

5. Environmental Analysis

5.1 Aesthetics

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

Significance criteria established by CEQA Guidelines, Appendix G.

5.1.1 Visual Inventory of Existing Conditions

Existing Landscape Setting and Viewer Characteristics

This section discusses the existing visual character of the region, existing visual quality in the project area, and potential viewer exposure to the proposed project.

Regional Context. The proposed project is just inside the northern border of the Town of Windsor, which has a population of approximately 26,000. It is located in the Santa Rosa Valley, between the Sonoma Mountains to the east and a series of coast ridges to the west. Many vineyards occupy the Santa Rosa Valley, as do grazing lands and other agriculture. Surrounding ridges are heavily forested and less developed than the valley floor. Highway 101 serves as the major north-south transportation corridor and is just east of the project. Windsor and the surrounding Santa Rosa Valley have grown rapidly in the last decade, resulting in a mixture of older homes and structures, some more than 100 years old, new subdivisions, industrial and commercial development, and agriculture. These varying land uses are interspersed, with development often directly abutting rural and agricultural areas.

The proposed project area is relatively flat, located between Highway 101 on the east and the railroad corridor on the west (see Figure 4-1, Project Overview Map). Nearby ridges and hills are partially visible in the background from some places within the general vicinity, but are not directly visible from the proposed project site. Industrial/commercial land uses located nearby along Old Redwood Highway include a building supply warehouse and an auto dismantler. Existing vertical elements in the landscape include wood pole power lines along Old Redwood Highway and overhead lighting poles associated with nearby industrial/commercial properties.

Proposed Substation Site. The substation site is bounded by Herb Road on the northwest, Old Redwood Highway on the northeast and east, rural residences on the north, a school bus yard on the southeast, and the railroad right-of-way and more rural residences to the west. See Figure 4-2 for an aerial view of the site and Figure 5.12-1 for residences near the substation site (identified as sensitive receptors). Both Herb Road and Old Redwood Highway afford relatively unobstructed, close-range views of the project site. The proposed substation property is zoned for Service Commercial (SC). Although currently vacant, it contains a remnant foundation and paving from its former industrial use. The site has only a few

scattered trees along the northern and western edges near Herb Road and the railroad; much of the site is covered with grasses and other weedy vegetation.

Project Viewshed

The project viewshed is the area from which the proposed project would be visible. The proposed substation would generally be visible only in the immediate foreground (0 – 300 feet) and foreground (300 feet to 1/2 mile) distance zones. Due to intervening landforms, vegetation, and structures, the site would be only intermittently visible at greater distances. As described below, the proposed project would be visible from some nearby locations along public roads, and the chief viewers would be passing motorists. A Class I hiking and bicycle trail is proposed along the rail corridor as part of the Sonoma-Marín Area Rail Transit (SMART) project and a Class II bike lane is proposed along Old Redwood Highway adjacent to the project site (Sonoma County 2008). Cyclists currently constitute a small viewer group, but both hikers and cyclists may become a larger group in the future. Visibility from nearby residential areas would be limited. Several existing overhead power lines, including those that would be upgraded as part of the proposed project, are existing landscape features in the vicinity of the proposed project site. Current nighttime lighting in the project area includes street lighting on nearby roadways. Figure 5.1-1 shows four photographs of the proposed substation site and vicinity. Figure 5.1-2 displays the photo viewpoints on a vicinity map.

Project Features

Proposed Substation. The substation site is 4.1 acres; the walled/fenced substation footprint would occupy 2.6 acres within the property. A 10-foot-high prefabricated concrete wall would border the north, east, and west sides of the 2.6-acre substation; chain link mesh fabric fencing would enclose the south side. Access to the substation would be from Old Redwood Highway.

The major project components and dimensions are summarized in Table 5.1-1. The tallest components within the substation property would be the dead-end structures, approximately 42 feet tall. The majority of the substation equipment would be 20 feet tall or lower. The equipment and structures within the substation would be neutral gray in color with a non-reflective finish. The substation components are described in further detail in Section 4.9.1 of the Project Description. The substation layout plan and a typical profile are shown in Figures 4-4 and 4-5.

