposed Project is adjacent to the Prima Deshecha Landfill site. In the southern portion of this landscape unit a trail network including the Prima Deshecha Landfill and the Forster Ridgeline Trails provides for public recreational opportunities.

Primary viewers along this portion of the route are people using nearby recreational trails and students and staff of San Juan Hills High School. Other viewers include motorists (mostly en-route to the High School or the landfill) on La Pata Avenue and a limited number of other local roadways.



21. Juliana Farm Trail looking northwest



22. San Juan Hills High School looking south*

South Orange County Reliability Enhancement Project

Photographs of the Existing Project and Vicinity

Figure 4.1-3k

* Photograph used for simulation on Figure 4.1-10

Refer to Figure 4.1-2a for photograph viewpoint locations



23. La Pata Avenue (east of San Juan Hills High School) looking south



24. Camino del Vistazo looking northwest

South Orange County Reliability Enhancement Project
Photographs of the Existing Project and Vicinity

Figure 4.1-3I

Refer to Figure 4.1-2a and 4.1-2b for photograph viewpoint locations

Forster Ridge to Talega Substation (Photographs 24 through 36)

Approximately 4.5 miles from its beginning point at the existing Capistrano Substation site the Proposed Project route reenters a developed residential area. From this point until it terminates at the Talega Substation the Proposed Project borders the Talega neighborhood, located in northern San Clemente. This neighborhood is a master-planned community and includes residences, parks, golf courses, a business park, and a shopping center. In this area local residential loop streets and cul-de-sacs are connected and separated by a system of wider arterials designed for faster moving through-traffic. Throughout this unit, several transmission and other utility lines are established features in the vicinity of the Proposed Project.

Photograph 24 (refer to Figure 4.1-3m) is a view from a residential neighborhood located west of the route. Wood pole “H” frame Proposed Project poles, as well as lattice towers of adjacent transmission lines can be seen, on the ridgeline against the sky.

Photographs 25 through 30 (refer to Figures 4.1-3m through 4.1-3o) are views from the residential neighborhood north of Avenida Pico in the southern San Clemente hills. Photographs 25 and 26 (refer to Figure 4.1-3n) show the Proposed Project as seen from local residential streets near the northwest edge of Talega. In both of these photographs, the Proposed Project as well as adjacent lines are visible on the grassy slope beyond the houses and against the sky. In this area, the Proposed Project is visible from wider arterials that provide access to the community, such as Avenida La Pata and Vista Hermosa. In this area the Prima Deshecha Trail roughly coincides with the Proposed Project ROW for approximately 3.5 miles. Photograph 27 (refer to Figure 4.1-3n) is an unobstructed view looking toward the Proposed Project route from Calle Saluda. The Proposed Project line, supported on wood “H” frame poles, is visible near the center of the photograph, and is seen, surrounded by adjacent utility lines, partially against a hillside backdrop and partially against sky. Photograph 28 (refer to Figure 4.1-3n) is a view from Calle Saluda near Avenida La Pata. In this photograph, the foreground is dominated by grassy hillsides, and houses of the Talega area are visible beyond. The Proposed Project line and various nearby utility lines, including several supported by lattice steel towers, can be seen on the right against a backdrop of houses and hills, and toward the left against the sky. Photograph 29 (refer to Figure 4.1-3o) represents views of residences south of Calle Saluda and north of Avenue Vista Hermosa. The Prima Deshecha Trail, visible near the bottom edge of the view, beyond the fence in the foreground, can be seen going under the Avenue Vista Hermosa Bridge on the left. An existing wood “H” frame pole can be seen near the center of the photograph, backdropped by grassy hillsides. Lattice steel towers that support nearby lines are visible, partially against these hillsides and partially against the sky. Photograph 30 (refer to Figure 4.1-3o), taken from the Talega residential area, north of Avenida Pico shows several utility lines, including the Proposed Project location, skylining beyond the foreground houses.

For its final 1.25 miles, the Proposed Project route borders the Bella Collina Towne & Golf located to the south. Photograph 31 (refer to Figure 4.1-3p) illustrates that vistas of the Talega neighborhood, San Clemente Hills and distant mountains are available from the golf course entry road. Several lattice towers can be seen silhouetted against the sky and mountain backdrop, and a wood multi-pole is discernible on the knoll near the center of the photograph. Photograph 32 (refer to Figure 4.1-3p), a view from the golf course, shows golf course landscaping in the foreground and several sets of utility line structures, including lattice steel transmission towers;

steel and wood poles and “H” frame poles. These structures are visible against a backdrop of nearby development and more-distant open ridgelines; the upper portions of the taller lattice towers are visible against the sky.

Viewers in this landscape unit include residents and local roadway motorists as well as people using the golf course and recreation trails, and workers at the adjacent business park. Photographs taken from this area demonstrate that views toward the Proposed Project currently include lattice steel transmission towers, overhead lines and wood poles along the Proposed Project route.

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25. Via Apuesto at Corte La Cereza looking north



26. Via Ceramica north of Calle Saluda looking northwest*

South Orange County Reliability Enhancement Project

Photographs of the Existing Project and Vicinity

Figure 4.1-3m

* Photograph used for simulation on Figure 4.1-11
 Refer to Figure 4.1-2b for photograph viewpoint locations



27. Calle Saluda at Prima Desecha Trail looking northwest*



28. Calle Saluda at Avenida La Pata looking north

South Orange County Reliability Enhancement Project

Photographs of the Existing Project and Vicinity

Figure 4.1-3n

* Photograph used for simulation on Figure 4.1-12
 Refer to Figure 4.1-2b for photograph viewpoint locations



29. Calle Portofino looking southwest toward Avenida Vista Hermosa Bridge



30. Paseo Vista near Paso Rosa looking southeast

South Orange County Reliability Enhancement Project
 Photographs of the Existing Project and Vicinity

Figure 4.1-30

Refer to Figure 4.1-2b for photograph viewpoint locations



31. Pacific Golf and Country Club entry road looking north



32. Pacific Golf and Country Club looking northwest

South Orange County Reliability Enhancement Project
Photographs of the Existing Project and Vicinity

Figure 4.1-3p

Refer to Figure 4.1-2b for photograph viewpoint locations

Talega Substation

The Talega Substation is situated southwest of the Talega neighborhood on a relatively flat, approximately 6.1 acre site, which is located at an elevation of approximately 240 feet. Nearby hills situated to the west rise to above 400 feet in elevation. For about 2,000 feet several additional utility lines run along the ridgeline in close proximity to the route. The substation site lies downhill from Avenida Pico, an arterial road, and is situated approximately 0.25 mile from the closest Talega neighborhood residences. Intervening topography obstructs views of the substation from most of this residential area.

Photograph 33 (refer to Figure 4.1-3q) is a view from Avenida Pico near Camino Celosia. A landscaped slope and the buildings of the Talega Business Park dominate the foreground of this view. A wood three-pole structure, visible near the center of the view, is heavily screened by both buildings and vegetation. Lattice steel towers and overhead lines from adjacent routes can be seen against the sky.

