

4.0 Environmental Analysis

This chapter evaluates environmental impacts that would result from construction and operation of the proposed project. The chapter includes sections for each of the following resource areas:

4.1	Aesthetics	4.9	Hydrology and Water Quality
4.2	Agriculture and Forestry Resources	4.10	Land Use and Planning
4.3	Air Quality	4.11	Noise
4.4	Biological Resources	4.12	Population and Housing
4.5	Cultural Resources	4.13	Public Services and Utilities
4.6	Geology, Soils, and Mineral Resources	4.14	Recreation
4.7	Greenhouse Gas Emissions	4.15	Transportation and Traffic
4.8	Hazards and Hazardous Materials		

Each resource area is organized under the following headings:

- Environmental Setting;
- Regulatory Setting;
- Impact Analysis; and
- Mitigation Measures.

Environmental and Regulatory Setting

Pursuant to the CEQA Guidelines Section 15125(a), the baseline conditions described in the environmental and regulatory settings sections of this chapter reflect the conditions at the time the Notice of Preparation of this EIR was published (January 9, 2013).

Impact Analysis

This chapter evaluates the environmental impacts of construction and operation of the proposed project. Further information about the methodologies applied to the analysis conducted for each resource area is presented in each resource area section (Sections 4.1 through 4.15).

The significance criteria used for the analysis of environmental impacts are based on Appendix G of the CEQA Guidelines. The criteria serve as a benchmark for determining if the proposed project would result in significant impacts when evaluated against the baseline conditions established in the setting sections for each resource area. According to the State CEQA Guidelines (Section 15382), a “significant effect on the environment” means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project.”

1 **Mitigation Measures**

2 When significant impacts are identified, feasible mitigation measures have been presented to avoid or
3 reduce the impacts. The effectiveness of a mitigation measure is subsequently determined by evaluating
4 the impact remaining after its application. Implementation of more than one mitigation measure may be
5 needed to reduce an impact to below a level of significance. The mitigation measures recommended in
6 this document are identified within each resource area (Sections 4.1 through 4.15) and are presented in
7 the Mitigation Monitoring and Reporting Plan in Chapter 8.

4.1 Aesthetics

This section uses the Federal Highway Administration (FHWA) Visual Impact Assessment for Highway Projects methodology (FHWA 1981) to describe the existing visual setting of the South Orange County Reliability Enhancement Project (proposed project), identify potentially sensitive views, and assess the levels of visual contrast that would be introduced through construction and operation of the proposed project. This assessment is confined to the proposed project's region of influence (ROI), which is defined as the proposed project footprint and adjacent environment that is observed by the public.

This section also responds to concerns raised by interested parties during the public scoping process. The majority of public scoping comments pertaining to aesthetics were related to the design of the proposed San Juan Capistrano Substation.¹ Commenters expressed concerns that the proposed design of the substation would not be consistent with the Community Design Element of the City of San Juan Capistrano's General Plan (City of San Juan Capistrano 1999). Other comments regarding the design of the proposed San Juan Capistrano Substation expressed concern about the proposed materials, landscaping, and layout of the new substation.

In response to these comments, San Diego Gas & Electric Company (SDG&E, or the applicant) hosted a two-hour meeting (a design charrette) with the local community and City of San Juan Capistrano officials at the San Juan Hills Golf Club on April 18, 2012. The goal of the meeting was to identify an architectural design theme for the proposed San Juan Capistrano Substation perimeter wall.

Approximately 50 members of the public attended the meeting. The attendees included local residents, the City of San Juan Capistrano Architectural Design Review Committee, city officials, and other interested parties. The favored design concept at the April 18, 2012, meeting was the Spanish mission style depicted in the Proponent's Environmental Assessment (SDG&E 2012). The applicant met with members of the City of San Juan Capistrano Architectural Design Review Committee in 2013 after holding the April 2012 public meeting. The applicant worked with an architect to incorporate the Spanish mission style design and presented the design to the City of San Juan Capistrano Architectural Design Review Committee on July 29, 2014.

Section 3.3 of the Public Scoping Report (Appendix A) contains a full synopsis of all comments received during public scoping, along with all of the original comment letters in their unabridged format.

4.1.1 Environmental Setting

The proposed project is located in southern California's Peninsular Range, which consists of a series of northwest trending ridges that stretch from the Transverse Range (near Los Angeles) into Baja California. This portion of the Peninsular Range was affected by the recent glaciation, which formed the ridges and canyons presently featured in the ROI. The withdrawal of glaciers formed other landscape features, such as San Juan Creek and Talega Creek, which presently flow westerly from the Cleveland National Forest to the Pacific Ocean, by way of the Orange County Coastal plain, where the proposed project would be located. Key vegetation communities within the region include coastal scrub, chaparral, non-native grasslands, and oak woodland habitats (Holland and Keil 1995).

