5. Environmental Setting and Environmental Impacts

5.1 Aesthetics

5.1.1 Environmental Setting

Aesthetics, as addressed in the California Environmental Quality Act (CEQA), refers to visual considerations in the physical environment (CERES, 2009). Aesthetics analysis, or visual resource analysis, is a systematic process to logically assess visible change in the physical environment and the anticipated viewer response to that change. The Aesthetics section of this Initial Study describes the existing landscape character of the Project area, existing views of the Project area from various on-the-ground vantage points, the visual characteristics of the Proposed Project, and the landscape changes that would be associated with the construction and operation of the Cressey-Gallo 115kV Power Line Project (the Project), as seen from various on-the-ground vantage points.

When viewing the same landscape, people may have different responses to that landscape and any proposed visual changes, based upon their values, familiarity, concern, or expectations for that landscape and its scenic quality. Because each person's attachment to and value for a particular landscape is unique, visual changes to that landscape inherently affect viewers differently. However, based on research by Smardon and others, generalizations can be made about viewer's sensitivity to scenic quality and visual changes (Smardon et al., 1986). Recreationists, hikers, equestrians, tourists and people driving for pleasure are expected to have high concern for scenery, visual quality, and landscape character. People who are commuting daily through the same landscape generally have a moderate concern for scenery, while people working at agricultural or industrial sites generally have a lower concern for scenic quality or changes to existing landscape character. The visual sensitivity of a landscape is affected by the viewing distances at which it is seen, such as close-up or far away. The visual sensitivity of a landscape also is affected by the travel speed at which a person is viewing the landscape (high speeds on a highway, low speeds on a hiking trail, or stationary at a residence).

The project viewshed is defined as the general area from which a project is visible or can be seen. For purposes of describing a project's visual setting and assessing potential visual impacts, the viewshed can be broken down into foreground, middleground, and background zones. The foreground is defined as the zone within a quarter-mile to a half-mile from the viewer. Landscape detail is most noticeable and objects generally appear most prominent when seen in the foreground. The middleground can be defined as a zone that extends from the foreground up to 3 to 5 miles from the viewer, and the background extends from about 3 to 5 miles to infinity (Smardon et al., 1986).

5.1.1.1 Visual Inventory Methodology

Visual resources of the Project area were investigated based on the following criteria: (1) existing visual quality and scenic attributes of the landscape; (2) location of sensitive receptors in the landscape; (3) assumptions about receptors' concern for scenery and sensitivity to changes in the landscape; (4) the magnitude of visual changes in the landscape that would be brought about by implementation, construction, and operation of the Proposed Project; and, (5) compliance with State, County and local policies for visual resources.

The visual setting is described in terms of the existing landscape character and visual quality of the viewshed. Existing landscape character is an overall visual and cultural impression of landscape attributes — the physical appearance and cultural context of a landscape that gives it an identity and

sense of place. Existing landscape character is determined by landforms, vegetation patterns, waterbodies, and cultural features. Visual quality is a judgment of a landscape's attractiveness, as determined by attributes broadly recognized as being valued and preferred by most viewers. Visual quality is expressed as a range of valued landscape attributes, often described in terms such as form, line, color, and texture. Combinations of these factors lead to evaluations of landscape character and visual quality, such as:

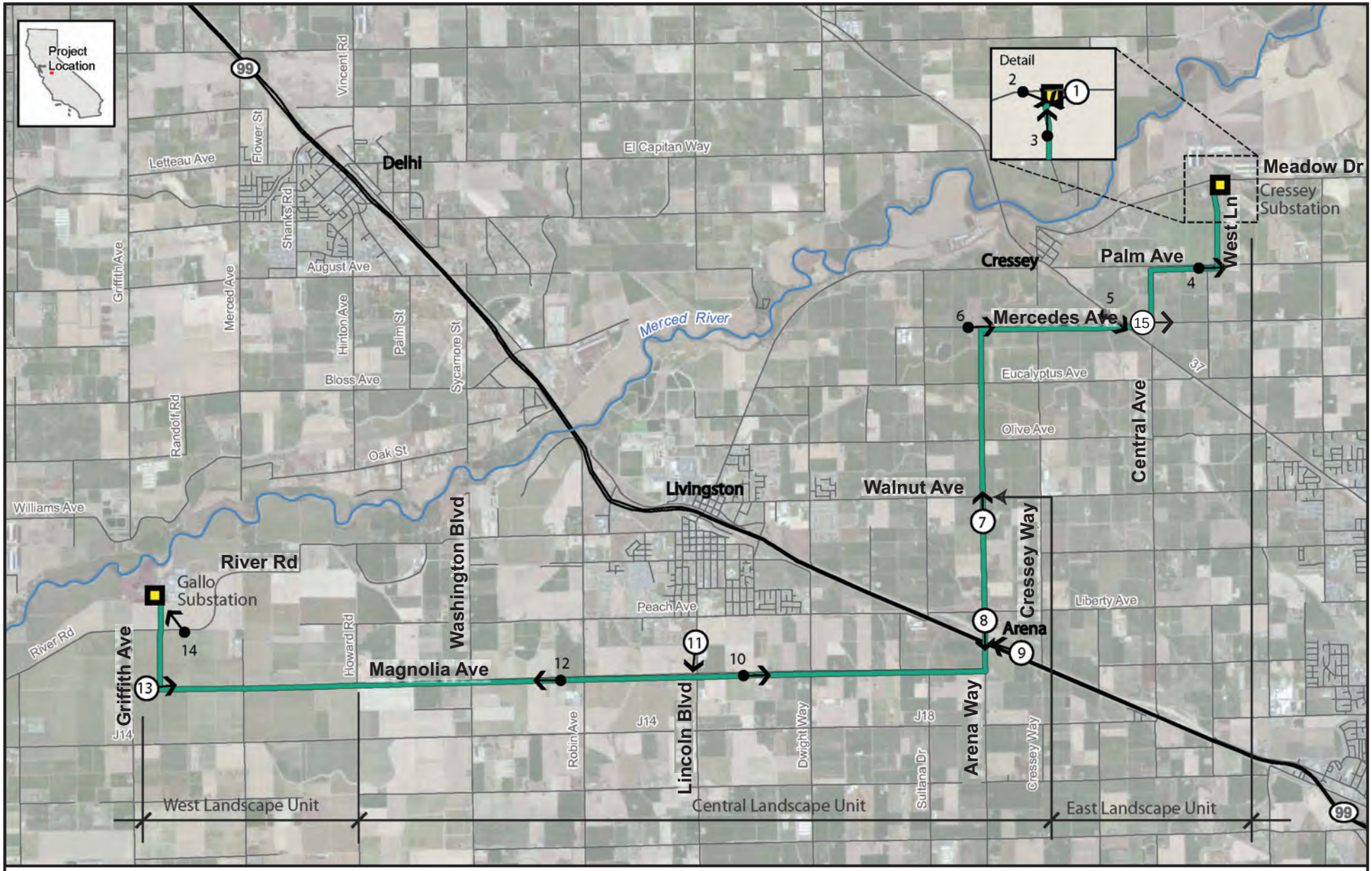
- High – a landscape of exceptional quality and beauty, valued for its scenic attributes.
- Moderate – a landscape that is common or average within the landscape character type.
- Low – a landscape that is lacking in scenic features.

Evaluations of existing landscape character and visual quality, combined with ratings of overall visual sensitivity, establishes the visual inventory methodology.

On-the-ground viewpoints were analyzed for their potential to display worst-case visual effects of the Project to the scenic and aesthetic landscape. From all these viewpoints, one or more key viewpoints (KVPs) generally are identified to represent the most critical viewing locations and the viewer groups likely to be affected by a project. Assessments of visual impacts are determined from each KVP. In the impact analysis, overall visual sensitivity is considered in combination with the level of visual change introduced by a project, as seen from a KVP, to arrive at preliminary findings of potential project impact significance. From numerous on-the-ground viewpoints, seven locations were selected as Key Viewpoints for detailed analysis of the proposed Cressey-Gallo 115kV Power Line Project.

Figure 5.1-1 includes a map and an annotated aerial photograph that show the Cressey-Gallo 115 kV Power Line Project location within a regional and local landscape context. The site is in central California within the San Joaquin Valley, the southern portion of the much larger Central Valley. Bordered by the Sierra Mountains on the east and the Central Coast Ranges on the west, the landscape within this portion of the valley reflects a high level of human modification, including vast areas of agricultural land and a network of highways and rural roads, canals, railroad corridors, and electric utility structures that traverse the landscape. Interstate 5 and SR-99 provide major north-south transportation links between the valley's cities and smaller communities.

Located in Merced County, the project site lies in a sparsely populated agricultural landscape setting approximately 8 miles southeast of the City of Turlock and 11 miles northwest of the City of Merced. The vicinity includes widely spaced single rural residences and some groups of residences. The project passes within 0.25 miles of the city limits of the City of Livingston and through Arena, an unincorporated community located along SR-99. Other nearby unincorporated communities in the area includes Cressey, Winton, Hilmar-Irwin, and Atwater. Situated at an elevation of approximately 120 to 160 feet above sea level, the area's topography is generally flat and rises gradually to the east. To the north, and within 1 mile of the project route, the Merced River flows toward the southwest. The Coast Ranges lie approximately 20 miles to the west with nearby peaks rising to over 3,800 feet in elevation. The Sierra foothills lie approximately 17 miles east. On a clear day, these mountain ranges are barely visible from locations along the project route. On a typical day with hazy atmospheric conditions, neither the Coast Range nor the Sierra foothills are visible from any location along the Project route, and therefore, generally there are no landform backdrops for tall vertical elements such as the project's wood poles, light duty steel poles, or tubular steel poles.



Source: PG&E, 2011.

Figure 5.1-1

Photograph Viewpoint Locations

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In the project vicinity, flat agricultural terrain, including orchards, vineyards and field crops, dominates the landscape character. Within this setting, a grid of roadways and canals provides a physical and visual framework for the area's overall land use development pattern. The composition of roadway views varies from unobstructed, open agricultural land, sometimes with hills or mountains discernible in the backdrop, to corridors enclosed by mature orchards. More dense areas of tree cover are seen at orchards and near residential development. Agricultural facilities, including large-scale processing plants such as the Gallo Winery and Foster Farms Poultry Company, are also found in the project area. Electric utility structures are established landscape features in the project area including substations and distribution lines, as well as Merced Irrigation District power lines, which cross the project route in two places.

