

Chapter 8—Visual Resources

8.1 Introduction

8.1.1 Purpose and Scope

Visual or aesthetic resources are generally defined as the natural and built features of the landscape that can be seen. The combination of landform, water, and vegetation patterns represents the natural landscape features that define an area's visual character whereas built features such as buildings, roads and other structures reflect human or cultural modifications to the landscape. These natural and built landscape features or visual resources contribute to the public's experience and appreciation of the environment. Depending on the extent to which a Project's presence would alter the perceived visual character and quality of the environment, visual or aesthetic impacts may occur.

The purpose of this chapter is to document the existing visual resources in the Project study area and to assess the potential visual impacts that might occur as a result of the Project's construction and operation. A summary of public regulations and policies pertaining to visual quality in the Project vicinity is also provided. Where applicable, feasible mitigation measures are identified to address anticipated visual impacts.

As described in the Project Description, Subsection 2.3, the Jefferson-Martin Transmission Project proposes the replacement of existing overhead facilities in most of Route Segment 1, whereas the northernmost portion of Segment 1 and Segments 2, 3, and 4 involve facilities that would be placed underground. The underground portion of the Project would not be visible to the public and therefore would not affect existing visual resources. Consequently, this chapter addresses the portion of the Project Area which includes rebuilt above-ground Project components, that is, the 14.7-mile route alignment extending from the Jefferson Substation north to the proposed transition station at San Bruno Avenue and Skyline Boulevard (MP 0 to MP 14.7) as shown on Figure 8.1.

CEQA requires a comparison of the existing baseline visual setting in the Project Area with the visual setting that will exist following completion of the Project to determine whether the incremental change is significant. In this case, the existing baseline condition includes among its more prominent visual features an existing, overhead, double-circuit transmission line occupying the Segment 1 Project route. Central to this PEA visual assessment, then, is an evaluation of the incremental changes in the appearance of the Project Area that would result from replacing the existing 60 kV towers and overhead conductors with somewhat larger 230 kV towers and overhead conductors. In all events, the presence of the existing transmission line makes this Project very different from aesthetic perspective than a more typical transmission project involving construction of a brand new line in a "greenfield" setting.

Taking into account the existing setting, and with implementation of the mitigation measures described in Subsection 8.4, impacts to visual resources resulting from the Project would be less than significant.

8.1.2 Methodology

This analysis of the visual effects of changes that might occur with implementation of the proposed transmission Project is based on field observations and review of the following information: local planning documents; Project maps, drawings, and technical data; aerial and ground level photographs of the Project Area; computer-generated visual simulations; and research about design measures for integrating electric facilities into their environmental settings. Site reconnaissance was conducted during May through July 2002 in order to observe the Project Area, to take representative photographs of existing visual conditions and to identify key public views appropriate for simulation. Consultation with the National Park Service Golden Gate National Recreational Area and the San Francisco Public Utilities Commission Watershed Resources staff was conducted during the course of this study. This consultation process provided additional information and valuable insight regarding photo viewpoint selection, as well as public recreation trail use and agency resource management objectives.

The visual study employs assessment methods based, in part, on the U.S. Department of the Transportation Federal Highway Administration (FHWA) and other accepted visual analysis techniques as summarized by Smarden et al. (1988). The study is also designed to respond to the California Environmental Quality Act (CEQA) Guidelines for visual impact analysis. Included are systematic documentation of the visual setting, an evaluation of visual changes associated with the Project and mitigation measures designed to reduce potentially significant visual effects.

An inventory of existing visual conditions was prepared to characterize the affected environment in terms of the visual character and quality and the sensitivity and relative number of viewers. A set of 78 photographs showing representative public views of the Project Area is presented to provide a sense of the area's existing visual conditions. Appendix D, Visual Resources summarizes the photo locations and approximate viewing distances to the closest Project component seen in each photo.

The impact analysis is based partially on the FHWA methodology for determining visual resource change and assessing viewer response to that change. The analysis is focused on evaluating impacts and recommending measures to minimize adverse visual effects. Central to this assessment is an evaluation of representative public views from which the Project would be most visible. In order to document the visual change that would occur, visual simulations show the proposed transmission line Project from a subset of the visual character photographs, representing key viewpoints. The visual simulations are presented as “before” and “after” images from each of these key viewpoints. Presented as Figures 8-4 through 8-21, the simulation images provide a clear image of the location, scale, and visual appearance of proposed transmission and substation improvements. The computer-generated simulations are the result of an objective analytical and computer modeling process and are accurate within the constraints of the available site and Project data. Appendix D provides a description of the technical methods employed to produce the PEA visual simulations.

FIGURE 8-1

FIGURE 8-1 (BACK)

FIGURE 8-2

FIGURE 8-2 (BACK)

FIGURE 8-3

FIGURE 8-3 (BACK)

FIGURE 8-3A

FIGURE 8-3A (BACK)

FIGURE 8-3B

FIGURE 8-3B (BACK)

FIGURE 8-3C

FIGURE 8-3C (BACK)

FIGURE 8-3D

FIGURE 8-3D (BACK)

FIGURE 8-3E

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FIGURE 8-3F

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FIGURE 8-3G

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FIGURE 8-3H

FIGURE 8-3H (BACK)

FIGURE 8-31

FIGURE 8-31 (BACK)

FIGURE 8-3J

FIGURE 8-3J (BACK)

FIGURE 8-3K

FIGURE 8-3K (BACK)

FIGURE 8-3L

FIGURE 8-3L (BACK)

FIGURE 8-3M

FIGURE 8-3M (BACK)

FIGURE 8-3N

FIGURE 8-3N (BACK)

FIGURE 8-30

FIGURE 8-30 (BACK)

FIGURE 8-3P

FIGURE 8-3P (BACK)

FIGURE 8-3Q

FIGURE 8-3Q (BACK)

FIGURE 8-3R

FIGURE 8-3R (BACK)

FIGURE 8-3S

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FIGURE 8-3U

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FIGURE 8-4

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FIGURE 8-19

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FIGURE 8-20

FIGURE 8-20 (BACK)

FIGURE 8-21

FIGURE 8-21 (BACK)

The visual impact assessment was based on evaluation of the changes to the existing visual resources that would result from construction and operation of the 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. Consideration was given to the following factors in determining the extent and implications of the visual changes:

- The specific changes in the affected visual environment’s composition, character, and any specially valued qualities,
- The affected visual environment’s context,
- The extent to which the affected environment contains places or features that have been designated in plans and policies for protection or special consideration, and
- The relative numbers of viewers, their activities, and the extent to which these activities are related to the aesthetic qualities affected by the expected changes. Particular consideration was given to effects on landscapes visible in the foreground from designated scenic routes and residential areas.

8.2 Existing Conditions

8.2.1 Regional and Local Landscape Setting

The Project Area lies within the San Francisco Bay Area region between two major cities, San Francisco and San Jose. Figure 2-1 provides a map of the Project’s regional location. The transmission lines and substations that make up Segment 1 Overhead (OH) of the Jefferson-Martin Project lie in a portion of San Mateo County that includes areas of steep and rolling hillside, ridgeline, and valley landscapes. Figure 8.1 indicates the overall layout of the proposed Jefferson-Martin Project components for Segment 1 OH and their relationship to the major surrounding landscape features including topographic elements, water bodies, public open space, landmarks, roadways, and nearby urbanized communities.

Situated on the central portion of the San Francisco Peninsula, the Project Area lies in the larger landscape zone of the Coastal Range foothills, within a rift or valley formed by the San Andreas fault. To the west, the Cahill, Sawyer and Sweeney Ridges rise to elevations of some 1,100 to 1,300 feet above sea level. Further west, peaks of the Santa Cruz Mountains reach more than 1,800 feet in elevation. Enclosed by the lower Buri Buri and Pulgas Ridges on the east, the rift zone itself occupies undulating terrain situated at approximately 350 and 600 feet above sea level. The Upper and Lower Crystal Springs Reservoirs and San Andreas Lake are three reservoirs situated within the rift zone.

The 14.7-mile long Segment 1 OH route lies primarily within the San Francisco Peninsula Watershed and generally parallels the I-280 freeway. In contrast to much of the Peninsula landscape, the Watershed has remained undeveloped and natural in appearance. Owned and managed by the San Francisco Public Utilities Commission (SF PUC), the Peninsula Watershed encompasses approximately 23,000 acres. The primary land management goal for the Watershed, according to the *Peninsula Watershed Management Plan*, is “to provide the best environment for the production, collection, and storage of the highest quality water for

the City and County of San Francisco and suburban customers” in portions of San Mateo, Santa Clara and Alameda Counties. Water collection and storage reservoirs situated within the Watershed include the Upper and Lower Crystal Springs and the Pilarcitos Reservoirs and San Andreas Lake.

The vast majority of the Watershed is located west of I-280 including a 19,000-acre “Scenic Easement” area devoted primarily to utility operations and open space conservation. The Scenic Easement does not grant public access rights, whereas the 4,000-acre Scenic and Recreation Easement grants rights for limited public access (*Peninsula Watershed Management Plan* p. 2-19). The 4,000-acre Scenic and Recreation Easement is devoted primarily to utility operations and public open space. Refer to Table 8-5 and Land Use Subsection 5.2 for further discussion of policies stipulated by these two Watershed easements. Approximately 25 miles of public recreation trails lie within the Watershed Scenic and Recreation easement including the Sawyer Camp, San Andreas Reservoir, Crystal Springs, Ralston and Sheep Camp Trails (Figure 8.1). Photographs showing representative Watershed trail views of the Project route are presented on Figures 8.3, photos 15, 20- 23, 27, 40, and 58-61.

The overhead portion of the Project passes along the western edges of several Peninsula communities including Woodside, Hillsborough, Burlingame and San Bruno. Interstate 280 provides access to these communities at six interchanges located in the Project Area including a linkage to Highway 92. This east-west route occupies a causeway between the Upper and Lower Crystal Springs Reservoirs and connects San Mateo with Half Moon Bay. The vegetation patterns found within the Project Area include mixed conifer forest and oak woodland as well as areas of grassland, coastal scrub and chaparral and riparian corridors.

Constructed in the 1960s, the Interstate I-280 or Junipero Serra freeway corridor extends about 50 miles from San Jose to San Francisco. Widely recognized for its scenic quality and aesthetic design, the highway generally conforms to the corridor’s natural topography as it gently winds through rolling grasslands, woodlands and forested ridgeline slopes. Intermittent views of surrounding scenery including lakes and distant mountains punctuate the freeway corridor landscape. Motorists’ views are enhanced by graceful roadway curves and grade-separated travel ways designed to optimize the roadway’s fit with the natural terrain and to eliminate the view of on-coming traffic. Through careful selection of materials and design treatment, the bridges, guardrails and other roadway structures built within the corridor have been designed to blend with the surrounding natural landscape. In the Project Area three scenic vista points and a rest area provide landscape viewing opportunities for I-280 motorists.

The Project route parallels the I-280 corridor for much of its overhead alignment, appearing in foreground, middle ground and/or distant views. Photographs showing representative I-280 motorists’ views of the Project route are presented on Figures 8-3i and 8-3n. As demonstrated by the photos, the existing 60 kV overhead transmission line facility is an established feature within the I-280 corridor landscape. In the Project Area, the I-280 corridor lies in the Crystal Springs Reservoir watershed. Within the watershed lands, views from the I-280 freeway generally encompass natural appearing scenery. At the same time however, motorists’ views include built elements such as bridges and substations. Existing residential and commercial development located beyond the watershed lands can also be seen from portions of the corridor.