The area's cultural landscape was largely influenced by the Spanish colonial period, and architecture in the area is still influenced by the missions that were built during that time. Mission San Juan Capistrano,

¹ The existing substation is referred to as the *Capistrano Substation*, while the new substation is referred to as the *San Juan Capistrano Substation*.

1 from which the city derives its name, is less than 1 mile from the existing Capistrano Substation.
2 Although settlement in the region occurred as early as the 1700s, when the Mission San Juan Capistrano
3 was established, most of the development in the region has occurred since the 1950s. Established natural
4 vegetation communities have been either preserved as open space and parks or replaced with urban
5 development consisting of residential communities, golf courses, a landfill, and major transportation and
6 electric transmission infrastructure (SDG&E 2012).

7 8 **4.1.1.1 Methodology** 9

10 The FHWA Visual Impact Assessment for Highway Projects methodology (FHWA 1981) was applied in
11 preparing the aesthetic resource analysis presented in Sections 4.1.4 and 4.1.5, below. The FHWA
12 methodology, which is an industry-standard evaluation methodology for assessing aesthetic impacts for
13 linear projects, includes the following steps:

- 14
15 1. Establish a visual environment for the proposed project area by identifying “landscape unit(s)” in
16 which the proposed project would be located.
- 17
18 2. Assess the visual resources of the proposed project area by describing the visual character of the
19 area and assessing the visual quality. The FHWA describes visual character in terms of the four
20 visual pattern elements: form, line, color, and texture. Visual quality is assessed based on
21 vividness, intactness, and unity of views. The terms *vividness*, *intactness*, and *unity* are described
22 below.
- 23
24 3. Describe the potentially affected viewers in terms of viewer exposure to components of the
25 proposed project and the levels of viewer sensitivity. Viewer exposure considers the distance of
26 the viewer to components of the proposed project, the position of the viewer in terms of relative
27 elevation, the direction of the view, approximate numbers of viewers, and the duration and
28 frequency of views. Viewer sensitivity describes viewers’ expectations or concerns regarding
29 views and visual quality based on viewer activity and awareness and any local or cultural
30 significance of features within the landscape.
- 31
32 4. Develop simulations to predict the potential visual impact of the proposed project. Visual impact
33 is a function of the projected visual resource change and anticipated viewer response.

34 In accordance with the FHWA methodology, this analysis organizes the baseline environmental setting,
35 including context photographs, by landscape unit, and describes potential viewers of the proposed project
36 components (Section 4.1.1). Key observation points (KOPs) were selected to establish the visual baseline
37 of the project area, as well as to estimate the level of contrast that would be introduced by components of
38 the proposed project, and simulations were developed and used as a basis for the analysis of impacts.

39 **Vividness, Intactness, and Unity**

40 The visual character and quality of the region and the proposed project area are described using criteria
41 established by the FHWA for visual landscape relationships. The criteria for describing visual quality can
42 include vividness, intactness, or unity, as defined below:

- 43 • Vividness is the visual power or memorability of landscape components as they combine in
44 striking or distinctive visual patterns.
- 45 • Intactness is the visual integrity of the natural and human-built landscape and its freedom from
46 encroaching elements; this factor can be present in well-kept urban and rural landscapes, as well
47 as in natural settings.

- Unity is the visual coherence and compositional harmony of the landscape considered as a whole; it frequently attests to the careful design of individual components in the landscape. (FHWA 1981).

4.1.1.2 Visual Sensitivity

To establish the environmental setting for the proposed project's ROI, the visual sensitivity of potentially affected viewer groups must be determined. Visual sensitivity depends on the number and types of viewers and the frequency and duration of views. Generally, visual sensitivity increases with an increase in total numbers of viewers, the frequency of viewing (e.g., daily or seasonally), and the duration of views (i.e., how long a scene is viewed). The criteria for identifying importance of views are related in part to the viewer's position relative to the resource. An area of the landscape that is visible from a particular location (e.g., a park or overlook) or series of points (e.g., a road or trail) is defined as a viewshed.

To quantify the quality of views, a viewshed may be broken into distance zones of foreground, middleground, and background. Generally, the dominance and importance of an object increases with its proximity to the viewer. Although distance zones in viewsheds may vary between different geographic regions or types of terrain, a commonly used set of criteria identifies the *foreground* distance zone as one-quarter to one-half of 1 mile from the viewer, the *middleground* distance zone as extending from the foreground zone to 3 to 5 miles from the viewer, and the *background* zone as extending from the middleground zone to infinity (USFS 1995). Also, resources that are higher in elevation than the viewer tend generally to take on greater visual importance than resources located at a lower elevation than the viewer.

