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7.11 Visual Resources

This section evaluates the impacts of construction, operation, maintenance, and long-term presence of the Willow Pass Generating Station (WPGS) project to aesthetic values within the visual sphere of influence (VSOI) established for the project area (Figure 7.11-1). The visual resource studies were conducted in conformance with California Energy Commission (CEC) guidelines for the inventory and assessment of visual impacts for preparing an Application for Certification, as described in Appendix B of Title 20, California Code of Regulations. The CEC guidelines, in turn, comply with California Environmental Quality Act (CEQA) documentation requirements (summarized in Section 7.11.2.1). The study methods used (described in more detail in the inventory and impact assessment sections below) was based on elements tailored for this project, as established by the U.S. Bureau of Land Management (BLM) *Visual Resource Management Inventory and Contrast Rating System* (BLM, 1986) and *U.S. Forest Service Scenery Management System* (U.S. Forest Service, 1995).

7.11.1 Affected Environment

This section describes the inventory of visual resources within the vicinity of the project. A description of the natural and manmade visual elements present in the regional landscape, the anticipated VSOI of the project, and the inventory methods and results are included.

7.11.1.1 Regional Landscape Setting

The WPGS site is located within the existing Pittsburg Power Plant (PPP), situated in the City of Pittsburg, Contra Costa County. It is on the south banks of Suisun Bay, west of the New York Slough and north of State Highway 4. The project site is located within the northeastern portion of the existing PPP site (see Figure 7.11-1).

The City of Pittsburg does not formally identify scenic vistas, although the Pittsburg General Plan recognizes the City's location between the hills to the south and the Suisun Bay/Sacramento River Delta to the north as "the most identifying feature lending Pittsburg a sense of character..." (City of Pittsburg, 2004). Several distinct landscape types exist in this area, including Suisun Bay/Sacramento River; the low, flat tidelands/marshlands (tidal salt marshes) along the south edge of Suisun Bay and west of the site; the island terrain, including natural Delta habitat north and east of the site; industrial and semi-urban developed lands; residential development, parks, and marina east of the site; and large expanses of rolling grassy hills with prominent ridgelines and agricultural preserves farther south of the site.

The City of Pittsburg's General Plan designated the site for industrial uses. The site also currently zoned for industrial uses. No conflicts exist with current zoning and local land use plans and the development of the WPGS.

The relatively flat terrain adjacent to Suisun Bay is often subordinate to the scenic hills and ridgelines of Contra Costa County that rise to the south and are a dominant focal feature in this region. The hillside areas are open grassland interspersed with stands of scrub and trees, creeks, and rock outcroppings. Suisun Bay is a distinctive focal feature within the area and is characterized by open water, islands, extensive tidal salt marshes, and wetlands. Land uses within the surrounding industrial community and the City of Pittsburg range from parks, schools, churches, and residences to commercial and heavy industrial facilities.

The southern shore of Suisun Bay contains ports, marinas, and industry between the shoreline and the two major railroad lines (the Union Pacific Railroad and the Burlington Northern Santa Fe Railway) in addition to a Bay Area Rapid Transit line that generally parallels the shoreline in this vicinity. Several power plants are in the area, including Calpine's Los Medanos Energy Center, Calpine's Delta Energy

Center, Mirant Delta's Contra Costa Power Plant, and the Pacific Gas and Electric Company's (PG&E) Gateway Generating Station and a number of smaller plants. Other heavy industries of note include Dow Chemical Company plant, USS-POSCO, Koch Carbon LLC, GFW Systems, and others. Vapor plumes from the industrial facilities in the region are regularly visible under certain meteorological conditions (i.e., high humidity and low temperatures). In addition to heavy industry, the region also includes light industry, commerce, residential development, agriculture, recreation, and pockets of open undeveloped land.

