

## 15.0 VISUAL RESOURCES

### 15.1 INTRODUCTION AND METHODOLOGY

Visual resources are generally defined as the natural and built features of the landscape that can be seen. Landforms, water, and vegetation patterns are among the natural landscape features that define an area's visual character, whereas buildings, roads and other structures reflect human modifications to the landscape. These natural and built landscape features are considered "visual resources" that contribute to the public's experience and appreciation of the environment.

This chapter analyzes whether the project would alter the perceived visual character of the environment and cause visual impacts. The methodology involved documenting existing visual resources in the study area and using various methods, such as computer-generated visual simulations and others techniques listed below, to assess the potential impacts. This chapter concludes that replacing the existing single-circuit transmission line with a double-circuit line in the existing corridor will have a less than significant impact on visual resources.

The methods for analyzing visual impacts included:

- Researching local planning documents,
- Analyzing project maps, engineering drawings, and technical data,
- Obtaining aerial and ground level photographs,
- Identifying key observation points,
- Creating computer-generated photo realistic visual simulations (see Appendix C), and
- Assessing magnitude of the incremental change to the existing visual baseline posed by the project.

Site reconnaissance was conducted during August 2002 through November 2003 to observe the project area, take representative photographs of existing visual conditions, and identify key observation points (KOP) appropriate for visual simulations.

This study employed visual impact assessment methods developed and refined by EDAW over the past 20 years for a variety of federal, state, and local projects. The study was also designed to respond to the California Environmental Quality Act (CEQA) Appendix G Guidelines for visual impact analysis, which emphasize the protection of established scenic resources and existing visual characteristics of a project area.

CEQA requires a comparison of the existing baseline visual setting in the project area with the visual setting that will exist following completion of the project to determine whether the incremental change is significant. In this case, the existing baseline condition includes among its more prominent visual features an existing overhead transmission line occupying all segments of the project route. Central to this PEA visual assessment, then, is an evaluation of the incremental changes in the appearance of the project area that would result from replacing the existing 115 kV poles and overhead conductors with somewhat taller 115 kV poles and overhead conductors. The presence of the existing transmission line makes this project very different from an aesthetic perspective than a more typical transmission project involving construction of a brand new line in a “greenfield” setting.

This assessment evaluated changes to existing visual resources that will result from construction and operation of the project. These changes were assessed, in part, by comparing “before” views of existing conditions with “after” views created by computer-generated photo realistic visual simulations. Consideration was given to the following factors in determining the extent and implications of the visual changes:

- Specific changes in the environment’s visual composition, character, and any specially valued qualities,
- The visual context (what surrounds the study area),
- The extent to which the affected environment contains places or features that have been designated in government plans for visual protection or special consideration, and
- Particular consideration was given to effects on landscapes visible in the foreground from designated scenic routes and residential areas.

For the purposes of this analysis, the following distances were used to define foreground, middleground and background views of the project facilities:

Foreground    0 to ¼-mile distance  
Middleground   ¼-mile to ½-mile distance  
Background    ½-mile and beyond

### **15.1.1 Visual Simulation Methodology**

The following methodology was used to produce the visual simulations of the project in Appendix C<sup>1</sup>. A visual simulation is produced by combining site photography with accurate,

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<sup>1</sup> The visual simulations are based on preliminary engineering plans provided by PG&E, which are subject to change as a result of the CPUC permit process, final engineering, and any necessary adjustments during construction.

rendered computer models to predict what would be seen if the proposed project were actually built. Currently, there are no existing CEQA or NEPA guidelines for the technical production of visual simulations, though the methodology used is a typical visual simulation process and conforms to standard practices in the industry. Creation of visual simulations to analyze the potential impacts of the project can be broken into three primary steps:

- Site Reconnaissance/Photographs
- Computer Modeling
- Photo Editing

#### 15.1.1.1 Site Reconnaissance/Photography

A site reconnaissance was conducted for the study area. An inventory of representative viewpoint photographs was shot using a 45mm focal length panoramic camera, from which existing conditions images were selected for use in visual simulations. The panoramic format doubled the horizontal field-of-view of a conventional 35mm camera body. This was done to show the broader existing context in which the proposed project will sit. This was also done in anticipation of being able to view a greater portion of the project in a visual simulation without the limitations of a standard 35mm aspect ratio. To maintain consistency, all views were taken with this panoramic camera at the aforementioned 45mm focal length mounted on a tripod at a height of 5 feet. Date, time of day, and geographic location identified using a GPS unit were documented. This information was subsequently integrated into a GIS spatial database in ESRI ArcView and Autodesk Land Desktop and a 3D site model in World Construction Set and 3DMax release 6.

#### 15.1.1.2 Computer Modeling

To portray the proposed project from the selected viewpoints, a three dimensional (3D) computer model was produced using 3DMax release 6. The model was comprised of the following components:

1. Base / Context Model
2. Proposed Pole Types
3. Proposed Substation Improvements
4. Virtual Cameras
5. Daylighting

### *Base Model / Context Model*

The base model is a scene of the study area measured in real-world units<sup>2</sup>. It is the virtual environment that contains all of the modeled components used to produce the visual simulations (proposed pole types, proposed substations, virtual cameras, and daylighting). The base model was generated to provide accurate contextual information for the location and placement of the 3D modeled components in the life-size computer environment. The following data was used to develop the 3D base model:

1. 10m USGS Digital Elevation Models
2. ESRI ArcView Shapefiles
  - a. Existing Roads
  - b. Proposed Access Roads
  - c. Viewpoint Locations
  - d. Substation Locations
  - e. Existing Pole Locations
  - f. Proposed Pole Locations

All components were combined into a cohesive base layer in Autodesk Land Desktop and translated to three dimensions in World Construction Set and 3DMax 6, a computer modeling application.

### *Proposed Pole Types*

3D models of the proposed pole types were modeled per typical design specifications for this project provided by PG&E engineering staff in combination with schematic plan and elevation drawings from the PG&E standards library. These drawings showed general dimensions from which 3D pole types were modeled life-size in 3DMax release 6 so that scale and dimensions are accurate. Materials and paint colors of the proposed pole types were based on reference photos of existing equipment and discussions with PG&E project engineering team. The modeled poles were inserted at the appropriate position in the context model based on the GIS data layer locating proposed poles.

### *Proposed Substation Improvements*

3D models of the proposed improvements to the Lakeville and Sonoma substations were modeled per typical design specifications for this project provided by PG&E engineering staff. Schematic plan

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<sup>2</sup> Use of scale within the computer modeling environment is not necessary. The computer model is life size.

and elevation drawings were provided showing general dimensions and detail from which substation equipment were modeled life-size in 3DMax release 6 so that scale and dimensions are accurate. Materials and paint colors of the proposed equipment were based on reference photos of existing equipment and discussions with PG&E project engineering team. The modeled equipment was inserted at the appropriate location in the context model based on the GIS data layer.

### *Virtual Cameras*

Representative viewpoint locations were photographed with a digital camera for which the x,y,z coordinate position of the camera, focal length of the camera lens, and eye-level height of the photographer were identified. This data was integrated into the three dimensional computer model to create virtual camera viewpoints that match the positions in the life-size computer modeled environment to the lens of the original camera. This means that the 3D model of the proposed buildings and facilities in the scene accurately portrayed the proposed project in scale and distance from the representative viewpoint.

### *Daylighting*

To accurately portray and render the 3D computer model under daylight conditions relative to each viewpoint, the date, time of day, and geographic location for each view were parametrically programmed into 3DMax release 6 to generate appropriate sun angles.

#### 15.1.1.3 Photo-Editing

Once the model was constructed and virtual cameras matched to the photographs, the rendering of the computer model from each viewpoint was composited over the existing conditions viewpoints using image editing software such as Photoshop or QFX. In this step, details from the computer model were blended seamlessly into the base photograph to produce the final visual simulation.