Visual sensitivity can also change based on the activity of the viewer. For instance, visual sensitivity is generally higher for views seen by people from their homes, driving for pleasure, or engaging in recreational or leisure activities. Visual sensitivity generally would be diminished if the same people were exposed to the same viewshed while working, engaging in personal business activities, or commuting to or from work. (USFS 1995; FHWA1981; US Soil Conservation Service 1978)

Much of the proposed project would be located within rolling terrain, which limits both the visibility and duration of views of the proposed project in many areas in the vicinity of sensitive viewers. However, some portions of the proposed project would be visible from residences, scenic travel routes, and several recreation areas such as parks, schools, and trails with high viewer sensitivity. Baseline visual sensitivity for each landscape unit is described in Section 4.1.1.5.

Key Terms

Landscape unit – an area of distinct landscape character that forms a spatially enclosed environment.

Region of influence – surrounding areas with views of the proposed project.

Visual sensitivity – one's receptiveness to elements in the environment. Influenced by viewer group, awareness, and proximity to an element.

Viewer group – a class of viewers differentiated by their response to the proposed project and its setting; response is affected by viewer activity, awareness, and values.

Viewshed – the expanse that can be viewed from a given location.

4.1.1.3 Viewer Groups

As discussed above, viewer awareness and concern for changes in the landscape can vary depending on the primary activity in which the viewer is engaged (USFS 1995; FHWA1981; US Soil Conservation Service 1978). Therefore, viewer groups identified below are defined based on primary viewing activities such as residential viewers, recreationists, and motorists on scenic roads. Viewer groups are described in terms of their physical location in relation to components of the proposed project, the number of viewers, the duration of views, and viewer sensitivity, which takes into account viewer activity and awareness, local values, and cultural values. Generally, increased visual contrast within foreground distances would be more noticeable to viewers than increased visual contrast within background distance zones.

For the proposed project, potentially affected groups with high viewer sensitivity include motorists on two eligible State Scenic Highways (Interstate 15 and State Route 74 [SR-74]; Caltrans 2014) and local roads; residents of the cities of San Juan Capistrano and San Clemente; dispersed rural residents in unincorporated Orange County; tourists; and dispersed recreational users, including equestrian users, cyclists, and local trail system users.

Motorists driving along Interstate 15 would have foreground and middleground views of the proposed project's transmission structures and transmission lines (Segment 1b) where they cross the freeway before entering San Juan Capistrano Substation. Motorists on SR-74, a heavily used commuter freeway with a posted speed limit of 55 miles per hour, would have foreground views of Transmission Line Segment 1b. Segments of the 230-kilovolt (kV) transmission line would be routed alongside or would cross numerous local roadways in the cities of San Juan Capistrano and San Clemente, as well as in unincorporated Orange County. All arterial roadways in the City of San Juan Capistrano are classified as scenic travel routes, and motorists in these areas may have high viewer sensitivity due to the greater level of viewer concern associated with these areas. City of San Juan Capistrano scenic travel routes are listed in Section 4.15, "Transportation and Traffic." Motorists on local streets, particularly in residential areas, may be especially sensitive to visual changes due to the increased frequency of views and slower speeds.

Residents of the cities of San Juan Capistrano and San Clemente would have views of 230-kV transmission line segments, and dispersed rural residences in unincorporated Orange County would have views of Talega Substation and the San Juan Capistrano Substation. Access roads and laydown areas would also be visible from many of the residential communities along the route. Due to frequent, stationary views, local residents are typically more sensitive than other groups to visual changes.

Recreational groups that would have views of the proposed project include users of local trails (hikers, cyclists, and equestrians). Students at nearby schools, visitors to nearby parks, and golfers would also have views of the new transmission structures and lines. The proposed project would be collocated in a right-of-way (ROW) with similar transmission structures, adding to the amount of contrast recreational user groups already experience.

As discussed in Section 4.5, "Cultural Resources," there are a number of locations within the proposed project area that are considered culturally significant. The sensitivity of groups associated with or aware of nearby cultural resources and cultural resources at other locations within the proposed project area would be high (see Section 4.5, "Cultural Resources").