In addition to the Watershed lands and the I-280 corridor, several distinctive landscape features including the Edgewood County Park and the Filoli Estate are found in the Project Area. These landscape elements are delineated on Figure 8-1 and discussed briefly in terms of their visual character and their relationship to the Project route in Subsection 8.2.4.

8.2.2 Landscape Units

The Project viewshed is generally defined as the area from which the Proposed Project would be visible. To some degree, existing tree cover and topographic features provide screening of Project facilities from many locations within the vicinity. However, the Proposed Project would be visible from surrounding locations including places along the I-280 freeway corridor and within the San Francisco Peninsula Watershed Lands as well as from portions of Edgewood Park and residential areas located east of I-280. Distant viewpoints from which the Project would be visible include places near Sweeny Ridge and the Highway 92/35 vista point.

From much of the Project viewshed, it is anticipated that views of the Project would be at least partially screened by existing trees and landform. As with the existing 60 kV transmission facility, many of the proposed lattice towers would be seen against a landscape backdrop. Subsection 8.2.4 provides descriptions of representative views and viewing conditions along the route. Selected photographs are included to document these existing visual character and viewing conditions. Figure 8-2 shows the photo viewpoint locations. The visual character photographs are presented in Figures 8-3a through 8-3u.

Visual details generally become apparent to the viewer when they are seen in the “foreground”, at distances of about one-quarter to one-half mile or less (Smarden 1986). Three distinct sub-areas or landscape units have been identified in order to document and describe the foreground viewshed with respect to the proposed Jefferson-Martin Project. Table 8-1 describes these landscape units beginning at the south end of the study area. Figure 8-2 depicts their location in relationship to the Project route and surrounding landscape features. The southernmost landscape unit, S-1, encompasses portions of Edgewood Park and the Pulgas Ridge Open Space Preserve as well as a segment of the I-280 corridor, Edgewood Drive and Cañada Road. Landscape Unit N-1, the middle and largest unit, includes the rift valley landscape with woodland chaparral and rolling grassland sloping up to the east from the I-280 corridor where residential development follows the ridges. In this landscape unit the Lower Crystal Springs Reservoir and Crystal Springs Golf Course lie to the west of I-280 with wooded hillsides rising up to the Sawyer and Cahill Ridges. The northernmost landscape Unit, N-2, includes the end of the rift valley that slopes up to Sweeney Ridge on the west as well as watershed lands surrounding San Andreas Lake. In this unit stands of pine and Eucalyptus enclose the I-280 corridor with ridge residential development to the east and open areas of grassland and chaparral to the north along Skyline Boulevard.

TABLE 8-1
Segment 1 Study Area Landscape Units

Landscape Unit	Project Milepost	Location and Landscape Description
S-1	MP 0 - MP 5	<p>Edgewood Park to Highway 92 along the I-280 corridor</p> <p>Open rolling grassland, chaparral, and oak woodland east of I-280 includes Edgewood Park and Pulgas Ridge Open Space.</p> <p>West of I-280 , oak woodlands and the rift valley of the San Andreas fault.</p> <p>Rises to the west with redwood forest in the canyons up to Kings Mountain.</p> <p>Includes Upper Crystal Springs Reservoir and watershed lands.</p>
N-1	MP 5 - MP 11.5	<p>Highway 92 to Trousdale Drive along the I-280 corridor</p> <p>Rift valley with oak woodland, chaparral and rolling grasslands slopes up to Pulgas and Buri Buri Ridges east of I-280.</p> <p>Residential development follows the ridges.</p> <p>Watershed lands including oak woodlands, open grasslands and stand of pine slope from I-280 and Crystal Springs Golf Course to Lower Crystal Springs Reservoir.</p> <p>Wooded hillsides with redwood, fir and pine rise west up to Sawyer and Cahill Ridges</p>
N-2	MP 11.5 - MP 14.7	<p>Trousdale Drive to Skyline Drive at San Bruno Avenue</p> <p>Northern end of the rift valley slopes up to Sweeney Ridge on the east.</p> <p>Watershed lands including oak woodlands and chaparral slope around San Andreas Lake.</p> <p>Stands of pine and eucalyptus enclose the I-280 corridor and ridge residential development open areas of grassland and chaparral north along Skyline Boulevard.</p>

8.2.3 Affected Viewer Groups

Accepted visual assessment methods, including those adopted by federal agencies, establish sensitivity levels as a measure of public concern for changes to scenic quality (FHWA 1988 and BLM 1980). Viewer sensitivity, typically divided into high, moderate, and low categories, is among the criteria employed for evaluating visual impacts and their degree of significance. The factors considered in assigning a sensitivity level include viewer activity, view duration, viewing distance, adjacent land use, and special management or planning designation. Research on the subject suggests that certain activities tend to heighten viewer awareness of visual and scenic resources, while others tend to be distracting. For example recreational activities tend to favor attention to scenery while working at a construction site does not. In general, the degree of visual impact tends to be more substantial where the sensitivity of affected viewers is highest.

A variety of concerned viewer groups exist within the Project vicinity. Table 8-2 summarizes the primary viewer groups, their expected level of sensitivity to visual change, and respective relative use volumes according to the three landscape units.

As indicated in the table, Junipero Serra/I-280 Freeway motorists are by far the largest affected viewer group within the overall Project viewshed. This viewer group includes commuters and local and regional travelers. View duration for the freeway motorists is relatively short, lasting less than a half-minute for an individual transmission tower or a total of about 12 to 14 minutes for the entire overhead portion of the Project. Due to the roadway’s notable scenic quality and its State Scenic Highway designation, viewer sensitivity for I-280 motorists is considered high. Based on I-280 traffic volume information, one can assume that on a daily basis more than 100,000 motorists would see the Project from I-280 compared to about 2,500 local roadway motorists. It is anticipated between 150 and 500 recreational trail users would also view the Project daily.

TABLE 8-2
Summary of Major Potentially Affected Viewer Groups

Landscape Unit	Primary Viewer Group	Viewer Sensitivity	Relative Number of Viewers
S-1	Edgewood Park Trail Users	High	Moderate
	Watershed Trail Users	High	Moderate
	I-280 Motorists	High	Very High
	Edgewood Road Motorists, Pedestrians, Bicyclists	Moderate - High	Moderate
	Cañada Road Motorists, Pedestrians, Bicyclists	Moderate - High	Moderate
	Filoli Estate Visitors	High	Low
	Pulgas Water Temple Site Visitors	High	Low
N-1	Watershed Trail Users	High	Moderate
	I-280 Motorists	High	Very High
	Highway 92 Motorists	Moderate-High	Moderate
	Cañada Road Motorists, Pedestrians, Bicyclists	Moderate - High	Moderate
	Crystal Springs Road	Moderate - High	Moderate
	Residents near Lexington Ave, Black Mountain Road	High	Low
N-2	Watershed Trail Users	High	Moderate
	Crystal Springs Golf Course Users	Moderate-High	Moderate
	Sweeney Ridge Trail Users	Moderate-High	Moderate
	I-280 Motorists	High	Very High
	Skyline Blvd Motorists, Pedestrians, Bicyclists	Moderate-High	Moderate
	Residents near Sneath Lane	High	Low

Recreational open space trail users are an affected viewer group found within all three of the landscape units. Activities in these areas include hiking/bicycling, bird-watching, and

viewing scenery. View duration for these recreational activities tends to be relatively long. Table 8-3 indicates the number and location (by milepost) of transmission poles and towers located within approximately 500 feet of existing recreational trails.

Another affected viewer group found in all three of the landscape units includes motorists, bicyclists and pedestrians traveling on locally designated scenic routes. As indicated on Table 8-2, this viewer group's sensitivity is moderate to high while their relative number is moderate. Residents who occupy hillside residential areas are potentially affected viewers in Landscape Unit N-1 and N-2. Viewer sensitivity of this group is considered high whereas the overall number of residential viewers is relatively low in comparison with the other potentially affected viewer groups. As shown on Table 8-4, approximately 28 transmission poles and towers are located within 250 feet of existing residences.

TABLE 8-3
Segment 1 Transmission Towers and Poles Located within 500 feet of Recreation Trails

	Ex. structure #	New structure #	MP
Edgewood Park Trails			
Clarkia Trail	0/2A ²	0/1 ³	0.1
	0/3	-0/2	0.2
Serpentine Loop Trail and Ridgeview Trail	0/5 and 0/6 ¹	0/4 and 0/5 ¹	0.5 and 0.8
Watershed Trails			
Cañada Trail	0/2A and 0/3	0/2	0.1 and 0.2
	4/23 and 4/24	3/22 and 4/23	4.0 and 4.3
Ralston Trail	4/23 and 4/24	3/22 and 4/23	4.0 and 4.3
Crystal Springs Trail	4/24	4/23	4.3
Sawyer Camp Trail	11/72 and 11/73	11/72 and 11/73	11.5 and 11.6
	11/74	11/74	11.8
	11/75	11/75	11.9
San Andreas Trail	11/76 ¹ and 12/77 ¹	12/76 ¹ and 12/77 ¹	12.1 and 12.2
	12/78 ¹ and 12/79	12/78 ¹ and 12/79	12.4 and 12.6
	12/80	12/80	12.7
	12/81 ¹ and 12/81A ¹	12/81 ¹ and 12/82 ¹	12.9 and 13.0
	12/82 ¹ and 12/83	13/83 ¹ and 13/84	13.2 and 13.4
	13/84 and 13/85	13/85 and 13/86	13.6 and 13.7
	13/86 and 13/87	13/87 and 13/88	13.9 and 14.0
13/88	13/89 ¹	14.1	

¹ These structures/towers are located within approx. 100 feet of existing trails.

² These structures are wooden poles and will be removed.

³ This structure will be located within the existing fence line of the substation.

TABLE 8-4
 Segment 1 Transmission Towers and Poles Located within 250 feet of Residential Areas

Residential Area	Ex. structure #	New structure #	MP
Lexington Ave./Bunker Hill Dr.	5/28 ¹	5/28 ¹	5.3
	5/29 ¹	5/29 ¹	5.4
	5/30 ¹	5/30 ¹	5.6
	5/31	5/31	5.7
	6/32 ¹	5/32 ¹	5.9
	6/35	6/35	6.5
	6/35A & 6/35B6/35a	6.5	
Lakeview Dr.	6/36 ¹	6/36 ¹	6.6
	6/38	6/38	7.0
Wedgewood Dr./Black Mountain Rd.	7/39 ²	7/39 ²	7.1
	7/41	7/41	7.5
Darrell Rd./Carolands Substn.	7/42	7/42	7.7
	7/43	7/43	7.7
	7/44 ¹	7/44 ¹	7.9
	7/45 ¹	7/45 ¹	8.0
	7/46 ¹	8/46 ¹	8.1
	8/47 ¹	8/47 ¹	8.2
	8/48 ¹	8/48 ¹	8.4
Skyline Blvd. (between Summit Dr. and Hillsdale Dr.)	8/49	8/49	8.6
	8/50	8/50	8.7
	8/51	8/51	8.8
	8/52 ¹	8/52 ¹	8.9
Skyline Blvd. (between Summit Dr. and Hillsdale Dr.)	9/63	10/63	10.1
	10/64 ¹	10/64 ¹	10.2
	10/65 ¹	10/65 ¹	10.3
	10/66	10/66	10.5
	10/67	10/67	10.6
	10/68	10/68	10.7

¹ These structures are located within approx. 100 feet of residences.