## **15.2 REGULATORY FRAMEWORK**

### **15.2.1 Summary of Adopted Plans and Policies**

The project will traverse lands under the jurisdiction of the City of Sonoma and Sonoma County, both of which have adopted various planning documents containing goals and policies related to scenic resources and utility lines. This section analyzes relevant policies contained within these agencies' general plans and zoning ordinances. However, while the City and County of Sonoma have authority over land developments within their boundaries, the California Public Utilities Commission (CPUC) has exclusive jurisdiction over siting and design of investor-owned utility projects throughout California, and thus preempts local permitting authorities for this project

### 15.2.1.1 CPUC Policies

The CPUC regulates privately owned telecommunications, electric, natural gas, water, railroad, rail transit, and passenger transportation companies. The CPUC is responsible for assuring that California utility customers have safe, reliable utility service at reasonable rates, protecting utility customers from fraud, and promoting the health of California's economy. The California Public Utilities Commission preempts the jurisdiction of local agencies on this project.

### 15.2.1.2 Sonoma County General Plan

Most of the project (about 6.95 miles of the 7.23 mile transmission line) lies within unincorporated Sonoma County lands (see previous Figure 11-1 in Chapter 11). The County's General Plan contains policies that apply to the visual resources of proposed developments. The Open Space Element mainly addresses visual (scenic) resources and is coordinated with the Public Safety, Public Facilities, Agricultural Resources, and Resource Conservation Elements. The purpose of the Open Space Element is to preserve the natural and scenic resources which contribute to the general welfare and quality of life for the residents of the county and to maintain the tourism industry.

As stated in the General Plan, "certain public utilities, such as electricity, natural gas and telephone services, require transmission and maintenance facilities that may affect natural and scenic resources or neighborhood character." The purpose of the Public Facilities and Services Element is to establish policies for the designation of new facilities and provide for the review of proposed infrastructure, including utilities.

#### *Scenic Landscape Units*

The project crosses two "scenic landscape units" (the Sonoma Mountains and the Sonoma Creek corridor, between Arnold Road and Highway 12) identified in Sonoma County's Open Space Element, Figure OS-2 Schematic Map of Designated Scenic Resource Areas. The Element states that the "Sonoma Mountains . . . are highly valuable scenic lands, clearly defining the eastern edge of the Santa Rosa plain between Petaluma and Sonoma. They provide an important backdrop to the urban valley" (Sonoma County 1998).

The following visual goals and policies from the Sonoma County General Plan, Open Space Element pertain to the project:

- OS-2: Retain the largely open, scenic character of important scenic landscape units.
- OS-2.1: Retain a rural, scenic character in scenic landscape units with very low intensities of development.

OS-2d: Apply the Scenic Resources Combining District consistent with the Open Space Element to all lands located within scenic landscape units.

The Scenic Resources Combining District (a zoning designation) makes all structures located within scenic landscape units subject to the following criteria:

- Structures shall be sited below exposed ridgelines
- Structures shall use natural landforms and existing vegetation to screen them from public roads
- Cuts and fills are discouraged
- Utilities are placed underground where economically practical

#### *Scenic Corridors*

The project crosses two “county scenic corridors” (Abode Road and Arnold Drive) designated in the Sonoma County General Plan, as shown on Figure 15-1. The following visual goals and policies from the Open Space Element pertain to the project:

- OS-3: Identify and preserve roadside landscapes which have a high visual quality as they contribute to the living environment of local residents and the county’s tourism economy.
- OS-3.2: Provide guidelines so future land uses, development, and roadway construction are compatible with the preservation of scenic values along designated scenic highway corridors.
- OS-3a: Apply the Scenic Resources Combining District to those portions of properties within scenic corridor setbacks.
- OS-3c: Establish a rural scenic corridor setback of 30 percent of the depth of the lot to a maximum of 200 feet from the centerline of the road unless a different setback is provided in the planning area policies of the Land Use Element. Prohibit development within the setback with the following exceptions:

Maintenance, restoration, reconstruction, or minor expansion of existing structures.

Other new structures if they are subject to design review and:

- a. they are associated with existing structures,
- b. there is no other reasonable location for the structure,

- c. the location within the setback is necessary for the use, or
- d. existing vegetation and topography screen the use.

OS-3b: For development on parcels located both within scenic landscape units and adjacent to scenic corridors, apply the more restrictive siting and setback policies to preserve visual quality.

OS-3h: Design public works projects to minimize tree damage and removal along scenic corridors. Where trees must be removed, design replanting programs so as to accommodate ultimate planned highway improvements. Require revegetation following grading and road cuts.

#### *Utility Corridors*

The following goals and policies from the Public Facilities and Services Element pertain to the project:

PF-2.10: Locate and design public utility transmission, distribution, and maintenance facilities to minimize adverse effects on natural and scenic resources.

PF-2t: Give priority to use of existing utility corridors over new corridors.

PF-2w: Encourage consolidation of multiple utility lines into common utility corridors wherever practicable.

PF-2v: Consider requiring the undergrounding of new electrical transmission and distribution lines where appropriate in designated open space areas and in selected urban areas. Where feasible and under the Public Utility Commission (PUC) rules, convert existing overhead lines to underground facilities in urban areas.

#### 15.2.1.3 City of Sonoma General Plan

The City of Sonoma is the southern most urbanized area in Sonoma County. Of the project elements, only the Sonoma Substation is located within the City's jurisdiction (see Figure 11-1). City of Sonoma land is located to the north of Leveroni Road, whereas Sonoma County land borders this roadway to the south (where the transmission line is located).