The view from Talega Park shows residences and playground structures in the foreground with commercial development as well as lattice transmission towers and other utility poles visible against the sky on the ridge (Photograph 34 – Figure 4.1-3q). Photograph 35 (refer to Figure 4.1-3r), taken from Cristianitos Road at the far eastern end of the Talega neighborhood, is a hillside view looking south across nearby residential development. Talega Substation appears against a landscape backdrop at the left edge of this view. On the nearby hillside several transmission lines and other utility structures appear backdropped both by vegetation and against the sky. Photograph 36 (refer to Figure 4.1-3r) is a view of the open hilly landscape and Talega Substation as seen from the undeveloped area near the Prima Deshecha Trail south of Talega.

Viewers in this area of the Proposed Project include residents and a limited number of local roadway motorists as well as people using public parks and recreation trails. Photographs taken from this area demonstrate that views toward the Proposed Project currently include lattice steel transmission towers, overhead lines and wood poles along the Proposed Project route.

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33. Avenida Pico near Camino Celosia looking southeast



34. Talega Park looking south*

South Orange County Reliability Enhancement Project

Photographs of the Existing Project and Vicinity

Figure 4.1-3q

* Photograph used for simulation on Figure 4.1-13
 Refer to Figure 4.1-2b for photograph viewpoint locations



35. Panoramic view from above Cristianitos Road looking south*



36. View from trail near the Prima Desecha Trail looking southeast

South Orange County Reliability Enhancement Project
 Photographs of the Existing Project and Vicinity

Figure 4.1-3r

* Photograph used for simulation on Figure 4.1-14
 Refer to Figure 4.1-2b for photograph viewpoint locations

4.1.3.4 Potentially Affected Viewers

Accepted visual assessment methods, including those adopted by FHWA and other federal agencies, 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 DOT *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. The primary potentially affected viewer groups within the Proposed Project area are described briefly below.

Motorists

Motorists, the largest viewer group that could be affected by the Proposed Project, include people traveling on I-5, SR 74, arterial roads, and some local residential streets. Local travelers, who are familiar with the visual setting, are likely the primary motorists in the Proposed Project area, although other motorists may include those using the larger roadways on a less regular basis. Affected motorists' views are generally brief in duration, typically lasting less than a few minutes. Viewer sensitivity is considered low to moderate.

Pedestrians and Cyclists

Within the Proposed Project vicinity, pedestrians and cyclists are a smaller viewer group. With their travel speeds slower than those of motorists, the view duration of pedestrians and cyclists is generally longer; therefore, this viewer group may be more likely to notice detail with respect to visual change in the environment. Viewer sensitivity of pedestrians and cyclists is considered moderate.

Recreationalists

Recreationalists, a third potentially affected viewer group, include people using the golf course, open space trails in the Proposed Project area and community parks such as Junipero Serra Park. View duration for this group could range from several minutes to several hours, and viewer sensitivity is considered moderate to high.

Residents

Residents within the neighborhoods that border the transmission line and substations comprise the fourth viewer group. Residential views tend to be long in duration; sensitivity to visual change for this viewer group is considered moderate to high.

4.1.3.5 Regulatory Background

CPUC General Order 131-D

CPUC G.O. 131-D states that local governments have no discretionary authority over construction of utility power line or substation projects. However, as part of the environmental

review process, SDG&E has considered relevant land use plans and policies that pertain to visual quality for the jurisdictions crossed by the Proposed Project route. As noted below at the end of each policy discussion, the construction and operation of this Proposed Project does not conflict with any environmental plans, policies, or regulations pertinent to aesthetics.

City of San Clemente General Plan

The *City of San Clemente General Plan* contains provisions regarding aesthetics in its Scenic Highway Element and its Resources Element.

The Scenic Highway Element includes a goal to maintain the visual quality and scenic views along designated corridors where they contribute and become an essential part of the community's urban fabric. Policy 5.1 lists major and minor scenic corridors. Among these, views of the Proposed Project may be available from the following corridors:

Avenida Vista Hermosa;

Avenida La Pata;

Avenida Pico; and

Calle del Cerro.

Policies and objectives to ensure the preservation of scenic corridors include the following:

Objective 5.3: Ensure that development is sited and designed to protect scenic corridors and open space/landscape areas; blending man-made and man-introduced features with the natural environment.

Policy 5.3.1: Require development to provide compatible landscaping themes with the visual character of the designated scenic corridors.

Policy 5.3.2: Review the heights and setbacks of all structures to ensure the preservation of visual corridors and the maintenance of an open, scenic quality within each corridor.

Policy 5.3.5: Locate new and relocated utilities underground when possible. All others shall be placed and screened to minimize public viewing.

The route crosses city designated scenic routes Avenida Vista Hermosa and Avenida Pico and may be visible from Avenida La Pata and Calle del Cerro. However, given the presence of existing utility structures, the Proposed Project would not substantially change the character of existing views from these roadways.

Chapter 3, the Environmental Resources Element also contains provisions for preserving aesthetic resources. Generally, these policies regard grading and protecting views.

Aesthetic Resources Goal: Maintain the visual character of the city.

Objective 10.2: Preserve the aesthetic resources of the city, including coastal bluffs, visually significant ridgelines and coastal canyons, and significant public views.

The Proposed Project crosses and parallels ridgelines in the city. Because the Proposed Project involves changes within an existing transmission ROW where numerous existing transmission structures are visible, it would not substantially affect views of significant topographic features in the city. Therefore, it is consistent with this policy.

City of San Juan Capistrano General Plan

The *City of San Juan Capistrano General Plan* contains references to visual resources in its Community Design and Conservation and Open Space Element.

The Community Design Element includes goals to enhance and define the community identity and sense of place. The Element designates all arterials within the city as scenic drives as well as SR-74 and I-5.

Policy 3.3: Preserve and enhance scenic transportation corridors, including I-5 and the railroad.

Policy 3.4: Preserve important viewsheds.

Scenic Corridors

Major travelways including both vehicular and rail provide the public with a visual image of the quality of life envisioned by the community. The following design criteria are provided to ensure that these scenic corridors are developed with a sense of care to aesthetic values:

Buffer to screen existing unsightly features outside of the ROW. Use of innovative design features: for bicycle, sidewalks, equestrian trails, boundary walls, and parkways. Attention to building design features that are proposed adjacent to a scenic corridor.

The Conservation and Open Space Element includes the following policies and goals:

Goal 4: Prevent incompatible development in areas which should be preserved for scenic, historic, conservation or public safety purposes.

Policy 4.1: Assure incompatible development is avoided in those areas.

The Proposed Project route crosses or is visible from city designated scenic routes including SR-74, I-5, Rancho Viejo Road, San Juan Creek Road. However, because the Proposed Project involves changes to an existing utility corridor, it would not substantially affect views from these roadways and therefore is consistent with these policies.

City of San Juan Capistrano Municipal Code

Section 9-3.529 of the Municipal Code of the city of San Juan Capistrano includes standards for lighting levels in order to balance the desire to “maintain a small-village, rural atmosphere, with the need to provide for the safe movement of vehicles and people in all districts.” Tables for lighting levels are provided in the code.