5.1.1.2 Regional Visual Character

The approximately 14.4-mile 115 kV power line route is located in a primarily agricultural area with intermittent rural residences. The project will intersect with SR-99, which is the major transportation corridor through the area, approximately 1.75 miles southeast of the City of Livingston. As shown in Figure 5.2-1 production of a variety of agricultural commodities including deciduous fruits and nuts, field crops, grain and hay crops, nurseries, and berry crops occurs within the project area. The area also contains vineyards, pasture lands, semi-agricultural land, and idle fields. There are approximately 270,641 acres of Prime Farmland located throughout Merced County, which accounts for approximately 21.4 percent of the land within County boundaries.

5.1.1.3 Local Visual Character

Land in the majority of the power line route is classified as Prime Farmland or Farmland of Statewide Importance, with a few smaller areas classified as Farmland of Local Importance; Unique Farmland; Semi-Agricultural and Rural Commercial Land; Confined Animal Agriculture; and Rural Residential Land (Figure 5.2-2). As shown in Figure 5.2-3, approximately one-third of the route is on Williamson Act-contracted land.

A majority of the project route is designated as Agricultural land use and zoned by Merced County as General Agricultural, including the existing Cressey and Gallo Substations. Within a half-mile of the project route southwest of Cressey Substation, small areas are designated as Agricultural Residential, Single-Family Residential, General Commercial, and General Manufacturing land uses; the corresponding Merced County zoning designations for these areas are Agricultural Residential, Residential, General Commercial, and Industrial, respectively.

The southernmost limits of the City of Livingston are also located within 0.25 miles of the project route. This small area of the City includes portions with county land use/zoning designations of High Density Residential, Medium Density Residential, Low Density Residential, Neighborhood Commercial/Community Commercial, and Public Facility/Public/Quasi Public Facilities, respectively. Portions of the southern and eastern extents of the City's 2025 General Plan Sphere of Influence include or are adjacent to the project alignment on Magnolia Avenue between Washington Avenue and Arena Way, and Arena Way between Magnolia Avenue and a half block north of Liberty Way. However, as the project route is not located within the City of Livingston, no impact to agricultural resources or land use within the City will occur, and further discussion of the City's land use and zoning designations is limited to the sphere of influence (SOI).

5.1.1.4 Landscape Units Overview

For the purpose of this analysis, the potential effects on foreground viewshed conditions are emphasized, particularly those areas within 0.25 miles of the project. As seen from many locations within the surrounding area, it is anticipated that views of the Proposed Project will be partially or fully screened by intervening structures and vegetation. The Proposed Project will not be visible in its entirety from any single viewing location given its overall length, the height of structures, the flat terrain, and the presence of intervening vegetation.

Table 5.1-1. Summary of Landscape Units within the Project Viewshed

Landscape Unit	Length (approx)	New Poles* (approx)	Primary Affected Viewers	Residences within 0.25-Mile Radius (approx)	PEA Figure Number of Representative Visual Simulation(s)
Cressey Substation	N.A.	4	Motorists	2	5.1-3
East	4.8 miles	40	Motorists Few residents	30	5.1-3, 5.1-4, 5.1-9
Central	6.1 miles	110	Motorists Residents	70	5.1-5 through 5.1-7
West	3.5 miles	80	Motorists	10	5.1-8
Gallo Substation	N/A	3	Limited number of motorists	0	N/A

* May change with final design. Note that approximately 170 existing wood poles will be removed as part of the project.
N/A = not applicable

Landscape Unit 1: Cressey Substation (Figure 5.1-2 [Sheets 1 and 2], Photographs 1, 2, and 3)

Cressey Substation occupies approximately 1.5 acres located southeast of the intersection of Meadow Drive and West Lane, and 2 miles east of the community of Cressey. Situated 100 feet south of Meadow Drive, the substation site is relatively level and bordered on the south by orchards, on the west by West Lane, and by Ward Canal on the north and east. Close-range views of the substation are limited to locations along Meadow Drive and West Lane, as well as from a couple of nearby residences. From many locations along West Lane and along Meadow Drive, intervening orchard trees screen views of the substation. The substation generally lies at the same elevation as the adjacent roadways (Photograph 2 on Figure 5.1-2, Sheet 1); however, due to variations in topography, Meadow Drive east of the site lies at an elevation below the substation and substation facilities are seen against a sky backdrop (Photograph 1 on Figure 5.1-2, Sheet 1). More distant views of Cressey Substation are generally obstructed by intervening vegetation and topography.

Photographs 1, 2 and 3 on Figure 5.2-1 (Sheets 1 and 2) show views from nearby roadways that include existing substation components, a lattice tower, several wood poles, and overhead wires. Additionally, wood poles and an overhead distribution line run along adjacent roadways.

Primary viewers in this area are motorists using lightly traveled rural roads adjacent to the substation. In addition, two residences lie within approximately 0.25 miles of the substation.

Landscape Unit 2: East Landscape Unit (Figure 5.1-2 [Sheets 1 to 4 and 8], Photographs 1 to 7 and 15)

This landscape unit runs almost 5 miles, from Cressey Substation to the northern edge of the community of Arena. In this landscape unit, the project route follows paved and unpaved rural roads, and passes through private agricultural land. Mature orchards with a limited number of rural residences charac-

terize the landscape in this unit. The community of Cressey lies approximately one and a half miles from the project route. Roadways are rural and used primarily by agricultural workers and local residents.

From the northwest corner of Cressey Substation the project route continues south on West Lane, a narrow rural road. Views from the northern portion of this road are enclosed by orchard trees (Photograph 3 on Figure 5.1-2, Sheet 2); however, further south on West Lane, the landscape opens onto flat pastures. At Palm Avenue, the route turns west, continues through this open landscape (Photograph 4 on Figure 5.1-2, Sheet 2), and passes in close proximity to approximately three rural residences. Photographs 3 and 4 on Figure 5.1-2 (Sheet 2) show that existing power lines run parallel to the project route along both the east side of West Lane and the south side of Palm Avenue, respectively.

Approximately 0.5 miles west of West Lane the route turns south, follows an unpaved road through orchards on private land for approximately 0.5 miles, and approximately 400 feet past Palm Avenue it crosses the Cressey Lateral Canal.

The project route travels west along Mercedes Avenue for approximately 1.5 miles. Along Mercedes Avenue, the route passes within 500 feet of about seven rural residences; however, views from these residences toward the project route used to be screened by intervening orchards, but recent orchard removal and replanting has eliminated the vegetative screen. The route also crosses the Atchison Topeka and Santa Fe Railroad and Santa Fe Drive (County Road 37), a relatively well-used, paved, two-lane road (Photograph 5 on Figure 5.1-2, Sheet 3). Mercedes Avenue is paved east of Santa Fe Drive, however, the road is not continuous, and does not cross the railroad. West of the canal the route follows an unpaved road until Cressey Way, at which point Mercedes Avenue again becomes a paved road.

One-half mile west of Cressey Way (Photograph 6 on Figure 5.1-2, Sheet 3), the route turns south through an orchard, crosses the Livingston Canal, and continues along a dirt road through more orchards. Between Eucalyptus Avenue and Olive Avenue, Arena Way is paved, and lined by mature orchards. Along Arena Way, the project route lies within 500 feet of at least two residences. For much of this landscape unit, existing wood distribution poles and overhead lines parallel the route. In addition, at both Eucalyptus and Walnut Avenues, the route crosses Merced Irrigation District power lines (see Photograph 7 on Figure 5.1-2, Sheet 4).

Primary viewers in this landscape unit are local motorists using lightly traveled rural roads. The area also includes 32 residences that lie within 0.25 miles of the project route.

Landscape Unit 3: Central Landscape Unit (Figure 5.1-2 [Sheets 4 to 6], Photographs 8 to 12)

Beginning at Walnut Avenue, the Central Landscape Unit is approximately 6 miles long and lies in proximity to numerous residences including some located in the community of Arena and at the edge of the City of Livingston. (Note: although KVP 7 is physically located south of Walnut Avenue and hence in the Central Landscape Unit, for the purposes of this report KVP 7 is considered to be part of the East Landscape Unit because the viewpoint was selected to depict the southern boundary of the East Unit [i.e., Walnut Avenue] in a northward-looking view shown in Photograph 7 on Figure 5.1-2, Sheet 4.) Within the Central Landscape Unit, most of the project route runs along paved roadways lined with row crops and orchards. Viewers include residents and motorists on local roadways and SR-99.

The route continues on Arena Way, where it passes through the community of Arena, a group of approximately 30 homes on Arena Way and Liberty Avenue, situated just north of SR-99. The route crosses SR-99 and the Southern Pacific railroad corridor. Immediately south of SR-99 two residences are located on Arena Way; there is no through traffic in this area.

The route turns west on Magnolia Avenue and continues just over 7 miles. At approximately 2.5 miles west of Arena Way, the route crosses Lincoln Boulevard, a major north-south corridor connecting the City of Livingston with SR-140 to the south. The route also crosses Sultana Drive, Sheesley Road, Dwight Way, and the Curtner Lateral Canal. The project route passes about 0.25 miles from the southern city limits of the City of Livingston. The route passes approximately 40 existing residences on or near Magnolia Avenue. As Photograph 12 indicates, these residential properties typically include mature vegetation that provides considerable screening. West of Lincoln Boulevard, the route also crosses Robin Avenue, Washington Boulevard, the Arena Canal, and the McCoy Lateral Canal.

For much of Magnolia Avenue, existing wood distribution poles are visible along the roadway (Photographs 10, 11, and 12 on Figure 5.1-2, Sheets 5 and 6). In this area, Livingston Substation, located on Washington Boulevard at Legion Avenue, lies approximately 0.25 miles south of Magnolia Avenue.

Primary viewers in this unit are motorists traveling on either SR-99 or on rural roadways that connect Livingston with other communities. Rural roads in this area are moderately traveled, while SR-99 is relatively heavily traveled. This unit has the largest number of residences, with approximately 70 located within 0.25 miles of the route.

Landscape Unit 4: West Landscape Unit (Figure 5.1-2 [Sheet 7], Photographs 13 and 14)

This 3.5-mile landscape unit is dominated by private lands associated with the Gallo Winery, including a winery facility. Surrounding agricultural land is predominantly vineyards with some row crops and occasional mature tree clusters along roadsides. Along Magnolia Avenue, the route is paralleled by existing wood distribution poles and overhead lines. At Howard Road, a gate on Magnolia marks the edge of private Gallo Winery property. Although this gate and another near Griffith Avenue is open at least part of the year, signs posted on the gates indicate private property, and the gates can be closed to limit access to roadways within the Gallo property. The route continues along the north side of Magnolia Avenue past this gate for 1.75 miles until turning north at an unpaved road approximately 0.25 miles east of Griffith Avenue (Photograph 13 on Figure 5.1-2, Sheet 7). The route proceeds for 0.75 miles along this unnamed road, crosses River Road (a paved public roadway), and then follows the paved, tree-lined Gallo Winery access road. The Gallo Tap line parallels this leg of the project route until its terminus at Gallo Substation, located on the winery facility.