4.1.1.4 Scenic Vistas and Routes

A scenic vista is defined as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public (City of Orange 2009). The City of San Clemente's General Plan (2014)

1 identifies two scenic vistas, one at the terminus of the Rancho San Clemente trail above Calle del Cerro,
2 and the other on the Forester Ranch Ridgeline Trail above Avenida Vista Hermosa. Both scenic vistas
3 may include views of the existing 138-kV transmission line ROW and the proposed double-circuit 230-
4 kV transmission line. The City of San Clemente’s General Plan encourages agencies with jurisdiction
5 over discretionary permitting processes to “preserve and improve the view corridors...” identified in the
6 General Plan as part of their approval process (City of San Clemente 2014). Figure 4.1-1 shows the
7 locations of scenic vistas and routes in the proposed project area.

8
9 Additionally, the Community Design Element of the City of San Juan Capistrano’s General Plan (1999)
10 designates all arterial roadways in the city as scenic corridors. A list of arterial roadways within the city
11 of San Juan Capistrano can be found in Tables 4.15-1 and 4.15-2.

12 13 **4.1.1.5 Existing Visual Character and Quality: Landscape Units**

14
15 The FHWA uses landscape units to subdivide large corridors into smaller units, each consisting of a
16 homogeneous landscape type, or an enclosed space (FHWA 1981). The ridgelines of the ROI have been
17 used in combination with municipal boundaries and viewer groups to subdivide the ROI into four
18 landscape units (Figure 4.1-2):

- 19 • Landscape Unit 1 (LU 1) – Capistrano Substation to Paseo Boveda
- 20 • Landscape Unit 2 (LU 2) – San Juan Creek
- 21 • Landscape Unit 3 (LU 3) – West La Ronda to Forester Ridge
- 22 • Landscape Unit 4 (LU 4) – San Clemente and Talega Substation

23
24
25 A description of the existing visual character and quality of each landscape unit is provided below, along
26 with photographs and descriptions of representative viewpoints within each landscape unit and the visual
27 character and visual quality experienced by potentially affected user groups. Views for a specific viewer
28 group, such as golfers or residents, would be similar across landscape units. Representative photographs
29 were selected to ensure that the views of each user group and landscape unit are included while
30 minimizing the number of redundant descriptions. Representative views are also limited to views from
31 public points of observation. Therefore, discrete views from private residences and golf clubs have not
32 been used to establish the existing visual setting.

33 34 **Landscape Unit 1 –Capistrano Substation to Paseo Boveda**

35 LU 1 largely comprises various residential neighborhoods within the city of San Juan Capistrano, as well
36 as Interstate 5 (I-5), golf courses, hiking trails, and parks. Relevant project-related infrastructure within
37 LU 1 includes Capistrano Substation and the existing 138-kV transmission line ROW. As shown in
38 Figure 4.1-3 and Photo 1, ridgelines to the east and west are prominent features of this landscape unit.
39 These ridges enclose LU 1 and serve as a visual barrier between landscape units. Residents and
40 recreational users within LU 1 typically experience longer duration views and have high levels of visual
41 sensitivity. Motorists on I-5 experience short duration views, typically of distant viewsheds, and have
42 low visual sensitivity.

43 44 **Photo 1 Capistrano Substation**

45 Photo 1 (Figure 4.1-3) looks north-northwest from Via El Rosario and shows Capistrano Substation as a
46 focal point in the landscape, with the large vertical transmission structures obscuring distant views of
47 landscape features. The foreground and middleground are dominated by single and multi-story buildings

1 and landscape trees and shrubs that transition to rolling terrain in the distance. Complex lines and
2 textures created by the structures and vegetation along the periphery of the view create an axis in the
3 middle of the view down Via el Rosario to the substation. Prominent colors include grey greens, brick
4 red, whites, and concrete greys from vegetation and structures in the foreground. Visual intactness and
5 unity are moderate to low, as the vertical transmission structures and substation equipment encroach on
6 the cohesive neighborhood views. Neither the substation nor the neighborhood contain distinct visual
7 elements.

8
9 Viewer activity in this area is highly variable, ranging from motorists on residential roadways, who
10 experience relatively short duration views, to residents who likely experience long duration views from
11 their homes. Views in this area include motion in the foreground in the form of cars, bikes, and
12 pedestrians.

13 **Photo 2 – Interstate-5**

14
15 Photo 2 (Figure 4.1-3) looks north along northbound I-5 and shows an open landscape dominated by the
16 band of concrete in the foreground and divides views of middleground features. Complex lines and colors
17 are observed along the periphery of the landscape in the form of trees, shrubs, and signage. The large
18 vertical transmission structures on the western side of the interstate are silhouetted against the blue sky,
19 increasing their prominence. The foreground and middleground are dominated by the smooth geometric
20 forms of the highway, while distant views are blocked by the rolling terrain and berms on the flanks of
21 the highway. Prominent colors include concrete grey, greens, and whites from structures and vegetation
22 in the foreground. The highway provides a consistent landscape element from which long duration views
23 of distant landscape are observed, creating a moderately intact and unified landscape.