# LEGEND

 Ridgetop Areas

 Slope > 30 %

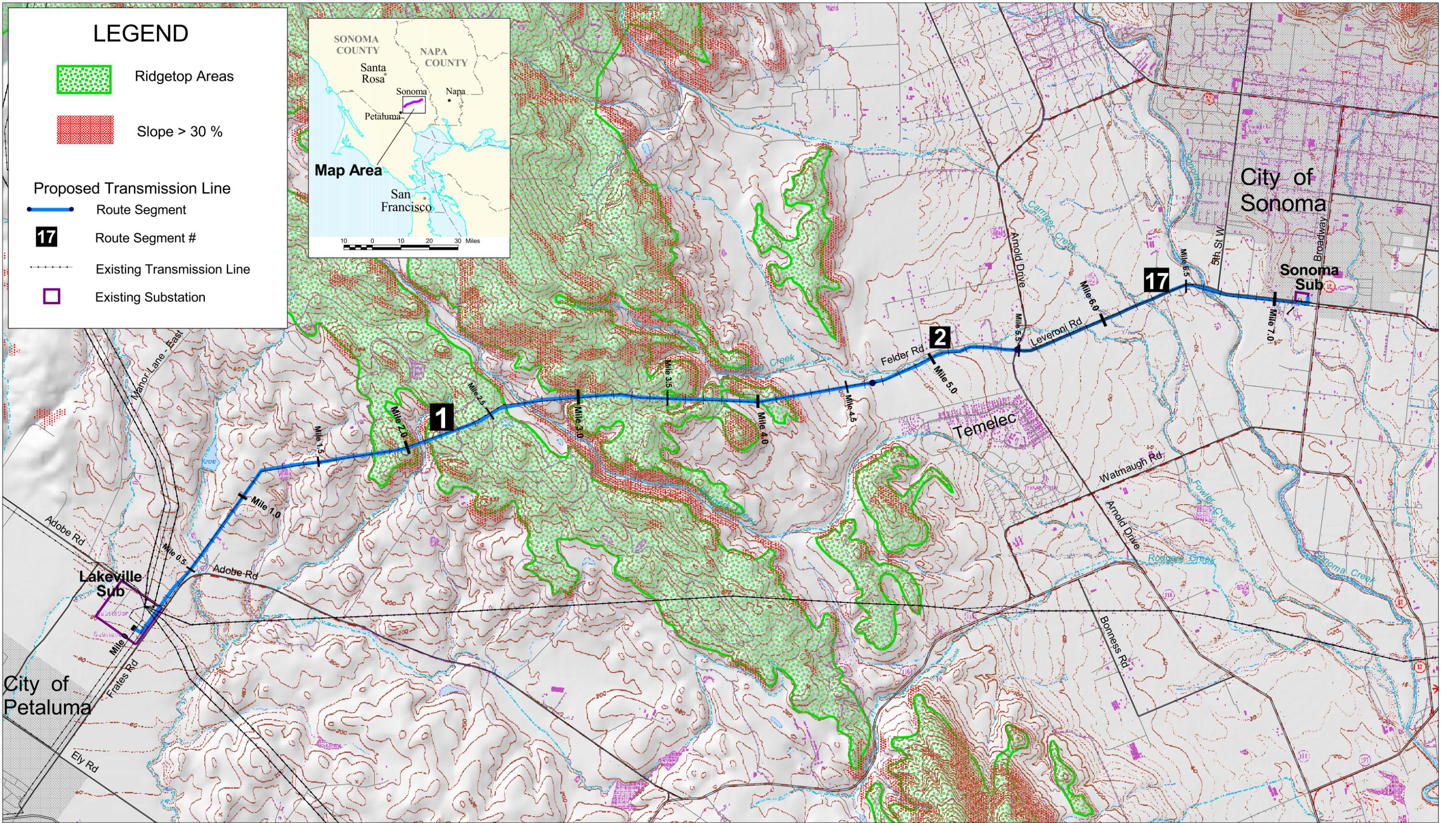
Proposed Transmission Line

 Route Segment

**17** Route Segment #

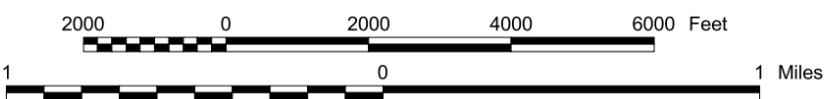
 Existing Transmission Line

 Existing Substation



Source: USGS DRG & DEM / PG&E GIS / EDAW, Inc. 2004

## Lakeville-Sonoma 115 kV Transmission Line Project



Scale 1 : 31,680  
1" = 1/2 mile

FIGURE 15-2

Visual resources are protected through goals and polices in the City's General Plan, as well as in the Environmental Technical Appendix. The Community Development Element (CDE) and the Environmental Resources Element (ERE) also contain have goals, policies, and implementation measures that apply to the protection of visual resources. Visual policies that pertain to the proposed project include:

- CDE-6 Policy 26:** The following locations shall be designated as gateways and shall be developed and improved with landscaping and other improvements to clearly mark the entrances to Sonoma:
- Leveroni Road & Sonoma Creek
  - Broadway/Napa Road & Leveroni (Four Corners gateway)

The transmission line crosses the Leveroni Road & Sonoma Creek gateway, but does not cross the Four Corners gateway. It stops at the Sonoma Substation west of the intersection.

CDE-6 Policy 20: Important scenic vistas shall be protected.

The General Plan identifies a scenic vista on Leveroni Road at Harrington Drive looking west toward the Leveroni & Sonoma Creek gateway, as shown on Figure 15-1. (Harrington Drive is just east of Fifth Street.) The view is similar to that shown in Photo 9 later in this chapter, with trees in the foreground and the hills in the distance.

ERE-2 Policy 9: Development shall be prohibited on ridgelines.

ERE-2 Policy 10: The City shall work closely with the County and the Sonoma Valley Citizens Advisory Commission to monitor hillside development in areas within the City's viewshed.

As noted in the Environmental Technical Appendix,

“The City's General Plan does not refer to scenic units as such. The hillside backdrop and the large areas of agricultural land surrounding the city, the two areas which could fall into this category, are protected. The hillside backdrop is recognized as a distinct and important visual resource. Development on hillside areas is addressed at the policy and implementation level to limit development. The agricultural lands surrounding the city are protected by concentrating future development within and adjacent to the city. The City of Sonoma General Plan includes policies protecting existing agricultural and open space lands and encouraging agricultural activities. Taken together, these policies

combine in the General Plan to refer to the hillside backdrop and the surrounding agricultural lands as a greenbelt to be protected and maintained.”

The previous Figure 15-2 shows hillsides (with a slope of 30 percent or greater) and ridgetop areas that are traversed by the transmission line. This figure depicts both Sonoma County and City of Sonoma lands. The City of Sonoma’s boundary and sphere of influence stop just east of Sonoma Creek. Thus the hillside areas are outside of the City’s jurisdiction and rest with the County.

#### *Scenic Roadways*

The City of Sonoma General Plan does not designate any roadways as scenic.

#### 15.2.1.4 California State Scenic Highways Program

No portion of the existing transmission line is visible from an officially designated State Scenic Highway. The nearest state scenic highways include a segment of Highway 12 near Santa Rosa (3 miles north of the project area) and a segment of Highway 116 (20 miles north of the project). The nearest highway that is “eligible” for a state scenic highway designation is Highway 12 in the City of Sonoma, just east of the Sonoma Substation. The east end of the transmission line (approximately 2 to 4 poles) and the Sonoma Substation are visible from the intersection of Highway 12 and Leveroni Road. The City could apply to the state at any time to officially designate Highway 12 a state scenic highway; however, because of the amount and type of development that currently borders Highway 12 through the city, extensive visual improvements would be required.

California's Scenic Highway Program was created by the Legislature in 1963 to preserve and protect scenic highway corridors from change which would diminish the aesthetic value of lands adjacent to highways (Streets and Highways Code, Section 260 et seq.). Section 320 of the California Public Utilities Code requires that all new or relocated electric and communication distribution facilities within 1,000 feet of an official designated scenic highway and visible from that highway, be buried underground where feasible.

A scenic corridor is the land generally adjacent to and visible from the roadway, using a motorist’s line of vision. A reasonable boundary is selected when the view extends to the distant horizon. Jurisdictional boundaries of cities and counties are also considered. A highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. Along with highways, county roads are also eligible for the State Scenic Highway System. A county must follow the same steps for nominating a county road, as they would for nominating a highway. There are no county roads in the project vicinity that are officially designated as scenic through Caltrans.

## 15.3 EXISTING CONDITIONS

### 15.3.1 Regional and Local Setting

Sonoma County is the most northerly of the nine counties in the San Francisco Bay Region. It is located approximately 40 miles north of San Francisco and the Golden Gate Bridge. The county is bordered by the Pacific Ocean to the west; Marin County and San Pablo Bay to the south; Solano, Napa and Lake counties to the east; and Mendocino County to the north. The visual quality of Sonoma County results from the diversity of its landscapes.

Sonoma County's 1,500 square miles has diverse geographic topography which includes a variety of landforms, habitats, and human settlements. There are coastal hills located on the west, the Sonoma Hills located to the east, and the Santa Rosa plain in-between. The project lies on the eastern side of Sonoma County, which is home to both the Mayacmas Range and the Sonoma Mountain Range. The County of Sonoma is recognized for its vineyards, which play a large role in defining this area's visual character. Near the east end of the transmission line route and Sonoma Substation, adjacent parcels in the City of Sonoma contain suburban developments, including suburban single-family residences, an apartment complex, a small neighborhood park, and commercial buildings.

### 15.3.2 Landscape Units

To characterize the visual setting, it is useful to break down the transmission line route into three visual landscape units: western, middle, and eastern. The western landscape unit contains the relatively flat land extending north from the Lakeville Substation. The middle landscape unit encompasses the rolling hills of the Sonoma Mountains (most of the project is located in this landscape). The eastern landscape unit begins just west of Felder Road where the transmission line descends from the hills and extends east along the level valley floor to the City of Sonoma.

- Western Landscape Unit: (milepost 0.0 to 1.0)
  - Rural
  - Views from Frates and Adobe Road
  - Petaluma Adobe State Park
  - Agricultural lands
  - Flat topography
  - Sonoma Mountains to the north
- Middle Landscape Unit: (milepost 1.0 to 4.6)
  - Rural
  - Hills
  - Valley oak woodland
  - Little to no development
  - Agriculture and open space

- **Eastern Landscape Unit: (milepost 4.6 to 7.23)**

- Rural and suburban
  - Residential with viewers along Felder Road, Leveroni Road, and Temelec housing subdivision
  - Sonoma creek
  - City of Sonoma, suburban landscape
  - Flat to gently sloping topography

**Western Landscape Unit (mileposts 0.0 to 1.0)** The Lakeville Substation is at the beginning of this landscape unit. Immediately south and west of the substation is the Adobe Creek Golf Course (see photo 1). (Figure 15-3 provides an index of the photo locations.) To the east and north is agricultural land (vineyards). The substation is located in the flat valley along Adobe and Frates roads. Golfers and some residences surrounding the site have views of the substation.