Typical viewers in this unit are workers traveling to the Gallo Winery facility along lightly used public and private rural roads. The access road to the winery has a guard station and no public access is provided beyond the guard station. Motorists are checked in before entering this industrial Gallo Winery facility. There is not a wine-tasting facility at this location; therefore, tourists are not invited into this gated portion of the Gallo Winery facility. A single cluster of approximately 6 residences, situated on the north side of Magnolia Avenue near Weir Avenue, lies within 0.25 miles of the route.

Landscape Unit 5: Gallo Substation (Figure 5.1-2 [Sheet 7], Photograph 14)

Gallo Substation is located on the Gallo Winery property, situated on flat land along River Road between Griffith and Weir Avenues. The Gallo Winery property includes a large-scale agricultural processing facility, and the substation is adjacent to industrial equipment, including more than two hundred large stainless steel fermentation tanks, situated to the east and northeast of the substation. An existing solar photovoltaic facility that is part of the Gallo Winery lies approximately 600 feet south of the substation. The substation is not visible to the public at close range; the nearest public view is from River Road, which is more than 1,000 feet away (Photograph 14 on Figure 5.1-2, Sheet 7). Mature trees and industrial structures generally screen public views. In addition, because the wine processing facilities are con-

Photograph 1. View from Meadow Drive near West Lane looking southwest.

Photograph 2. View from Meadow Drive near West Lane looking southeast.

Aspen Environmental Group

Source: PG&E, 2011.

Figure 5.1-2
Photographs of Project Route and Vicinity
Sheet 1 of 8

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Photograph 3. View from West Lane looking north toward Cressey Substation.

Photograph 4. View from Palm Avenue near West Lane looking east.

Aspen Environmental Group

Source: PG&E, 2011.

Figure 5.1-2
Photographs of Project Route and Vicinity
Sheet 2 of 8

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Photograph 5. View from Santa Fe Drive near Mercedes Avenue looking southeast.

Photograph 6. View from Mercedes Avenue near Arena Way looking east.

Aspen Environmental Group

Source: PG&E, 2011.

Figure 5.1-2
Photographs of Project Route and Vicinity
Sheet 3 of 8

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Photograph 7. View from Arena Way near Walnut Avenue looking north.

Photograph 8. View from Arena Way near Liberty Avenue looking south.

Aspen Environmental Group

Source: PG&E, 2011.

Figure 5.1-2
Photographs of Project Route and Vicinity
Sheet 4 of 8

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Photograph 9. View from Highway 99 near Liberty Avenue exit looking northwest.

Photograph 10. View from Magnolia Avenue near Lincoln Boulevard looking east.

Aspen Environmental Group

Source: PG&E, 2011.

Figure 5.1-2
Photographs of Project Route and Vicinity
Sheet 5 of 8

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Photograph 11. View from Lincoln Boulevard at Newcastle Drive looking south.

Photograph 12. View from Magnolia Avenue near Robin Avenue looking west.

Aspen Environmental Group

Source: PG&E, 2011.

Figure 5.1-2
Photographs of Project Route and Vicinity
Sheet 6 of 8

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Photograph 13. View from Magnolia Avenue near Griffith Avenue looking east.

Photograph 14. View from River Road looking northwest toward Gallo Winery facility and Substation.

Aspen Environmental Group

Source: PG&E, 2011.

Figure 5.1-2
Photographs of Project Route and Vicinity
Sheet 7 of 8

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Photograph 15. View from Mercedes Avenue just east of Santa Fe Drive.

Photograph 16. Group of TSPs, LDS poles, and wood poles along Canal Avenue.

Aspen Environmental Group

Source: Lee Roger Anderson & 3DScape, 2012

Figure 5.1-2
Photographs of Project Route and Vicinity
Sheet 8 of 8

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siderably larger in scale than the substation structures, Gallo Substation is not particularly noticeable within its landscape setting. Lined by dense riparian vegetation, the Merced River lies north of the substation. Views toward the substation are available from across the river, near Williams and Griffith Avenues, more than 0.5-mile away. The winery is visible from this location; however, the substation is screened by industrial equipment and vegetation. Approximately five residences are located on the south side of Williams Avenue, and substation elements may be visible from these residences; however, these elements would not be readily apparent within the overall context of the larger industrial facility.

Primary viewers of Gallo Substation are limited to motorists traveling on River Road and those workers entering the gated and secure Gallo Winery facility along private access roads. No residences are located within 0.25 miles of the substation.

5.1.1.5 Sensitive Viewers

Within the project viewshed two primary types of potentially affected viewers exist: roadway motorists and residents.

Motorists, the largest viewer group, include people traveling on SR-99, a major north-south freeway, as well as travelers on local roadways, including Magnolia Avenue and Arena Way. While the traffic volumes on SR-99 are high, the number of motorists using other local roadways in the project area is relatively low. Motorists include a variety of roadway travelers, both local and regional travelers who are familiar with the visual setting, and travelers using the roadway on a less regular basis. Affected views from SR-99 are generally very brief in duration; typically lasting less than one minute at 65-70 mph. Affected views on local roads are generally brief in duration, typically lasting less than a few minutes. Viewer sensitivity is considered low to moderate for people traveling on SR-99 and on local roadways.

The second viewer group includes a limited number of nearby residents in the vicinity. Scattered residences face the project route; the largest concentration is in the unincorporated community of Arena, which includes approximately 30 residences near SR-99. The route also passes within 0.25 miles of the city limits of the City of Livingston, and the project may be somewhat visible from residences at the southern edge of the city. In many locations, mature vegetation including orchards screen residential views toward the project. Residential views tend to be long in duration, and the sensitivity of this viewer group is considered moderate to high.

5.1.1.6 Scenic Vistas

Scenic vistas are identified as those lands or vista points particularly suited for viewing uncommon landscapes that contain attributes of scenic beauty. Such vista points would provide visual access to mountain peaks, large rock outcrops, lakeshores, beaches, or rivers and streams. There are no designated scenic vistas in the Proposed Project viewsheds or any of the project's landscape units.

5.1.1.7 Light and Glare

Glare exists when a high degree of contrast between bright and dark areas in a field of view make it difficult for the human eye to adjust to differences in brightness. At high levels, glare can make it difficult to see, such as when driving westward at sunset.

5.1.1.8 Night Lighting:

The project is in a rural setting with little roadway lighting adjacent to the site. Lighting sources tend to be localized and associated with agricultural processing facilities, residences, and some roadway intersections including interchanges along SR-99. The City of Livingston, 0.25 miles away from the project,

has street lighting. No new lighting is proposed along the power line. The project will include new night-time lighting on some new structures at two existing substations; the new lighting will be operated as needed for safety, security, and emergency nighttime work.

5.1.2 Regulatory Background

5.1.2.1 Federal

There are no federal regulations applicable to the project related to aesthetic or visual resources.

5.1.2.2 State

California Scenic Highway Program. California's Scenic Highways Program, a provision of the Streets and Highways Code (S&HC), was established by the Legislature in 1963 to preserve and enhance the natural beauty of California. The State Scenic Highway System includes highways that are either eligible for designation as scenic highways or have been designated as such. The status of a state scenic highway changes from eligible to officially designated (OD) when the local jurisdiction adopts a scenic corridor protection program, applies to the California Department of Transportation (Caltrans) for scenic highway approval, and receives the designation from Caltrans (Caltrans, 2009). A city or county may propose adding routes with outstanding scenic elements to the list of eligible highways. However, state legislation is required for a highway to be officially designated.

No designated state scenic routes are located near the project. As seen on the Caltrans Landscape Architecture website (Caltrans, 2012), the nearest scenic highways are Interstate 5 and SR-152 near San Luis Reservoir, and these roadways are located approximately 18 miles to the southwest. The project will not be visible from these roadways.

5.1.2.3 Local

Because the CPUC has exclusive jurisdiction over project siting, design, and construction, the project is not subject to local discretionary regulations. This section includes a description of the local regulations relevant to the visual resource issues associated with the project and is provided for informational purposes to assist with CEQA review.

The project is located in an unincorporated area of Merced County, and although it is 0.25 miles outside of the City of Livingston, it is adjacent to the City of Livingston 2025 General Plan Sphere of Influence (SOI) of the City along a portion of Magnolia Avenue (City of Livingston, 2008). This section reviews visual resource–related policies and regulations contained in the Merced County Year 2000 General Plan (1990). The plan is in the process of being updated, and this section also reviews the new 2030 Merced County General Plan Public Review Draft (2011), which has not yet been adopted.

Merced County Year 2000 General Plan (1990). The General Plan broadly addresses scenic resources and identifies the Coastal and Sierra mountain ranges and the Merced, San Joaquin, and Bear Creek River corridors as important scenic features in the county (p. I-39). Additionally, the plan includes provisions for preserving scenic resources along state scenic highways, but does not identify any county scenic roadways. Chapter II, Circulation, encourages locating new transmission lines within existing utility easements:

> *GOAL 3: An adequate system for the transmission and distribution of energy, water and information. (p. II-23)*
>
> *Policies: 2. New transmission and distribution lines shall be encouraged within existing utility easements and rights-of-way. (p. II-24)*

The project ~~complies~~ is consistent with the Merced County Year 2000 General Plan because a majority of the project will be located in existing utility corridors.

2030 Merced County General Plan (2011). The proposed 2030 General Plan reiterates some of the guidelines regarding preserving visual resources within scenic highway corridors; however, no scenic roadways aside from the state scenic roadways are designated. The Public Facilities and Service Element restates the existing policy of encouraging locating new transmission lines within existing rights-of-way.

In addition, the Natural Resources Element of the proposed plan also includes a new policy addressing light pollution:

> *Policy NR-4.5: Light Pollution Reduction (RDR)*
>
> *Require good lighting practices, such as the use of specific light fixtures that reduce light pollution, minimize light impacts, and preserve views of the night sky. (p. NR-9)*

Some new lighting is proposed on new or modified structures at the substations, and it will be designed to avoid casting light or glare offsite. No new lighting is proposed along the power line route. Therefore, the project is compatible with the proposed 2030 General Plan.

5.1.3 Visual Analysis

This visual analysis uses the Visual Sensitivity/Visual Change (VS/VC) methodology to assess the visual effects of the Proposed Project on existing landscapes. 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.