Table 5.1-1. Approximate Dimensions of Major Project Components

Component (number of elements installed at ultimate build-out)	Height (ft)	Length (ft)	Width (ft)
Dead-end Structures (2)	42	32	1
Bus Structure Sections (6)	20	varies	18
Disconnect Switches (18)	20	18	7
Transformers (3)	18	18	16
Circuit Breakers (6)	15	12	10
Switchgear Enclosure (1)	12	75	18
Switchgear Enclosures (2)	12	28	18
Replacement weathered TSP (1 outside substation site)	75	—	—

— = Dimension not applicable

~~A final landscape plan and concrete wall design for the substation property would be developed during the final project design phase, and would incorporate input from the Town of Windsor, CPUC, and project engineers and security personnel. Although some screening exists around the site in the form of~~

~~mature trees, the final landscape plan would be designed to increase the amount of screening with respect to public views of substation facilities, to enhance the substation property's appearance, and to integrate the substation with its surroundings.~~

The conceptual landscape plan is provided as Figure 5.1-3. The new project landscaping would include ecologically appropriate species, including a mixture of native, deciduous and evergreen trees, such as valley oak and coast live oak (*Quercus lobata* and *Quercus agrifolia*). As indicated, PG&E will provide landscaping along Old Redwood Highway, Herb Road, and the railroad tracks. Conceptual plans include planting eight broadleaf evergreen trees, four coniferous trees, five deciduous trees, and 65 evergreen shrubs along the two roads and the railroad ROW. No trees would be planted under the overhead conductors on the southwest side of the site.

The 10-foot-high concrete wall would be earth-toned and set back from adjacent roads. Along Old Redwood Highway the setback would vary from 50 feet near Herb Road to nearly 150 feet at the southeast corner of the site, owing to a curve in the road. The wall would be set back at least 25 feet from Herb Road. These setbacks would allow for trees and other landscaping to be planted along these roadways. Two gates on the east side of the substation, facing Old Redwood Highway, would be designed to blend with the wall.

Security lighting ~~for surrounding~~ the substation would consist of sodium vapor lamps. On the south side of the substation, five lights would be mounted 9.5 feet above the ground with three located on the steel gantry structure and one between the transformer and switchgear. On the north side of the substation, there would be free-standing light poles, approximately 12 feet tall. On the switchgear enclosure, doors would have fixed lights. Exterior lighting would use of non-glare light bulbs. Lighting fixtures would be located and designed to avoid casting light or glare toward off-site locations.

Distribution Line Work. Distribution line work would require reconductoring of 9,420 feet of existing transmission line along Old Redwood Highway and rebuilding 7,900 feet of the Fulton No. 1 60kV line. On both lines, existing 45 foot tall wood poles would be replaced with wood poles approximately 20 feet taller. To connect the substation to the existing power line, an approximately 75-foot-tall weathered TSP would be installed west of the railroad, replacing an existing wood pole. Some underground work would be required for reconductoring along Old Redwood Highway. Additional details of the power line interconnection and distribution lines are described in Sections 4.9.3 and 4.9.4 of the Project Description.

Applicable Regulations, Plans, and Standards

The project is not within the viewshed of any designated or eligible State scenic highways; however, Highway 101 is identified by the Town of Windsor as a scenic corridor. Because the CPUC has exclusive jurisdiction over the siting and design of utility facilities, local governments have no discretionary authority over utility power line or substation projects. However, this aesthetics analysis considers public plans and policies related to visual quality that are locally applicable.

Town of Windsor General Plan 2015. The Town of Windsor General Plan 2015 (Plan) identifies views of the surrounding foothills, agricultural lands, open space areas and woodlands as scenic resources that should be preserved. Chapter 6, Environmental Resources, of the Plan contains provisions to preserve scenic resources and designates a number of roadways as Scenic Corridors, including nearby Highway 101. Additionally, the plan has some general goals for preserving riparian vegetation and mature trees in street designs.