Exiting the Lakeville Substation, the transmission line crosses a relatively flat terrain, with the Sonoma Mountains in the background to the north and east. This portion of the route is visible from Frates and Adobe roads (see photo 2), Petaluma Adobe State Park, Adobe Creek Vineyard, which is planning to build a tasting room/hospitality center (see photo 6), and a small number of residences.

The State Park is northwest of the substation and has a screened middleground view of the existing Lakeville-Sonoma transmission line, behind a 230 kV lattice tower transmission line and a wood pole distribution line (see photos 3 and 4, as well as Appendix C Visual Simulation KOP 3). As noted by Petaluma Adobe State Park guide Sara Skinner, “the number of visitors to the Petaluma Adobe State Park is relatively low compared to other more popular state parks.” Very few rural residences (about 10-15 homes<sup>3</sup>) have views of this portion of the transmission line. The only development immediately adjacent to the transmission line is an agricultural complex at milepost 0.7.

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<sup>3</sup> This general estimate is based on review of aerial photos - see Figure 2-4(a).



**Photo 1: Existing view looking north at Lakeville Substation from Adobe Creek Golf Course**



**Photo 2: Existing view looking south at Lakeville Substation along Adobe Road**



**Photo 3: Existing view looking northeast at Segment I from entrance to Petaluma Adobe State Park**



**Photo 4: Existing view looking east at Segment I from second floor of historical home in Petaluma Adobe State Park**



**Middle Landscape Unit (mileposts 1.0-4.6)** This unit is dominated by open space and a sparse amount of development (a few scattered rural residences and agricultural buildings), which make this section appear natural (see Figures 2-4 a through 2-4c). Because most of the Middle Landscape Unit lands are in private ownership, public access is restricted and, thus, relatively few people see foreground to middleground views of this portion of the transmission line corridor. A representative view of the project area from a residential parcel is shown in photo 5. Motorists traveling on Adobe Road have background views of this portion of the transmission line corridor. The distance between the corridor and Adobe Road (over one mile) and the backdrop of the Sonoma Mountains limits the visibility of the transmission line for motorists.

**Eastern Landscape Unit (1<sup>st</sup> part) (mileposts 4.6 to 5.5)** In this unit, the transmission line corridor crosses through one vineyard and one rural residential parcel for a total distance of just under one mile. Single-family residences north of Felder Road (see Figure 2-4c) have screened foreground views of the transmission line corridor, between mileposts 4.6 to 5.4, as there is heavy riparian vegetation along some parts Felder Creek. The Temelec residential development to the south of mileposts 4.7 to 5.5 have middleground to background views of the transmission line corridor with Felder Creek vegetation behind (see photo 7). Roadways with views of this portion are Felder Road, Arnold Drive, and Leveroni Road. Felder Creek vegetation is the main element in the viewshed.

**Eastern Landscape Unit (2<sup>nd</sup> part) (mileposts 5.5-7.3)** There is undeveloped agricultural land to the west of Sonoma Creek and residential and commercial development to the east. Viewers of this segment are mainly motorists along Leveroni Road and 5<sup>th</sup> Street West, as well as residents off of Leveroni Road (see photo 11). The point where Leveroni Road crosses Sonoma Creek (see previous Figure 15-1) is a designated “gateway” into the City of Sonoma. Dense vegetation largely screens the existing transmission line (see photos 9, 10, 12, and 13). The transmission line will be located on the southern side of Leveroni Road to the east of Sonoma Creek (see photo 8). Foreground views of the project are possible from the residences along Leveroni Road, in Sonoma County and the City of Sonoma between mileposts 6.7 to 7.2. Vegetation along Felder Creek, Carriger Creek, and Sonoma Creek provides screening.

The Sonoma Substation is located at the east end of the project in a developed portion of the City of Sonoma. Various commercial developments, restaurants, a convenience store, and residences (single family and apartments) are located at or near the intersection of Leveroni Road and Highway 12. Urban development around the Sonoma Substation partially screens the substation, gives viewers a variety of other things to look at, and limits long distance views.

The substation is partially screened by vegetation (see photo 14). Those with existing views of the Sonoma Substation include residents of the apartment complex directly to the north and single-

**Photo 5: Existing view looking southeast at Segment I from hillside**



**Photo 6: Existing view looking east at Segment I from Adobe Creek Vineyard (site of planned tasting room/hospitality center)**



**Photo 7: Existing view looking north at Segment 3 from the edge of Temelec residential development**



**Photo 8: Existing view looking east at Segment 17 along Leveroni Road**



**Photo 9: Existing view looking west from Leveroni Road at Sonoma Creek crossing**



**Photo 10: Existing view looking east at Segment 17 along Leveroni Road**



**Photo 11: Existing view looking south at Segment 17 from intersection of Fryer Creek Road and Todd Street**



**Photo 12: Existing view looking west at Segment 17 along Leveroni Road**



**Photo 13: Existing view looking east at Segment 17 along Leveroni Road**



**Photo 14: Existing view looking east at Sonoma Substation from Leveroni Road**



**Photo 15: Existing view looking northwest at Sonoma Substation from mini-mart parking lot**



family homes immediately west, customers of the Lodge at Sonoma hotel to the east and the mini-mart (see photo 15), as well as motorists traveling on Leveroni Road or, more briefly, those passing through the Leveroni Road and Highway 12 intersection.

### *Public Views*

Because the majority of the proposed route goes through the undeveloped hills, much of the transmission line corridor is not visible from public areas. Public views are mainly from roadways. Small portions of the transmission line corridor are visible from county scenic corridors (Adobe Road and Arnold Road). Two public parks have views of the transmission line corridor (see green spaces on Figure 11-1). The Petaluma Adobe State Park to the northwest of the Lakeville Substation has views of the existing Lakeville–Sonoma transmission line, but it is located behind a 230 kV lattice tower transmission line (approximately 120 feet tall) and wood distribution line that are more visually prominent. At the eastern end of the route, a small neighborhood park/green space at Fryer Creek Road and Leveroni Road is adjacent to the route and has views of two existing transmission line poles (see poles 114 and 115 on Figure 2-4d). Views of the transmission line corridor are partially screened by surrounding residential development and trees.

### *Residential Areas*

The residential areas with foreground views of the transmission line corridor include those along Leveroni Road (at the eastern end of the project area) and those along segment 2 (off of Felder Road to the north). The Temelec residential subdivision has a middleground to background view of the transmission line corridor. All of these residential areas currently have views of the existing transmission line. Overall, however, a relatively low number of residences have foreground views of the transmission line corridor, as most of it is located in undeveloped areas.

## **15.4 POTENTIAL IMPACTS AND MITIGATION MEASURES**

### **15.4.1 Significance Criteria**

To determine the significance of the anticipated changes, the project's effects were evaluated by using the CEQA Guidelines (Appendix G) as well as the methodology described above. The project would be considered to have a significant effect on the environment if it will:

- Have a substantial, adverse effect on a scenic vista,
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway,

- Substantially degrade the existing visual character or quality of the site and its surroundings, or
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

In applying the above criteria, a variety of factors were taken into consideration including the extent of the project's visibility from residential areas and designated scenic areas, the degree to which the various project elements would contrast with or be integrated into the existing landscape, the extent of change in the landscape's composition, the project's visibility in relation to the slope/topography of the affected land, and the relative number of viewers. In assessing the magnitude of the incremental change to the existing visual baseline posed by the project, the following terms are used and defined as such:

- Minor incremental change – barely noticeable or perceived difference in viewshed, low contrast with existing landscape, blends in with existing landscape features and facilities.
- Moderate incremental change - potentially noticeable difference in viewshed, moderate contrast with existing landscape, facilities are more prominent but do not solely dominate landscape, other dominant landscape features exist in viewshed to balance and screen facilities.
- Severe change – substantially noticeable difference in viewshed, dramatic contrast with existing landscape, substantial change in the composition of existing landscape, facilities block views and dominate landscape without any other prominent features to balance or screen facilities, changes suggest dramatic change in land use and character of the area.