² The existing structure will be removed from a residential backyard. The new structure is proposed to be placed within 100 feet of residences.

8.2.4 Visual Character of Segment 1- Project Route

The Segment 1 OH portion of the Project follows an existing transmission line corridor through a landscape of primarily undeveloped open space. This portion of the Project extends 14.7 miles from the Jefferson Substation located along the I-280 corridor, south of Edgewood Road to the proposed transition station at Skyline Boulevard and San Bruno Avenue. Approximately 100 existing transmission towers and poles are situated along the Segment 1 Project route. Of these existing structures, all but about six lie within Peninsula Watershed lands, five are within Edgewood County Park. About 85 lie within one-quarter mile of the I-280 corridor.

A description of the area's landscape character is provided below by Project milepost. The text makes reference to 78 photographs, presented in Figures 8-3a through 8-3u. Figure 8-2 shows the photo viewpoint locations. Appendix D summarizes the visual character photo locations and approximate viewing distances to the closest Project component seen in each photo.

MP 0: Jefferson Substation Site- Landscape Unit: S-1

The transmission line replacement planned for Segment 1 will begin at the existing Jefferson Substation. Situated along Cañada Road at the southwestern edge of Edgewood Park, the 5-acre Jefferson Substation occupies a relatively flat area that is surrounded by native trees and scrub and grassland. The transmission substation receives 230 kV power from Monta Vista Substation into a 55-foot-high 230 kV single bus structure. Within the substation, the 54-foot-high 230 kV transformer bank feeds into a 60 kV yard. Four 60 kV transmission lines exit the station from a 40-foot- high 60 kV bus structure. A one-story control building (approximately 30 feet by 36 feet) and paved parking area are located within the fenced area as well. The surrounding landscape is predominantly undeveloped natural wooded hillside and grass lands, with the exception of the transmission facility, the freeway and local roadways. Enclosed by an approximately 8-foot-high chain link fence, the substation is generally screened from public view; however, when visible, portions of the substation appear against a backdrop of wooded and grass-covered hillside. Partially screened views of the substation are available from a short segment of southbound I-280, from places along Cañada Road and Trail and from areas within Edgewood Park (Photos 1, 2, 3, Figure 8-3a).

MP 0 to MP 5: Transmission Line- Landscape Unit: S-1

As it extends north from the substation, the transmission line traverses the western boundary of Edgewood Park for almost one mile. Edgewood Park, owned and managed by San Mateo County, is a 467-acre open space comprised of natural woodland and rolling grasslands. The Park's acreage includes serpentine grassland valued for its ecological habitat. From the many places along the trail system in Edgewood Park, expansive panoramic views of the surrounding landscape are available. Figures 8-3a and 8-3b present views from areas in the Park where the route is visible. As seen from Edgewood Park, the existing transmission towers and overhead line appear prominently along the skyline (Photo 4 and 5) and against the landscape backdrop (Photos 6 and 7) in foreground and middle ground views.

Near MP 1 the transmission line crosses Edgewood Road and enters Peninsula Watershed lands, where it continues along the Watershed's boundary with the Pulgas Ridge Open

Space Preserve for almost one half mile. The Pulgas Ridge Open Space Preserve, managed by the San Mateo County Parks and Recreation District, includes 3 miles of recreational trails that traverse the Preserve's natural canyon and meadow landscape. Views of the Project are available from some places along Hassler Trail in the Open Space Preserve. From here, the Project appears against a hillside landscape backdrop at a distance of about one half mile away (Photo 8). Views looking east from Edgewood Road, show the existing 60 kV transmission line's appearance along the skyline as it leaves Edgewood Park and enters Watershed land (Photos 10 and 11- Figure 8-3c). These two photos were taken from less than one-quarter mile and about a one-half mile away from the Project, respectively. At approximately MP 1.4 the Project route crosses to the west side of the I-280 corridor. Photo 32 is a view looking toward the existing transmission towers and overhead freeway crossing as seen from southbound I-280, approximately one-quarter mile north of the Project (Figure 8-3i).

Between MP 1.4 and MP 4.5 the route traverses Watershed lands within the Scenic and Recreation Easement area on the west side of the I-280 corridor. As indicated on Figure 8-2, the route in this area is setback from I-280 and runs roughly parallel to Cañada Road, a designated scenic route. The Project's setback from Cañada Road varies from about 200 feet to one-half mile. This portion of the route lies near public recreation trails located within the Watershed. In addition two national historic sites, the Filoli Estate and the Pulgas Water Temple, are located in the Project vicinity.

The Pulgas Water Temple, located along Cañada Road near the southern end of the Upper Reservoir, demarcates the termination of the 150-mile Hetch Hetchy Aqueduct which originates in the Sierra Nevada. The Water Temple was designed in 1910, by Willis Polk, a prominent Bay Area architect of the era. The site is linear in layout and consists of a Classical style rotunda or "temple" structure and a raised circular planter, with a rectangular, cypress-tree-lined pool that connects the two circular features. From the west, a taller row of trees and open water channel lead to the temple. Views from the Water Temple are generally enclosed by vegetation; however, from some places partially screened vistas encompass coastal Mountains to the west and grassy hillsides to the east. Photos 12-14 show views at the Pulgas Water Temple site (Figure 8-3d). Currently closed for the construction of water treatment facility improvement, the Water Temple will reopen to the public in early 2004 (SF Public Utilities Commission).

At milepost 2 the route passes about one-half mile to the east of the Filoli Estate. The Estate is situated on a 700 acre-parcel located west of the I-280 corridor, off of Cañada Road and was originally developed between 1915 and 1921 by William Bowers Bourne, who owned the Spring Valley Water Company. Currently owned by the National Trust for Historic Preservation, the Filoli Estate includes the historic Willis Polk-designed house and surrounding acreage of formal gardens. The grounds and first floor of the house are open to the public from mid-February through October, with house and nature tours available by special arrangement (Filoli Center, no date).

In some locations along Cañada Road north of Edgewood Road views of the Project are screened by intervening topography and vegetation. However, from Cañada Road near the entrance to the Filoli Estate several existing transmission towers appear prominently in the foreground (Photo 15, Figure 8-3d). Photo 19 is a view taken from the parking area of the Filoli Estate, looking east toward the Project (Figure 8-3e). From here, two towers are visible

along the skyline, seen near the center of the photo at a distance of about one-half mile away. Photos 16, 17 and 18 are views taken from within the Filoli garden area that is open to the public. As demonstrated by these photos, when seen from the gardens and the house, views of the Project are generally screened by intervening vegetation and terrain. Appendix D is a diagram of the Filoli house and gardens showing the viewpoint locations for these photos.

Several photos represent typical trail viewing conditions in the near the Project route. Photos 20 through 23 are views of the Project seen from the Ralston and Sheep Camp recreation trails located within the Watershed lands (Figure 8-3f). Photo 27 is a view taken from the Crystal Springs Trail near Highway 92 (Figure 8-3h). Photos 20 through 22 and 27 show close range views (less than one-quarter mile) of the transmission towers seen along the skyline whereas Photos 23 shows a view of the Project seen from a distance of about one-quarter and one-half mile away against a landscape backdrop. As indicated in the photos, the existing 60 kV transmission facility is an established element within the Watershed landscape. The photos also illustrate the degree to which the transmission towers and overhead line are considerably less noticeable and appear more integrated with the surrounding landscape when seen against a landscape backdrop.

This segment of the Project route is also partially visible from three scenic roadway vista points. Photo 24 is taken from east-side I-280 vista point (Figure 8-3g). Photo 26 is a panoramic view looking northwest from the west side I-280 vista point at a distance of about one-half mile from the Project. From here, several towers appear against a landscape backdrop near the center of the photo. Photo 28 is a more distant view of the Project taken from the Skyline Boulevard/Highway 92 vista point at a distance of approximately 1.5 miles away (Figure 8-3h). From here, the Project is not particularly evident against the landscape backdrop.

MP 5 to MP 11.5: Transmission Line- Landscape Unit: N-1

At MP 4.5 the Project route crosses I-280 , where it extends for approximately 5 miles through Watershed land along the east side of the freeway corridor. Photo 33 shows a view of the route crossing the freeway corridor as seen from southbound I-280, about one-quarter mile north of the Project (Figure 8-3i). In addition to the existing transmission towers and overhead conductors, other built elements seen in this view include tubular steel light standards and the freeway overcrossing structure.

The Project route crosses Highway 92 at MP 4.9, then continues north within Watershed lands, where it passes on the west side of the Hillcrest Juvenile Hall and the Ralston Substation. Photo 29 through 31 show views of the route from places along Highway 92 where the existing transmission towers appear against the skyline (Figure 8-3h and Figure 8-3i). Photo 30 encompasses the Ralston Substation as seen from the Highway 92 to I-280 ramp. Photo 31, a panoramic view from westbound Highway 92, includes the overhead Project route crossing in the foreground as well as light poles, highway signs and freeway flyover ramps seen with the mountains in the backdrop.

Near MP 5.5, the route continues through Watershed lands where it lies immediately west of existing single family residential rear yards located in The Highlands Area of San Mateo. Photos 35 and 36 are views of the Project route from the residential area along Lexington

Avenue, a residential street, looking toward the Project (Figure 8-3j). Views from here encompass the existing residences, landscaping and tubular steel poles supporting distribution lines in the foreground with portions of the existing lattice tower seen from a distance of about one-quarter mile away. Photo 37 is a view of the Project from the Watershed lands looking toward the backyards of the Lexington Avenue residences. As shown in this photo, intermittent dense tree plantings partially screen residential views of the Project. Photo 34, taken from northbound I-280 shows a view toward the transmission line and the Hillsdale Junction Substation, located at MP 6.7. From here, motorists' views of the substation are screened by intervening terrain and vegetation.

From approximately MP 7 to MP 8.3 the route continues through Watershed lands where it passes between the I-280 corridor and an existing single family residential area located in Hillsborough. Approximately 28 existing transmission towers are located within 250 feet of existing homes along this portion of the Project. At about MP 7.7, the I-280 Junipero Sera Rest Area is located on a knoll along the east side of the freeway corridor. In addition to a large statue of Father Junipero Sera (Photos 42, Figure 8-3l), the rest area includes parking and rest room facilities, landscaping and a vista point. Panoramic views of the surrounding landscape are available from places within the rest area. Photo 43 is a view from the Rest Area looking south toward the Project. Photos 44 and 45 are views of the Project taken on the east side of I-280 near the rest area.

Photos 46 through 49 are views from the hillside residential area located within the vicinity of Black Mountain Road in Hillsborough (Figure 8-3m). As shown in the photos, foreground views from this area encompass existing residences and mature landscaping as well as tubular steel poles supporting distribution lines and the Project lattice towers. To varying degrees, existing vegetation screens views of the Project from this area.