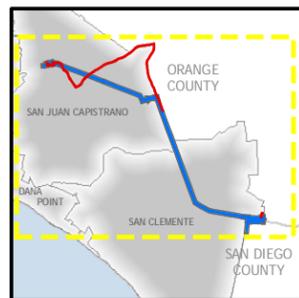
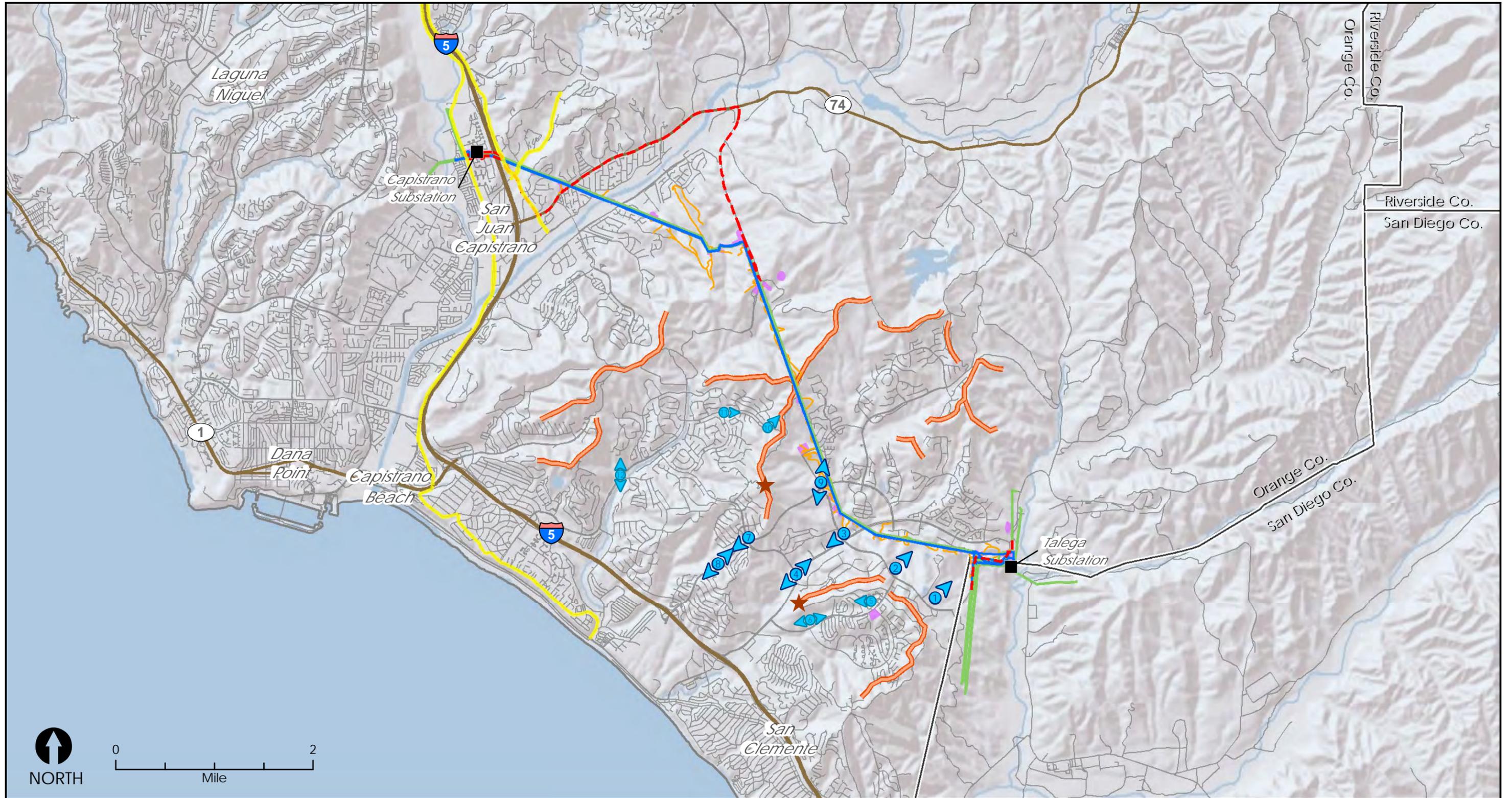
24
25 Viewer activity in this area would be solely made up of motorists on I-5, who experience relatively short
26 duration views within the landscape due to the speed at which they are generally moving. Both speed and
27 roadway design influence motorists' perception of the surrounding landscape. Generally, as the speed of
28 a vehicle increases, the occupant's focus becomes increasingly narrow. For instance, at speeds above 60
29 miles per hour the field of vision for the driver can be less than 40 degrees, with a focal point over 2,000
30 feet in front of the vehicle (Motloch 2001). Highway motorists are therefore continually viewing distant
31 landscapes and have difficulty perceiving changes in fore- or middle-ground views.