Figure 6-3 in the Plan identifies Highway 101 as a scenic corridor. The Scenic Resources subsection states that "The Town should recognize the roads shown in Figure 6-3 as scenic corridors (also referred to as

scenic routes) which enhance the visual experience for Town residents and non-residents.” It further recognizes the worth of roads that “exhibit unusual natural or man-made features of interest, such as close-up to mid-range views of rock outcroppings, waterways, or oak woodlands.” The plan states that “development proposals along scenic corridors should not detract from the visual and recreational experience, but should seek to be harmonious and subordinate to the natural features that comprise the scenic viewshed. Components of project design that should be considered in making this assessment should include building height, massing, orientation, color, building materials, rooftop appurtenances, storage areas, signage, lighting, and landscaping.” The plan further requires that scenic views of surrounding hills be preserved and sound walls avoided if possible. The Town will review any project “along designated rural lanes and scenic corridors” to ensure it complies with the mandates above.

5.1.2 Environmental Impacts and Mitigation Measures

Visual Impact Assessment Methodology

This visual analysis used a Visual Sensitivity/Visual Change (VS/VC) methodology to assess the visual effects of the proposed project on existing landscapes (USDOT 2011). The VS/VC methodology includes a characterization of the visual sensitivity of existing landscapes, the characteristics of existing visual changes occurring and apparent in the landscape, and the characteristics of the proposed project.

Visual sensitivity consists of three components: viewer exposure, viewer concern, and visual quality. Landscapes that have very low viewer exposure (based on landscape visibility, the viewing distance, the number of people who view the landscape, or the duration of time that the landscape can be viewed) would tend to be less sensitive to overall visual change. **Visual change** describes the degree of actual visible change expected as a result of the project, and is rated on a scale of Low to Moderate to High. Project-induced visual change could result from aboveground facilities, vegetation removal, landform modification, component size or scale relative to existing landscape characteristics, and the placement of project components relative to developed features. The experience of visual change can also be affected by the degree of available screening, distance from the observers, and angle of view. The fundamental elements of visual change include visual contrast, visual dominance, and scenic view obstruction. Visual contrast refers to visual discrepancies of form, line, color or texture of the project against the existing landscape. Visual dominance refers to the degree to which this contrast would demand the attention of casual viewers. Scenic view obstruction refers to the degree to which the project would block or intrude upon scenic view corridors, particularly those identified in public policies.

Figure 5.1-1 shows the proposed substation site as seen from four Key Observation Points (KOPs), described below and shown by location in Figure 5.1-2. The existing view and visual simulation are shown in Figures 5.1-4A, 5.1-4B (visual simulation without landscaping), and 5.1-4C (visual simulation with landscaping). Because the distribution line work is updating existing landscape elements rather than creating new ones, KOPs were chosen for the substation only. Using these simulations and the VS/VC methodology, determination of the significance of aesthetic changes were made based on analyst experience and site-specific circumstances. Table 5.1-2 was used as a consistency check. For a visual impact to be considered significant two conditions generally exist: (1) the existing landscape is of reasonably high quality and is relatively valued by viewers; and (2) the perceived incompatibility of one or more elements or characteristics of the project tends toward the high extreme, leading to a substantial reduction in visual quality.

Table 5.1-2. Visual Impact Significance Criteria

Visual Sensitivity	Visual Change				
	Low	Low to Moderate	Moderate	Moderate to High	High
Low	No impact ¹	No impact	Less Than Significant ²	Less Than Significant	Less Than Significant
Low to Moderate	No impact	Less Than Significant	Less Than Significant	Less Than Significant	Less Than Significant with Mitigation Incorporated ³
Moderate	Less Than Significant	Less Than Significant	Less Than Significant	Less Than Significant with Mitigation Incorporated	Less Than Significant with Mitigation Incorporated
Moderate to High	Less Than Significant	Less Than Significant	Less Than Significant with Mitigation Incorporated	Less Than Significant with Mitigation Incorporated	Potentially Significant Impact ⁴
High	Less Than Significant	Less Than Significant with Mitigation Incorporated	Less Than Significant with Mitigation Incorporated	Potentially Significant Impact ⁴	Potentially Significant Impact

1 - No Impact – Impacts may or may not be perceptible but are considered minor in the context of existing landscape characteristics and view opportunity.