The route continues on the east side of the I-280 corridor, running parallel to Skyline/Frontage Road until it reaches the Carolands Substation, at approximately MP 8.8. Photo 38, taken from northbound I-280, is a view looking northeast toward the Project and the existing hillside residences in Hillsborough (Figure 8-3k). In this area, the roadway is on a bridge structure as it crosses the steep gorge on which the Crystal Springs Dam and Substation are built. From here the existing transmission line and towers appear against a landscape backdrop, immediately to the east (right) of the roadway. The Crystal Springs Dam is an interlocking concrete block structure located on San Mateo Creek above the Lower Crystal Springs Reservoir. Considered the largest concrete dam in the world when it was built in 1888, it was designated an Historic Civil Engineering Landmark in 1976 (SF PUC). Photo 40 is a view from the south end of Sawyer Camp Trail looking southeast toward the dam and the Project. The view from northbound Skyline Boulevard in this vicinity encompasses the Crystal Springs Substation and a portion of the award-winning I-280 Doran Bridge, seen respectively near the center and right side of Photo 39.

As the Project route crosses to the west side of I-280, at approximately MP 9, it enters the Crystal Springs Golf Course, where it is a visible element within the golf course landscape. Photos 50 and 51 portray views of the route's freeway crossing seen from northbound and southbound I-280 respectively (Figure 8-3n). Within this area views from the freeway are generally enclosed by dense vegetation that occurs on both sides of the roadway. From here, the upper portions of the transmission towers are visible against the skyline in the foreground. At approximately MP 9.1 the route enters the Crystal Springs Golf Course, a

public 18-hole golf course and club house facility. Photos 54 through 57 show views of the Project route as it passes through the golf course parking lot, putting green, fairway and driving range areas (Figure 8-3o). As indicated by the photos, the existing 60 kV transmission facility is an established feature within the golf course landscape. Currently the golf course portion of the route includes a combination of lattice towers and lattice poles.

North of the golf course the route again crosses I-280, then follows a narrow open space area situated between the east side of I-280 and a residential area situated along the ridgeline. In this portion of the route, near MP 10, dense vegetation lines the both sides of the I-280 roadway, screening Project views from the hillside residential area. As shown in Photo 52, this vegetation also provides a backdrop for the lower portions of towers visible in foreground views (Figure 8-3n).

MP 11.5 to MP 14.9: Transmission Line- Landscape Unit: N-2

At approximately MP 11 the route makes its final freeway crossing to the west side of I-280. From here it follows the eastern shore of the San Andreas Reservoir until leaving Watershed land at MP 14.7. Photo 53 shows a view of the northernmost freeway route crossing as seen from northbound I-280 (Figure 8-3n). Within the northern area of the watershed, the existing 60 kV transmission facility includes a combination of tubular steel poles (Photo 60), lattice poles (Photo 62) and lattice towers (Photo 61). Foreground and the distant views of the Project route from places along the Sawyer Camp and San Andreas Trails are portrayed in Photos 58 through 61 (Figure 8-3p). From approximately MP 11 to 14, the route runs parallel to Skyline Boulevard on the west side of the roadway. With the exception of several poles (verify), it is generally not visible from the I-280 corridor. As seen from Skyline Boulevard, the existing lattice poles appear in the foreground against a partial landscape backdrop (Photos 64 and 65, Figure 8-3q). This portion of the Project route can also be seen from the residential area situated near Sneath Lane and Earl Avenue in San Bruno. As seen from this residential area the existing towers appear along the skyline at a distance of about one half mile or more (Photos 66 and 67). At San Bruno Avenue, near MP 14.7, the route crosses to the east side of Skyline Boulevard and enters the transition station site where it continues northward as an underground facility.

MP 14.7: Transition Station Site- Landscape Unit: N-2

The transition station site is an undeveloped grass-covered parcel bordered on three sides by public roadways: San Bruno Avenue on the south, Skyline Boulevard on the west, and Glenview Drive on the east. The site's terrain is terraced and rises to the northwest. As shown in Photos 70 and 72, views toward the site from Skyline Boulevard are partially screened by roadside vegetation (Figure 8-3s). Views of the site are available from places along San Bruno Avenue and Glenview Drive (Photo 71). The closest homes to the transition station site are situated more than 300 feet away to the north on Glenview Drive and are generally oriented northward, in the opposite direction of the transition structure site. As demonstrated in Photo 69, views toward the site from these residences are generally screened by the rise in topography (Figure 8-3r). An existing church and associated parking lot also lie to the north on the opposite side of Glenview Drive. Situated across Glenview, immediately to the east is a vacant gas station property. Photo 68 is a view looking north from Glenview Drive.

Distant Vista Points- Sweeney Ridge, Cahill Ridge and the Skyline Boulevard Highway 92 Overlook

Distant views of the Project route are available from places along the ridges located to the west of the Project Area. This area includes GGNRA, San Mateo County Parks and San Francisco Watershed trails as well as the Highway 92/35 scenic overlook and Skylawn Memorial Gardens cemetery. Photos 73, 74 and 75 show distant views of the Project Area from the GGNRA Sweeney Ridge trail, the Sneath Lane trail leading up to Sweeney Ridge, and the Bay Discovery Site at a ridge high point. Ridge trails in the San Francisco Watershed are not currently open to the public except by special arrangement (Bay Area Ridge Trail Council 2002). However, a section of the planned Bay Area Ridge Trail would pass through this area along Cahill and Fifield Ridges (San Mateo County Trail Plan 1999). The planned trail would continue south of Highway 92 along Skyline Blvd. and Phleger (GGNRA) to meet the existing Skyline Trail at Huddart County Park. Dense vegetation and topography may limit views towards the Project Area along this route. Distant views of the Project Area from Cahill and Fifield Ridges are shown in photos 76 and 78. Along much of Cahill Ridge views toward the Project Area are limited by vegetation (photo 77). Photo 28 shows a distant view of the Project Area from the Highway 92/35 scenic overlook. Views similar to photos 28 and 78 are available from the Skylawn Memorial Gardens cemetery just north of the Highway 92/35 scenic overlook. From these ridgeline locations, the Project route is seen against a landscape backdrop at a distance of about 1.25 to 2 miles.

8.2.5 Summary of Adopted Plans and Policies

As described in Chapter 5, Land Use and delineated on Figure 5-1, the overhead portion of the Jefferson Martin Project lies primarily within the San Francisco Public Utilities San Francisco Watershed and unincorporated lands of San Mateo County. However, the Project route also includes areas within or near the Cities of San Bruno, Burlingame, and the Town of Hillsborough. These jurisdictions have adopted various plans articulating goals and policies regarding utility lines and scenic resources. Table 8-5 provides a summary of adopted policies that pertain to visual quality the Project Area.

Designated Scenic Routes

Jurisdictions in the Project Area including the State of California and San Mateo County provide special recognition and protection for public travel routes that afford outstanding views of scenic vistas, natural landscape features, historical sites and attractive or distinctive urban development. Figure 8-1 delineates the locations of these scenic route in relationship to the Proposed Project route.

The State Scenic Highways program, a provision of the Streets and Highways code, was established to preserve and enhance the natural beauty of California (Caltrans 1999). In the Project Area, Interstate 280/Junipero Sera Freeway and State Route 35/Skyline Boulevard are designated State Scenic Highways. Locally-designated scenic routes in the Project Area include Cañada Road, Skyline Boulevard and San Bruno Avenue. Table 8-6 provides a summary of the designated scenic routes that may be affected by the proposed transmission Project.

TABLE 8-5
Project Route Segment 1- Public Policies Pertaining to Visual Quality

Agency	Document	Policy/Designation (page number)
City of San Bruno	-General Plan-1984 Zoning Ordinance , City Municipal Code, Chapter 12,	San Bruno Ave. is a scenic corridor from Skyline Blvd. to El Camino Real, p. 138 (refer to Table 8-6) C-N zoning (applies to transition station site) Minimum building setback: 15 feet from the street with a minimum or 10-foot setback for corner lots. Minimum fence setback: 25 feet from street corner
City of Burlingame	General Plan	OS(C): Preserve the important vistas, such as the hillside leading to the Skyline Ridge as seen from the Bay plain, and the Bay as seen from the hillside (p. OS-5)
City of San Francisco Public Utilities Commission (PUC)	Draft Peninsula Watershed Plan	Policy WA6: All proposed alignments shall undergo a scenic impact analysis (p. 4.10-2) Policy WA22B: Proposals for new facilities, structures, roads, trails, Projects and leases, or improvements to existing facilities shall be designed, sited, constructed, and maintained to blend with the natural landscape and conform with the goals and policies set forth in the Watershed Management Plan. (p. 4.10-6) Action des5 (Phase A, Letter E): Eliminate, wherever possible, the use of unpainted metallic surfaces and other sources that may cause increased levels of reflectivity. (p. 5.20-4) Figure 1-6: Peninsula Watershed lands are encumbered by a Scenic Easement and a Scenic and Recreation Easement (p.1-14) . Taken together, the Scenic and Scenic and Recreation Easements cover virtually all of the SF-PUC Peninsula Watershed lands and include roughly 19,000 acres in the Scenic Easement and 4,000 acres in the Scenic and Recreation Easement. The Scenic Easement and Scenic and Recreation Easement place certain restrictive covenants that are intended to preserve the watershed lands as open space, consistent with certain rights of the City and County of San Francisco, PG&E, and others, including the rights of the City and County of San Francisco to use or permit others to use watershed lands for utility purposes (see Subsection 5.2 in Chapter 5, Land Use).
San Mateo County Planning & Building Division County Office Building	General Plan 1986	Policy 4.20: Utility Structures Minimize the adverse visual quality of utility structures, including roads, roadway and building signs, overhead wires, utility poles, T.V. antennae, windmills and satellite dishes. (4.4P) Policy 4.21: Scenic Corridors Protect and enhance the visual quality of scenic corridors by managing the location and appearance of structural development. (4.4P) Policy 4.39: Scenic Roads Give special recognition and protection to travel routes in rural and unincorporated urban areas which provide outstanding views of scenic vistas, natural landscape features, historical sites and attractive urban development. (4.9P) Refer also to Designated

TABLE 8-5
Project Route Segment 1- Public Policies Pertaining to Visual Quality

Agency	Document	Policy/Designation (page number)
		<p>Scenic Route discussion and Table 8-6 below.</p> <p>Goals and Objectives 4.63: Utilities in State Scenic Corridors - ...c. Consider exceptions where it is not physically practical due to topographic features; however, utilities should not be substantially visible from any public road or developed public trail. (4.17P)</p> <p>Also, <i>Skyline Blvd. from SF to Santa Clara Co. is a State and County Scenic Road – (Table 4-6 on page 4.13P)</i>. (refer to Table 8-6)</p> <p>Goals and Objectives 4.64: Utilities in County Scenic Corridors - ...b. Consider exceptions for certain circumstances including, but not limited to, financial hardship, topographic conditions or land use conflicts. (4.17P)</p> <p>Goals and Objectives 4.65: Large Scale Power Transmission Lines - Encourage PG&E to mitigate the adverse visual impact created by large scale power transmission lines. (4.18P)</p> <p>Subchapter 9.4 Protect and enhance the unique scenic quality and pastoral character of rural lands.</p> <p>POLICY 9.36</p> <p>Provide structural, auditory and other buffering mechanisms to protect portions of the public recreation lands that are used by the public from nonrecreational uses.</p>
<p>San Mateo County Environmental Services Agency Planning and Building Division</p>	<p>Zoning Ordinance July 1999</p>	<p>Section 6324.2 Site Design Criteria</p> <p>a) Development shall be located, sited and designed to carefully fit its environment so that its presence is subordinate to the pre-existing character of the site.</p> <p>b) All roads, buildings and other structural improvements shall be located, sited and designed to fit the natural topography.</p> <p>h) The development shall employ colors and materials which blend in with, rather than contrast with, the surrounding soil and vegetative cover of the site</p> <p>i) Wherever possible, vegetation removed during construction shall be replaced</p>

Note: Under the California Constitution and CPUC General Order 131-D, the siting of all electric transmission facilities are within the exclusive jurisdiction of the CPUC. Therefore, no local agency has discretionary authority over the Jefferson-Martin Project, and these local requirements are not binding on the CPUC or PG&E. Nonetheless, the policies/designations discussed herein may be relevant to the CPUC's analysis of potential impacts under CEQA.