#### 15.4.2 Construction Impacts



##### **Impact 15.1 Substation Construction.**

Construction at the substations is expected to last approximately 14 months and activities would mainly be contained within the existing substation properties. Visual impacts from construction activities (e.g., installation of equipment, movement of supplies, trucks, and work crews) would be temporary. No nighttime construction requiring special lighting will be performed at the substations after 7:00 pm, unless required for safety reasons or clearance restrictions. Existing vegetation is expected to largely screen views of construction activities on the PG&E properties. Thus, visual impacts from substation construction will be less than significant and no mitigation is required.



### **Impact 15.2 Transmission Line Construction.**

Temporary visual impacts from transmission line construction could result from the presence of equipment, materials, work crews, and special nighttime lighting for construction crews along the transmission line corridor, as well as access road work. Within one-half mile of residences, no nighttime construction requiring special lighting will be performed after 7:00 pm, unless required for safety reasons or clearance restrictions. PG&E will remove construction debris at regular intervals. PG&E also will restore disturbed sites and temporary access roads to as near pre-construction condition as possible (e.g., through revegetation) or as agreed upon with the property owner. It will take approximately 19 months to construct the entire transmission line, but individual segments will be constructed in a shorter time. Thus, visual impacts from construction will be temporary and less than significant.



### **Impact 15.3 Staging Areas.**

One construction staging area will be located on a 10-acre parcel off Adobe Road (a county scenic corridor) northeast of the Lakeville Substation (see Figure 2-4a). Equipment and materials for the western half of the project would be delivered to this parcel, stored temporarily, and then transferred to project construction areas. A second approximately 10-acre staging area will be located on Leveroni Road just west of the Leveroni Road & Sonoma Creek “gateway” and will serve the eastern half of the project (see Figure 2-4d). The staging areas will be in use for the entirety of the construction of the project, which is expected to last approximately 19 months. Staging areas will be fenced during the construction period and will be restored as close to their pre-construction condition as possible, or as agreed upon with the property owners. Visual impacts of these staging areas would be temporary and thus are considered less than significant. While mitigation is not required, PG&E will implement the following measure as a courtesy to neighbors.

**Mitigation Measure 15.3.** The staging areas will be kept in an orderly fashion and litter and debris that collects along the fence will be removed regularly. Fencing will be removed after construction.

### **15.4.3 Operation Impacts**

PG&E has planned the project to minimize visual impacts by co-locating the project with an existing transmission line and using wood and self-weathering tubular steel poles, which oxidize to a natural looking reddish-brown color within about one year. The natural wood and reddish-brown steel pole colors are intended to help the transmission line blend in with the landscape.



### **Impact I5.4 Substation Upgrades.**

Changes in appearance to the Lakeville and Sonoma substations will be limited to new equipment being installed. A visual simulation the Lakeville Substation upgrades is shown in Appendix C - Key Observation Point I. The upgrades at Lakeville will require a minor expansion of the existing fence around the new equipment (see Figure 2-8). One new approximately 60-foot high tubular steel pole will be added to the Lakeville Substation, and dead end structures for the bus extension will be approximately 40 feet high. As shown in the visual simulation (Appendix C - KOP I), the new bus structures are not highly noticeable among the existing substation equipment (arrows point to new bus structures and poles). Existing landscaping along Frates Road will provide some visual screening. A small amount additional lighting will be installed at Lakeville Substation near Frates Road, but it will not be a noticeable change to motorists or to residences behind the substation, as it will largely blend in with existing lighting at the substation. Existing electrical equipment is already visible to nearby residents and motorists on Adobe and Frates roads. The Lakeville Substation upgrades create a minor incremental change to the existing visual baseline and do not substantially degrade the character of the existing environment; thus the visual impact is less than significant and no mitigation is required.

Visual simulations of the Sonoma Substation upgrades are shown in Appendix C - Key Observation Points (KOPs) I4 and I5. New equipment at Sonoma Substation will be contained within the existing fence. One approximately 75-foot tubular steel pole will replace an existing 70-foot wood pole inside the substation, and another existing wood pole will be moved over several feet. Dead end structures will be approximately 45 feet high (see the two new structures shown in Appendix C – KOP I4) and other bus support structures will be about 9 feet high. Some new lighting is required at Sonoma Substation, but will be operated with certain restrictions so that it will only be turned on when someone is at the substation for periodic maintenance or repairs. Existing electrical equipment is already visible to nearby residents and motorists on Leveroni Road, as well as those traveling north on Highway 12 through the “gateway” intersection (see Figure I6-1). Existing vegetation, as well as additional landscaping that will be planted at Sonoma Substation, will partially screen views of the substations. (The simulations do not show the additional landscaping that will be added at Sonoma Substation.) The Sonoma Substation upgrades will create a moderate incremental change to the existing visual baseline, will be partially screened by new landscaping, and will not substantially degrade the character of the existing environment; thus the visual impact is less than significant and no mitigation is required.



### **Impact I5.5 Transmission Line.**

Overall, the incremental change in pole height and addition of the second circuit will not have a significant impact on or substantially degrade the existing visual character or quality of the

project area. The visual effects would be attributed to the perceived difference in scale and somewhat higher visibility of the new poles. Existing poles range from approximately 50 to 70 feet in height, and the new poles will generally range between approximately 55 and 100 feet depending on topography and site-specific conditions<sup>4</sup>. The average height of existing poles is 57 feet, and the average height of the replacement poles will be 78 feet (about 21 feet taller on average)<sup>5</sup>. The increased height will be partially offset by the fact that 20 fewer poles will be needed for the new line.

The transmission line would be seen mainly by motorists and by residents in a few nearby neighborhoods along Felder Road, Leveroni Road, the Temelec housing subdivision, and scattered rural homes. The existing transmission line has been visible in the landscape for years, as it was built in 1906. Motorists and residents are accustomed to seeing it and many may not find the taller poles particularly noticeable, although sensitivity to visual change varies with individual viewers. The surrounding natural landscape is diverse, richly textured, and contains a variety of colors. It features vineyards, grazing land, oak woodlands, dense riparian vegetation, low rolling hills and the dramatic backdrop of the Sonoma Mountains, all of which serve to draw the eye past the transmission line and toward the more interesting landscape. The east end of the transmission line route is surrounded by existing suburban developments. Installation of taller poles will be a moderate incremental change to the existing visual baseline and will not substantially degrade the existing visual character of the transmission line corridor or its surroundings. Thus, the overall visual impact will be less than significant.

Representative viewpoints along the transmission line corridor are shown in Appendix C – Visual Simulations. This appendix provides “before and after” views of the existing transmission line and computer-generated visual simulations of what the replacement transmission line will look like after it is constructed. The visual simulations provide panoramic views of the transmission line and the surrounding landscape. Some of the simulations have been magnified and have arrows added to help viewers see the transmission line when it is in the distance or gets lost against a backdrop of rolling hills or vegetation. Table 15-2 (at the end of this chapter) summarizes visual conditions and effects shown in the simulations.

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<sup>4</sup> One pole (number 43) in the Sonoma Mountains will be 130 feet high due to the need to span the Rogers Creek fault. Relatively few people will see this pole, because of the remote location.

<sup>5</sup> These heights include a 10-foot height increase for poles 80 to 87 (along Felder Road) and poles 109 to 119 (along Leveroni Road) pursuant to the CPUC’s policies on low-cost measures to reduce electric and magnetic fields (EMF). Pole numbers are shown on Figures 2-4(c) and 2-4(d). Pole heights may be more or less depending on final EMF mitigation measures determined by the CPUC.

**Impact 15.6 Scenic Vista.**

The moderate incremental change in pole height will not have a substantial, adverse effect on the “scenic vista” on Leveroni Road at Harrington Drive in the City of Sonoma, as the existing transmission line has been visible for years and trees screen the poles. As with the existing line, the replacement line will traverse hillsides and ridgelines in the Sonoma Mountains, but it will not be highly visible from the scenic vista because of the distance of the hills over two miles away (see Photo 9) and the brown color of the poles, which reduces their visibility on the hills and ridges. The impact on this scenic vista will be less than significant. No mitigation is required beyond PG&E’s proposal to co-locate the project with the existing 115 kV line.