32 **Landscape Unit 2 – San Juan Creek**

33
34 LU 2 comprises various residential neighborhoods within the eastern portion of the city of San Juan
35 Capistrano, golf courses, hiking trails, and parks. Relevant project-related infrastructure within LU 2
36 includes existing 138-kV transmission line ROW. LU 2 is bounded by ridgelines on both sides, with San
37 Juan Creek running through its center. Residents and recreational users within LU 2 typically experience
38 views for a longer duration and have high levels of visual sensitivity.

39 **Photo 3 – Calle de la Rosa**

40
41 Photo 3 (Figure 4.1-4) looks north from Calle de La Rosa. Photo 3 is a focal landscape, with the large
42 vertical transmission structures silhouetted against the blue sky. The foreground and middle-ground are
43 dominated by single and multi-story buildings and ornamental landscaping. The complex geometric lines
44 and uniform textures created by the structures dominate weaker landscape features, which are relatively
45 short and sparse. Prominent colors include brick red, terra cotta browns, light yellows, whites, and
46 concrete and dark asphalt greys. There is no clear line or transition between the natural and built
47 environment, and the transmission structures at the top of the hill encroach upon the neighborhood
48 setting, resulting in moderate to low levels of visual intactness.



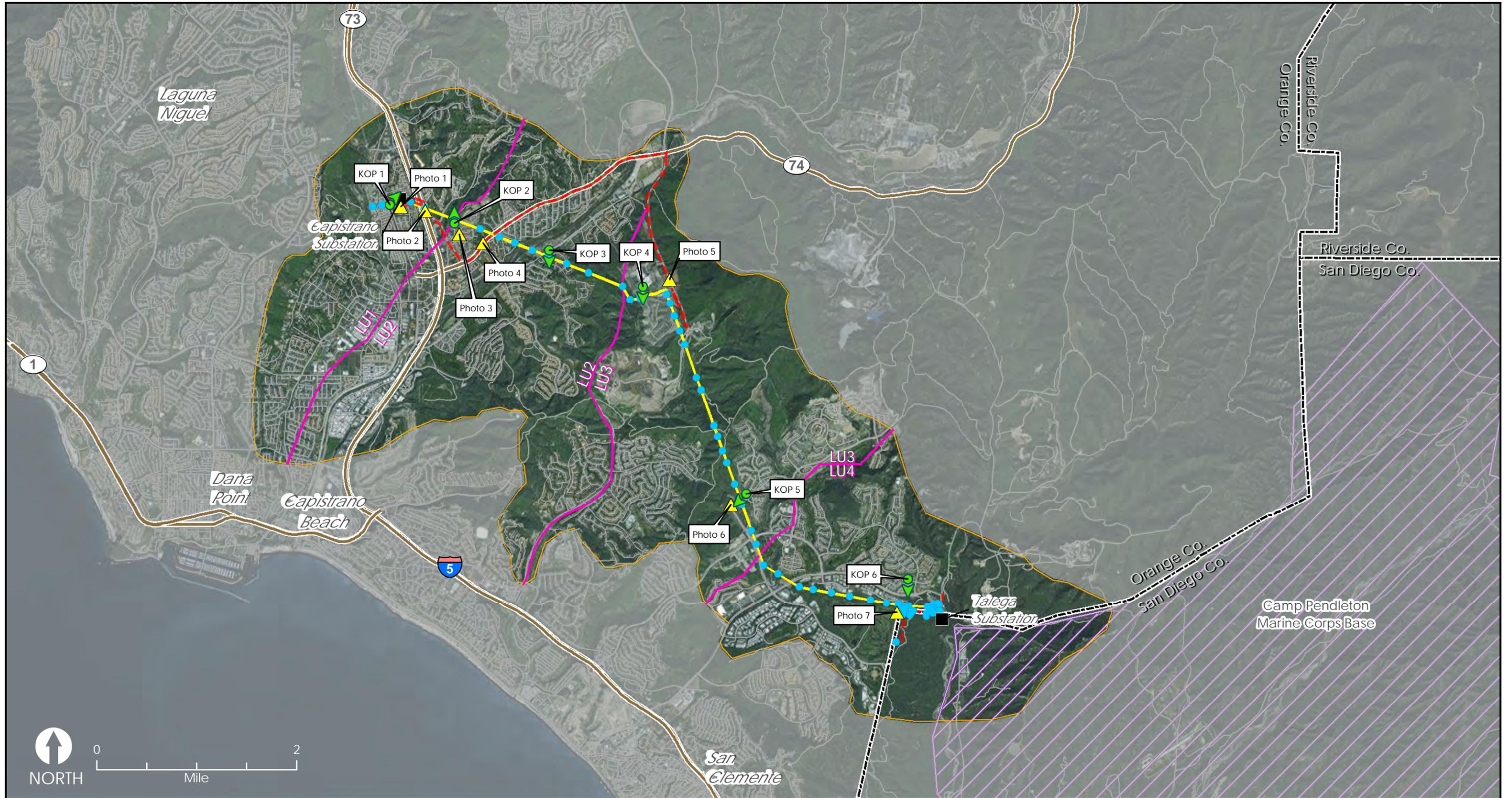
- | | | |
|----------------------------|-------------------|------------------------|
| Proposed transmission line | Distribution Line | Scenic Vista |
| Existing transmission line | Roads | Major View Corridor |
| Access road | Local road | Minor View Corridor |
| Impact areas | Scenic Routes | Significant Ridgelines |