TABLE 8-6
Summary of Designated Scenic Routes in Project Study Area

Designated Scenic Route (Location) ¹	Responsible Agency	Visible portion of Project Route ²
Junipero Sera Freeway (I-280) (Millbrae to Santa Clara Co.)	California Dept. of Transportation (Caltrans)	MP 0 - MP 13.5
Junipero Sera Freeway (I-280) (SF to San Bruno)	San Mateo County	MP 13 - 15
Cañada Road	San Mateo County	MP 0 - 6
Crystal Springs Road	San Mateo County	MP 7
Edgewood Road	San Mateo County	MP 1
Skyline Boulevard (SR 35) (SF to Highway 92)	San Mateo County	MP 5 - 15
Skyline Boulevard (SR 35) (Highway 92 to Santa Cruz Co.)	California Dept. of	MP 5 - 6
Highway 92	San Mateo County	MP 5 - 6
San Bruno Avenue (Skyline Blvd. to El Camino Real)	City of San Bruno	MP 14 - 15

¹ Location of roadway segment that is designated as scenic.

² Generalized portion of Segment 1 Project route that can be seen at a distance of up to 1 mile (by Milepost).

8.3 Impacts

8.3.1 Significance Criteria

To determine the significance of the anticipated changes, the Project's effects were evaluated in light of the direction provided by the revised CEQA Guidelines. Appendix G of the Guidelines indicates that a Project will have a significant effect on the environment 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
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area

In applying these criteria to determine significance, a variety of factors were taken into account including the extent of Project visibility from residential areas and designated scenic routes, the degree to which the various Project elements would contrast with or be integrated into the existing landscape, the extent of change in the landscape's composition and character, and the number and sensitivity of viewers. Project conformance with public policies regarding visual quality was also taken into account.

As part of the aesthetic impact evaluation of the Jefferson-Martin 230 kV Transmission Project, visual simulations were produced using computer modeling and rendering techniques. The visual simulations are based on Project data provided by PG&E Project engineers. A description of the technical methods used for producing the computer-generated simulation images is contained in Appendix D.

Presented in Figures 8-4 through 8-21, the simulations illustrate the appearance of Proposed Project features from 18 representative public viewing locations:

TABLE 8-7
Visual Simulation Viewpoint Locations

1) Edgewood County Park (Figure 8.4)
2) Cañada Trail near Filoli Estate (Figure 8.5)
3) Ralston Trail and Cañada Road south of Highway 92 (Figure 8.6)
4) Transmission line crossing (near Milepost 1.5) north of Jefferson Substation from southbound Interstate 280 (Figure 8.7)
5) Transmission line crossing (near Milepost 5) south of Highway 92 from southbound Interstate 280 (Figure 8.8)
6) Residences on Lexington Avenue near Bunkerhill Road (Figure 8.9)
7) Rest Area on east side of Interstate 280 south of Hayne Road (Figure 8.10)
8) Residences at Hayne Road and Black Mountain Road (Figure 8.11)
9) Residences on Wedgewood Avenue (Figure 8.12)
10) Transmission line crossing (near Milepost 9) north of Golf Course Blvd/Hayne exit from northbound Interstate 280 (Figure 8.13)
11) Crystal Springs Golf Course parking lot (Figure 8.14)
12) Crystal Springs Golf Course fairway and last hole (Figure 8.15)
13) Sawyer Camp Trail (Figure 8.16)
14) San Andreas Trail (Figure 8.17)
15) Skyline Boulevard south of San Bruno Avenue (Figure 8.18)
16) Sweeny Ridge Trail at Bay Discovery Site looking east (Figure 8.19)
17) Transition station site from northbound Skyline Boulevard at San Bruno Avenue (Figure 8.20)
18) View of Jefferson Substation from Cañada Trail looking north (Figure 8.21)

8.3.2 Project Appearance

A detailed description of the Proposed Project is provided in Subsection 2.3 including an overall layout of the Project components for Segment 1, and substation layout plans (Figures 2-15 and 2-16). Key aspects of the Project's physical appearance are briefly outlined below.

8.3.2.1 Transmission Towers, Poles and Conductors

Segment 1 OH of the Project includes replacing 14.7 miles of existing transmission towers or poles and overhead line with new, taller towers or poles and overhead line. The following

table summarizes the proposed tower and pole replacements. As indicated in Table 8-8, the Proposed Project would include a combination of lattice towers and tubular steel poles whereas the existing transmission facilities include a small number of wood poles near the Jefferson Substation, one tubular steel pole on Watershed land and a combination of lattice towers and lattice poles along the route. The proposed tower and pole heights would range from about 75 to 151.5 feet compared to existing heights that range from about 55 to 141 feet. The proposed lattice are estimated to range from 34 to 40 feet squared at the base compared to the existing lattice steel towers which have base dimensions of about 21 by 21 feet to 35 by 35 feet to 31 by 3 feet. The diameter of proposed tubular steel replacement poles will be from 4 to 8 feet at the base and tapers to 1.5 to 2 feet in diameter at the top.

A five-foot high extension may be required for the existing structures between existing tower 14/96 and the Sneath Lane Substation. In light of the presence of existing towers, this change is a minor incremental effect, not highly noticeable, and therefore, less than significant. No mitigation would be required.

TABLE 8-8
Summary of Existing and Proposed Transmission Poles and Towers

	Existing Number	Height	Location	Proposed Number	Height	Location
Wood Pole	2	55-60 ft	MP 0	0	NA	NA
Tubular Steel Pole	1	81 ft	MP 12.5	32	75-140 ft	MP 0, 2.6, 6.5, 7.1-8.2, 8.8-9.8, 10.1-10.4, 13.0-13.4, 14.1-14.6
Lattice Tower	72	71.5-141 ft	MP 0.2-6.8, 11-14	67	95-151.5 ft	MP 0.2-2.5, 2.9-7.3, 7.9, 8.4-9.0, 9.9-13.1, 13.6-13.9, 14.9
Lattice Pole	27	58-99 ft	MP 7.5-8.6, 9.5-10, 14-14.9	1	75	MP 14.8
Total	103			100		

Source: Black and Vetch (September 2002).

The exterior materials to be used for proposed structures would be galvanized gray steel. Figures 2-7, 2-8, and 2-9 present elevation drawings of typical lattice tower and tubular steel poles proposed for the Project including the conductor configuration for each of the structure types. With the exception of substations (as described below), no additional nighttime lighting is proposed along the Project route. The Project will utilize nonspecular conductors. On the western side of the towers, the conductors will be 1.2 inches in diameter; on the eastern side, they will be 0.85 inches in diameter.

Removal of a limited number of trees and shrubs will be necessary at some of the new structure locations. A summary of the existing vegetation at each of the structure locations is

provided in Chapter 6, Biological Resources. Specific vegetation removal will be dependent on final engineering design and placement of the tower.

8.3.2.2 Transition Station

Figure 2-14 shows a site plan layout and an elevation drawing of the transition station facility. As indicated on the layout plan, the transition structures would be situated on the southern portion of the site, setback 25 feet from Glenview Drive and more than 50 feet from San Bruno Avenue. Access to the facility would be via Glenview Drive. The tallest component of the transition station, the take-off structure, would reach about 37 feet in height. An 8-foot-high masonry wall would enclose an area approximately 80 by 100 feet, containing the transition station including all proposed facilities and equipment. As part of the Proposed Project, broad leaf evergreen trees placed about 20 to 25 feet apart would be planted along a portion of the site's San Bruno Avenue and Glenview Drive frontage. A similar tree planting would also be installed on the west side of the masonry wall (except directly underneath the lines), to screen views of the Project from Skyline Boulevard. Figure 8-20 portrays the proposed transition station as seen from Skyline Boulevard including the perimeter wall and landscaping. The visual simulation depicts the proposed trees along the south and east street frontages at approximately 22 feet in height to reflect a landscape maturity level of about 8 to 10 years.

8.3.2.3 Substation Improvements

Physical modifications are proposed at two of the existing substations and one existing switchyard located within Segment 1 of the Proposed Project route, and four substations outside Segment 1. The proposed physical changes to these are described briefly below and in detail in PEA Subsection 2.3.5.

Small, downcast safety lighting will be mounted on the new equipment at the substations as necessary for safe personnel movement around the equipment at night. At the transition station, similar downcast safety lighting may be installed within the enclosure walls for safe egress at the control building at night. With respect to proposed new or replacement structures, the exterior materials to be used would include non-reflective metal.

Jefferson Substation

Located next to Cañada Road about one mile south of Edgewood Road, Jefferson Substation would require the following modifications. Selected existing equipment would be removed and replaced with similar size substation equipment. Minor adjustments to the existing fence line would also be made, which could require the replacement of the existing chain link fence with new fencing of the same height and material. Subsection 2.3.5.1 describes the major substation modifications associated with this substation, including relocation of one tower, away from the roadway.

Ralston Substation

Modifications at this substation include upgrading the high-side bus, and replacing two existing lattice steel structures with H-frame dead-end structures approximately 35 feet high. These structures will connect to a new steel pole along the southern border of the substation.

Hillsdale Junction Switchyard

Modifications here consist of the addition of a single pole (no arms) between the tower and the switchyard, on the far side of the switchyard from the residences to the east.

Martin Substation

At the north end of the Project, the Martin Substation will undergo installation of a new transformer bank and bus, and slight relocation of several existing poles. As can be seen in Figure 2-16, Martin substation, these modifications occur within the substation footprint away from viewers towards the back of the property.

San Mateo, Millbrae, and Monta Vista Substations

Three additional substations, San Mateo, Millbrae, and Monta Vista will undergo modifications to equipment that will not be visible to observers.

Because the physical modifications proposed at the existing substations and switchyard are relatively minor and because the existing facilities within the substations are not highly visible to the public, the substation changes would not be highly noticeable when seen from the surrounding vicinity. The resulting visual effects would therefore be less than significant.

8.3.2.4 Taps

Given the similarity of the existing and replacement tap features and because the existing facilities are not highly visible to the public, the changes would not be highly noticeable to the public and would result in less than significant visual effects.

8.3.2.5 Access Roads and Laydown Areas

As detailed in Subsection 2.5.2.2, Construction Activities and Methods, the Project includes minor extensions of existing access roads along the Segment 1 portion of the Project route. The extensions would involve minor land and vegetation disturbance. In addition, pull sites and staging areas will be required for materials and equipment during Project construction. The pull sites and staging areas would generally occur along existing access roads or on previously disturbed undeveloped locations.

Because the access road extensions would be relatively minor in terms of modifications to existing facilities and because they would generally occur in areas that are not highly visible to the public, it is anticipated that the changes would not be particularly noticeable to the public and would result in less than significant visual effects. Given the temporary nature and brief duration of activities at the laydown areas, the effects would be short-term and less than significant.