New lighting installed at the San Juan Capistrano Substation would be consistent with this code.

Orange County General Plan

The Transportation and Resources Elements of the *Orange County General Plan* contain goals and policies governing aesthetics in the Proposed Project area.

The Scenic Highways Component of the General Plan, contained within the Transportation Element, identifies the County's scenic highway routes and defines the policy guidelines pertaining to the implementation of the Scenic Highways Plan. It sets forth two types of scenic corridors: viewscape corridors and landscape corridors. SR-74, the Ortega Highway, which the Proposed Project crosses, is designated by the Orange County General Plan as a Landscape Corridor. According to the General Plan, a landscape corridor traverses developed or developing areas and has been designated for special treatment to provide a pleasant driving environment as well as community enhancement. Development within the corridor should serve to complement the scenic highway.

The Proposed Project involves modifying an existing transmission route and would not significantly change views from SR-74; therefore, it is consistent with this policy.

Chapter 6, the Resources Element, which includes the Natural Resources and Open Space Components, also contains goals and policies regarding aesthetic resources. The Natural Resources Component contains the following goals:

Goal 1: Protect wildlife and vegetation resources and promote development that preserves these resources. To prevent the elimination of significant wildlife and vegetation through resource inventory and management strategies.

Goal 3: Manage and utilize wisely the County's landform resources. To minimize to the extent feasible the disruption of significant natural landforms in Orange County.

The Open Space Component contains the following goal and policy that pertain to aesthetic resources:

Goal 4: Conserve open space lands needed for recreation, education, and scientific activities, as well as cultural-historic preservation.

Objective 4.1: To encourage the conservation of open space lands which provide recreational scenic, scientific, and educational opportunities.

Chapter 6, the Resources Element, also recommends the acquisition of scenic easements as part of new development.

The Proposed Project involves changes within an existing transmission ROW where numerous existing transmission structures are visible and would not substantially affect views of significant topographic or natural resource features in the county. Therefore, it is consistent with this plan.

Orange County Master Plan of Regional Riding and Hiking Trails

The Master Plan of Regional Riding and Hiking Trails shows a trail through the open space around the Prima Deshecha landfill. The route crosses this trail.

In the open space area near the Prima Deshecha Landfill, the Proposed Project involves modifying transmission structures within an existing developed utility ROW. It would not substantially affect views from trails in this area.

California Department of Transportation: 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 from Caltrans the designation. 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.

There are no designated state scenic highways in the area; however, SR-74 in Orange County is an eligible state scenic highway. Because the Proposed Project involves changes within an existing transmission ROW where existing transmission structures are visible, it would not substantially affect views from this roadway.

4.1.4 Potential Impacts

4.1.4.1 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 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 sensitivity of viewers. Proposed Project conformance with public policies regarding visual quality was also taken into account.

4.1.4.3 Question 4.1a – Would the project have a substantial adverse effect on a scenic vista?

Construction and Operation & Maintenance - No Impact

The Proposed Project area includes extensive electric transmission, distribution, and substation facilities that are visible within the public viewshed. These existing facilities constitute the baseline from which impacts are measured. 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. As such, there are no recognized scenic vistas within the Proposed Project viewshed. Therefore, the Proposed Project would not obstruct or substantially affect a scenic vista in the area.

The discussion under Section 4.1.4.5 provides detailed evaluation that indicates that the Proposed Project would not substantially alter existing views of the open hillsides and ridgelines that are currently experienced by the public.

4.1.4.4 Question 4.1b – 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

The Proposed Project area includes extensive electric transmission, distribution, and substation facilities that are visible within the public viewshed. These existing facilities constitute the baseline from which impacts are measured.

There are no designated State Scenic Highways within the Proposed Project viewshed; therefore, the Proposed Project would not substantially damage scenic resources within a State Scenic Highway.

The Proposed Project crosses SR-74, an eligible state scenic highway and an Orange County and city of San Juan Capistrano scenic roadway. Limited views of the Proposed Project would be seen from this roadway. Currently various transmission structures, including steel poles, lattice steel towers and overhead conductors, are partially visible from this roadway (refer to Photograph 16, Figure 4.1-3h). Given the presence of these existing transmission elements and given screening provided by intervening vegetation and topography, the Proposed Project would not be particularly noticeable and would represent a minor incremental visual change.

Therefore, the Proposed Project would not substantially affect existing views from SR-74 and no impacts would result.

4.1.4.5 Question 4.1c – Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Construction - Less than Significant Impacts with Incorporation of APMs

Construction-related visual impacts associated with 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 presence of equipment, materials, and work crews along the Proposed Project alignment. Although these effects are relatively short-term, they would be most noticeable to residents who live in close proximity to the Proposed Project and motorists traveling along adjacent roadways. Construction activity may also be noticeable from nearby parks and open space areas. While construction of the entire Proposed Project is expected to take place over approximately 48 months, construction at specific locations along the route would take considerably less time. Construction at the San Juan Capistrano Substation site would occur over approximately 48 months, construction at the Talega Substation site would occur over approximately 10 months, and the transmission line would take approximately 25 months. All construction is spread out over an approximately 48-month period. To varying degrees, construction activities would be noticeable to local residents, motorists, and recreational users. These temporary construction-related visual impacts would be less than significant with implementation of APMs AES-1 and AES-2. Implementation of these APMs would minimize this impact by minimizing local residents' and motorists' views of construction work areas and laydown areas. As a result, impacts would be less than significant.

Operation & Maintenance – Less than Significant Impacts with Incorporation of APMs

The Proposed Project area includes numerous electric transmission, distribution, and substation facilities that are seen within the public viewshed. The baseline from which impacts are measured includes these existing facilities. The Proposed Project involves rebuilding an existing substation and an approximately 7.75-mile-long existing transmission line. In addition minor modifications are proposed to another existing substation that is located at the route's eastern terminus. The Proposed Project would replace existing electric utility structures (including steel poles, wood poles, overhead conductors, and lattice towers) with new steel poles and overhead conductors. With the exception of approximately 1,200 linear feet of new transmission line near the Talega Substation Site, all of the Proposed Project facilities would be located within existing utility property and right of way, in which electric facilities are currently seen by the public.