Following professionally accepted practice in visual analysis, visual sensitivity consists of three components: viewer exposure, viewer concern, and visual quality. Viewer exposure affects a landscape's overall visual sensitivity. Landscapes that have low viewer exposure, based on landscape visibility, viewing distance, number of people who view the landscape, or duration of time that the landscape can be viewed, will tend to be less sensitive to overall visual change in the context of human experience of visual impacts. Landscapes with higher viewer exposure are more sensitive to overall visual changes. Viewer concern can be described as the personal expectations for the landscape that are held by the viewing public. Viewer concern is often reflected in public policy documents that identify landscapes of special concern or roadways with special scenic status, e.g., scenic highways. The description of visual quality notes the existing built environment and natural landscape features that contribute to overall visual quality. Overall visual sensitivity 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 by vegetation, landforms, and/or structures; distance from the observers; atmospheric conditions; and angle of view. Visual change describes the degree of actual visible change expected as a result of the project. The fundamental elements of visual change include visual contrast, visual dominance, and scenic view obstruction or view impairment. 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. Overall visual change is rated on a scale of Low to Moderate to High.

In the following analysis, potential visual impacts from each KVP were evaluated based on the six simulations that were prepared by PG&E in 2011 and the one new simulation prepared by the visual analysts for Aspen Environmental Group. Using these simulations and the VS/VC methodology, determinations were made of potential visual impacts by evaluating the extent of visual change in the context of the existing visual sensitivity and existing landscape conditions.

The determination of which aesthetic changes cross a threshold of "substantial adverse effect" or degradation is based upon the criteria described in the methodology summary (above) and in Table 5.1 2, Visual Impact Significance Criteria. This table was used primarily as a consistency check, as determinations of visual sensitivity and visual change were based primarily on analyst experience and site-specific circumstances.

Implicit in this rating methodology is the acknowledgment that 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.

5.1.3.1 Applicant Proposed Measures

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. Applicant Proposed Measures (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 (see Table 5.1-3).

Table 5.1-3. Applicant Proposed Measures (APMs) Related to Aesthetics

APM Number	Issue Area
	Aesthetics
APM AE-1	Construction Activities. Construction activities will be kept as clean and inconspicuous as practical.
APM AE-2	Non-reflective Finish on Permanent Equipment. A galvanized finish that weathers to a dull, non-reflective patina will be used for substation components, chain link fencing, and power structures to reduce the potential for new sources of glare.
APM AE-3	Nighttime Substation Lighting to Minimize Potential Visual Impacts. Design and layout for new lighting at the two existing substations will incorporate measures such as use of non-glare fixtures and directional lighting to reduce spillover into areas outside the substation site and minimize the visibility of lighting from off-site locations.
APM AE-4	Distribution Line Co-location. Where the project power line and existing distribution lines are present along the same roadway corridor, distribution lines will be co-located on project poles where feasible, and existing distribution line poles will be removed in order to reduce the number and overall visibility of power poles in the project area. For portions of the power line route, where an existing PG&E distribution line is located on the same side of the road as the project route, the distribution line will be co-located on the new power poles and the distribution line's wood poles will be removed. Where three or more distribution ~~poles~~ spans are located on the opposite side of the project route, the distribution line will be co-located on project poles and the existing distribution poles will be removed.

5.1.3.2 Project Visual Description

As proposed by PG&E, and as further described in the Project Description of this IS/MND, the project includes:

- Constructing a new, approximately 14.4-mile, single-circuit 115 kV power line interconnecting Cressey Substation and Gallo Substation.
- Upgrading the bus configurations at Cressey Substation and replacing the existing radial power line transition into the substation within the existing substation property.
- Expanding Gallo Substation to add switchgear and upgrade the bus configurations.

As discussed in Section 4, Project Description, the project includes installation of wood poles, light-duty steel (LDS) poles, and tubular steel poles (TSPs) along the 14.4-mile route. In addition, the existing Cressey and Gallo Substations will be improved. Modifications to Cressey Substation will take place entirely within the existing fenceline. Gallo Substation will be expanded approximately 4,500 square feet to the south, and the southern fence will be relocated. The proposed power line would be a 115 kV, single-circuit, approximately 14.4-mile power line. The conductor installed would be three new non-specular type 715 MCM AAC, 0.97-inch diameter, one per phase. As described further in Section 4.10.4.2, the new poles would include wood, light-duty steel, and tubular steel poles. Tangent poles would be used where the run of poles continues in a straight line. Dead-end poles with guying would be used at the end of each reel of conductor (approximately 4,500 feet), at angle changes, and at high strain locations. Pole framing types for wood poles and light-duty steel poles are expected to include type T1 cross-arm construction, suspension (SS2 type) cross-arm construction, triangular post and dead-end (TPD) cross-arm construction, and vertical angle. Table 5.1-4 outlines the approximate dimensions of the major project components.

5.1.3.3 Project Component Dimensions

Table 5.1-4. Approximate Dimensions of Major Project Components

Component (Number of Elements)	Height (feet)	Length (feet)	Width (feet)
Cressey Substation			
Cressey control building	11	16	49
Cressey dead-end structures (3)	36	—	36
Cressey bus supports (23)	19	—	20
Cressey coupling capacitor voltage transformers (CCVT) support structures (3)	7	—	21
Gallo Substation			
Gallo control building	11	16	30
Gallo dead-end structures (4)	36 to 45	—	20 to 32
Gallo bus supports (3)	20	—	20
Gallo CCVT support structures (2)	7	—	—
Gallo CCVT support structures (1)	7	—	21
Power Line			
Wood / Light-duty steel poles (approximately 230 poles)	50 to 90	-	18.5 inches*
Tubular steel poles (approximately 10 to 15~~11~~ poles)	80 to 90	-	5.0 to 7.0 feet (diameter)

*Average. Wood size varies and pole height dependent

5.1.3.4 Project Component Colors and Textures

The Cressey Substation control building will be covered in ribbed steel sheeting with a sloped roof. This new building will be light brown in color with a non-reflective treatment. Visual textures would vary from smooth to corrugated appearance with the ribbed steel sheeting.

Cressey and Gallo Substation structures, including dead-end, bus supports, and CCVT support structures, would be dulled galvanized steel. The smooth-textured steel would appear shiny and silver colored upon manufacture and would remain shiny until weathering would occur, which could take from 2 to 5 years. After weathering for several years, the steel would assume a dulled surface with a light-gray color, and texture would remain smooth.

Wood poles would be creosote-treated poles that would be dark-brown to medium-brown in color and smooth-textured upon manufacture and installation. Weathering of wood poles varies and some poles will achieve a light tan and/or light gray color while other wood poles will weather to a medium-brown, and some poles will retain their dark brown color. This variety of colors in an array of wood poles is an accepted visual phenomenon in the Proposed Project area as well as in the general vicinity. As can be seen in photographs of existing conditions, many of the weathered wood poles appear light tan and/or light gray. (Photographs 2, 4, 6, 12, and 15 on Figure 5.1-2, Sheets 1, 2, 3, and 6). All wood poles retain their smooth texture throughout the life of the project.

New LDS poles would be smooth-textured steel and PG&E has proposed that all LDS poles would “have a surface treatment designed to render the appearance of natural weathering of a wood pole (see Project Description, section 2.6.2 Poles).” However, based on field experience in the Proposed Project vicinity,

the LDS poles remain a dark-brown color in the long-term, and do not change color to match the colors of weathered wood poles: light tan, light gray, or medium-brown. Dark brown colors on LDS poles make them appear wider, heavier, and bulkier as compared to dulled light gray colors on the same structures. Additionally, the dark brown LDS poles stand out when seen against the sky backdrop and create strong visual contrasts for distances of several miles, including foreground and middleground viewing distances. An example of this can be seen in Photograph 16 on Figure 5.1-2, sheet 8, where the light gray TSP creates the least visual contrast against the sky backdrop, as compared to dark brown TSPs, dark brown LDS poles, or medium- to dark-brown wood poles. Photograph 16 was taken from Canal Avenue, in the Proposed Project vicinity and north of the Proposed Project alignment.

The TSPs would be galvanized steel. The smooth-textured steel would appear silver colored and shiny upon manufacture and would remain shiny until weathering occurred, which would begin during the first rainy season but could take from 2 to 5 years to dull completely. After weathering for several years, the steel would assume a dulled surface and a light-gray color, and texture would remain smooth. When seen against the skyline, such as at KVP-1 at Cressey Substation, the dulled light-gray TSPs and other steel structures that extend above the horizon would blend in with the sky. When a TSP is seen as part of an array of wood poles or dark-brown wood-appearing LDS poles, the short-term shiny silver color would create strong visual contrasts. After weathering occurs, permanent long term visual contrasts would remain as each light-gray TSP would stand out and strongly contrast in an array of wood poles and/or dark-brown wood-appearing LDS poles, resulting in a potentially significant aesthetic impact.

Conversely, based on the visual evidence presented in Photograph 16 on Figure 5.1-2, sheet 8 of 8, if all steel poles (both LDS poles and TSPs) were galvanized steel, there would be very little visual contrast with weathered wood poles once the steel poles dulled in the long-term, resulting in less than significant aesthetic impacts.

5.1.3.5 Lighting

Some of the new or modified structures at the two existing substations will include new lighting. Like the existing lighting at the substations, the new lighting will be operated only for safety and security purposes. New project lighting will be designed to avoid casting light or glare offsite.

During construction, if work needs to be performed at night, portable temporary lighting may be used to illuminate the immediate work area. However, current project plans call for construction activities to take place during daylight hours and for nighttime construction activities to be avoided, if possible.

5.1.3.6 Visual Simulations

As noted above, visual simulations were prepared to illustrate “before and after” visual conditions in the Proposed Project area, as seen from the seven simulation viewpoints (VP) shown on Figure 5.1-1. These simulations are presented in Figures 5.1-3 through 5.1-9; each of these figures consists of two full-page images designated “A” and “B,” with the existing “before” views shown in the “A” figure and the “after” visual simulations in the “B” figure. Of 14 viewpoints considered, six Key Viewpoints (KVPs) were identified in the PEA to represent views seen by the greatest number of affected viewers and/or from sensitive locations, such as residential areas. Additionally, one new KVP (KVP-15) was identified during a site visit with PG&E’s staff and Aspen Environmental Group’s staff in February 2012. These seven total KVPs represent potentially sensitive receptor locations and key viewer groups.