2 - Less Than Significant – Impacts are perceived as negative but do not exceed environmental thresholds.

3 - Less Than Significant with Mitigation Incorporated – Impacts are perceived as negative and may exceed environmental thresholds depending on project and site-specific circumstances, but are Less Than Significant with mitigation incorporated.

4 - Potentially Significant Impact – Impacts with feasible mitigation may be reduced to levels that are not significant or avoided all together. Without mitigation, significant impacts would exceed environmental thresholds.

VS/VC at Key Observation Points

The project site was investigated from numerous viewpoints from which sensitive receptors could see the site, including local streets and nearby residential areas. The analysis here is based on the Applicant’s Supplement to the PEA and Aspen Environmental Group’s site visit on October 19, 2011. Four vantage points were selected as key observation points (KOPs) for detailed analysis. These four KOPs provide typical and worst-case visual and aesthetic impacts of the proposed project. The locations of the KOPs (labeled in Figure 5.1-1 as “Viewpoints”) are:

¾ KOP-1: Old Redwood Highway – Looking North

¾ KOP-2: Old Redwood Highway – Looking West

¾ KOP-3: Herb Road looking south – Looking South

¾ KOP-4: Herb Road and NWPRR – Looking Southeast

KOP-1: Travelers on Old Redwood Highway – Looking North. KOP-1 was established on Old Redwood Highway near the Highway 101 off-ramp, looking north toward the proposed substation site. The

shoulders and lane lines of Old Redwood Highway and overhead electrical lines form moderately strong horizontal lines, and wooden utility poles interrupt the sky and constitute strong vertical lines. Mature oak and conifer trees are scattered along both sides of Old Redwood Highway and create open branching patterns in the foreground, and a backdrop of medium textured, dark green vegetative screening in the middleground and background. The school bus yard is partially visible among the roadside trees. This view is representative of views of northbound traffic on Old Redwood Highway. Visual impacts at this KOP would be less than significant.

Visual Sensitivity at KOP-1

- ^{3/4} **Viewer Exposure: low to moderate.** The substation site is moderately screened from view by vegetative features in this landscape, but some new vertical elements of the proposed substation would be visible in the foreground from KOP-1. The number of viewers at KOP-1 is moderate, as indicated in the Transportation and Traffic analysis in Section 5.16. Given the posted speed limits of 40 mph on Old Redwood Highway, the view duration for this group is relatively short—estimated at less than 30 seconds (approximately 700 feet). Therefore, viewer sensitivity is considered low to moderate.
- ^{3/4} **Viewer Concern: low-to-moderate.** Area residents can be expected to have low-to-moderate concern for visual impacts from the substation as seen from Old Redwood Highway because they are already subject to views of a mix of existing light industrial land uses, open spaces, rural/agricultural farms, and newly developing residential subdivisions in addition to the existing site fencing and disused condition.
- ^{3/4} **Visual Quality: low.** The primary focal point for this landscape is the row of trees along the west side of the road. A secondary focal point is the school bus yard. Two utility poles, both on the west side of Old Redwood Highway, create major vertical lines in this landscape. The ground plain of the proposed substation site is flat and has no interesting features. Visual quality of this landscape is low.
- ^{3/4} **Overall Visual Sensitivity: low-to-moderate.** For motorists traveling on Old Redwood Highway at KOP-1, the low-to-moderate viewer exposure, low-to-moderate viewer concern, and low visual quality lead to a low-to-moderate overall visual sensitivity.