**Impact 15.7 Scenic Ridgelines and Hillides.**

City of Sonoma General Plan policies state that “development shall be prohibited on ridgelines” and that “the City shall work closely with the County and the Sonoma Valley Citizens Advisory Commission to monitor hillside development in areas within the City’s viewshed” (ERE-2 Policies 9 and 10). Like the existing line, the replacement transmission line will traverse hillsides and ridgelines in the Sonoma Mountains, but it will not be highly visible from the City of Sonoma because of the distance of the hills over 2 miles away (see Photo 9).

The hills and ridges traversed by the transmission line (see previous Figure 15-2) are outside the jurisdiction of the City of Sonoma and rest with the County. (The City of Sonoma’s boundary and sphere of influence stop just east of Sonoma Creek.) In any event, because of the distance of the hills, the brown pole color which helps the line blend in with the landscape, and the presence of the existing line, minor incremental visual impacts on ridgelines and hillsides will not be highly noticeable to City residents, and will be less than significant. In Sonoma County, from Adobe Road, the increase in pole heights where the transmission line crosses the ridgetop area in the Sonoma Mountains will be nearly imperceptible, as it is over one mile away. No mitigation is required beyond PG&E’s proposal to co-locate the project with the existing 115 kV line.

**Impact 15.8 Scenic Landscape Units.**

The transmission line crosses two “scenic landscape units” identified in Sonoma County’s General Plan: 1) the Sonoma Mountains, and 2) the Sonoma Creek corridor between Arnold Road and Highway 12. The General Plan states a policy to “retain the largely open, scenic character of important scenic landscape units.” The Scenic Resources Combining District (a zoning designation) makes all structures located within scenic landscape units subject to the following criteria:

- Structures shall be sited below exposed ridgelines.
- Structures shall use natural landforms and existing vegetation to screen them from public roads.
- Cuts and fills are discouraged.
- Utilities are placed underground where economically practical.

In Appendix C, Visual Simulation KOP 2 shows the short duration view of the line that motorists will have as they are traveling north on Adobe Road, after passing the Lakeville Substation and just before the road turns east. This simulation shows that the transmission line is not highly visible on the hillsides because of their distance about one mile away and heavy vegetation, which helps screen the poles and reduce visual contrast.

Although the taller transmission poles near the road will be more visible, after the third pole, the transmission line starts blending in with the trees and hillside backdrop. Motorists will have only a short duration view of the line before they turn east at the bend in the road. As the existing transmission line has been in the viewshed for years (it was built in 1906), motorists are accustomed to seeing it and many may not find the taller poles particularly noticeable, although sensitivity to visual change varies with individual viewers. For these reasons, the visual impact from Adobe Road is considered less than significant and mitigation is not required beyond PG&E's proposal to co-locate the project with the existing 115 kV line.

Visual impacts from other public roads in the area (Felder Road and Arnold Drive) would be similar (i.e., less than significant). The existing transmission line is already visible from these roads, and the rolling hills, tree cover and riparian vegetation along Felder Creek will help screen views of the replacement line as they do for the existing line (see Photos 16 and 17). The transmission line crosses but does not run parallel to Arnold Drive, so the view of the line is of a short duration. Views of the transmission line on hillsides and ridges are not highly visible from Arnold Drive or Leveroni Road because of the distance of the hills over one mile away as well as the heavy tree cover in the foreground that screens views.

Visual simulation KOP 6 shows a view of the transmission line as it goes up into the hills over one-half mile away as seen from a walkway at the edge of the Temelec residential subdivision. As the simulation demonstrates, the poles do not appear highly prominent because of the distance of the transmission line where it starts going up the hills, the brown color of the poles which helps them blend in with the landscape, thick riparian vegetation along Felder Creek, and the tree covered hillsides that provide a backdrop. The existing transmission line has been in the viewshed for years and, while the new transmission line

**Photo 16: Existing view looking southwest at Segment 2 from Felder Road**



**Photo 17: Existing view looking west at segments 2 and 17 from Leveroni Road, near Arnold Drive intersection**



poles will be 18 feet taller on average, this height increase would be offset somewhat by the use of fewer poles (about half as many poles will be needed in this area for the replacement line). Overall, this would be a moderate incremental change and would not substantially degrade the existing visual character or quality of the site and its surroundings. (See also KOPs 7 and 8.) For these reasons, the impact on the views from this public walkway is considered less than significant and no mitigation is required beyond PG&E's proposal to co-locate the project with the existing 115 kV line.

The transmission line crosses the second "scenic landscape unit" (the Sonoma Creek corridor) as it parallels Leveroni Road (segment 17). As shown in visual simulation KOPs 9 and 10, the new transmission line will replace an existing line that has been in the viewshed for years. This would be a moderate incremental change and would not substantially degrade the existing visual character or quality of the site and its surroundings. Thus, the impact on views in this scenic landscape unit is considered less than significant and no mitigation is required beyond PG&E's proposal to co-locate the project with the existing 115 kV line.



#### **Impact 15.9 Scenic Corridors.**

No portion of the proposed project will be visible from an officially designated State Scenic Highway. However, the project crosses two "county scenic corridors" (Abode Road and Arnold Drive) designated in the Sonoma County General Plan, as shown on Figure 15-1. As explained in Impact 15.8 Scenic Landscape Units, visual impacts to these two scenic corridors will be less than significant and no mitigation is required. The rural scenic corridor setback requirement (see page 15-19) should not apply, as this project is a reconstruction or minor expansion of an existing structure, and setting the transmission line farther away from the road will not lessen the visual impact and may require more tree trimming and removal. As proposed by PG&E, the project's tree trimming requirements will be similar to those being performed for the existing transmission line. No significant visual impact from tree removal or trimming along scenic corridors is anticipated. No mitigation is required beyond PG&E's proposal to co-locate the project with the existing 115 kV line.



#### **Impact 15.10 City of Sonoma Gateways.**

The transmission line crosses the Leveroni Road & Sonoma Creek gateway, but will not create significant visual impacts because existing riparian vegetation and tall trees will largely screen the transmission line (see previous existing conditions photo 9).

The project is approximately 300 feet away from the Four Corners gateway intersection (Broadway/Napa Road & Leveroni intersection). Replacement of the last two transmission poles (119 and 120) and Sonoma Substation upgrades would not be readily noticeable

changes in existing conditions at the gateway, as shown in visual simulations in Appendix C (KOPs 12, 14, and 15). These project components are set back a half a block from the intersection. The visual impacts to these gateways are less than significant and no mitigation is required beyond PG&E's proposal to co-locate the project with the existing 115 kV line..



#### **Impact 15.11 Access Roads.**

Visual impacts from access roads are not anticipated to be significant. The project is designed to use existing access roads as much as possible. Access roads that require temporary improvements, such as vegetation clearance, widening, and minor grading, will be restored as close to their pre-construction condition as possible (or as agreed upon with the property owner). A few new permanent access road segments will be required for transmission line construction, inspections, and maintenance (see solid green lines in Figures 2-4 (a) through (d)). However, these dirt access roads are in remote locations and are not expected to be visible from public roads. Therefore, impacts will be less than significant level.



#### **Impact 15.12 Views from Parks.**

The impact on views from the Sonoma Adobe Historic State Park will be less than significant. The taller transmission line will not be readily noticeable, as it will be set behind far more visually prominent existing 230 kV transmission lines in the foreground (see Appendix C – KOP 3 Visual Simulation). At the eastern end of the route, the neighborhood park/green space at Fryer Creek Road and Leveroni Road is adjacent to the route and has views of two existing transmission line poles (see poles 114 and 115 on Figure 2-4(d)). Since the new poles will be in roughly the same locations, the project will not be a significant change from the existing conditions. The impact is less than significant. No mitigation is required beyond PG&E's proposal to co-locate the project with the existing 115 kV line.



#### **Impact 15.13 Consistency with Local General Plans**

The project is consistent with Sonoma County and City of Sonoma general plan policies related to scenic resources and utility corridors. As explained above, visual impacts on the scenic vista, scenic landscape units, scenic corridors, and City of Sonoma gateway will be less than significant and no mitigation is required beyond PG&E's proposal to co-locate the project with the existing 115 kV line. The project was designed to minimize visual impacts by modifying an existing transmission line and existing substations, rather than building new facilities. Use of the existing utility corridor is consistent with the general plan policies.