Within the region, the typical views are relatively open and expansive, allowing the identification of distant features within the landscape. This is especially true when viewing from Suisun Bay or from the ridgeline of the southern hills. Occasionally, partial to full screening of views is possible from adjacent hills, vegetation, and development. Prominent features visible throughout the landscape include the hills to the south of Pittsburg, various steel-lattice transmission towers that cross the landscape, a large number of wind-driven turbines across the river to the east, and numerous exhaust stacks.

7.11.1.2 Visual Sphere of Influence

The VSOI is the area where the project has the potential to cause significant effects on the existing setting and potential sensitive viewers. The VSOI for this project was established through a combination of computerized viewshed analysis, field reconnaissance, and consideration of the U.S. Forest Service distance zones, including foreground (observer to 0.5 mile), middleground (0.5 to 4 miles), background (4 miles to infinity), and seldom seen (landscape areas screened by topographic features). In some instances, it may be possible to perceive the project beyond 4 miles, but the highly industrialized nature of the immediate surroundings and the large existing facilities (i.e., PPP Units 1 through 7, and other energy facilities) create an environment with a high level of visual absorption capability (VAC)—the relative ability of a landscape to absorb visual alterations without loss of landscape character or scenic condition. This indicates that a 4-mile-radius VSOI surrounding the project is warranted. Figure 7.11-1 illustrates the VSOI established for the WPGS project.

Potential views beyond the VSOI of the project will lack sufficient spatial scale and scale dominance in a setting shared with the existing PPP and other industrial facilities. This supports the assumption that potential viewing areas beyond the 4-mile-radius VSOI would experience less-than-significant visual impacts. Regional views beyond 4 miles were not considered in detail, given the distances involved.

7.11.1.3 Visual Inventory Methodology

This section describes the inventory methodology used for this visual assessment. The main components of the visual resource inventory included the existing landscape character/scenic quality of the project site and the surrounding area bounded by the VSOI; identification of sensitive viewers who may experience visual impacts; representative key observation points (KOPs); and applicable laws, ordinances, regulations, and standards (LORS) (described in Section 7.11.5).

Landscape Character/Scenic Integrity

The establishment of a consistent baseline to describe the natural and cultural aesthetic elements of a landscape is a necessary part of a visual analysis. Every geographic area has a "sense of place" or a visual and cultural image that is described as landscape character. Landscape types vary from the natural environment (undeveloped areas) to the built environment (developed areas) and are derived from a combination of the cultural, physical, and biological attributes that make each landscape unique or identifiable.

Several criteria can be used to describe the natural or cultural aesthetic characteristics of a landscape to identify the character of that specific landscape. Evaluating the uniqueness and diversity of landform, vegetation, water, and cultural features and the influence of adjacent scenery can determine if a landscape consists of primarily natural characteristics. Landscapes composed of developed or cultural characteristics are often defined by planning concepts such as land uses, building types, density, circulation, and landscape design themes. This evaluation also considered existing visual conditions such as the presence of overhead transmission lines, vertical manmade elements, and other modifications that may affect the character of the landscape.

For the purposes of meeting CEC requirements (see Appendix B(g)(6)(B) of the Siting Regulations), an inventory and interpretation of the scenic quality associated with the landscape character found in the VSOI has been made and is defined based on the following descriptions:

- **High Quality:** Regionally significant views of high distinctiveness, which exhibit vivid natural or manmade features, undisturbed natural landscape features, and/or high levels of attention to landscape design; an area for which public and agency sentiment may regard noticeable changes as unacceptable.
- **Moderate Quality:** Views of typical landscapes found in the region; an area for which public and agency sentiment for changes occurring may be negotiable.
- **Low Quality:** Views of heavily disturbed or utilitarian landscapes, often characterized by intense visual clutter and evident lack of attention to the appearance of landscape elements (e.g., in heavily industrialized landscapes); an area for which public and agency sentiment for changes occurring are low to indiscernible.

Key Observation Points

KOPs are viewing locations chosen to be representative of the most visually sensitive areas where it can be confidently assumed that viewers may be susceptible to a change in scenic quality resulting in a visual impact caused by the introduction of the WPGS within their viewshed. The inventory of KOPs included three components: (1) identification and photographic documentation of viewing areas and potential KOPs, (2) classification of the visual sensitivity of KOPs, and (3) description of project-site visibility from KOPs.