Visual Change at KOP-1

- ^{3/4} **Visual Contrast: moderate.** From KOP-1, the new substation would be partially screened by existing vegetation and by new landscape trees, as shown in Figure 5.1-3 and 5.1-4C. The proposed substation would create horizontal and vertical lines at the perimeter concrete wall and chain-link fence, and new horizontal and vertical lines with the electrical equipment inside the substation. Upper elements in the substation (up to 42 feet high) would stand out against the skyline where they are not screened by foreground vegetation. Though it would be taller and potentially more noticeable than nearby structures, the change in scale would not substantially alter the existing visual character or landscape composition seen in this view. As seen from KOP-1, the new substation would have moderate visual contrast.
- ^{3/4} **Visual Dominance: low-to-moderate.** Though the project would be partially visible at a foreground viewing distance, the screening provided by existing trees and landscaping, and the neighboring school bus yard, results in a low-to-moderate visual dominance.
- ^{3/4} **Scenic View Obstruction: low.** The substation would not create any view blockage to any scenic features in the landscape.

³/₄ **Overall Visual Change: low-to-moderate.** With moderate visual contrast, low-to-moderate project dominance, and low view obstruction, overall visual change at KOP-1 would be low-to-moderate.

KOP-2: Travelers on Old Redwood Highway – Looking West. KOP-2 was established on Old Redwood Highway looking northwest toward the proposed substation site at an immediate foreground viewing distance. The proposed substation site is not screened from view at KOP-2 by existing features in the landscape. Wooden utility poles and mature conifers create strong vertical lines from this view point. Moderate horizontal lines include the shoulder of the road, lane lines, and overhead wires on the existing wooden utility poles. Similar to KOP-1, mature oak and conifer trees on either side of Old Redwood Highway create open branching textures. The backdrop is comprised of mature trees in the distance that form a medium textured, dark green vegetative screening. This view is representative of motorists' views looking northwest from Old Redwood Highway. Visual impacts at this KOP would be less than significant.

Visual Sensitivity at KOP-2

³/₄ **Viewer Exposure: moderate.** As seen from KOP-2, the substation site is not screened from view by any topographic or vegetative screening. The new vertical elements of the proposed substation would be visible in the foreground from KOP-2. The number of viewers on Old Redwood Highway is moderate and the duration of view would be brief because of the speed of travel. Therefore, viewer exposure is moderate.

³/₄ **Viewer Concern: low-to-moderate.** Area residents can be expected to have low-to-moderate concern for visual impacts from the substation as seen from Old Redwood Highway because they are subject on a daily basis to views of a mix of existing light industrial land uses, open spaces, rural/agricultural farms, and newly developing residential subdivisions.

³/₄ **Visual Quality: low.** The primary focal points for this landscape are the utility poles on the west side of Old Redwood Highway. Secondary focal points are created by the scattered trees that also protrude above the skyline. The ground plain of the proposed substation site is flat and has no interesting features. Visual quality of this landscape is low.

³/₄ **Overall Visual Sensitivity: low-to-moderate.** For motorists at KOP-2, the moderate viewer exposure, low-to-moderate viewer concern, and low visual quality lead to a low-to-moderate overall visual sensitivity of the visual setting and viewing characteristics of the proposed substation site.

Visual Change at KOP-2

³/₄ **Visual Contrast: moderate-to-high.** Without landscaping, the new substation would not be screened from view. The proposed landscape trees and proposed earth-colored concrete wall and wood entry gates would limit the substation's visibility from KOP-2. Substation switchgear enclosures and bus structures would be visible above the wall and between tree canopies. The proximity of the vegetation between the road and the substation would partially screen and breakup the visibility of these taller structures. As seen from KOP-2, the new substation would have moderate-to-high visual contrast.

³/₄ **Visual Dominance: moderate.** The project would be seen at an immediate foreground distance. However, given the few elements above the horizon, partial screening provided by landscaping, the wall, and the neighboring school bus yard, project dominance would be moderate as seen from KOP-2.

³/₄ **Scenic View Obstruction: low.** The substation would not create any view blockage to any scenic features in the landscape. Therefore, the proposed project would have low view impairment of the skyline and surrounding landscape scenery.

^{3/4} **Overall Visual Change: moderate.** Based on moderate-to-high visual contrast, moderate visual dominance, and low scenic view obstruction, the overall visual change at KOP-2 would be moderate.