The Proposed Project includes removing a total of approximately 103 existing structures and installing only 81 new replacement poles. This change would result in a net decrease of approximately 22 transmission structures in the Proposed Project viewshed. In addition, all of the new poles are mono-pole structures; this structure design has a simpler form and is generally less noticeable than some (37) of the existing structures being removed that are two and three-pole structures. The existing structures to be removed are between approximately 52 to 135 feet tall whereas heights of the new poles are between 50 and 160 feet. Although the replacement structures are taller than the existing transmission structures, the new pole heights are

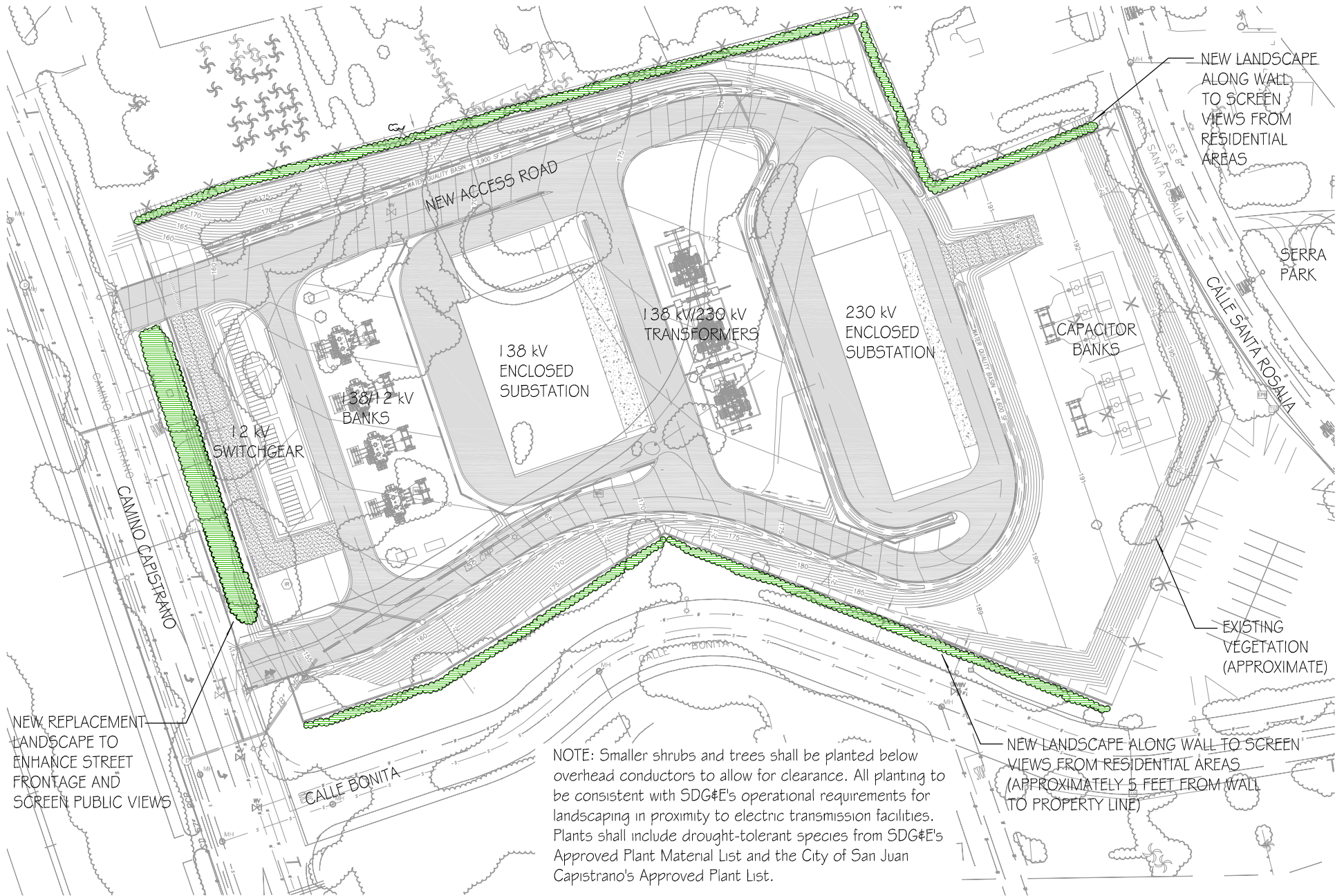
comparable to the height of existing nearby transmission structures that are currently in place. For example, the existing 138kV transmission lines that parallel the proposed new 230kV transmission lines included within the Proposed Project include structures ranging from 90 to 150 feet in height. Therefore, this change is not anticipated to be significant. Similarly because the two substations are established features within the existing landscape setting, the visual change associated with substation modifications would generally be incremental and not substantial. APM AES-3 would ensure that visual effects are less than significant.

Close-range, unobstructed views of the Proposed Project would occur from limited places along public roadways and from a limited number of nearby residences. However, existing topography and vegetation in the Proposed Project area provides considerable screening with respect to public and residential views toward the Proposed Project. The Proposed Project's effect on existing vegetation would be minimal, consisting primarily of some tree removal in limited areas along the ROW, as well as at and near, the San Juan Capistrano Substation site. APM AES-3 includes installation of new landscape screening as well as a visual screening perimeter wall along three sides of the substation. Additionally, the Proposed Project would not obstruct views toward distant ridgelines and mountains.

A landscape plan would be developed for the proposed San Juan Capistrano Substation; this plan would incorporate input from the city of San Juan Capistrano, local community members, facility security, CPUC and engineering requirements (refer to Section 3, Proposed Project Description). Proposed Project landscaping would be designed to partially screen public views of site facilities as well as to enhance site appearance and integrate the Proposed Project with its surrounding visual setting. Figure 4.1-4, Preliminary Landscape Screening Diagram, is a schematic diagram for the San Juan Capistrano Substation that shows the general location for new landscaping. Detailed landscape and irrigation plans would be developed in conjunction with more detailed engineering design and future input from the surrounding community. The landscape plan would comply with the City's Water Efficient Landscape Ordinance and with the Guidelines for Implementation of the Water Efficient Landscape Ordinance.

A set of ten before and after visual simulations depict the Proposed Project's appearance as seen from key public viewpoints along the transmission line route within the four landscape units. In addition, three panoramic view simulations of the new San Juan Capistrano Substation were prepared to depict the before and after appearance of the Proposed Project at the substation site. The location of each simulation view is depicted on Figure 4.1-2. Table 4.1-2, Summary of Simulation Views, presents an overview of the visual simulations in terms of the location of each viewpoint, visual changes depicted, and approximate viewing distance to the Proposed Project. As described in the following subsections and as shown on Figures 4.1-5 through 4.1-17, the Proposed Project represents an incremental visual change that would not substantially alter the existing landscape setting. In light of the effects described above and, as demonstrated in the set of ten before and after visual simulations of the transmission line route and the three panoramic simulations of the San Juan Capistrano Substation, the overall change brought about by the Proposed Project would not substantially degrade the existing visual character or quality of the landscape setting. As a result, impacts would be less than significant.

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SDG&E IS PROVIDING THIS MAP WITH THE UNDERSTANDING THAT THE MAP IS NOT SURVEY GRADE.