Table 5.1-5. Summary of Simulation Views

Viewpoint (see Fig 5.1-1)	Location	Visible Project Feature	Distance to Nearest Project Feature (approx)	Figure Number
1	Meadow Drive near West Lane	Substation, Tubular Steel Poles, Power Line	600 feet	5.1-3
7	Arena Way near Walnut Avenue	Power Line	300 feet	5.1-4
8	Arena Way near Liberty Avenue	Power Line, Tubular Steel Poles	400 feet	5.1-5
9	SR-99 near Liberty Avenue	Power Line, Tubular Steel Poles	1,200 feet	5.1-6
11	Lincoln Boulevard at Newcastle Drive	Power Line	1,200 feet	5.1-7
13	Magnolia Avenue near Griffith Avenue	Power Line, Tubular Steel Pole	500 feet	5.1-8
15	Mercedes Avenue near Santa Fe Drive	Power Line, Tubular Steel Pole	300 feet	5.1-9

5.1.3.7 Visual Sensitivity and Visual Change

The following discussion contains an evaluation of the project's potential visual effects on key public views, as represented by the visual simulations.

KVP-1: From Meadow Drive Looking Toward Cressey Substation. Figure 5.1-3A (KVP-1) is a photo taken from Meadow Drive east of West Lane looking toward the existing Cressey Substation. This key viewpoint provides a close-range, unobstructed view of Cressey Substation and overhead connections from an adjacent public road. From this key viewpoint, the existing landscape includes portions of the existing substation, including takeoff structures, a prominent steel lattice tower, perimeter chain link fencing, and various wood utility poles near the top of the slope and silhouetted against the sky. Wood distribution poles and overhead lines are also visible along the south side of Meadow Drive. Although several mature trees appear along the roadside, an open sloping landscape dominates the foreground. However, as seen from points further east on Meadow Drive, views of the substation are largely screened by orchards and trees adjacent to Meadow Drive.

Viewer Exposure: Moderate. Because there is little screening by landforms or vegetation from this key viewpoint, the proposed improvements to Cressey Substation would be highly visible in the landscape as seen from Meadow Drive. The most prominent of these improvements will be the addition of five TSPs and several H-frame structures. Meadow Drive is a single lane rural road which is not traveled in high numbers, therefore, the number of viewers on Meadow Drive is considered low-to-moderate. For these viewers, the duration of view would be brief because of the speed of travel, and other intervening landscape features. Based on the combination of all these factors and conditions, the overall viewer exposure for KVP-1 is considered moderate.

Viewer Concern: Low-To-Moderate. Travelers on Meadow Drive already experience the industrial nature of the existing Cressey Substation on a regular basis. Also adjacent to Meadow Drive, exists wooden distribution poles and conductors that are highly visible to travelers. The visual quality of this viewpoint can already be described as somewhat industrial in nature. Therefore, travelers can be expected to have low-to-moderate concern for visual impacts resulting from the substation improvements.

Visual Quality: Low-To-Moderate. The primary focal points of this landscape are Cressey Substation itself, punctuated by an 80-ft-tall lattice steel tower, wooden distribution poles adjacent to Meadow Drive, and horizontal conductors that split the skyline. Other than a small group of trees on the left side of the road, this landscape is slightly sloped, covered predominantly by tan and yellow grasses. All of these visual attributes combine to create a visual quality that is low-to-moderate.

Overall Visual Sensitivity: Low-To-Moderate. For travelers on Meadow Drive and from KVP-1 specifically, the moderate viewer exposure, low-to-moderate viewer concern, and low-to-moderate visual quality lead to a low-to-moderate overall visual sensitivity of the visual setting and viewing characteristics of the proposed Power Line Project.

Visual Change: Low-to-Moderate. The Figure 5.1-3B simulation depicts an unobstructed view of the proposed Cressey Substation modifications, including the removal of the existing 80-foot-tall steel lattice tower and replacement of the control building in the northeast corner of the substation. All new galvanized steel will have a shiny silver/gray appearance for several years until natural weathering occurs, eventually resulting in a light-gray appearance. Several new and replacement poles are visible, including TSPs, wood poles, and one light-duty steel pole. The most prominent new structures include new TSPs on the northern and southern sides of the substation and new takeoff structures at the center of the view. New poles are also visible on the left (south) of the substation. The silver-gray (short-term) to light-gray (long-term) color of the TSPs would blend with the colors of the sky to some extent. The new substation components are similar in size to the existing components and located within the existing substation fence line. However, because the new structures are situated on the east side of the substation, closer to the simulation viewpoint, they appear more visible from Meadow Drive, thereby creating moderate visual contrast and more complex visual clutter, as compared to the existing condition. The new structures are more visible and more cluttered than before, especially along the new chain link fence closest to the viewer; however, the structures do not dominate the view. The new structures do not create any view blockage or view impairment to any scenic attributes in this landscape. A comparison of the existing photograph and simulation demonstrates that the Proposed Project would result in a low-to-moderate visual change, and would not substantially alter the existing landscape character currently experienced by travelers on Meadow Drive.

Referring to Table 5.1-2, Visual Impact Significance Criteria, the overall visual change seen from Meadow Drive would be low-to-moderate and in the context of the existing landscape's low-to-moderate visual sensitivity, the proposed Power Line Project would result in a less-than-significant impact to aesthetic or visual resources. Implementation of the APMs would aid in the improvement of visual quality and landscape character at the Cressey Substation.

KVP-7: From Arena Way Near Walnut Avenue. Figure 5.1-4A (KVP-7) is a photo taken from Arena Way, near Walnut Avenue. This key viewpoint provides an unobstructed view of the existing condition along Arena Way, looking north along the proposed power line route, toward Walnut Avenue. This view is representative of the northbound motorists' point of view, and also of a nearby residence at the northern edge of Arena Way. An existing wood distribution pole and accompanying overhead conductors are visible along the left (west) side of Arena Way. A residential driveway, vehicles, and a mailbox are also visible on the left. A Merced Irrigation District utility pole with overhead conductor is visible just beyond Walnut Avenue.

Viewer Exposure: Moderate-to-High. Because there is little screening by landforms or vegetation from this key viewpoint, the proposed wood distribution poles and overhead conductors would be highly visible in the landscape as seen looking north on Arena Way. Arena Way is a single lane rural road which is not traveled in high numbers, therefore, the number of viewers on Arena Way is considered low-to-moderate. For these viewers, the duration of view would be brief because of the speed of travel. For the one residence in this vicinity, the duration of view would be extended. Based on the combination of all these factors and conditions, the overall viewer exposure for KVP-7 is considered moderate-to-high.

Viewer Concern: Moderate. A number of wood distribution poles and overhead conductors already exist adjacent to, and above the road; which are visible to travelers along Arena Way. Because the visual

character of this viewpoint already includes utility poles and conductors, travelers can be expected to have moderate concern for visual impacts resulting from the Proposed Project improvements. Likewise, occupants of this one residence are expected to have moderate concern for visual impacts of the Proposed Project improvements.

Visual Quality: Moderate. The primary focal points of this landscape are orchards situated to the east and west, as well as existing wood distribution poles flanking Arena Way. In the skyline above, existing overhead conductors are also visible and prominent in the foreground. Along both shoulders of Arena Way to the east and the west is a skirt of un-landscaped soil and sand. All of these visual attributes combine to create a visual quality that is considered moderate.

Overall Visual Sensitivity: Moderate. For travelers on Arena Way and the single residence in this area, and from KVP-7 specifically, the moderate-to-high viewer exposure, moderate viewer concern, and moderate visual quality lead to moderate overall visual sensitivity of the visual setting and viewing characteristics of the proposed Power Line Project.

Visual Change: Low-to-Moderate. The Figure 5.1-4B simulation depicts an unobstructed view of the Proposed Project power line. On the right (east) side of Arena Way new light-duty steel poles would be visible adjacent to the road; the closest is approximately 90 feet tall and approximately 300 feet from the simulation key viewpoint. The new poles are considerably taller than the existing wood poles and are a noticeable visual change in the landscape, particularly where the upper portions exceed the height of the orchards, revealing the poles against the sky. However, similar to the existing wood pole visible on the left side of Figure 5.1-4B, the lower segments of the new poles blend in with the orchard behind them, reducing their overall visibility, and thereby creating a low-to-moderate visual contrast. Although the new structures are a change in the landscape, they do not dominate the view. Given the presence of existing wood distribution poles and overhead conductors, the Proposed Project improvements represent only a small incremental change to the visual character of the roadway. The new structures do not create any view blockage or view impairment to any visual resource existing within this landscape. A comparison of the existing photograph and simulation demonstrates that the Proposed Project would result in a low-to-moderate visual change, and would not substantially alter the existing landscape character currently experienced by travelers on Arena Way. Referring to Table 5.1-2, Visual Impact Significance Criteria, the overall visual change seen from Arena Way would be low-to-moderate and in the context of the existing landscape's moderate visual sensitivity, the proposed Power Line Project would result in a less-than-significant impact to aesthetic and visual resources.

KVP-8: From Arena Way Near Liberty Avenue. Figure 5.1-5A (KVP-8) is a photo taken from Arena Way, near Liberty Avenue. This key viewpoint provides an unobstructed view of the existing condition from Arena Way near Liberty Avenue approximately 800 feet north of SR-99. This view of the existing landscape is representative of both motorists' and residents' point of view toward the project from the community of Arena. Near this key viewpoint, approximately a dozen residences face directly onto the roadway and the Proposed Project right of way. Existing wood distribution poles are visible on the right (west) side of the roadway, and in the distance, additional wood distribution poles can also be seen adjacent to Arena Way. Several residences are visible on the left (east) side of the roadway. Vehicular traffic along SR-99 is also visible near the center of this viewpoint, beyond the dead end of Arena Way.

Viewer Exposure: Moderate-To-High. Because there is little screening by landforms or vegetation from this key view point, the proposed distribution poles and overhead conductors would be highly visible in the landscape as seen looking south on Arena Way. Arena Way is a single lane rural road which is not

Existing View from Meadow Drive near West Lane looking southwest (KVP 1).

Source: PG&E, 2011.

Figure 5.1-3A

Meadow Drive Looking Toward Cressey Substation

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Visual Simulation of Proposed Project (KVP 1).

Source: PG&E, 2011.

Figure 5.1-3B

Simulation of Proposed Project as Seen from Meadow Drive Looking Toward Cressey Substation

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View from Arena Way near Walnut Avenue looking north (KVP 7).

Source: PG&E, 2011.

Figure 5.1-4A

Arena Way, near Walnut Avenue

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Visual Simulation of Proposed Project (KVP 7).

Source: PG&E, 2011.