KOP-3: Travelers on Old Redwood Highway – Looking South. KOP-3 was established on Old Redwood Highway at Bisacno Road looking south toward the proposed substation site. The proposed substation site is partially obscured by mature trees on the west side of the road. This is a foreground viewing distance. The existing wooden utility pole creates a strong vertical line against the medium textured, dark green vegetative screening and against the sky. Mature conifers and oaks create strong vertical lines and open branching textures. The shoulder of Old Redwood Highway, lane lines, and overhead electrical lines form moderate horizontal lines in this view. This view is representative of views from southbound traffic on Old Redwood Highway. Visual impacts at this KOP would be less than significant.

Visual Sensitivity at KOP-3

^{3/4} **Viewer Exposure: low-to-moderate.** The substation site is partially screened from view at KOP-3 by the mature vegetation along the roadside. The number of viewers on Old Redwood Highway is moderate, and the duration of view would be brief because of the speed of travel, around 40 miles per hour. Therefore, the viewer exposure is low-to-moderate.

^{3/4} **Viewer Concern: low-to-moderate.** Area residents can be expected to have low-to-moderate concern for visual impacts from the substation as seen from Old Redwood Highway because they are subject on a daily basis to views of a mix of existing light industrial land uses, open spaces, rural/agricultural farms, and newly developing residential subdivisions.

^{3/4} **Visual Quality: low.** The primary focal points for the landscape view at KOP-3 are the existing wooden utility pole and mature trees that create strong vertical lines against the sky. The ground plain of the proposed substation site is flat and has no interesting features. Visual quality of this landscape is low.

^{3/4} **Overall Visual Sensitivity: low-to-moderate.** For motorists at KOP-3, the low-to-moderate viewer exposure, low-to-moderate viewer concern, and low visual quality lead to a low-to-moderate overall visual sensitivity of the visual setting and viewing characteristics of the proposed substation site.

Visual Change at KOP-3

^{3/4} **Visual Contrast: low to moderate.** After construction, the new substation would be largely screened by existing mature vegetation and new landscape trees in front of the new earth-tone concrete wall. Figures 5.1-4A, -4B, and -4C, show views of the existing site, the site with the substation built, and the site with landscaping at 8 years maturity, respectively. (Note that the dead tree in the center of the image at the road's edge has been removed since this photograph was taken.) Once landscaping matures, none of the substation would stand out against the skyline, and no elements of the project would be visible above the treeline. As seen from KOP-3, the new substation would have low-to-moderate visual contrast.

^{3/4} **Visual Dominance: low-to-moderate.** Though the project would be seen at a foreground distance, the absence of elements above the horizon, the screening provided by existing trees and landscaping, and the neighboring school bus yard make visual dominance be low-to-moderate as seen from KOP-1.

^{3/4} **Scenic View Obstruction: low.** The substation would not create any view blockage to any scenic features in the landscape. Therefore, the proposed project would have low view impairment of the skyline and surrounding landscape scenery.

^{3/4} **Overall Visual Change: low-to-moderate.** With low-to-moderate visual contrast, low-to-moderate dominance, and low view impairment, the overall visual change at KOP-2 would be low-to-moderate.

KOP-4: Travelers and residents on Herb Road and NWPRR corridor. KOP-4 was established on Herb Road at the NWPRR crossing looking east toward the proposed substation site. This is an immediate foreground viewing distance. The proposed substation site is largely obscured by mature trees along the NWPRR. These trees create a coarse immediate foreground texture, but do not create strong lines as they are low on the horizon. The NWPRR creates weak horizontal lines, as its dark color does not stand out against the surrounding grasses. This view is representative of motorists' and residents' views along Herb Road, and of potential hikers and cyclists in the future. Resulting visual impacts for this KOP would be less than significant for the substation. For the TSP that would be located about 300 feet south of KOP-4, the resulting visual impact would also be less than significant.