South Orange County Reliability Enhancement Project
Preliminary Landscape Screening Diagram
Figure 4.1-4

Created for: Mary Turley
 Created by: Environmental Vision
 Base Drawing Source: SDG&E
 Date: 4/18/2012



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Table 4.1-2: Summary of Simulation Views

Viewpoint Location – VP No. (Figure No.)	Visible Proposed Project Change	Approx. Distance to Proposed Project (feet)
Capistrano Substation Landscape Unit		
Avenida De La Vista near Calle San Diego – VP 1 (Figure 4.1-5)	Introduction of 2 new cable poles and removal of 2 steel transmission poles	250
Camino Capistrano across (west) from the San Juan Capistrano Substation site – VP A (Figure 4.1-6)	Introduction of new San Juan Capistrano Substation	120
Calle Santa Rosalia, from the edge of Junipero Serra Park – VP C (Figure 4.1-7)	Introduction of new San Juan Capistrano Substation	60
Calle Bonita, south of the San Juan Capistrano Substation site – VP B (Figure 4.1-8)	Introduction of new San Juan Capistrano Substation	70
Capistrano Substation to Juliana Farms Landscape Unit		
Serra Park near Calle Santa Rosalia – VP 9 (Figure 4.1-9)	Introduction of 1 new steel pole and removal of 1 lattice steel tower	550
Via Priorato (Rancho Madrina) – VP 13 (Figure 4.1-10)	Introduction of 1 new steel pole and removal of 1 lattice steel tower	450
Arroyo Park from Sundance Drive – VP 17 (Figure 4.1-11)	Introduction of 1 new steel pole and removal of 1 steel pole	350
San Juan Creek Road at Juliana Farms – VP 20 (Figure 4.1-12)	Introduction of 2 new steel poles and removal of 3 poles and 2 multi-pole structures	450
Juliana Farms to Forster Ridge Landscape Unit		
San Juan Hills High School –VP 22 (Figure 4.1-13)	Introduction of 2 new cable poles and removal of 1 cable pole	600
Forster Ridge to Talega Substation Landscape Unit		
Via Ceramica north of Calle Saluda – VP 26 (Figure 4.1-14)	Introduction of 4 new steel poles and removal of 10 or more single and multi-pole structures	500
Calle Saluda at Prima Deshecha Trail – VP 27 (Figure 4.1-15)	Introduction of 4 new steel poles and removal of 10 or more wood single and multi-pole structures	900

Table 4.1-2 (cont.): Summary of Simulation Views

Viewpoint Location – VP No. (Figure No.)	Visible Proposed Project Change	Approx. Distance to Proposed Project (feet)
Talega Park – VP 34 (Figure 4.1-16)	Introduction of 6 new steel poles (2-138kV and 3-230kV) and 4 new cable poles removal of 3 single pole and 1 multi-pole structure, and removal of 1 lattice steel tower	1400
Cristianitos Road – VP 35 (Fig 4.1-17)	Introduction of five new steel poles (2-230kV, 3-138kV, and 1-69kV) and three cable poles (1-230kV and 1-138kV Removal of nine wood poles (138kV).	1400
* Refer to Figures 4.1-2a and 4.1-2b for all simulation locations		

The following subsections discuss and evaluate the Proposed Project’s potential visual effects on key public views by landscape unit, as represented by the visual simulations. Potential changes in visual character to each landscape unit are also discussed in further detail in the subsections that follow.

Capistrano Substation

Figure 4.1-5, Existing View and Visual Simulation from Avenida De La Vista, represents a southbound motorists’ view as well as a view from nearby residences. The photograph was taken from Avenida De La Vista west of the Capistrano Substation. In this photograph, the immediate foreground consists mainly of roadway and of residential structures and landscaping located adjacent to Avenida De La Vista. Two transmission poles, located in the grassy area to the left of the road, appear against the skyline near the center of the view. Overhead transmission lines are visible against the sky both to the left and to the right of the poles.

The Figure 4.1-5 visual simulation shows two replacement steel cable poles in approximately the same location as the existing structures. Additionally, the simulation portrays the removal of a limited number of trees in the vicinity of the new poles. The replacement poles would appear more prominent because the new poles are taller with larger diameters compared with the existing structures. However, because a portion of the transmission line is buried, overhead conductors appear against the sky to the right but not to the left of the new poles. A comparison between the Figure 4.1-5 existing view and visual simulation indicates that the Proposed Project could represent a noticeable visual change in the landscape at this location. However, change would be incremental (as there are existing poles and overhead conductor at this location) and the Proposed Project would not substantially alter the composition or character of the landscape seen in this location.



Existing View from Avenida De La Vista near Calle San Diego looking south (VP 1)



Visual Simulation of Proposed Project

Note: Refer to Figure 4.1-2a for photograph viewpoint location.
Preliminary, subject to change based upon final engineering.

South Orange County Reliability Enhancement Project
Existing View and Visual Simulation from Avenida De La Vista
Figure 4.1-5

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BACK OF FIGURE 4.1-5

Figures 4.1-6 through 4.1-8 include three panoramic view computer renderings of the new San Juan Capistrano Substation from three vantage points adjacent to the facility.

Figure 4.1-6, Existing View and Computer Rendering from Camino Capistrano, is an existing wide-angle view and computer rendering that shows street frontage of the new substation along Camino Capistrano. The existing view shows the substation site including two stucco buildings and several wood power poles, seen in the foreground, as well as steel transmission and takeoff structures, and steel substation equipment visible in the distance.

In April 2012, SDG&E hosted a Design Charrette to identify an architectural design theme for the San Juan Capistrano Substation wall. Input was provided by neighbors of the substation, the City Architectural Design Review Committee, city of San Juan Capistrano officials, and other interested residents. This was the first step in the design of the substation wall and there would be subsequent meetings with an ad hoc substation wall design committee throughout the CPUC permitting process to further refine the design. Based on the three design concepts reviewed it was determined that the appropriate architectural style for the substation wall would be mission style, which is demonstrated in general terms in Figure 4.1-6. This depiction is a computer rendering that shows the removal of the existing substation, including the stucco buildings, and several trees. Portions of the replacement substation facility are visible beyond a new mission style perimeter wall. Visible substation elements include portions of enclosures for the 138kV and 230kV yards, H-frames and new steel poles. The two poles adjacent to Camino Capistrano have been removed and the conductors running over the street have been moved to underground. The rendering also portrays new perimeter landscaping along Camino Capistrano (which may include trees, shrubs and groundcover) and the appropriate substation signage at the entrance to the new substation.

Figure 4.1-7, Existing View and Computer Rendering from Calle Santa Rosalia, is an existing wide-angle view and computer rendering showing the street frontage of the new substation along Calle Santa Rosalia looking west, from the edge of Junipero Serra Park. This close range view of the substation site shows trees, shrubs and fencing in the foreground along the street with portions of the substation facility, steel poles, a lattice tower and overhead conductors seen prominently against the sky. Part of an adjacent recreational vehicle storage facility can also be seen on the left and, on the far right, a residence adjacent to the substation is visible. Hills that lie between Laguna Nigel and San Juan Capistrano appear in the backdrop.

The Figure 4.1-7 computer rendering shows the removal of the existing substation and transmission structures as well as some overhead conductors. Visible components of the rebuilt substation include the capacitor banks, the 230kV substation enclosure, and new steel poles. New vinyl-coated fence that replaces the existing perimeter fence would partially screen the lower portion of substation components. In comparison with the existing substation facilities, the architectural treatment of the new substation enclosure's terracotta-colored roof would appear more compatible with nearby residential structures.