Sources: FEMA 2015

Figure 4.1-1 Scenic Vistas and Routes in the Proposed Project Area

South Orange County Reliability Enhancement Project

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Sources: E&E 2014



- | | | |
|------------------------------|--|-----------------|
| KOP and Direction | New pole location | Major roads |
| Photo | Proposed double-circuit 230-kV transmission line route | Local road |
| Landscape Units | Distribution Line | County Boundary |
| Region of Influence Boundary | Substation | |

Figure 4.1-2 Region of Influence and Landscape Units

South Orange County Reliability Enhancement Project

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Source: Fig. 4.1-3c, Photo Number 5, South Orange County Reliability Enhancement Project, SDG&E and Environmental Vision, 2012



Photo 1 – View looking north-northwest from Via el Rosario to the Capistrano Substation

Source: Fig. 4.1-3c, Photo Number 10, South Orange County Reliability Enhancement Project, SDG&E and Environmental Vision, 2012



Photo 2 – View looking north along Interstate 5

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Figure 4.1- 3
Landscape Unit 1 Representative Photos
Capistrano Substation to Paseo Boveda
South Orange County Reliability Enhancement Project



Photo 3 – Calle de Rosa



Photo 4 – Highway 74

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Figure 4.1-4
Landscape Unit 2 Representative Photos
San Juan Creek
South Orange County Reliability Enhancement Project

1 The location of the existing transmission structures at the apex of the hill, angle of view at above eye
2 level, and ability of the viewer to gauge the relative size of each structure, all affect viewer perception.
3 Viewer activity in this area is also highly variable, ranging from motorists on residential roadways, who
4 will experience relatively short duration views, to residents who likely experience long duration views
5 from their homes. Views in this area may also include motion in the foreground in the form of cars,
6 bikes, and pedestrians.

7 8 **Photo 4 – State Route-74**

9 Photo 4 (Figure 4.1-4) looks northeast from SR-74. Photo 4 shows an enclosed canopied landscape where
10 the features of the roadway, transmission structures, and landform are all balanced. Complex lines from
11 the built environment are slightly more noticeable than vegetation and landform. The large vertical
12 transmission structures on the western side of the highway are silhouetted against the blue sky but do not
13 dominate the view. The fore- and middle-grounds are dominated by the smooth geometric forms of the
14 highway, while distant views are blocked by the rolling terrain, and berms on the flanks of the highway.
15 These features make the landscape appear intact.

16
17 The smooth texture of the pavement is contrasted by the coarse texture of the trees, adding visual
18 interest. Prominent colors include concrete grey, greens, and whites from vegetation and structures in the
19 foreground. The vividness of the colors and the landscape would likely change with the seasons. Views
20 of the natural surroundings are confined but unobstructed, resulting in moderate to high degree of visual
21 unity.

22
23 The expansive interstate and views of objects moving rapidly at or above eye level affect viewer
24 perception. Viewer activity in this area would consist of both recreational and commuting motorists on
25 SR-74, who would experience views for a relatively short duration and have low to moderate viewer
26 sensitivity, as well as residential viewers who would experience long duration views and higher viewer
27 sensitivity.

28 29 **Landscape Unit 3 – West La Ronda to Forester Ridge**

30 LU 3 comprises rural areas in unincorporated Orange County, San Juan Hills High School, Prima
31 Deschecha Landfill, and recreational trails. Relevant project-related infrastructure within LU 3 includes
32 existing 138-kV transmission line ROW. Of the four landscape units, LU 3 has the least residential
33 development. Ridgelines to the west divide LU 2 from LU3. Residents, viewers at San Juan Hills High
34 School, and recreational users within LU 3 experience views for a longer duration and have high levels
35 of visual sensitivity.