8.3.3 Construction Impacts

Construction-related visual impacts could result from the presence of equipment, materials, and work crews along the transmission line routes, at the substations modified on Segment 1, and at the transition station. Although these effects are relatively short-term and are considered to be a less-than-significant impact due to their temporary nature, they would be seen by the public from some locations and would be most noticeable to local residents and recreationalists in the area. PG&E will make efforts to keep construction activities as clean and inconspicuous as practical by storing building materials and

equipment away from public view and by removing construction debris promptly at regular intervals. Implementation of Mitigation Measure 8.1 will reduce the impact to a less-than-significant level.

Construction-related impacts would also result from minor grading and vegetation disturbance. These effects could appear to contrast with the existing, natural appearing landscape and may be noticeable to local residents, motorists and recreationalists in the area. Implementation of Mitigation Measures 8.2 and 8.3, and Mitigation Measure 6.5, Revegetation Plan, will restore the temporarily disturbed landscape to existing conditions and thus reduce the effects to a less-than-significant level.

8.3.4 Operation Impacts

8.3.4.1 Overview

Changes in the appearance of the Segment 1 Project Area would result from the replacement of the existing 60 kV towers and overhead conductors with somewhat larger 230 kV towers and overhead conductors. The primary anticipated visual effects associated with the Project can be attributed to the perceived difference in scale and somewhat higher visibility of the new larger 230 kV transmission towers compared with the existing transmission towers and poles that currently occupy the route. Changes in the route's appearance would also occur along portions of the route where taller tubular steel poles would replace the existing lattice steel poles. In general, the changes would be most noticeable in foreground views, particularly at close range, when the replacement poles or towers are seen along the skyline. The effects would be apparent from some locations along I-280 and local roadways, places along recreational trails and within limited residential areas in the Project vicinity. Additional changes would result from the introduction of a new transition station and the modification of several of the existing substations including Jefferson Substation located at the edge of Edgewood Park. However, the overall number of visible replacement towers and poles would be about the same as the number of transmission structures currently seen by the public along the Segment 1 OH Project route.

A set of 18 visual simulations portray representative public views of the Project as seen from a range of distances and varied viewing conditions. The visual impacts associated with these changes are summarized in Table 8-9. The table also references a set of mitigation measures designed to reduce the Project's visual impacts to less-than-significant levels. The mitigation measures are described fully in the Subsection 8.4. The evaluation presented in Table 8-9 indicates that replacement towers and poles would appear more prominent when seen from some locations. However, given the existing 60 kV transmission facilities' presence within the Segment 1 Project route and the incorporation of mitigation measures described in Subsection 8.4, the Project would not result in significant visual impacts. In specific CEQA terms, the Project's replacement of the existing transmission line facilities with slightly larger structures would not "result in a substantial, demonstrable negative effect" for the following reasons.

1. It would not obstruct or substantially affect a scenic vista,
2. The Project involves a minor amount of grading and vegetation removal and therefore would not substantially damage scenic resources including trees, rock outcroppings, water or topographic features found within the I-280 corridor, a state scenic highway.

3. It would not substantially degrade the existing visual character or quality of the site and its surroundings.
4. Because no new lighting is proposed along the route and because new and replacement structures would be treated in a non-reflective finish, the Project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

8.3.4.2 Visual Impact Assessment

Visual impacts for Segment 1 during Project operations are summarized in Table 8-9. There are no permanent visual impacts in the remaining segments, since the transmission line will be underground.

8.4 Mitigation Measures

Construction

Mitigation Measure 8.1: Storage and Site Cleanup. (Mileposts 0 to 14.7). PG&E will keep construction-related activity as clean and inconspicuous as practical by storing building materials and equipment within the proposed construction staging areas or generally away from public view and removing construction debris promptly at regular intervals.

Mitigation Measure 8.2: Recontouring. (Mileposts 0 to 14.7). Recontouring of disturbed, graded areas at the structure, substation and tap locations will be implemented to provide a natural appearing landform upon completion of construction.

Mitigation Measure 8.3: Revegetation. (Mileposts 0 to 14.7). Revegetation at the structure, substation and tap locations using methods that are consistent with Edgewood County Park or SFPUC Watershed resource management practices as appropriate will be implemented to restore the landscape's natural appearance. See also Biological Resources Mitigation Measure 6.5.

Operation

Mitigation Measure 8.4: Edgewood Park. (Mileposts 0 to 1). In order to reduce their potential to appear visually prominent from locations along Edgewood Park recreation trails, PG&E shall, in consultation with San Mateo County Parks and Recreation, install site specific plantings of native tree and/or shrub plantings as appropriate at key locations between the trails and those proposed replacement towers located in the immediate foreground of views from trails to partially screen views of the Project. Selected plant material shall be appropriate to the Edgewood Park setting and shall conform to the County's vegetation management policies for the Park.

Mitigation Measure 8.5: Watershed Trails. (Mileposts 3.3 to 4.3 and 11 to 14.1). In order to reduce the Project's potential to appear visually prominent as seen from the San Francisco Watershed public recreation trails PG&E shall, in consultation with the San Francisco PUC Resource Management staff, install site specific native tree and/or shrub

TABLE 8-9
Summary of Aesthetic Impacts During Project Operation- Segment 1

Impact – Mileposts Landscape Unit(s) Viewing Area	Character Photos/ Simulations	Aesthetic Effects Significance
Segment 1-Transmission Line		
Impact 8.1 – MP 0- MP 13 Landscape Unit S-1, N-1 I-280 Motorists' Views	<p><u>Photos</u></p> <p>1, 32-34, 38, 44, 50-53</p> <p><u>Simulations</u></p> <p>Figure 8-7</p> <p>Figure 8-8</p> <p>Figure 8-9</p> <p>Figure 8-14</p>	<ul style="list-style-type: none"> • The proposed replacement towers would appear similar but somewhat taller and slightly larger in scale compared with the existing transmission towers located along the Project route. Refer to Visual Simulations- Figures 8-7, 8-9, and 8-14. Where visible in the foreground along the skyline, the replacement towers and overhead line could appear somewhat more prominent from this scenic corridor, particularly when seen at close range distances of less than 1,000 feet. • When seen in the foreground along the skyline the replacement towers situated at freeway crossings (MP 1.5, MP 5, MP 9, MP 10.5 and MP 11) would appear more prominent and more noticeable than the existing transmission towers and conductors seen from this scenic corridor. Refer to Visual Simulations- Figures 8-7 and 8-8. • As seen from the I-280 corridor, the overall number of visible replacement towers would be the same as the number of existing towers that are currently visible. The replacement towers would not result in additional blockage of scenic vistas that are currently available from I-280. <p>Given the presence of the existing transmission facility and the relatively brief duration of affected views, these visual changes would be minor incremental effects that would not substantially alter the overall visual character and quality of the scenic freeway corridor. However, the effects could be significant because the Project lies within a designated state scenic corridor and the replacement towers would be more noticeable from some points along the roadway and due to the I-280 corridor's high level of existing visual quality, and the very high number of affected viewers.</p> <p>The incorporation of Mitigation Measures 8.6 and 8.15 would reduce the level of overall Project visibility. In conjunction with Measure 8.7, this reduced visibility would reduce the visual impacts to less than significant.</p>
Impact 8.2 – MP 1.5- MP 3.5, MP 7.7 Landscape Units S-1, N-1 I-280 Vista Point and Rest Area Views	<p><u>Photos</u></p> <p>24-26, 42, 43</p> <p><u>Simulation</u></p> <p>Figure 8-16</p>	<ul style="list-style-type: none"> • As seen from the vista points located on the east and west sides of I-280 the replacement towers would appear against a landscape backdrop. The new towers would look similar to the existing transmission towers in terms of their height, scale and general appearance. Refer to Photos 24, 25, and 26. • As seen in foreground views from the I-280 Rest Area located on the east side of I-280, the replacement tubular pole and tower would look slightly taller and larger in scale compared with the existing transmission towers. The replacement structures would be partially screened by

TABLE 8-9
Summary of Aesthetic Impacts During Project Operation- Segment 1

Impact – Mileposts Landscape Unit(s) Viewing Area	Character Photos/ Simulations	Aesthetic Effects Significance
<p>Impact 8.3 – MP1.5–MP5, MP11.5-MP14 Landscape Units S-1, N-1, and N-2 Watershed recreational trail views</p>	<p><u>Photos</u> 2, 9, 11, 15, 20,-23, 27, 40, 58-61</p> <p><u>Simulations</u> Figure 8-5 Figure 8-6 Figure 8-16 Figure 8-17 Figure 8-19</p> <p>2, 9, 11, 15 21-23</p> <p>Cañada Trail, Sheep Camp Trail,</p>	<p>existing vegetation; however the new structures and overhead line would appear somewhat more prominent when seen along the skyline from this location. The tubular transmission pole would appear similar in form to the existing flag pole and light standard seen at the edge of the rest area parking lot. Refer to Visual Simulation- Figure 8-10, Photos 42 and 43.</p> <ul style="list-style-type: none"> • It is anticipated that the number of visible replacement towers seen from the I-280 vista points and rest area would be the same as the number of visible existing towers. <p>Overall given the presence of the existing transmission facility, the changes seen from the I-280 Vista Points and the Rest Area would be minor incremental effects that would not substantially diminish the area’s existing landscape character or quality. The Project would not result in substantial alteration or obstruction of the panoramic landscape vistas that are currently available to the public from these locations.</p> <p>The visual impacts would be less than significant.</p> <ul style="list-style-type: none"> • Overall, the proposed replacement towers would be similar in appearance but somewhat taller and larger in scale compared with the existing transmission towers located along this portion of the Project route. As seen in foreground views from some places along the trails, the replacement towers would appear more prominent than the existing towers, particularly where the towers skyline and/or they are seen at very close range. Refer to Visual Simulations- Figures 8-5, 8-6, and 8-16. • At some locations, a taller tubular steel pole would replace an existing lattice tower. When seen in foreground views, the replacement tower would appear somewhat more prominent. Refer to Visual Simulation Figure 8-17. • As seen from the Watershed recreation trails, it is anticipated that the number of visible replacement towers would be the same as the number of existing towers that are currently seen from the trails. <p>In light of the existing transmission facility’s presence, the changes would be minor and would not substantially diminish the overall character or quality of views that are currently available to the public from most places along the Watershed recreation trails where the Project is visible. However, when viewed from close-range distances of less than 500 feet, the increased visual prominence of approximately 12 replacement towers could diminish the quality of the area’s landscape character. (Refer to Mitigation Measure 8.5).</p>