Viewer sensitivity is a measure of the degree of concern for change in the visual character of a landscape. Viewer sensitivity considers type of use, user attitude, volume of use, adjacent land use, visual quality, and special classifications. Generally, three levels of viewer sensitivity (high, moderate, and low) are used to describe the sensitivity of viewers within the VSOI. High-sensitivity viewpoints identified within the VSOI included residential areas, recreation areas, and scenic roads. It should be noted, however, that existing viewing conditions from high-sensitivity residential areas may also be characterized as having low scenic quality (e.g., presence of overhead power lines) as a result of other modifications to the landscape. Moderate-sensitivity viewpoints identified within the VSOI included commercial areas and major travel routes (arterial roads). Low-sensitivity viewpoints included industrial areas that are considered to be a compatible use with the facility and that do not qualify as KOPs due to an absence of potential for significant visual impacts.

Visibility analysis was conducted to identify areas within the VSOI that would have limited or no potential for viewing the project. The remaining areas were considered for the selection of KOPs. Nine KOPs were identified in conjunction with personnel from the CEC (Adams and David, 2008) and were based primarily on field reconnaissance, land use data, and an evaluation of visual resources in the project

area. Assessment of potential impacts on KOPs assumed a worst-case scenario wherein all sensitive viewers have views toward the project on a high-visibility day and that those KOPs would best represent the disparate viewing conditions and viewing opportunities.

The existing views and simulations developed (see Figures 7.11-2 through 7.11-10 and 7.11-12 through 7.11-20, respectively) represent views from KOPs within the VSOI, including both high-sensitivity viewers and moderate-sensitivity viewers.

7.11.1.4 Visual Inventory Results

Landscape Character/Scenic Integrity

This section describes the site character, adjacent setting, and surrounding landscape. Examples of these qualities are provided in the KOP photographs (see Figures 7.11-2 through 7.11-10).

The WPGS site is on flat, previously disturbed terrain, on the south banks of Suisun Bay and within the existing PPP property. The WPGS site is currently occupied by four retired generating units (PPP Units 1 through 4) and one aboveground storage tank (Tank 7), which will be demolished for the new WPGS facility. Units 1 through 4 have stacks 211 feet high. Immediately adjacent and west of Units 1 through 4 are Units 5, 6, and 7. Each of these units has a 450-foot-high stack. A tank farm, containing six 150,000 barrel capacity fuel oil tanks, is oriented in a north-south direction to the east of the project site. A group of nine 500,000 barrel storage tanks and one smaller cutter stock tank is located on the southern portion of the PPP site.

Adjacent to the southern portion of the PPP site there are a number of abandoned warehouses; an auto-salvage yard; and the Trans Bay Cable converter station (under construction) that is expected to be completed by July 2009.

Suisun Bay, immediately north of the WPGS site, is characterized by open water, tidal salt marshes, and meandering shorelines. The nearby island shorelines within Suisun Bay are composed of low lying marshlands. Northeast of the project site is the small community of Collinsville (population approximately 20). This area contains some scattered residential uses, with hills or rolling terrain beginning about 4 miles from the project site. A large wind farm is visible in the landscape across Suisun Bay from the WPGS site.

The south shoreline differs in character from the north, with heavy industrial facilities (utilities and manufacturing), residential and urban uses, and occasional small recreational facilities including marinas and several parks. The heavy industrial areas contrast with the river and residential land uses to the east and the vacant land to the west, introducing numerous large vertical elements (e.g., stacks, tanks, steel-lattice transmission towers, and buildings). The marinas are characterized by numerous boat storage areas, maintenance facilities, club houses and docks/piers (e.g., Pittsburg Yacht Club, Palms at the Club). The aforementioned marinas, as well as the Riverview Park east of the project area and the Central Harbor Park, contribute to the recreational character adjacent to the PPP, along the southern shoreline of Suisun Bay. This area is visually dominated by the PPP, which serves as a focal point within the landscape setting.