## 15.5 REFERENCES

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### 15.5.1 Personal Communications (via telephone) between EDAW and:

- Petaluma Adobe State Park – (Sara Skinner), March 17, 2004.
- City of Sonoma Planning Department – (David Goodinson), dates ranging from January 9, 2003 to May 13, 2004.
- Sonoma County Planning Department – (Dean Parsons, Dave Hardy, and Scott Hunsperger), dates ranging from March 17, 2004 to June 22, 2004.
- Sonoma County Local Agency Formation Commission (LAFCO) – (Carole Cooper), May 17, 2004.
- Pacific Gas and Electric (PG&E) – Dave Thomas, Mike Neer; and Marco Rios dates ranging from August 8, 2002 to July 22, 2004.
- GANDA – Cynthia Kayser, dates ranging from September 23, 2002 to July 8, 2003.

**Table 15-2. Summary of Effects Shown in Visual Simulations**  
(contained in Appendix C)

KOP = Key Observation Point

Visual Simulation	Viewing Area	Relative Number of Viewers	Designated Scenic Area	Degree of Contrast with Existing Landscape	Extent of Change in Landscape Composition	Visibility in Relation to Slope / Topography	Magnitude of Change	Level of Impact
<b>KOP 1</b> <b>Lakeville Substation</b> Mileposts: 0 - 0.4 Segment: I Landscape Unit: Western	Foreground view	moderate number of viewers	County scenic corridor (Adobe Road) and Sonoma Mountains scenic landscape unit.	Low contrast, as there are numerous existing electrical facilities in this utility corridor.	3 additional poles will be "skylined" (extend above the horizon line), but they blend in with existing electrical facilities.	Facilities are located on relatively flat plane, however, hills in the background provide some vertical relief.	Minor incremental change related to installing taller poles, "topping" existing distribution poles, and adding a small amount of new equipment to the substation. Motorists are accustomed to driving this road looking down the site line at existing poles. The project will not substantially degrade the existing visual quality or character of the site and its surroundings.	Less than significant
<b>KOP 2</b> <b>Adobe Road</b> Mileposts: 0 - 0.4 Segment: I Landscape Unit: Western	Foreground to background view	moderate number of viewers	County scenic corridor (Adobe Road) and Sonoma Mountains scenic landscape unit	Moderate contrast, as there are existing transmission and distribution lines in this utility corridor. Brown tubular steel poles are somewhat more visible than existing wood poles, but they begin to blend into hillside backdrop after the third pole.	Only 1 additional pole will be "skylined" (extend above the horizon line).	Heavily vegetated Sonoma Mountains are the dominant feature in the landscape and provide backdrop to screen the transmission line. Motorists have short duration view before road turns east.	Moderate incremental change related to installing taller poles and "topping" existing distribution poles. Motorists are accustomed to driving this road looking down the site line at existing poles. The project will not substantially degrade the existing visual quality or character of the site and its surroundings.	Less than significant
<b>KOP 3</b> <b>Petaluma Adobe State Park entrance</b> Mileposts: 0 - 0.4 Segment: I Landscape Unit: Western	Middleground to background view	low number of viewers	Sonoma Mountains scenic landscape unit	Low contrast, as there are existing electrical facilities (a 230 kV lattice tower transmission line and wood distribution line), a fence, trees and agricultural buildings in front of the Lakeville-Sonoma 115 kV Transmission Line.	Only 1 additional pole will be "skylined" (extend above the horizon line), and it will be lower than the wood distribution pole in front of it.	Heavily vegetated Sonoma Mountains are the dominant feature in the landscape and provide backdrop to screen the transmission line.	Minor incremental change related to installing taller poles and "topping" existing distribution poles. This will not substantially degrade the existing visual quality or character of the site and its surroundings.	Less than significant
<b>KOP 4</b> <b>Adobe Creek Vineyard</b> Mileposts: 0.9 - 1.4 Segment: I Landscape Unit: Western	Middleground to background view	low number of viewers	Sonoma Mountains scenic landscape unit	Low contrast, as the poles are set back in the middleground of the viewshed. Expansive stretch of vineyard, rolling hills and trees in the foreground, as well as heavily vegetated hills in the background, are the prominent features in the landscape.	2 poles will be barely skylined above the horizon line	Rolling hills in the foreground and low mountains in the background provide vertical relief, variety and backdrop to screen the transmission line.	Minor incremental change related to installing taller poles. This will not substantially degrade the existing visual quality or character of the site and its surroundings.	Less than significant
<b>KOP 5</b> <b>Hillside in Sonoma Mountains</b> Mileposts: 2.3 - 2.4 Segment: I Landscape Unit: Middle	Foreground view.	low number of viewers. This KOP was selected as a representative view of segment I crossing over the Sonoma Mountains. There are few public views or public roads in this area as much of the land is under private ownership.	Sonoma Mountains scenic landscape unit	Low contrast, heavy tree cover in foreground screens transmission line, so only the top of one pole will be visible. (The existing wood pole is visible, yet difficult to see in the existing view photograph)	1 pole will be skylined above the horizon line (same as with existing line)	Heavily vegetated hills in the foreground and mountains in the background provide vertical relief and backdrop to screen the transmission line.	Minor incremental change related to installing taller poles. This will not substantially degrade the existing visual quality or character of the site and its surroundings.	Less than significant

**Table 15-2. Summary of Effects Shown in Visual Simulations**  
(contained in Appendix C)

KOP = Key Observation Point

Visual Simulation	Viewing Area	Relative Number of Viewers	Designated Scenic Area	Degree of Contrast with Existing Landscape	Extent of Change in Landscape Composition	Visibility in Relation to Slope / Topography	Magnitude of Change	Level of Impact
<b>KOP 6</b> Temelec Residential Subdivision Walkway Mileposts: 4.2 - 4.9 Segment: 2 Landscape Unit: Middle/Eastern	Middleground to background view	low number of viewers	Sonoma Mountains scenic landscape unit	Moderate contrast, as the brown tubular steel poles are somewhat more visible than the wood poles, but they are set back in the middleground to background of the viewshed. Expansive stretch of vineyard in the foreground, dense tree cover along Felder Creek in the middleground, and heavily vegetated hills in the background, are the prominent features in the landscape. The rich variety of colors also adds to the complexity of the landscape.	2 poles will be skylined above the horizon line, but in the distance.	Rolling hills in the middleground and mountains in the background provide vertical relief and backdrop to screen the transmission line.	Moderate incremental change related to installing taller poles. This will not substantially degrade the existing visual quality or character of the site and its surroundings.	Less than significant
<b>KOP 7</b> Temelec Residential Subdivision Walkway Mileposts: 5.2 - 6.0 Segment: 2 Landscape Unit: Eastern	Middleground view	low number of viewers	Sonoma Mountains scenic landscape unit	Moderate contrast, as the brown tubular steel poles are somewhat more visible than the wood poles, but they are set back in the middleground of the viewshed. Expansive stretch of vineyard in the foreground, tree cover along Felder Creek in the middleground, and heavily vegetated hills in the background, are the prominent features in the landscape. The rich variety of colors also adds to the complexity of the landscape.	2 poles will be barely skylined above the horizon line	Rolling hills in the middleground and mountains in the background provide vertical relief and backdrop to screen the transmission line.	Moderate incremental change related to installing taller poles. This will not substantially degrade the existing visual quality or character of the site and its surroundings.	Less than significant
<b>KOP 8</b> Temelec Residential Subdivision Walkway Mileposts: 5.2 - 6.0 Segment: 2 Landscape Unit: Eastern	Middleground view	low number of viewers	Sonoma Mountains scenic landscape unit	Moderate contrast, as the brown tubular steel poles are somewhat more visible than the wood poles, but they are set back in the middleground of the viewshed. Expansive stretch of vineyard in the foreground, dense tree cover along Felder Creek in the middleground, and heavily vegetated hills in the background, are the prominent features in the landscape. The rich variety of colors also adds to the complexity of the landscape.	No skylined poles	Tall trees along Felder Creek in the middleground and mountains in the background provide vertical relief and backdrop to screen the transmission line.	Moderate incremental change related to installing taller poles. This will not substantially degrade the existing visual quality or character of the site and its surroundings.	Less than significant