Figure 4.1-8, Existing View and Computer Rendering from Calle Bonita, is an existing wide-angle view and rendering from Calle Bonita looking north toward the substation. This view shows the substation site including substation components, steel poles, wood poles, lattice towers and overhead conductors with trees, shrubs and fencing in the foreground along the street.

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Existing View from Camino Capistrano looking east (VP A)



Computer Rendering of Proposed Project

South Orange County Reliability Enhancement Project
Existing View and Computer Rendering from Camino Capistrano
Figure 4.1-6

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BACK OF FIGURE 4.1-6



Existing View from Calle Santa Rosalia looking west (VP B)



Computer Rendering of Proposed Project

South Orange County Reliability Enhancement Project
Existing View and Computer Rendering from Calle Santa Rosalia

Figure 4.1-7

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BACK OF FIGURE 4.1-7



Existing View from Calle Bonita looking north (VP C)



Computer Rendering of Proposed Project

South Orange County Reliability Enhancement Project
Existing View and Computer Rendering from Calle Bonita

Figure 4.1-8

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BACK OF FIGURE 4.1-8

These foreground elements partially screen the substation facility. Part of the adjacent recreational vehicle storage facility can be seen at the far right, and mature street trees and residential landscaping appear at the far left with hills seen in the backdrop.

The Figure 4.1-8 computer rendering shows the removal of the existing substation, transmission structures and most of the overhead conductors. Portions of the terracotta-color roofed 138kV and 230kV substation enclosures, transformers, several steel poles, and overhead conductors would be visible from this location. The new masonry wall that replaces existing chain link fence along this street frontage would provide screening of the lower parts of new substation structures.

Capistrano Substation to Juliana Farms

The Figure 4.1-9, Existing View and Visual Simulation from Junipero Serra Park, existing photograph, taken in Junipero Serra Park near Calle Santa Rosalia, represents views from the park as well from the nearby residential area in northern San Juan Capistrano. This view encompasses the park landscape and consists mainly of grass and tree covered knolls and paved pathways; near the center of the view, a steel pole and a lattice tower are partially visible through the trees.

The Figure 4.1-9 visual simulation shows a new steel pole in place of the lattice tower. The replacement pole is taller than the existing lattice tower; however, due to its lighter color and more simplified form, the replacement pole is less noticeable. In addition, the appearance of the new pole is more similar to the existing pole seen on its left. Given the presence of existing transmission structures, the visual change associated with the Proposed Project is relatively minor and may be viewed as an improvement as seen from this vantage point. A comparison of the existing view and the simulation indicates that the Proposed Project's effect would not substantially alter the appearance of the park's landscape setting.

Figure 4.1-10, Existing View and Visual Simulation from Via Priorato, includes an existing view of the Proposed Project from Via Priorato in the private residential area of Rancho Madrina (San Juan Capistrano). Near the center and right side of this view two lattice transmission towers and numerous overhead conductors appear prominently against the sky. Vegetation and mature trees partially screen the lower portion of the Proposed Project tower, on the right. On the left a wood power pole and street light also appear silhouetted against the sky.

The Figure 4.1-10 simulation image shows a new steel pole and removal of the lattice steel tower on the right side of the view. The location of the replacement pole is similar (within 50 feet) to that of the original lattice tower; however, as seen from this viewpoint, surrounding vegetation screens slightly less of the replacement structure. The form of the new pole is simple and streamlined in appearance to the original lattice tower. A comparison of the Figure 4.1-10 existing view and visual simulation demonstrates that the Proposed Project-related visual change is relatively minor, would not substantially alter the existing visual landscape character, and may be considered as an improvement at this hillside residential location.

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Existing View from Serra Park near Calle Santa Rosalia looking east (VP 9)



Visual Simulation of Proposed Project

Note: Refer to Figure 4.1-2a for photograph viewpoint location. Preliminary, subject to change based upon final engineering.

South Orange County Reliability Enhancement Project
Existing View and Visual Simulation from Serra Park
Figure 4.1-9

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BACK OF FIGURE 4.1-9



Existing View from Via Priorato near Paseo Boveda looking north (VP 13)



Visual Simulation of Proposed Project

Note: Refer to Figure 4.1-2a for photograph viewpoint location. Preliminary, subject to change based upon final engineering.

South Orange County Reliability Enhancement Project
Existing View and Visual Simulation from Via Priorato
Figure 4.1-10

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The upper image in Figure 4.1-11, Existing View and Visual Simulation from Arroyo Park, is an existing view from Sundance Drive looking toward the Proposed Project at Arroyo Park, located in a residential neighborhood of San Juan Capistrano. The photograph represents views at the park as well as those from the nearby residential area. In this view a house and residential landscaping, surrounded by a masonry wall, appear in the lower left side of the photograph; the grassy slopes and trees of Arroyo Park can be seen on the right. Although partially screened by mature landscaping, upper portions of the Proposed Project line, supported in this area by steel poles, as well as a nearby lattice steel transmission tower and overhead lines can be seen against the sky.

The Figure 4.1-11 visual simulation shows a replacement tubular steel pole in approximately in the same location as the existing structure. Although the replacement pole is somewhat taller, the existing and replacement structures and overhead line are similar in scale and appearance. A comparison between the Figure 4.1-11 existing view and visual simulation indicates that the overall visual change would be minor. Therefore the Proposed Project would not substantially alter the composition or character of the landscape seen in this location.

Figure 4.1-12, Existing View and Visual Simulation from San Juan Creek Road, includes a photograph taken from San Juan Creek Road, at the entrance to the private residential community of Juliana Farms, located in eastern San Juan Capistrano. The photograph represents nearby residential views as well as a motorist's brief-duration view while traveling along this arterial. This view includes the entry gatehouse and driveway and dense mature vegetation in the foreground; beyond this, overhead lines and utility structures including lattice steel towers and wood multi-pole and single-pole structures appear silhouetted against the sky.

The visual simulation in Figure 4.1-12 shows the existing wood poles replaced by a single line of new tubular steel poles. The new structures are noticeably taller than the structures that have been removed; however, the simulation illustrates that the form of the new structures is visually simpler and that the Proposed Project results in fewer transmission structures being visible from this location. Given the presence of existing transmission towers and structures and the overall reduction in the number of visible transmission structures, the visual change associated with the Proposed Project would represent a minor incremental effect, would not substantially alter the existing landscape character, and may be viewed as an improvement.

Juliana Farms to Forster Ridge

The existing view in Figure 4.1-13, Existing View and Visual Simulation from San Juan Hills High School, is a photograph taken from San Juan Hills High School in San Juan Capistrano, and includes relatively new landscaping comprised of trees and shrubs as well as a paved parking lot and pole-mounted light fixtures in the foreground, seen within a landscape setting of undeveloped hills. Two steel structures, situated in a raised area beyond the parking lot, appear prominently near the center of this view. While the lower sections of these structures are backdropped by hillsides, the upper portions appear against the sky. Because the structures are cable poles at this location, the Proposed Project line and adjacent line transition to underground. To the right of the poles, where transmission lines are above ground, the conductors can be seen against the sky.