Figure 5.1-4B

Simulation of Proposed Project as Seen from Arena Way, near Walnut Avenue

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traveled in high numbers, therefore, the number of viewers on Arena Way is considered low-to-moderate. For these viewers, the duration of view would be brief because of the speed of travel. Although the residential viewers adjacent to Arena Way are also fewer in numbers, the duration of view for them is considered to be extended. Based on the combination of all these factors and conditions, the overall viewer exposure for KVP-8 is considered moderate-to-high.

Viewer Concern: Moderate. A number of wood distribution poles and overhead conductors already exist adjacent to, and above the road; which are visible to travelers and residents along Arena Way. Because the visual character of this viewpoint already includes utility poles and conductors, as well as SR-99, travelers and residents can be expected to have moderate concern for visual impacts resulting from the Proposed Project improvements.

Visual Quality: Low-To-Moderate. The primary focal points of this landscape are the orchards to the right (west) of Arena Way, the vehicular traffic on SR-99 in the center of the view, as well as, existing wood distribution poles flanking Arena Way. In the skyline above to the right, existing overhead conductors are also visible in the foreground. Along both shoulders of Arena Way to the east and the west is a skirt of un-landscaped soil and sand. All of these visual attributes combine to create a visual quality that is considered low-to-moderate.

Overall Visual Sensitivity: Moderate. For travelers and residents along Arena Way and from KVP-8 specifically, the moderate-to-high viewer exposure, moderate viewer concern, and low-to-moderate visual quality lead to moderate overall visual sensitivity of the visual setting and viewing characteristics of the proposed Power Line Project.

Visual Change: Low-to-Moderate. The Figure 5.1-5B simulation depicts an unobstructed view of the Proposed Project distribution line where it crosses SR-99. On the left (east) side of the road, a 90-foot-tall wood pole is visible in the foreground; on the right (west) side, two tubular steel poles are visible against the skyline. The Proposed Project poles would replace existing wood poles, with the distribution line relocated to the replacement poles. In addition, on the right side of the roadway, PG&E proposes that a wood distribution pole would be removed as a result of implementation of APM AE-4 (Distribution Line Co-Location). The new taller wood pole structures would be located on the opposite side of Arena Way than the existing shorter wood distribution poles. The transmission lines and distribution lines crossing over the road would add some visual clutter. Due to their height, the proposed tubular steel poles (TSPs) adjacent to the roadway create a low-to-moderate visual contrast. Although the new structures are a change in the landscape, they do not dominate the view. Given the presence of existing wood distribution poles and overhead conductors, as well as SR-99, the Proposed Project improvements represent only an incremental change to the visual character of the roadway. The new structures do not create any view blockage or view impairment to any visual resource existing within this landscape. A comparison of the existing photograph and simulation demonstrates that the Proposed Project would result in a low-to-moderate visual change, and would not substantially alter the existing landscape character currently experienced by travelers or residents along Arena Way.

Referring to Table 5.1-2, Visual Impact Significance Criteria, the overall visual change seen from Arena Way would be low-to-moderate and in the context of the existing landscape's moderate visual sensitivity, the proposed Power Line Project would result in a less-than-significant impact to aesthetic and visual resources.

KVP-9: View from SR-99 near Liberty Avenue Exit Looking Northwest. Figure 5.1-6A (KVP 9) is a photo taken from SR-99 that shows a freeway motorist's existing view of the project where the route crosses the roadway. In light of the high traffic volumes on SR-99, this view represents the greatest number of

viewers that will see the project. In the distance, wood distribution poles and overhead lines are visible including an overhead distribution line that can be seen crossing over the highway. Further away, the Sultana Drive overpass as well as freeway signage are visible on the horizon. Mature tree clusters on the left (south) side of the roadway and orchards on the right (north) are additional landscape elements seen from this landscape location. The trees provide minimal screening of utility structures from this location.

Viewer Exposure: Moderate-To-High. Because there is little screening by landforms or vegetation from this key view point, the existing distribution poles and overhead conductors are highly visible in the landscape as seen looking north on SR-99. Traffic on this four-lane divided freeway is the highest volume of traffic in the project area; therefore, the number of viewers is high. For these viewers, the duration of view would be brief because of the speed of travel, which is 65 to 70 mph. The distance from this viewpoint to the power line is foreground, less than ½ mile away. Based on the combination of all these factors and conditions, the overall viewer exposure for KVP-9 is considered moderate-to-high.

Viewer Concern: Low. In this specific location along SR-99, and in the general viewshed of SR-99, there are a number of wood distribution poles and overhead conductors adjacent to, and above the freeway. These vertical and horizontal lines are visible to travelers along SR-99, and are a common visual experience along both sides of the freeway. Because the visual character of this viewpoint already includes utility poles and conductors, as well as SR-99 and the railroad ROW, travelers and residents can be expected to have low concern for visual impacts resulting from the Proposed Project improvements.

Visual Quality: Low. The primary focal points of this landscape are the freeway itself which creates a strong focal point for travelers, orchards to the right (north) of the freeway, as well as existing wood distribution poles on each side of SR-99. All of these visual attributes combine to create a visual quality that is considered low.

Overall Visual Sensitivity: Low-to-Moderate. For travelers along SR-99 and from KVP-9 specifically, the moderate-to-high viewer exposure, low viewer concern, and low visual quality lead to low-to-moderate overall visual sensitivity of the visual setting and viewing characteristics of the Proposed Project.

Visual Change: Low. Figure 5.1-6B simulates an unobstructed view of the project, including two approximately 80-foot-tall tubular steel poles that have weathered for 2 to 5 years to a dulled light-gray color, and that replace existing wood distribution poles, one on either side of the freeway. Until the weathering would occur, these two TSPs would reflect sunlight and would appear silver-gray and shiny, similar to the sunlight that is reflecting off cars and trucks in this photo and simulation. These structures are located more than 1,000 feet from the vantage point and support the project line, as well as the existing distribution line. The conductors of both of these lines can be seen crossing the highway. The new structures are taller and slightly bulkier than the existing poles. This is a view experienced by a relatively large number of motorists; however, views of the project from the roadway will be brief. A comparison of the existing photograph and simulation demonstrates that the project would result in an incremental visual change that would not substantially alter the existing landscape character currently experienced by SR-99 motorists. The new structures do not create any view blockage or view impairment to any visual resource existing within this landscape. A comparison of the existing photograph and simulation demonstrates that the Proposed Project would result in a low visual change, and would not substantially alter the existing landscape character currently experienced by travelers along SR-99.

Aspen Environmental Group

View from Arena Way near Liberty Avenue looking south (KVP 8).

Source: PG&E, 2011.

Figure 5.1-5A

Arena Way, near Liberty Avenue

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Visual Simulation of Proposed Project (KVP 8).

Source: PG&E, 2011.

Figure 5.1-5B

Simulation of Proposed Project as Seen from Arena Way, near Liberty Avenue

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View from Highway 99 near Liberty Avenue exit looking northwest (KVP 9).

Source: PG&E, 2011.

Figure 5.1-6A

View from Highway 99 near Liberty Avenue

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Visual Simulation of Proposed Project (KVP 9).

Source: PG&E, 2011.

Figure 5.1-6B

Simulation of Proposed Project as Seen from Highway 99 near Liberty Avenue

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Referring to Table 5.1-2, Visual Impact Significance Criteria, the overall visual change seen from SR-99 would be low and in the context of the existing landscape's low-to-moderate visual sensitivity, the Proposed Project would result in no impact to aesthetic or visual resources.

KVP-11: From Lincoln Boulevard at Newcastle Drive. Figure 5.1-7A (KVP-11) is a photo taken from Lincoln Boulevard, at Newcastle Drive. This key viewpoint provides an unobstructed view of the existing condition from Lincoln Boulevard at Newcastle Drive, located near the edge of the City of Livingston. The viewing direction is south, toward the Proposed Project right of way. This photograph is representative of views from the southern edge of the City of Livingston. The viewpoint is taken from a location adjacent to a produce warehouse. Although residential subdivisions have been proposed in the vicinity of KVP-11 and the Proposed Project, no construction has yet begun and the status of the proposed subdivisions is at present uncertain. They are therefore, not a consideration in this analysis. Existing wood distribution poles and overhead conductors are prominently visible along Lincoln Boulevard, and a second distribution line, supported by wood poles, is visible along Magnolia Avenue (the Proposed Project route).

Viewer Exposure: Moderate-to-High. Because there is little screening by landforms or vegetation from this key viewpoint, the proposed wood distribution poles and overhead conductors will be highly visible in the foreground of this landscape as seen looking south on Lincoln Boulevard. Lincoln Boulevard is a single lane rural road which is not traveled in high numbers, therefore, the number of viewers from this viewpoint is considered moderate. For these viewers, the duration of view would be brief-to-moderate due to the speed of travel. Based on the combination of all these factors and conditions, the overall viewer exposure for KVP-11 is considered moderate-to-high.

Viewer Concern: Moderate. A number of wood distribution poles and overhead conductors already exist adjacent to, and above, as well as perpendicular to the road; which are plainly visible to travelers along Lincoln Boulevard. Because the visual character of this viewpoint already includes utility poles and conductors, travelers can be expected to have moderate concern for visual impacts resulting from the Proposed Project improvements.

Visual Quality: Low-To-Moderate. The primary focal points of this landscape are flat, green farmlands visible to the right (west) side of Lincoln Boulevard, as well as existing wood distribution poles and conductors adjacent to the left (east) side of Lincoln. In the skyline above, the existing overhead conductors are a prominent feature in the foreground. Along both shoulders of Lincoln Boulevard, to the east and the west, is a skirt of un-landscaped soil, yellow grasses, and sand. All of these visual attributes combine to create a visual quality that is considered low-to-moderate.

Overall Visual Sensitivity: Moderate. For travelers on Lincoln Boulevard and from KVP-11 specifically, the moderate-to-high viewer exposure, moderate viewer concern, and low-to-moderate visual quality lead to moderate overall visual sensitivity of the visual setting and viewing characteristics of the proposed Power Line Project.

Visual Change: Low-to-Moderate. Figure 5.1-7B simulates an unobstructed view of the Proposed Project power line visible adjacent to Magnolia Avenue. The closest pole appears on the left side of the view at a distance of approximately 1,240 feet away, making this a foreground view. The existing distribution poles remain. Although the new, weathered light-duty steel poles are taller than the existing wood poles along Magnolia Avenue, the general form and appearance of the new poles is comparable to that of the existing structures, and thereby creating only a low-to-moderate visual contrast. Although the new structures are a change in the landscape, they do not dominate the view. Given the presence of existing wood distribution poles and overhead conductors, the Proposed Project changes represent only a small

incremental change to the visual character of the roadway. The new structures do not create any view blockage or view impairment to any visual resource existing within this landscape. A comparison of the existing photograph and simulation demonstrates that the Proposed Project would result in a low-to-moderate visual change, and would not substantially alter the existing landscape character currently experienced by viewers on Lincoln Boulevard. PG&E proposes to implement APM AE-4 (Distribution Line Co-Location) at this location, which would further reduce the visual impact.