TABLE 8-9
Summary of Aesthetic Impacts During Project Operation- Segment 1

Impact – Mileposts Landscape Unit(s) Viewing Area	Character Photos/ Simulations	Aesthetic Effects Significance
Ralston Trail, Crystal Springs Trail, Sawyer Camp Trail, and San Andreas Trail	20 27 40, 58, 59 60, 61	Due to the high level of scenic quality and viewer sensitivity, the visual effects would be significant. However, Mitigation Measures 8.5 and 8.15 would lessen the Project’s visibility to some degree and, when implemented in conjunction with Measure 8.7, the impact would then be less than significant.
Impact 8.4 – MP 0- MP 1.5 Landscape Unit S-1 Edgewood County Park Trail Views	<u>Photos</u> 3 - 7 <u>Simulation</u> Figure 8-4	<ul style="list-style-type: none"> • The proposed replacement towers would be similar in appearance but somewhat taller and larger in scale compared with the existing transmission towers located within and/or visible from Edgewood Park. As seen in foreground views from some places along the trails, the replacement towers would appear more prominent than the existing towers, particularly where the towers skyline. Refer to Visual Simulation Figure 8-4. • It is anticipated that the number of visible replacement towers seen from Edgewood Park would be generally the same as the number of visible existing towers. <p>Given the presence of the existing transmission facility, the changes would be minor and would not substantially diminish the character or quality of views that are currently available to the public from most places within the Park where the Project is visible. However, when viewed from close-range distances of less than 500 feet, the increased visual prominence of two replacement towers could diminish the quality of the landscape character in the immediate vicinity.</p> <p>Due to the high level of scenic quality and viewer sensitivity, the visual impacts would be significant. However, implementing Mitigation Measures 8.4 and 8.15 would lessen the Project’s visibility to some degree. Therefore, the impact would be less-than-significant level.</p>
Impact 8.5 – MP 1 to MP 1.5 Landscape Unit S-1 Pulgas Ridge Open Space Trail Views	<u>Photos</u> 8	<ul style="list-style-type: none"> • As seen from the Pulgas Ridge Open Space (at a viewing distance of one half mile away) the replacement towers would be partially visible along the skyline and would look similar to the existing transmission towers in terms of height, scale and general appearance. • It is anticipated that the number of visible replacement towers seen from the site would be generally the same as the number of visible existing towers. <p>In light of the existing transmission facility’s presence and the viewing distance, the changes would be minor and would not substantially affect the character or quality of the vistas that are currently available to the public.</p>

TABLE 8-9
Summary of Aesthetic Impacts During Project Operation- Segment 1

Impact – Mileposts Landscape Unit(s) Viewing Area	Character Photos/ Simulations	Aesthetic Effects Significance
The visual impacts would be less than significant.		
Impact 8.6 – MP 9 MP 11 Landscape Unit N-1 Crystal Springs Golf Course Views	<u>Photos</u> 54 – 57 <u>Simulation</u> Figure 8-14 Figure 8-15	<ul style="list-style-type: none"> • Taller tubular steel poles would replace the existing lattice pole and lattice tower structures. Although somewhat taller, the tubular steel pole design would appear slimmer in profile and less industrial in character than the existing transmission structures, particularly when poles are partially screened by vegetation. The effect would result in the new poles appearing somewhat more integrated with the golf course landscape. Refer to Visual Simulation Figure 8-15. <p>However, an exception would be the taller and larger lattice tower proposed to replace an existing lattice tower located at the edge of the putting green and parking lot areas. This replacement tower would appear noticeably more prominent when seen in the foreground. Refer to Simulation Figure 8-14 and Photos 54 and 55.</p> <ul style="list-style-type: none"> • It is anticipated that the number of visible replacement poles seen from the golf course would be generally the same as the number of visible existing lattice towers and poles currently seen. <p>Overall, given the presence of the existing transmission facility, these visual changes would be minor incremental effects that would not substantially alter the visual character and quality of the golf course landscape. However, the presence of a larger lattice tower structure situated at the edge of the parking area at the putting green could adversely affect the view quality in this area.</p> <p>Due to the high level of existing landscape quality and viewer sensitivity, the visual effect would be significant. The incorporation of Mitigation Measure 8.9 would reduce the level of the Project’s visual prominence and therefore the visual impact would be less than significant.</p>
Impact 8.7 – MP 2 Landscape Unit S-1 Filoli Estate Visitor Views	<u>Photos</u> 16 - 19	<ul style="list-style-type: none"> • As seen from the parking area of the Filoli Estate (about one half mile away), the proposed replacement towers would be similar in appearance but somewhat taller and larger in scale compared with the existing transmission towers. When visible from the parking area, the replacement towers would appear against a landscape backdrop or along the skyline and would look similar to the existing transmission towers in terms of their height, scale and general appearance. Refer to Photos 18 and 19. <p>In views from the Filoli house and gardens, the Project would generally not be visible. Refer to Photos 16 and 17.</p> <p>In light of the existing transmission facility’s presence and the viewing distance, the changes would be minor and would not substantially affect the landscape character or quality of the Filoli</p>

TABLE 8-9
Summary of Aesthetic Impacts During Project Operation- Segment 1

Impact – Mileposts Landscape Unit(s) Viewing Area	Character Photos/ Simulations	Aesthetic Effects Significance
		<p>Estate views that are currently available to the public.</p> <p>The visual impacts would be less than significant.</p>
<p>Impact 8.8 – MP 2.8 – MP 3 Landscape Unit S-1 Pulgas Water Temple Visitor Views</p>	<p><u>Photos</u> 12 - 14</p>	<ul style="list-style-type: none"> • The proposed replacement towers would be similar in appearance but somewhat taller and larger in scale compared with the existing transmission towers. Typically views of the Project would be screened by existing vegetation and terrain. When visible from the Water Temple site, the replacement towers would appear against a landscape backdrop or along the skyline. The new towers would look similar to the existing transmission towers in terms of their height, scale and general appearance. <p>The changes would be minor and would not substantially affect the character or quality of the views from the Water Temple site that are currently available to the public.</p> <p>The visual impacts would be less than significant.</p>
<p>Impact 8.9 – MP 5.3 – MP 6 Landscape Unit N-1 Hillside Residential Views near Lexington Avenue in San Mateo</p>	<p><u>Photos</u> 35 – 37</p> <p><u>Simulation</u> Figure 8-9</p>	<ul style="list-style-type: none"> • The proposed replacement towers would be similar in appearance but somewhat taller and larger in scale compared with the existing transmission towers. Due to their increased height and scale, the replacement towers would appear more prominent than the existing towers, particularly when seen at close range. Refer to visual simulation, Figure 8-9. • The number of visible replacement towers seen from this residential area would be the same as the number of visible existing lattice towers. <p>In light of the existing transmission towers' presence as well as the proximity of other existing overhead utility poles and conductors, these visual changes would not substantially alter the overall visual character of this residential area. However, due to the level of visual quality and the high level of residential viewer sensitivity, the Project's affect on close range views in the area could be significant.</p> <p>The incorporation of Mitigation Measure 8.11 would reduce the level of the Project's visual prominence and therefore the visual impact would be less than significant.</p>
<p>Impact 8.10 – MP 7 – MP 8.5 Landscape Unit N-1 Hillside Residential Views near Black</p>	<p><u>Photo</u> 46 - 49</p> <p><u>Simulation</u></p>	<ul style="list-style-type: none"> • Taller tubular steel poles would replace the existing lattice pole and lattice tower structures. Although somewhat taller, the tubular steel pole design would appear less industrial in character and more similar to the form of other existing utility poles seen in the vicinity compared to the existing 60 kV lattice transmission towers. Refer to Photos 46-49 and Visual Simulation Figure 8-12. Foreground views of the poles would generally be partially screened by vegetation and

TABLE 8-9
Summary of Aesthetic Impacts During Project Operation- Segment 1

Impact – Mileposts Landscape Unit(s) Viewing Area	Character Photos/ Simulations	Aesthetic Effects Significance
Mountain Road in Hillsborough	Figure 8-11 Figure 8-12	<p>residential buildings.</p> <ul style="list-style-type: none"> • Due to the mass of the tubular poles and their increased height, however, the replacement poles would appear more prominent than the existing towers when seen at close range in foreground views. Refer to Visual Simulation Figure 8-12. • At some locations the existing lattice towers would be replaced by somewhat taller, larger scale lattice towers. The proposed replacement towers would be similar in appearance but somewhat taller and larger in scale compared with the existing transmission towers. Due to their increased height and scale, the replacement towers would appear more prominent than the existing towers, particularly when seen at close range. Refer to visual simulation, Figure 8-11. • The number of visible replacement poles seen from this residential area would be the same as the number of visible existing lattice towers. <p>In light of the existing transmission towers' presence as well as the proximity of other existing overhead utility poles and conductors, these visual changes would not substantially alter the overall visual character of this residential area. Due to the level of landscape quality and the high sensitivity of residential viewers, the Project's visual prominence could substantially affect close range views in the area and thus result in a significant impact.</p> <p>The incorporation of Mitigation Measure 8.10 would reduce the level of the Project's visual prominence and therefore the visual impact would be less than significant.</p>
Impact 8.11 – MP 4.8 - MP 5-6 Highway 92 Motorists' Views	<u>Photo</u> 28-31	<ul style="list-style-type: none"> • The proposed replacement towers would be similar in appearance but somewhat taller and slightly larger in scale compared with the existing transmission towers located near Highway 92. • To some degree, when seen briefly in the foreground by westbound motorists, the two replacement towers situated at the highway crossing would appear somewhat more prominent from than the existing transmission towers and conductors. Refer to Photo 31. • The number of visible replacement towers seen from the highway would be the same as the number of visible existing lattice towers. <p>Given the presence of the existing transmission facility as well as other structural elements including the I-280 freeway overcrossing, light standards and signs, these visual changes would be minor incremental effects that would not substantially alter the visual character and quality of the highway corridor.</p>

TABLE 8-9
Summary of Aesthetic Impacts During Project Operation- Segment 1

Impact – Mileposts Landscape Unit(s) Viewing Area	Character Photos/ Simulations	Aesthetic Effects Significance
<p>Impact 8.12 – MP 0 – MP 7 Landscape Unit S-1, N-1 Motorists’, Pedestrian and Bicyclists’ Views from Cañada Road (MP 0-MP 6), Edgewood Road (MP 1), and Crystal Springs Road (MP 7)</p>	<p><u>Photos</u> 2, 9-11, 15, 20, 39, 41, 45 <u>Simulation</u> Figure 8-5 Figure 8-6 Figure 8-21</p>	<p>The visual impacts would be less than significant.</p> <ul style="list-style-type: none"> • The proposed replacement towers would appear similar but somewhat taller and slightly larger in scale compared with the existing transmission towers located along the Project route. Refer to Visual Simulations- Figure 8-6. Where visible in the foreground along the skyline, particularly at close range distances of less than 1,000 feet, the replacement towers and overhead line could appear somewhat more prominent from these scenic corridors. • As seen from these local scenic roadways, the overall number of visible replacement towers would be the same as the number of existing towers that are currently visible. <p>Overall given the presence of the existing 60 kV transmission facilities, the visual changes would be minor incremental effects that would not substantially alter the overall visual character and quality of the roadway corridors.</p> <p>The visual impacts would be less than significant.</p>
<p>Impact 8.13 - MP 11-MP 14 Landscape Unit N-1 Skyline Boulevard Views</p>	<p><u>Photos</u> 39, 41, 45, 64, 65 <u>Simulation</u> Figure 8-18</p>	<p>• Taller tubular steel poles would replace the existing lattice pole structures currently seen along the roadway.</p> <p>• Although existing roadside vegetation would provide some degree of screening, unobstructed foreground views of the taller poles structures would be seen from segments of this designated scenic roadway corridor. Due to their increased height and lesser ability to blend into the landscape backdrop the new tubular poles would appear more prominent than the existing lattice poles when seen in foreground views at close range.</p> <p>• As seen from Skyline Boulevard, the overall number of visible replacement towers would generally be the same as the number of existing towers that are currently visible. Refer to Photos and Visual Simulation Figure 8-18.</p> <p>Overall given the presence of the existing 60 kV transmission facilities, the visual changes would be minor incremental effects that would not substantially alter the overall visual character and quality of the roadway corridor when viewed from close-range distances, However, the increased visual prominence of the replacement poles could diminish the quality of the landscape character seen from the roadway.</p> <p>Due to the roadway’s scenic route designation, the effect could be significant. However, implementing Mitigation Measures 8.8 and 8.15 would lessen the Project’s visibility to a degree</p>