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Existing View of Arroyo Park from Sundance Drive looking southeast (VP 17)



Visual Simulation of Proposed Project

Note: Refer to Figure 4.1-2a for photograph viewpoint location. Preliminary, subject to change based upon final engineering.

South Orange County Reliability Enhancement Project
 Existing View and Visual Simulation from Arroyo Park
Figure 4.1-11

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BACK OF FIGURE 4.1-11



Existing View from San Juan Creek Road at Juliana Farms Road looking southeast (VP 20)



Visual Simulation of Proposed Project

Note: Refer to Figure 4.1-2a for photograph viewpoint location. Preliminary, subject to change based upon final engineering.

South Orange County Reliability Enhancement Project
Existing View and Visual Simulation from San Juan Creek Road
Figure 4.1-12

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BACK OF FIGURE 4.1-12



Existing View from San Juan High School looking south (VP 22)



Visual Simulation of Proposed Project

Note: Refer to Figure 4.1-2a for photograph viewpoint location. Preliminary, subject to change based upon final engineering.

South Orange County Reliability Enhancement Project
 Existing View and Visual Simulation from San Juan Hills High School
Figure 4.1-13

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BACK OF FIGURE 4.1-13

The Figure 4.1-13 visual simulation shows two new taller steel cable poles and removal of one existing pole (previously seen on the right in the existing view). While the new poles are taller than the existing structure, they are similar in scale, form, and appearance. Given the visual presence of existing transmission structures at this location, the Proposed Project-related change would be a minor incremental effect that would not substantially alter the existing landscape setting.

Forster Ridge to Talega

Figure 4.1-14, Existing View and Visual Simulation from Via Ceramica, represents a before and after view toward the Proposed Project route from the Talega residential area of San Clemente. This northwest facing view includes portions of several residences in the foreground with open hillsides seen in the distance. Silhouetted against the sky, multiple lattice transmission towers appear along the ridgeline, and rust-colored steel poles and wood transmission structures including H-frame and individual utility poles are also visible within the utility ROW that lies near this residential area. In some cases, existing nearby transmission lines are located within 50 feet of houses.

The Figure 4.1-14 simulation shows new steel poles silhouetted against the sky, near the center and right side of the view. The simulation also shows the removal of two sets of wood transmission line support structures. The new tubular steel structures are taller than the original wood structures; however, the new steel poles are similar in height to the existing lattice transmission towers that are currently seen along the ridgeline. Their lighter color in comparison with the existing rust-colored steel poles helps reduce their visual contrast against the sky backdrop. In addition, the introduction of replacement steel poles results in fewer transmission structures overall. A comparison of the Figure 4.1-14 existing view and visual simulation illustrates that, given the presence of multiple existing transmission structures within the utility corridor, the Proposed Project represents an incremental visual change and would not substantially alter the landscape character as seen from the Talega residential area.

Figure 4.1-15, Existing View and Visual Simulation from Calle Saluda, shows a before and an after view from Calle Saluda, a two-lane arterial in the Talega residential area. This viewpoint represents the brief-duration views of motorists as well as those of pedestrians on the sidewalks and nearby trails. Visible in the foreground are street and sidewalk pavement, and a wood fence with posted signs at the entry to the Prima Deshecha Trail, beyond this open slopes covered in dense low shrubs give way to grassy hillsides. On the right, residences in the Talega neighborhood can be seen bordering this open space. Near the center of the view, steel transmission poles, steel lattice towers, wood H-frame structures and wood single-poles support multiple sets of overhead conductors, which can be seen against the sky.

The Figure 4.1-15, simulation shows new steel poles silhouetted against the sky, near the center of the view. The simulation also portrays the removal of wood multi-pole structures and some of the individual wood poles. The steel replacement poles are taller than the existing wood structures; however, their height is comparable to the existing lattice steel towers that currently occupy the utility right of way.

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Existing View from Via Ceramica north of Calle Saulda looking northwest (VP 26)



Visual Simulation of Proposed Project

Note: Refer to Figure 4.1-2b for photograph viewpoint location.
Preliminary, subject to change based upon final engineering.

South Orange County Reliability Enhancement Project
Existing View and Visual Simulation from Via Ceramica
Figure 4.1-14

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BACK OF FIGURE 4.1-14



Existing View from Calle Saluda at Prima Desecha Trail looking northwest (VP 27)



Visual Simulation of Proposed Project

Note: Refer to Figure 4.1-2b for photograph viewpoint location.
 Preliminary, subject to change based upon final engineering.

South Orange County Reliability Enhancement Project
 Existing View and Visual Simulation from Calle Saluda
Figure 4.1-15

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BACK OF FIGURE 4.1-15

A comparison between the two Figure 4.1-15 images indicates that the visual change is not particularly noticeable and would not substantially alter the composition or character of the landscape setting as seen from the roadway or recreation trail in this residential area.

Talega Substation

Figure 4.1-16, Existing View and Visual Simulation from Talega Park, a before and an after view from Talega Park in San Clemente, represents a typical view toward the Proposed Project route from the Trinidad residential neighborhood within Talega. Because the viewpoint is somewhat elevated, it affords a slight overview of part of the park in the foreground with residential development seen beyond and hillsides in the backdrop. Transmission structures, including lattice towers seen along the skyline, lie approximately one quarter mile away. Wood multi-pole and single-pole structures are also visible on the ridgeline. As demonstrated in this photograph, views toward the Proposed Project are available from the upper portion of this park; however, mature vegetation within the park partially screens views from many locations.

The Figure 4.1-16 simulation portrays the introduction of new poles and removal of some existing structures. Two new 230kV steel poles appear on the ridgeline silhouetted against the sky, one on the left and one near the center of the view. Four new steel cable poles are also visible on the hillside, two of these appear in the center right side of the view, in front the lattice steel towers, and two are partially screened by landform and by foreground vegetation in the center left. On the left two new steel poles are visible, in the distance, beyond the new 230kV pole. Several of the utility structures that have been removed, including the original wood three-pole structure, one lattice steel tower and the upper portions of three single-pole transmission structures. The new 230kV replacement poles are noticeably taller than the existing wood structure; however, their height is similar to the existing lattice steel towers that currently appear along the ridgeline. A comparison between the Figure 4.1-16 existing view and visual simulation shows that the visual change is a minor incremental change, would not substantially alter the composition or character of the existing landscape setting as seen from this location, and may be viewed as an improvement over existing conditions.

Figure 4.1-17, Existing View and Visual Simulation from Cristianitos Road, shows a before and an after view from the hillside above Cristianitos Road at the far eastern end of the Talega residential neighborhood. From this general area, views of the substation are typically screened by intervening topography and development. The Figure 4.1-14 photograph is an elevated, south-facing perspective with a relatively open view of the Talega Substation. From this location, a paved street and sidewalk and landscaped residences are seen in the foreground, against a backdrop of hillsides. At the left edge of the photograph part of Talega Substation is visible against a landscape backdrop and numerous transmission poles and lattice towers can be seen, including several along the skyline, near the center of the view.