Referring to Table 5.1-2, Visual Impact Significance Criteria, the overall visual change seen from Lincoln Boulevard would be low-to-moderate and in the context of the existing landscape's moderate visual sensitivity, the proposed Power Line Project would result in a less-than-significant impact to aesthetic and visual resources.

KVP-13: From Magnolia Avenue, Near Griffith Avenue. Figure 5.1-8A (KVP-13) is a photo taken from Magnolia Avenue, near Griffith Avenue, looking east. This key viewpoint provides an unobstructed view of the existing visual conditions. This location is only seasonably accessible. A gate exists to the east of this key viewpoint at Howard Road and Magnolia Avenue, which remains closed for portions of the year. This viewpoint is representative of views from the Gallo Winery property that would be experienced by Gallo employees rather than the general public. It also provides a general depiction of the western portion of the Proposed Project right-of-way. Mature vineyards and existing distribution poles with overhead conductors are visible along the left (north) side of Magnolia Avenue. One wood pole of the Gallo Tap power line is visible in the foreground of the existing landscape, on the left side of the photo and running in a north-south direction. Vineyards and roadside vegetation partially screen the base of this pole.

Viewer Exposure: Moderate. Because there is little screening by landforms or vegetation from this key viewpoint, the proposed wood power poles and overhead conductors would be highly visible in the landscape, as seen in the foreground looking east on Magnolia Avenue. Magnolia Avenue is a single lane rural road which is not traveled in high numbers, therefore, the number of viewers on Magnolia Avenue is considered low. For these viewers, the duration of view would be brief because of the speed of travel. Based on the combination of all these factors and conditions, the overall viewer exposure for KVP-13 is considered moderate.

Viewer Concern: Low-To-Moderate. A number of wood distribution poles and overhead conductors already exist adjacent to, and above the road; which are visible to travelers along Magnolia Avenue. Because the visual character of this viewpoint already includes utility poles and conductors, viewers can be expected to have low-to-moderate concern for visual impacts resulting from the Proposed Project improvements.

Visual Quality: Moderate. The primary focal points of this landscape are the Gallo vineyards adjacent to Magnolia Avenue on the left (north) side, as well as, existing wood distribution poles along Magnolia Avenue. On the right (south) side of Magnolia Avenue is a line of evenly spaced trees, which adds enframement and visual interest to this landscape. Across the skyline above, existing overhead conductors are also visible and prominent in the foreground. Along both shoulders of Magnolia Avenue, to the north and the south is a skirt of un-landscaped soil and sand. All of these visual attributes combine to create a visual quality that is considered moderate.

Overall Visual Sensitivity: Moderate. For travelers on Magnolia Avenue, and from KVP-13 specifically, the moderate viewer exposure, low-to-moderate viewer concern, and moderate visual quality lead to moderate overall visual sensitivity of the visual setting and viewing characteristics of the proposed Power Line Project.

View from Lincoln Boulevard at Newcastle Drive looking south (KVP 11).

Source: PG&E, 2011.

Figure 5.1-7A

Lincoln Boulevard, at Newcastle Drive

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Visual Simulation of Proposed Project (KVP 11).

Source: PG&E, 2011.

Figure 5.1-7B

Simulation of Proposed Project as Seen from Lincoln Boulevard, at Newcastle Drive

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Visual Change: Moderate. Figure 5.1-8B simulates an unobstructed view of the Proposed Project power line where it turns north from its east-west alignment along Magnolia Avenue, traversing through agricultural land. Wood replacement poles are visible against the skyline, adjacent to the left (north) side of Magnolia Avenue. The new replacement poles provide both the new power line and the relocated distribution line. In addition, two replacement poles, one TSP, and one double-circuit wood pole are visible along the Gallo Tap. These replacement poles deliver the new power line as well as the relocated Gallo Tap and distribution lines. The taller replacement poles are more prominent within the landscape than the existing wood poles.

The TSP is simulated with the dulled light-gray color that would be achieved after 2 to 5 years of weathering. The TSP would create a strong color contrast against the array of dark brown wood poles and/or dark brown LDS poles, thereby creating a high visual contrast in the long-term. Prior to weathering, the TSP would reflect sunlight and would appear silver-gray and shiny. This would also create a strong color contrast against the array of dark brown wood and/or LDS poles, thereby creating high visual contrast in the short-term. This one shiny silver-gray TSP would be a noticeable change in the array of wood poles, and it would draw attention of viewers because its color contrast would dominate the view.

This TSP is representative of the color contrast that would occur between the silver-gray (short-term) and light-gray (long-term) TSPs and the brown-colored wood/LDS poles at all TSP locations along the Proposed Project route where there would be a 90-degree turn in the alignment (six occurrences). Each TSP proposed at a 90-degree turn in the alignment would have this same short-term and long-term color contrast compared to the surrounding wood/LDS poles.

Overall, the new structures do not create any view blockage or view impairment to any visual resource existing within this landscape. PG&E proposes to implement APM AE-4 (Distribution Line Co-Location) at this location, which would reduce the overall number and visibility of power poles in the project area. However, because of the color contrast of this shiny light gray TSP and the dark brown wood and/or LDS poles, a comparison of the existing photograph and simulation demonstrates that the Proposed Project would result in a moderate-to-high visual change, and would substantially alter the existing landscape character currently experienced by viewers from Magnolia Avenue.

Referring to Table 5.1-2, Visual Impact Significance Criteria, the overall visual change seen from Magnolia Avenue would be moderate-to-high and in the context of the existing landscape's moderate visual sensitivity, the Proposed Project would result in a less-than-significant impact to aesthetic and visual resources with incorporation of Mitigation Measure V-1.

Implementation of Mitigation Measure V-1 (Treat New Galvanized Steel, including New Light-Duty Steel Poles and New Tubular Steel Poles, to Blend with the Sky), set forth in Section 5.1.4, would reduce the strong visual contrast of color changes between the dark brown wood and/or light duty steel poles and the dulled light-gray color (short-term and long-term) of the new TSP and LDS poles. Implementation of Mitigation Measure V-1 would reduce visual contrasts of the TSP to a less than significant level.

KVP-15: From Mercedes Avenue, East of Santa Fe Drive (County Road 37). Figure 5.1-9A (KVP-15) is a photo taken from Mercedes Avenue, east of Santa Fe Drive, looking east. This key viewpoint provides an unobstructed view of the existing condition along Mercedes Avenue, looking east along the proposed power line route. This view is representative of the eastbound motorists' point of view, and also of several nearby residences adjacent to Mercedes Avenue. Existing wood distribution poles and accompanying overhead conductors are visible along the right (south) side of Mercedes Avenue. Multiple orchards are also present on north and south sides of roadway, as well as a newly planted orchard on the right,

with bare soil and white collars around tree saplings. In addition, a residential driveway, mailbox, lighted bollard fence, and residential landscaping with shrubs, boulders, and lawn are visible on the right (south) side of Mercedes Avenue.

Viewer Exposure: Moderate-to-High. Because there is little screening by landforms or vegetation from this key viewpoint, the proposed tubular steel pole and 90-degree angle of overhead conductors would be highly visible in the landscape as seen looking east on Mercedes Avenue. Mercedes Avenue is a single lane rural road which is not traveled in high numbers; therefore, the number of viewers on Mercedes Avenue is considered low-to-moderate. For these traveling viewers, the duration of view would be brief because of the speed of travel. However, for the residential viewers adjacent to Mercedes Avenue, the duration of view would be extended. Based on the combination of all these factors and conditions, the overall viewer exposure for KVP-15 is considered moderate-to-high.

Viewer Concern: High. A number of wood distribution poles and overhead conductors already exist adjacent to the right (south) side of Mercedes Avenue, which are already visible along the roadway to both travelers and residents alike. Because the visual character of this viewpoint already includes utility poles and conductors, travelers can be expected to have moderate concern for visual impacts resulting from the Proposed Project improvements. Yet, for residents adjacent to Mercedes Avenue who possess an extended duration of view, viewer concern is considered high.

Visual Quality: Moderate-to-High. The primary focal points of this landscape are the orchards flanking the roadway, both north and south, as well as existing wood distribution poles adjacent to the right (south) side of Mercedes Avenue. In the skyline above, existing overhead conductors are also visible and prominent in the foreground. Along both shoulders of Mercedes Avenue to the north and the south there is an apron of un-landscaped grasses and bare soil. The residential landscaping in this view increases visual quality to high at the driveway and near the new tubular steel pole. All of these visual attributes combine to create a visual quality that is considered moderate-to-high.

Overall Visual Sensitivity: Moderate-To-High. For travelers on Mercedes Avenue and the residential viewers in this vicinity, and from KVP-15 specifically, the moderate-to-high viewer exposure, high viewer concern, and moderate-to-high visual quality lead to moderate-to-high overall visual sensitivity of the visual setting and viewing characteristics of the proposed Power Line Project.

Visual Change: Moderate-to-High. The Figure 5.1-9B simulation depicts an unobstructed view of the Proposed Project power line where it turns from a north-south alignment to an east-west alignment at Mercedes Avenue. A large (5’ to 7’) diameter x 80’ tall, shiny, light gray tubular steel pole is visible against the skyline, adjacent to the right (south) side of Mercedes Avenue and the private residential driveway. The new tubular steel pole provides both the new power line and the relocated distribution line, which continues further east on existing wood poles. The taller and wider tubular steel pole is more visually prominent within the landscape than the existing wood pole that it replaces, thereby creating a moderate-to-high visual contrast. The new tubular steel pole is a noticeable change in the landscape, and it dominates this view, especially for nearby residents who have a long duration view and are familiar with the landscape. PG&E proposes to implement APM AE-4 (Distribution Line Co-Location) at this location, which would reduce somewhat the overall number and visibility of power poles at this location. Given the presence of existing wood distribution poles and overhead conductors, the Proposed Project improvements would represent only a small incremental change to the visual character of the roadway for traveling public, but represent a major change of view for nearby residents. The new structure would create view blockage and view impairment for the adjacent private residence, which is sited at a 45-degree angle to the road, rather than parallel to the road, and therefore the residence has front

View from Magnolia Avenue near Griffith Avenue looking east (KVP 13).

Source: PG&E, 2011.

Figure 5.1-8A

Magnolia Avenue, near Griffith Avenue

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Source: Lee Roger Anderson and 3DScape, 2012.