TABLE 8-9
Summary of Aesthetic Impacts During Project Operation- Segment 1

Impact – Mileposts Landscape Unit(s) Viewing Area	Character Photos/ Simulations	Aesthetic Effects Significance
<p>Impact 8.14 – MP 14 Landscape Unit N-2 Residential Views near Sneath Lane in San Bruno</p>	<p><u>Photos</u> 66, 67</p>	<p>sufficient to lower the impact to a level that is less than significant.</p> <ul style="list-style-type: none"> • The proposed replacement towers would be similar in appearance but somewhat taller and larger in scale compared to the existing transmission towers. The replacement towers would generally appear along the skyline and could look somewhat more prominent in views from this residential area. • The number of visible replacement poles seen from this residential area would be the same as the number of visible existing lattice towers. <p>In light of the existing transmission towers' presence, the viewing distance, and the proximity of other existing overhead utility poles and conductors, these visual changes would not substantially alter the overall visual character of this residential area.</p> <p>The visual impacts would be less than significant.</p>
<p>Transition Station Impact 8.15 – MP 14.7 Landscape Unit N-2 Motorists', Pedestrian and Bicyclists' Views from Skyline, San Bruno Avenue and Glenview Drive.</p>	<p><u>Photos</u> 68, 69, 70-72 <u>Simulation</u> Figure 8-20</p>	<ul style="list-style-type: none"> • The Project would introduce new industrial-appearing structural elements on a portion of the currently undeveloped site. Refer to Photos 70, 71, and 72. • The perimeter tree planting proposed as part of the Project would partially screen views of the transition station structures; however, portions of the proposed facility would be seen in the foreground views from places along San Bruno Avenue and Skyline Boulevard, two designated scenic routes. The Project would also be partially visible from places along Glenview Drive. Refer to Visual Simulation- Figure 8-20 and Photos 69 and 71. <p>Due to the roadways' scenic route designations, the effect could be significant. However, implementing Mitigation Measure 8.13 would lessen the Project's level of visibility. Therefore, the impact would be less-than-significant level.</p>
<p>Jefferson Substation Impact 8.16 – MP 0 Landscape Unit N-2 Edgewood County Park Trail Views</p>	<p><u>Photo</u> 3</p>	<ul style="list-style-type: none"> • The Project would introduce new structural elements and minor site modifications to an existing substation facility. Some existing substation and equipment and structures would be removed from the site. Some vegetation removal would occur along the edge of the site. <p>Given the presence of the existing substation facility and the proposed structure removal, as well as the existing vegetative screening, these visual changes would be minor incremental effects</p>

TABLE 8-9
Summary of Aesthetic Impacts During Project Operation- Segment 1

Impact – Mileposts Landscape Unit(s) Viewing Area	Character Photos/ Simulations	Aesthetic Effects Significance
		<p>that would not substantially alter the visual character and quality of the highway corridor.</p> <p>The visual impacts would be less than significant.</p>
<p>Impact 8.17 – MP 0 Landscape Unit N-2</p>	<p><u>Photo</u> 21</p>	<p>• The Project would introduce new structural elements and minor site modifications to an existing substation facility. Some existing substation and equipment and structures would be removed from the site. Some vegetation removal would occur along the edge of the site.</p>
<p>Motorists’, Pedestrian and Bicyclists’ Views from Cañada Road and trail</p>	<p><u>Simulation</u> Figure 8-21</p>	<p>Given the presence of the existing substation facility and structure removal, as well as the existing vegetative screening, these visual changes would be minor incremental effects that would not substantially alter the visual character and quality of the highway corridor. Removal of some existing vegetation and relocation of the fence along a portion of the site’s western perimeter would be noticeable. The fence could appear somewhat more prominent in views from this location. Refer to Visual Simulation- Figure 8-21. In addition, new substation equipment would be visible from some areas adjacent to the substation. Because of Cañada Road’s scenic route designation and due to the sensitive nature of trail views, these effects could be significant.</p> <p>Implementation of Measures 8.14 and 8.12 would provide partial screening and lessen the Project’s level of visibility to a degree sufficient to lower the impact to a level that is less than significant.</p>
<p>Impact 8.18 – MP 0 Landscape Unit N-2</p>	<p><u>Photo</u> 1</p>	<p>• The Project would introduce new structural elements to and minor site modifications to an existing substation facility.</p> <p>Given of the presence of the existing substation facility as well as the existing vegetative screening, these visual changes would be minor incremental effects that would not substantially alter the visual character and quality of the highway corridor.</p> <p>Implementation of Measures 8.14 and 8.12 would provide partial screening and lessen the Project’s level of visibility to a degree sufficient to lower the impact to a level that is less than significant.</p>
<p>Southbound I-280 Motorists’ Views</p>		
<p>Impact 8.19 – MP 13 Landscape Unit N-2</p>	<p><u>Photos</u> 73-78</p>	<p>• As seen from the Sweeny Ridge Trail (at a viewing distance of over one mile away) the replacement towers would be visible but barely noticeable against a landscape backdrop and would look similar to the existing transmission towers in terms of height, scale, and general appearance.</p>
<p>Sweeny Ridge/Sneath Lane Trail Views</p>	<p><u>Simulation</u></p>	

TABLE 8-9
 Summary of Aesthetic Impacts During Project Operation- Segment 1

Impact – Mileposts Landscape Unit(s) Viewing Area	Character Photos/ Simulations	Aesthetic Effects Significance
	Figure 8-19	<ul style="list-style-type: none"> • It is anticipated that the number of visible replacement towers seen from the trail would be generally the same as the number of visible existing towers. <p>In light of the existing transmission facility’s presence and the viewing distance, the changes would be minor and would not substantially affect the character or quality of the vistas that are currently available to the public. Refer to Visual Simulation Figure 8-19</p> <ul style="list-style-type: none"> • It is anticipated that the number of visible replacement towers seen from the trail would be generally the same as the number of visible existing towers. <p>Given the presence of the existing transmission facility and the viewing distance of over a mile, the changes would be minor and would not substantially diminish the character or quality of views that are currently available to the public from places along the trail where the Project is barely visible. Also, the incorporation of Measure 8.15 would reduce the Project’s potential mitigation visibility during its initial period of operation.</p> <p>The visual impacts would be less than significant.</p>

plantings at key locations between the trails and those proposed replacement towers located in the immediate foreground of views from trails to partially screen views of the Project. Selected plant material shall be appropriate to the Watershed setting and shall conform to the SFPUC Watershed vegetation management policies.

Mitigation Measure 8.6: Views from I-280. In consultation with the SFPUC Resource Management staff, PG&E shall install site-specific plantings to partially screen views of the proposed replacement towers that would be seen along the skyline in foreground views from I-280. The plant material will be native species appropriate to the Watershed lands and shall conform to the SFPUC Watershed vegetation management policies. The trees shall be placed so as to maximize screening effect and to generally preserve existing open landscape vistas.

Mitigation Measure 8.7: Enhancement of Views from I-280 and Watershed Trails. In consultation with the SF PUC Resource Management staff, PG&E shall selectively prune trees and shrubs and/or remove trees in order to enhance views and vistas seen from the I-280 corridor and key Watershed recreation trails. Pruning and tree removal implemented under this measure shall be consistent with existing SF PUC Watershed resource management plans and shall conform to SF PUC Watershed vegetation management policies.

Mitigation Measure 8.8: Skyline Boulevard. (Mileposts 14.0 to 14.7). Informal plantings of small trees and/or shrubs shall be installed intermittently at key locations along the west side of Skyline Boulevard in order to partially screen views of the proposed replacement poles. The plantings shall be spaced at sufficient intervals so as to allow intermittent open vistas toward the distant mountains. The plant material will be native species appropriate to the Watershed lands and shall conform to the SFPUC Watershed vegetation management policies. The plantings shall also be consistent with CPUC and PG&E regulatory and technical requirements for landscaping in proximity to transmission lines.

Mitigation Measure 8.9: Crystal Springs Golf Course. (Milepost 9.2). A tubular steel pole rather than a lattice tower shall be installed at the edge of the putting green and parking lot in Crystal Springs Golf Course.

Mitigation Measure 8.10: Black Mountain Road Area. (Mileposts 7.5 to 8.5). In order to reduce the proposed replacement poles' visibility as seen from the residential area near Black Mountain Road in Hillsborough, PG&E shall use replacement poles with a narrower diameter "slim profile" design to minimize their apparent mass. In addition, PG&E shall, in consultation with the SF PUC Resource Management staff, install site specific plantings within the utility easement or off-site at key locations in order to partially screen views of the replacement poles. Plant material shall be appropriate to the local landscape setting and shall conform to Hillsborough planning and design guidelines.

Mitigation Measure 8.11: Lexington Avenue Area. (Mileposts 5.3 to 6.0). In order to reduce the proposed replacement towers' overall visual impact as seen from the residential area near Lexington Avenue, PG&E shall install site specific plantings within the utility easement or off-site at key locations in order partially screen views of the replacement poles. Plantings may include street trees along Lexington Avenue or at specific residential properties. Selected plant material shall be appropriate to the local landscape setting and shall conform to local/County planning and design guidelines.

Mitigation Measure 8.12: Substation and Transition Station Glare. To minimize potential glare from the substations and the transition station, proposed structures at these sites, including fences, will be painted or finished with a non-reflective treatment.

Mitigation Measure 8.12.A: Substation and Transition Station Lighting. Exterior lighting at substations will include the use of non-glare light bulbs. Lighting fixtures will be located and designed to avoid casting light or glare on off-site locations.

Mitigation Measure 8.13. Transition Station Landscaping. (Milepost 14.7). In addition to the transition station landscaping proposed as part of the Project, PG&E shall install informal tree and shrub grouping intermittently along the west and north sides of the block wall in order to visually integrate the facility with the surrounding landscape and to screen potential views from Skyline Boulevard and the existing residences located to the north. Plant material shall be appropriate to the local landscape setting, shall conform to San Bruno planning and design guidelines and shall be consistent with CPUC and PG&E regulatory and technical requirements for landscaping in proximity to transmission lines.

Mitigation Measure 8.14: Jefferson Substation. (Milepost 0). PG&E shall install informal native plantings in order to reduce the visibility of the proposed modifications at the Jefferson Substation as seen from recreation trails and from Cañada Road. Plant material shall be appropriate to the local and Edgewood Park landscape setting and shall be consistent with CPUC and PG&E regulatory and technical requirements for landscaping in proximity to transmission lines. Recontouring of disturbed, graded areas will be implemented to provide a natural appearing landform upon completion of construction.

Mitigation Measure 8.15: Transmission Tower and Pole Finish. To minimize potential Project-related glare effects and to better integrate the Project's appearance with respect to the surrounding landscape during the initial period of 1 to 2 years following construction, PG&E shall specify a non-reflective/non-glare finish for all transmission poles and towers to be installed along Segment 1 of the Project route.

8.5 References

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Consultation Meetings and Personal Communication

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