Visual Sensitivity at KOP-4

- ^{3/4} **Viewer Exposure: moderate-to-high for the substation.** The substation site is largely screened from view at KOP-4 by the mature vegetation along the railroad right-of-way. The number of viewers on Herb Road is very low. For drivers, the level of exposure would be moderate because of the speed of travel, around 15 miles per hour. Hikers and cyclists on the proposed Class 1 trail along the SMART project multi-use pathway will have longer view durations, given their slower rate of travel; however, this use is not part of the existing baseline. A limited number of residents on the northwest, west, and southwest sides of Herb road constitute another viewer group. Despite partial screening of the site, residential views tend to be very long, and the sensitivity of this group is considered high. Therefore, the overall viewer exposure from KOP-4 is moderate-to-high.
- ^{3/4} **Viewer Concern: moderate-to-high.** Residents and travelers in the vicinity of KOP-4 experience a mix of existing light industrial land uses, open spaces, newly developing residential subdivisions, and open space on a daily basis. However, neighboring residents may be accustomed to the existing undeveloped open space. The potential visibility of the site from nearby residences makes viewer concern to moderate-to-high.
- ^{3/4} **Visual Quality: low.** The primary focal points for the landscape view at KOP-4 are the low trees in the foreground. The ground plain of the proposed substation site is flat and has no interesting features. Visual quality of this landscape is low.
- ^{3/4} **Overall Visual Sensitivity: moderate.** For residents, motorists, and expected hikers and cyclists in the vicinity of KOP-4, the moderate-to-high viewer exposure, moderate-to-high viewer concern, and low visual quality lead to a moderate overall visual sensitivity of the visual setting and viewing characteristics of the proposed substation site.

Visual Change at KOP-4

- ^{3/4} **Visual Contrast: moderate for substation, moderate to high for TSP.** After construction, the new substation would be mostly screened from view by existing vegetation. None of the substation would stand out against the skyline. However, the new TSP would be visible above the existing trees along the railroad corridor, and would be significantly taller than the pole it would replace. As seen from KOP-4, the new substation would have moderate visual contrast due to its close viewing distance and existing vegetative screening, and the new 75-foot tall TSP would have moderate-to-high visual contrast, as compared to the existing visual conditions.
- ^{3/4} **Visual Dominance: low-to-moderate for substation, moderate for TSP.** The proposed substation would be seen at an immediate foreground distance, and the proposed TSP at a foreground viewing distance. Given the heavy screening and lack of elements above the skyline, the substation would have low-to-moderate visual dominance. The new TSP would be visible in the foreground, but it

would create a similar brown vertical line and form to the existing wooden pole. Therefore, project dominance would be moderate for the TSP.

¾ **Scenic View Obstruction: low for substation and TSP.** Neither the substation nor the TSP would create any view blockage to scenic features in the landscape. Therefore, the proposed substation and TSP would have low scenic view obstruction.

¾ **Overall Visual Change: low to moderate for the substation, moderate for TSP.** For the new TSP, based on moderate-to-high visual contrast, moderate project dominance, and low view impairment, the overall visual change would be moderate for the new TSP. For the new substation, based on moderate visual contrast, low-to-moderate project dominance, and low view impairment, the overall visual change would be low-to-moderate for the new substation.

Applicant Proposed Measures

PG&E has committed to APM AE-1 to reduce visual impacts. The full text of this APM is shown in Table 4-5 in the Project Description. PG&E proposes to implement measures during the design, construction, and operation of the proposed project to ensure it would occur with minimal environmental impacts in a manner consistent with applicable rules and regulations. APMs are considered part of the proposed project in the evaluation of environmental impacts. CPUC approval would be based upon PG&E adhering to the proposed project as described in this document, including this project description and the APMs, as well as any adopted mitigation measures identified by this Initial Study.

Aesthetics Impacts

a. Would the project have a substantial adverse effect on a scenic vista?