Figure 5.1-8B
Simulation of Proposed Project as Seen from Magnolia Avenue near Griffith Avenue

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windows and front yard facing directly at the new tubular steel pole. A comparison of the existing photograph and simulation demonstrates that the Proposed Project would result in a high visual change, and would substantially alter the existing landscape character currently experienced by travelers on Mercedes Avenue and for nearby and adjacent residents.

Referring to Table 5.1-2, Visual Impact Significance Criteria, the overall visual change seen from Mercedes Avenue would be high, and the existing landscape has a moderate-to-high visual sensitivity. However, as discussed in Section 5.1.4, with implementation of Mitigation Measures V-1 (Treat New Galvanized Steel, including New Light-Duty Steel Poles and New Tubular Steel Poles, to Blend with the Sky) and V-2 (Install Slimmer Light Gray Tubular Steel Pole Treated With CrysCoat and Vegetative Screening at Mercedes Avenue Crossing), KVP-15, the view seen from Mercedes Avenue, east of Santa Fe Drive (County Road 37), would represent a less than significant visual impact.

5.1.4 Aesthetic Impacts of Construction, Operation, and Maintenance

Section 5.1.3 (Visual Analysis) determines the Visual Sensitivity and Visual Change of each Key Viewpoint listed in Table 5.1 2 (Visual Impact Significance Criteria) and concludes whether visual impacts would be less than significant or potentially significant. Based on the results of the Visual Analysis in Section 5.1.3, the following discussion evaluates potential project construction, operation, and maintenance impacts on aesthetics/visual resources against the significance criteria established by CEQA Guidelines, Appendix G.

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

Significance criteria established by CEQA Guidelines, Appendix G.

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. No recognized scenic vistas have been identified within the project viewshed.

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

NO IMPACT. No designated state scenic routes are near the project area; the nearest designated state scenic highway, Interstate 5 and SR-152, are located approximately 18 miles from the project (Caltrans, 2012). The project would not be visible from these scenic highways. Therefore, the project would not affect scenic resources within a state scenic highway corridor.

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

LESS THAN SIGNIFICANT IMPACT – CONSTRUCTION. The project would not substantially degrade the existing visual character or quality of the two substation sites or the power line and its surroundings. During construction, visual impacts would include the presence of workers, temporary structures, construction equipment, and vehicles associated with the installation of poles and substation components. Some portions of the project would lie adjacent to public roadways; other portions of the route and Gallo Substation would not be visible to the public. Construction is expected to take approximately nine months, but less time at any one location along the project route. The project lies in an area where mechanized agricultural production activities typically employ the use of trucks and other equipment that is not unlike construction equipment. In addition, nearby residences are generally screened by vegetation. Due to the existing presence of mechanized agricultural activities, the limited number of affected viewers, the limited visibility of the route from public roadways, and the temporary nature of construction along the route, temporary construction-related visual effects would be less than significant. Implementation of APM AE-1 would further minimize these less-than-significant impacts.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED – OPERATIONS AND MAINTENANCE. The project would involve improvements at two existing substations and would introduce approximately 14.4 miles of new power line. Approximately two-thirds of the Proposed Project would follow public roadways where, for the most part, distribution lines currently exist. The remaining one-third of the route crosses (private) agricultural lands where the project would have limited visibility. The project involves minimal grading and vegetation removal. Project construction would require removal of three almond trees in an orchard located on private land between Eucalyptus Avenue and Mercedes Avenue. This visual change would be minor and not noticeable to the public. In general, the project vicinity is a working landscape and heavily modified for agricultural production activity. Electric utility structures including existing substations, wood poles, and overhead lines are currently seen in the immediate vicinity. Large-scale agricultural processing facilities are also a part of the landscape setting.

The Figure 5.1-3B simulation indicates that improvements at Cressey Substation would be noticeable from short segments of lightly traveled rural roadways adjacent to the facility; however, given the brief duration of views and the presence of the existing substation, the overall quality of the landscape setting in this area would not be substantially altered. Gallo Substation is located within the context of a large-scale industrial agricultural facility and public views of this facility are both distant and limited. Therefore the visual change at Gallo Substation would generally not be noticeable.

Close-range, unobstructed views of the power line would occur along public roads and from nearby residences. However, as described in Section 5.1.3.7 and depicted in Figures 5.1-3A through 5.1-9B, the project represents an incremental visual change to the visual landscape setting. The project will introduce new wood, light-duty steel, and tubular steel poles, along with overhead conductors, to a landscape in which existing electric utility structures, including power poles and overhead lines, are present. The project will not obstruct views to the Coast or Sierra ranges or nearby rivers. Overall the changes brought about by the project will not substantially degrade the existing visual character or quality of the landscape setting. With the aesthetics APMs proposed as part of the project and additional mitigation measures set forth below, less-than-significant impacts to visual resources would be further reduced along the route.

Environmental Assessment of Implementation of Mitigation Measures V-1 and V-2

As discussed under Section 5.1.3.7, the proposed TSPs along the project route would be galvanized steel that would appear shiny and silver-colored (short-term) and would weather to a light-gray color (long-term) that would permanently contrast with the dark brown color of new creosote-treated wood poles or dark brown LDS poles. Six of the 11 TSPs would be at 90-degree turn locations in the power line alignment that, when seen in context of the array of wood/wood-colored poles, would create a permanent high visual contrast. Implementation of Mitigation Measure V-1 (Treat New Galvanized Steel, including New Light-Duty Steel Poles and New Tubular Steel Poles, to Blend with the Sky) would reduce the strong visual contrast of color changes between wood and/or dark brown LDS poles and the shiny silver-gray color (short-term) and dulled light-gray color (long-term) of all TSPs. This color contrast reduction would reduce visual contrasts to a less than significant level for all locations.

Implementation of Mitigation Measure V-2 (Install Slimmer Light Gray Tubular Steel Pole Treated With CrysCoat and Vegetative Screening at Mercedes Avenue Crossing) would reduce the strong visual contrast of the large diameter TSP at Mercedes Avenue. Figure 5.1-9C shows the reduction of visual contrast with the implementation of 27" diameter TSP and without vegetative screening, per Mitigation Measure V-2 at KVP-15. Figure 5.1-9D shows the reduction of visual contrast with the implementation of 27" diameter TSP with vegetative screening, per Mitigation Measure V-2 at KVP-15.

Referring to Table 5.1-2, Visual Impact Significance Criteria, the overall visual change seen from Mercedes Avenue would be moderate and in the context of the existing landscape's moderate-to-high visual sensitivity, the Proposed Project would result in a less-than-significant impact to aesthetic or visual resources with incorporation of Mitigation Measures V-1 and V-2.

Mitigation Measures for Impacts to Existing Visual Character

MM V-1 **Treat New Galvanized Steel, including New Light-Duty Steel Poles and New Tubular Steel Poles, to Blend with the Sky.** Prior to installation, PG&E shall treat new galvanized steel structures, including light-duty steel poles and tubular steel poles, with a permanent surface treatment designed to render steel with a light gray color in the short-term and a light gray color and a dulled non-reflective patina in the long-term.

MM V-2 **Install Slimmer Light Gray Tubular Steel Pole Treated with CrysCoat (or equal) and Vegetative Screening at Mercedes Avenue Crossing.** At the 90-degree turn and crossing of Mercedes Avenue, the base of the tubular steel pole installed by PG&E shall be 27 inches or smaller in diameter with appropriate taper, with a permanent surface treatment designed to render steel with a light gray color and a dulled non-reflective patina in the short-term and the long-term (CrysCoat or equal).

Additionally, PG&E shall offer to the owner and/or tenant of 1925 Mercedes Avenue additional vegetative screening, if desired, between the residence and the new pole at that location, consistent with feasibility and engineering requirements. Plant materials selected for screening shall be acclimated to the environment of the project area. PG&E shall submit an engineering sketch of the pole, and report landowner requests and PG&E's responses to the CPUC prior to the start of construction of the pole.

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 IMPACT - GLARE. Glare exists when a high degree of contrast between bright and dark areas in a field of view makes it difficult for the human eye to adjust to differences in brightness. At high levels, glare can make it difficult to see, such as when driving westward at sunset. APM AE-2, which calls for the use of a galvanized finish that will weather to a dull, non-reflective patina on new chain link fencing and equipment enclosures located at the existing substations, would minimize the potential effect of glare and keep the impact below the level of significance. Additionally, implementation of Mitigation Measure V-1 (Treat New Galvanized Steel, including New Light-Duty Steel Poles and New Tubular Steel Poles, to Blend with the Sky) would reduce glint and glare from shiny new galvanized steel to less than significant levels in the short- and long-terms.

LESS THAN SIGNIFICANT IMPACT - NIGHTTIME LIGHTING. During construction, if work must be accomplished at night, portable temporary lighting will be used to illuminate the immediate work area. Current project plans call for construction activities to take place during daylight hours and for nighttime construction activities to be avoided, if possible.

The project is in a rural setting with little roadway lighting adjacent to the site. Lighting sources tend to be localized and associated with agricultural processing facilities, residences, and some roadway intersections including interchanges along SR-99. The City of Livingston, 0.25 miles away from the project, has street lighting. No new lighting is proposed along the power line. The project will include new nighttime lighting on some new structures at two existing substations; the new lighting will be operated as needed for safety, security, and emergency nighttime work. Safety and security lighting will use a Dark Sky rated element (automatically turns on at night). The yard's operational and maintenance lighting will have a manual switch to allow the lighting to be turned off when not in use. Nighttime operation and maintenance work is not typically planned, but may occur, infrequently, on an emergency basis as needed. The additional lighting would represent a minor incremental change to existing nighttime lighting conditions at the two substations. Night lighting impacts would be less than significant with implementation of APM AE-3 (Nighttime substation lighting to minimize potential visual impacts).

View from Mercedes Avenue east of Santa Fe Avenue (KVP 15).

Source: Lee Roger Anderson & 3DScape, 2012

Figure 5.1-9A

Mercedes Avenue
East of Santa Fe Avenue

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Source: Lee Roger Anderson and 3DScape, 2012.

Figure 5.1-9B
Simulation of Proposed Project as Seen from Mercedes Avenue East of Santa Fe Avenue

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Source: PG&E, 2012.

Figure 5.1-9C

Simulation of Proposed Project as Seen from Mercedes Avenue East of Santa Fe Avenue with Implementation of Mitigation Measures V-1 and V-2

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Figure 5.1-9D

Simulation of Proposed Project as Seen from Mercedes Avenue with Implementation of Mitigation Measures V-1 and V-2 (27" TSP with Vegetative Screening)

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Source: PG&E, 2012.

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