**Table 15-2. Summary of Effects Shown in Visual Simulations**  
(contained in Appendix C)

KOP = Key Observation Point

Visual Simulation	Viewing Area	Relative Number of Viewers	Designated Scenic Area	Degree of Contrast with Existing Landscape	Extent of Change in Landscape Composition	Visibility in Relation to Slope / Topography	Magnitude of Change	Level of Impact
<b>KOP 9</b> <b>Leveroni Road</b> <b>Mileposts: 5.9 - 6.5</b> <b>Segment: 17</b> <b>Landscape Unit: Eastern</b>	Foreground view	moderate number of viewers	Sonoma Creek Corridor scenic landscape unit	Moderate contrast, as the taller poles and extra sidearms for new circuit are somewhat more prominent than the existing poles when seen against the sky. Expansive stretch of vineyards in the foreground, dense tree cover along Sonoma Creek in the middleground, and heavily vegetated hills in the background, are equally prominent features in the landscape.	Two additional poles will be skylined (one just barely)	Tall trees along Sonoma Creek in the middleground and mountains in the background provide vertical relief and backdrop to screen the transmission line.	Moderate incremental change related to installing taller poles. Existing transmission line is already a prominent visual feature in existing view along this road. Motorists are accustomed to driving this road looking down the site line at existing poles. The project will not substantially degrade the existing visual quality or character of the site and its surroundings.	Less than significant
<b>KOP 10</b> <b>Leveroni Road</b> <b>Mileposts: 6.7 - 7.1</b> <b>Segment: 17</b> <b>Landscape Unit: Eastern</b>	Foreground view	moderate number of viewers	Sonoma Creek Corridor scenic landscape unit	Moderate contrast, as the taller poles and extra sidearms for new circuit are somewhat more prominent than the existing poles when seen against the sky. The vineyard and tall dense tree cover in the foreground and middleground are equally prominent features in the landscape.	1 additional pole will be skylined	Tall trees in the foreground and middleground and mountains in the background provide vertical relief and backdrop to screen the transmission line.	Moderate incremental change related to installing taller poles. Existing transmission line is already a prominent visual feature in existing view along this road. Motorists are accustomed to driving this road looking down the site line at existing poles. The project will not substantially degrade the existing visual quality or character of the site and its surroundings.	Less than significant
<b>KOP 11</b> <b>Leveroni Road</b> <b>Mileposts: 6.7 - 7.2</b> <b>Segment: 17</b> <b>Landscape Unit: Eastern</b>	Foreground view	moderate number of viewers	Sonoma Creek Corridor scenic landscape unit	Moderate contrast, as the taller poles and extra sidearms for new circuit are somewhat more prominent than the existing poles when seen against the sky. Residences, fences and dense tree cover in the foreground and middleground are equally prominent features in the landscape.	3 additional poles will be skylined (one just barely)	Although foreground is on a flat plane, residential development and trees in the foreground and middleground create visual texture. Mountains in the background provide vertical relief and backdrop to screen the transmission line.	Moderate incremental change related to installing taller poles. Existing transmission line is already a prominent visual feature in existing view along this road. Motorists are accustomed to driving this road looking down the site line at existing poles. The project will not substantially degrade the existing visual quality or character of the site and its surroundings.	Less than significant
<b>KOP 12</b> <b>Leveroni Road</b> <b>Mileposts: 7.15 - 7.23</b> <b>Segment: 17</b> <b>Landscape Unit: Eastern</b>	Foreground view	moderate number of viewers	Sonoma Creek Corridor scenic landscape unit; approach to "Four Corners" gateway intersection	Low contrast, only one pole will be visible. (The existing wood pole is visible and there are other existing distribution and transmission lines in the viewshed.)	Replacement pole, like the existing pole, is skylined. Taller pole does not create substantial change in landscape.	Although foreground is on a flat plane, residential and commercial development and trees in the foreground and middleground create visual texture. Mountains in the background provide vertical relief.	Minor incremental change related to installing taller pole. This will not substantially degrade the existing visual quality or character of the site and its surroundings.	Less than significant
<b>KOP 13</b> <b>Fryer Creek Road (in Residential Subdivision)</b> <b>Mileposts: 6.9 - 7.0</b> <b>Segment: 17</b> <b>Landscape Unit: Eastern</b>	Foreground view	low number of viewers	Sonoma Creek Corridor scenic landscape unit	Moderate contrast, as the taller poles and extra sidearms for new circuit are somewhat more prominent than the existing poles when seen against the sky. Residences, streetlights and trees in the foreground are equally prominent features in the landscape.	Number of skylined poles remains the same (2).	Although foreground is on a flat plane, residential development and trees in the foreground create visual texture. Mountains in the background (to the right) provide some vertical relief.	Moderate incremental change related to installing taller poles. Existing transmission line is already a prominent visual feature in existing view along this road. This will not substantially degrade the existing visual quality or character of the site and its surroundings.	Less than significant

**Table 15-2. Summary of Effects Shown in Visual Simulations**  
(contained in Appendix C)

KOP = Key Observation Point

Visual Simulation	Viewing Area	Relative Number of Viewers	Designated Scenic Area	Degree of Contrast with Existing Landscape	Extent of Change in Landscape Composition	Visibility in Relation to Slope / Topography	Magnitude of Change	Level of Impact
<b>KOP 14</b> <b>Sonoma Substation (view from across street)</b> <b>Mileposts: 7.1 - 7.2</b> <b>Segment: 17</b> <b>Landscape Unit: Eastern</b>	Foreground view	moderate number of viewers	Sonoma Creek Corridor scenic landscape unit, substation is set back 300 feet from "Four Corners" gateway intersection	Moderate contrast, as the taller poles and extra sidearms for new circuit are somewhat more prominent than the existing poles when seen against the sky. Commercial and residential developments, fencing, parking lots, trees, and other transmission and distribution lines in the foreground are equally prominent features in the landscape.	Number of skylined poles remains the same (2). 1 additional substation end structure will be skylined (1 existing end structure is skylined and will be replaced with taller structure). Additional landscaping will be added to partially screen the poles and new structures in the substation. (Landscaping is not shown in the visual simulation.)	Although foreground is on a flat plane, commercial and residential development, a parking lot, and trees in the foreground create visual texture. Mountains in the background (to the left) provide some vertical relief.	Moderate incremental change related to installing taller pole and new substation end structures. Existing transmission line and substation already prominent visual features in existing view along this road. Additional landscaping planned by PG&E (but not shown in the simulation) will help screen views of the substation from "Four Corners" gateway intersection. The project will not substantially degrade the existing visual quality or character of the site and its surroundings.	Less than significant
<b>KOP 15</b> <b>Sonoma Substation (view from mini-mart parking lot)</b> <b>Mileposts: 6.8 - 7.2</b> <b>Segment: 17</b> <b>Landscape Unit: Eastern</b>	Foreground view	moderate to high number of viewers	Sonoma Creek Corridor scenic landscape unit. Substation is set back 300 feet from "Four Corners" gateway intersection.	Moderate contrast, as the taller poles and extra sidearms for new circuit are somewhat more prominent than the existing poles when seen against the sky. Sonoma Mountains, commercial and residential developments, fencing, parking lots, trees, and other transmission and distribution lines in the foreground are equally prominent features in the landscape.	2 additional poles will be skylined along Leveroni Road. 1 additional substation end structure will be skylined (1 existing end structure is skylined and will be replaced with taller structure), but existing trees provide screening from this viewpoint. Additional landscaping will be added to partially screen the poles and new structures in the substation. (Landscaping is not shown in the visual simulation.)	Although foreground is on a flat plane, commercial and residential development, parking lots, and trees in the foreground create visual texture. Sonoma Mountains in the background provide vertical relief. Northbound motorists on Highway 12 (a county scenic corridor) have a short duration view of the substation if they look west while stopped at or travelling through the intersection. Existing developments on Highway 12 block views of the substation as motorists approach the intersection from the north or south.	Moderate incremental change related to installing taller poles and new substation end structures. Existing transmission line and substation already prominent visual features in existing view along this road. Additional landscaping planned by PG&E (but not shown in the simulation) will help screen views of the substation from "Four Corners" gateway intersection. The project will not substantially degrade the existing visual quality or character of the site and its surroundings.	Less than significant