NO IMPACT. For purposes of this evaluation, a scenic vista is defined as a distant public view along or through an opening or corridor that is recognized and valued for its scenic quality. There are no recognized scenic vistas within the proposed project viewshed. Highway 101, a scenic corridor in Windsor, runs in a north-south direction near the site. However, existing mature vegetation screens the site from the highway and the substation would not be visible. Although glimpses of the surrounding ridgelines and hills to the east and west are available from some locations in the project area, these distant views are generally screened by existing mature vegetation. The proposed project would not substantially alter existing views of distant landforms. On Old Redwood Highway, looking across the site, the view is of flat land with extensive mature tree vegetation in the distance. Landscaping at the proposed substation would bring vegetation closer to the road, but would not affect a scenic vista. Therefore, the proposed project would not obstruct or substantially affect a scenic vista or substantially alter views that are currently experienced by the public and no mitigation is required.

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?

LESS THAN SIGNIFICANT. The proposed project is not visible from any State scenic highway and would not damage any existing scenic resources as seen from any designated or eligible State scenic highway. There are no rock formations, historic structures or other striking visual features on the proposed project site or in its immediate vicinity.

Although not a designated State scenic highway, Highway 101 is listed as local scenic roadway in the Town of Windsor general plan and the Sonoma County general plan. A brief glimpse of the project site is visible from the nearby Highway 101 off-ramp, but views from Highway 101 are screened by existing

mature vegetation and structures. The Highway is 850 feet from the substation site and largely outside of the project viewshed. The proposed project would not have a substantial adverse effect on views from this roadway; therefore, impacts would be potentially adverse, but less than significant, and no mitigation is required.

c. Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

LESS THAN SIGNIFICANT. Construction-related visual impacts would result from the presence of equipment, materials, and work crews at the proposed project area. These effects would be most noticeable to residents who live in close proximity to the project and motorists traveling along adjacent roadways. Construction of the substation would take approximately eight months and distribution line work would take six to seven months.

Much of the substation construction would take place behind the wall planned to parallel Old Redwood Highway and Herb Road. With the exception of pole replacement, reconductoring, and circuit work off site, construction activity would be kept within the substation site; therefore, visual impacts of substation construction would be less than significant, and no mitigation is required. During operations, the new substation would not be highly visible from public-view corridors because the substation components would be largely screened from public views by project components, including an 10 foot tall earth-toned concrete wall, wood gates, new landscaping in 75- and 25-foot setback areas, and existing vegetation. The substation would be partially visible from existing residential areas along Herb Road and from the railroad right-of-way, but existing and proposed vegetation would limit this visibility. From surrounding roadways and residential areas, the project would generally not be visible beyond a distance of 0.25 mile.

The scale and appearance of the project would be compatible with the visual character found in the surrounding area and the height of new structures would not significantly exceed the height of existing structures and vegetation in the vicinity. Given the neighboring school bus yard, the proposed project would be noticeable, but would not appear out of context with the landscape setting. As demonstrated in the Visual Sensitivity/Visual Change (VS/VC) analysis for KOPs 1 through 4, the visual impacts of the proposed project would be less than significant. In addition, PG&E has committed to **APM AE-1** (see Table 4-5 in Section 4.14 of the Project Description for full text). This measure commits PG&E to installation of trees and shrubs along Herb Road and in the setback from Old Redwood Highway. This measure would further minimize the project's visual impacts. Therefore, impacts would be potentially adverse, but less than significant, and no mitigation is required.

d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

LESS THAN SIGNIFICANT. The proposed project would introduce new nighttime lighting for safety and security purposes. Lighting fixtures at the substation would use non-glare light bulbs that would be directed on-site in order to avoid casting light or glare off-site. Vegetation along the railroad tracks would largely screen nighttime project lighting from the residences located to the west. Proposed project landscaping would also provide additional visual screening of project lighting from Old Redwood Highway and Herb Road. New substation structures would be finished with a non-reflective finish and are not expected to be a source of substantial glare or glint. The proposed project security lighting would create an additional source of nighttime light that may be visible from some nearby locations off-site. With project landscaping and the use of non-glare fixtures directed on-site, these project-related light and glare effects would be minimal and impacts to nighttime views would be less than significant.

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