36 37 **Photo 5 - Avenida la Pata**

38 Photo 5 (Figure 4.1-5) looks south from Avenida la Pata. Avenida la Pata is identified as a major view
39 corridor by the City of San Clemente's General Plan (City of San Clemente 2014). Photo 5 shows a focal
40 landscape of the existing 138-kV transmission line ROW. The view is bisected by Avenida la Pata, with
41 the linear features of the road, guardrail, and adjacent transmission structures converging, leading the
42 viewer's eye towards a notch on the ridgeline. These linear features also create an edge between the
43 natural landforms in the east (left side of the photo) and the seemingly more developed landscape in the
44 west (right side of the photo), which leads to a higher level of visual intactness. The vegetation on the
45 periphery of the view is smooth and uniform, while the vertical transmission structures and their
46 horizontally oriented lines lend an ordered, geometric complexity that subdivides the view. The lines of
47 landforms are slightly dominant over vertical lines from transmission structures and foreground
48 structures.



Photo 5 – Avenida la Pata



Photo 6 – Calle Saluda

Figure 4.1-5
Landscape Unit 3 Representative Photos
West La Ronda to Forester Ridge
South Orange County Reliability Enhancement Project

1
2 Viewer perceptions are affected by the location of the existing 138-kV transmission line ROW in the
3 fore- and middle-grounds, angle of view at and above eye level, and stark contrast between rigid vertical
4 structures against the soft rolling hills in the fore- and middle-grounds. Viewer activity in this area would
5 consist largely of recreational users experiencing views for a long duration with high viewer sensitivity.
6 Similar views with shorter viewing durations are likely experienced by motorists, cyclists, and
7 pedestrians with high viewer sensitivity traveling on Avenida la Pata.
8

9 **Photo 6 – Calle Saluda**

10 Photo 6 (Figure 4.1-5) looks northeast from Calle Saluda. The fore- and middle-grounds are dominated
11 by rolling terrain and uniform vegetation that is broken up by the ridged vertical forms of the existing
12 transmission structures and the ordered geometric forms of the adjacent housing development. Minor
13 variation in the color and texture of the vegetation creates visual interest, while the solid forms to the east
14 (right) create a transitional edge between developed and rural landscapes. The blooming flowers make
15 the adjacent foreground colors increasingly vivid, but this expression of color would be seasonally
16 dependent. The landscape is relatively intact and uniform, with the transmission structures forming a
17 functional edge between the open landscape and the residential development. The transmission structures
18 are a dominant feature in the landscape in this view because of their prominence and strong contrast in
19 form and line with the existing more natural features in the landscape and the low, more rectilinear
20 residences and curving paths.
21

22 Viewer perceptions are affected by the location of the existing 138-kV transmission line ROW, angle of
23 view at and above eye level, and atmospheric conditions. Viewer activity in this area would involve
24 motorists, residents, and recreational users of the adjacent hiking trails. Motorists and recreational users
25 on nearby trails and parks would experience shorter duration views, with recreational users having higher
26 awareness of the views. Local residents would experience long duration views and have high awareness
27 and local values.
28

29 **Landscape Unit 4 – San Clemente and Talega Substation**

30 LU4 includes two golf courses, Talega Substation, several existing transmission lines, residential
31 communities within the city of San Clemente, and the northern portion of Marine Corps Base (MCB)
32 Camp Pendleton. Viewer groups include the residents of homes within the ROI, motorists, military
33 personnel, and recreational user groups. Residents and recreational uses typically experience long
34 duration views and have higher visual sensitivity, while motorists experience shorter duration views and
35 have lower visual sensitivity.
36

37 Photo 7 (Figure 4.1-6) looks southeast from Bella Towne and Golf Club. The fore- and middle-grounds
38 are dominated by rolling terrain, which is broken up by the ridged vertical forms of the transmission
39 structures. The transmission structures are the dominant landscape features in the fore- and middle-
40 ground. Variations in the color and the coarse texture of the vegetation in the foreground transition to
41 soft and homogenous in the middle and distant views. The expanse of the view, with few manmade
42 developments, is striking when compared to views within the area that consist of closed views within
43 residential communities. The landscape is relatively intact and uniform, with the exception of the existing
44 transmission structures, which detract substantially from the view's overall intactness.
45



Photo 7 – Bella Collina Towne and Golf Club

Figure 4.1-6

Landscape Unit 4 Representative Photo
San Clemente and Talega Substation
South Orange County Reliability Enhancement Project