The Figure 4.1-17 simulation shows the removal and replacement of various transmission structures. The visible project changes, seen from this location, include removal of approximately 15 wood poles and the introduction of approximately 10 new steel poles. Several new structures appear on the hillside in the foreground, most of the new poles appear partially against a landscape backdrop and partially against sky.

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Existing View from Talega Park looking south (VP 34)



Visual Simulation of Proposed Project

Note: Refer to Figure 4.1-2b for photograph viewpoint location. Preliminary, subject to change based upon final engineering.

South Orange County Reliability Enhancement Project
 Existing View and Visual Simulation from Talega Park
Figure 4.1-16

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BACK OF FIGURE 4.1-16



Existing View from above Cristianitos Road looking south (VP 35)



Visual Simulation of Proposed Project

Note: Refer to Figure 4.1-2b for photograph viewpoint location.
 Preliminary, subject to change based upon final engineering.

South Orange County Reliability Enhancement Project
 Existing View and Visual Simulation from Cristianitos Road

Figure 4.1-17

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BACK OF FIGURE 4.1-17

The replacement steel poles are somewhat taller than the existing wood structures and the change could be noticeable; however, the setting includes several existing lattice steel towers that currently appear along the ridgeline.

A comparison of the Figure 4.1-17 existing view and visual simulation illustrates that, given the presence of multiple existing transmission structures including Talega Substation as well as steel poles and lattice steel towers the Proposed Project represents an incremental visual change that would not substantially alter the landscape character as seen from this portion of the Talega residential area.

4.1.4.6 Question 4.1d – New Light or Glare

Construction – Less than Significant Impact

Only minor construction would be required at night. The transformers at the new San Juan Capistrano Substation need be filled with oil following completion of construction. This activity would last 48-96 continuous hours per transformer. However, the only lights required would be the new existing substation lighting (refer to discussion below), lights located within the oil rig trailer that would be used to pump the oil, and handheld flashlights. Therefore, this construction activity is not anticipated to have significant impacts relating to new sources of light. Minor nighttime construction may also be required at new cable pole locations during cutover of the new San Juan Capistrano Substation. Cutover activities may or may not occur at night, and the schedule of these activities is dictated by loading and outage constraints that cannot be predicted ahead of time. However, even if these activities occur at night, they would be very short in duration (two to four hours) and would not require a significant source of light. Therefore, this impact would also be less than significant.

Operations and Maintenance – No Impact

The Proposed Project area includes extensive electric transmission, 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 line facilities include any permanent lighting. Lighting would be installed at San Juan Capistrano Substation for safety purposes similar to the lighting that is there now, which has hooded fixtures and is directed downward. Substation lighting would not be left on at night during normal operations and would be used to allow for nighttime emergency repair and routine maintenance access. Potential glare from overhead conductors would be similar to what currently exists within the Proposed Project area. Therefore, there are no impacts.

4.1.5 Applicant Proposed Measures

Implementation of the following APMs will reduce potentially significant impacts to aesthetics to a less than significant level:

AES-1 Clean Construction Work Areas. SDG&E will make an effort to keep construction activities as clean and inconspicuous as practical.

- AES-2 Restoring Appearance of Disturbed Areas.** When Proposed Project construction has been completed, all disturbed terrain will be restored through recountouring and revegetation in order to re-establish a natural appearing landscape and reduce potential visual contrast between disturbed areas and the surrounding landscape.
- AES-3 Visual Screening- San Juan Capistrano Substation.** Landscaping and a screening wall will be installed in key areas along the perimeter of San Juan Capistrano Substation to partially screen views of substation structures and to visually integrate the new substation facilities with the existing setting. Figure 4.1-4 depicts the general location of new substation landscaping. Plant material will be appropriate to site-specific conditions and the local landscape setting. Landscaping will also be consistent with technical requirements for Proposed Project operations and maintenance and will incorporate input from the City of San Juan Capistrano, local residents, and SDG&E's facility security.

4.1.6 References

- Benchmark Maps. 2007. *California Road and Recreation Atlas*. Santa Barbara, California.
- California Department of Transportation web site. Online: http://www.dot.ca.gov/hq/LandArch/scenic_highways/. Site visited on November 4, 2008.
- California Public Utilities Commission (CPUC). 1995. *Public Utilities Commission of the State of California, General Order No. 131-D*. Adopted August 11, 1995. Decision 95-08-038.
- DeLorme Mapping Company. 2005. *Southern California Atlas and Gazetteer, Seventh Edition*. Freeport, ME.
- Fenneman, Nevin M. 1931. *Physiography of the Western United States*. New York: McGraw-Hill Book Company, Inc.
- Google. Google Earth Pro Version 6.1. Software. Program used January 4, 2011.
- Orange County. July, 2004. *Master Plan of Regional Riding and Hiking Trails*.
- Orange County. 2005. *County of Orange General Plan*. Adopted September 13, 2005.
- Orange County. July, 2006. *Southern Subregion Natural Community Conservation Plan – Administrative Draft*.
- San Clemente, City of. 2003. *General Plan*. Adopted May 6, 1993. Amended through May 6, 2003.
- San Clemente, City of. 2008. *San Clemente Trails Key Map*. Online at: <http://san-clemente.org/sc/standard.aspx?pageid=347>. Site visited October 30, 2008.

- San Juan Capistrano, City of. 2002. *San Juan Capistrano General Plan*. December 14, 1999. Amended May 7, 2002.
- San Juan Capistrano, City of. 2007. *Recreational Trail Map*. Prepared by the Department of Engineering and Building.
- San Juan Capistrano, City of. 2009. *Water Efficient Landscape Ordinance Guidelines*.
- San Juan Capistrano, City of. 2011. *City of San Juan Capistrano Municipal Code*. Adopted February 20, 1980. Enacted June 7, 2011.
- Smardon, RC, J.F. Palmer, and J.P. Felleman, editors. 1986. *Foundations for Visual Project Analysis*. New York: Wiley.
- U.S. Marine Corps. 2007. Marine Corps Base Camp Pendleton. Integrated Natural Resources Management Plan.
- U.S. Department of the Interior. Bureau of Land Management. 1980. *Visual Resource Management Program*. Washington, D.C.: Department of Interior.
- U.S. Department of the Interior. Bureau of Land Management. *Manual H-8410-1 - Visual Resource Inventory*. Online: <http://www.blm.gov/nstc/VRM/8410.html>.
- U.S. Department of the Interior. Bureau of Land Management. *Manual 8431 - Visual Resource Contrast Rating*. Online: <http://www.blm.gov/nstc/VRM/8431.html>.
- U.S. Department of Transportation, Federal Highway Administration. 1988. *Visual Impact Assessment for Highway Projects*. Washington, D.C.: Publication No: FHWA-HI-88-054.
- U.S.G.S. Terraserver Maps. 1975. Online: <http://terraserver-usa.com/>
- U.S. Census Bureau. 2008. U.S. Census of Population and Housing. Online at www.census.gov.