Medium-density aligned residential neighborhoods are located to the south and east of the PPP site, consisting of homes with a variety of architectural styles and range from well-maintained to abandoned. The streets in these neighborhoods are based on a grid system, with through streets aligned more prominently in a north-south configuration providing views of the hills. The character of these neighborhoods is enhanced by the presence of numerous mature trees, which also provide heavy screening. St. Peter Martyr School is situated approximately 845 feet southeast of the WPGS site and

Mariner Walk, a new residential development and park, is also present approximately 1,350 feet southeast of the WPGS site.

Areas farther south of the WPGS site (beyond 0.5 mile) have a more diverse land use pattern and display a mixture of residential and commercial uses, including the City of Pittsburg City Hall and associated city government buildings and park amenities. Residential areas are primarily single-family, low- to moderate-density housing built on the flat terrain and on the higher elevations of the hillsides to the south. These residential areas vary in character, ranging from older homes having various architectural styles and large lots (but still situated amid the straight circulation patterns based on the grid), to newer homes in master-planned communities with a uniform architectural style, curvilinear circulation, and associated amenities such as parks and trails. The older residential areas have more mature vegetation, which adds to the character of the area, while the newer master-planned communities have strategically placed, uniform plantings of younger vegetation.

The area immediately west of the WPGS within the PPP boundary is primarily marshlands, but also includes a linear cooling canal and two cooling towers. Additional marshlands and a marina are found farther west, beyond the PPP boundary.

Overall, the landscape character inventoried within the VSOI is consistent with a mix of moderate and low scenic quality areas with a few areas of high scenic quality in the undeveloped foothills to the south. The WPGS site and the adjacent area reflect a low scenic quality due to the dominant visual elements of the energy-related facilities. It should be noted that existing scenic quality will vary within the overall classification based on specific viewing conditions (e.g., orientation of view, duration of view).

7.11.1.5 Description of Key Observation Points and Other Viewing Areas

In the project vicinity, visually sensitive areas and their general viewing conditions can be associated with the landscape character described above and with transportation networks and public access points. Several KOPs representing the most sensitive views have been identified within the vicinity of the project area (see Figure 7.11-1). Nine KOPs were identified and determined to be the most typical or the most critical viewing opportunities. Simulations were then developed to assist with impact analysis. Additionally, photographs were taken depicting existing conditions representative of other viewing areas (OVA), but not selected as KOPs, and were used to evaluate visual conditions and visibility potential.

Key Observation Points

KOP 1 (Figure 7.11-2). Southeast views from KOP 1 represent recreational users on a trail built on a marina breakwater accessible from Riverview Park. Additionally, this view is representative of water bound travelers along the river immediately north of the PPP and the project. This location is in the foreground distance, 0.3 mile from the project site. Views from this area to the project site are generally full view with little to no screening. The retired Units 1 through 4, as well as Units 5 and 6 and the stack of Unit 7 are clearly visible from this KOP. The existing PPP facilities (i.e., tanks, buildings, exhaust stacks, and pier facilities) contribute to a generally low scenic quality view. Recreational viewers represented by this KOP are considered to be of a high sensitivity level.

KOP 2 (Figure 7.11-3). Views from KOP 2 represent the views specifically from a local church and more generally a residential area immediately adjacent to the project site. The project is within the foreground of KOP 2, at approximately 0.2 mile. Potential views from this area are generally partially to fully screened by an earthen berm and mature vegetation. This view is considered to represent low scenic quality because of the dominating presence of the existing Units 1 through 4, the exhaust stacks of Units 5

through 7, and the above ground storage tanks. Viewers are considered to have high sensitivity due to their residential nature and long-term view potential.

KOP 3 (Figure 7.11-4). Views from KOP 3 represent viewers traveling north on Bay Side Drive and potential views from St. Peter Martyr School (views from playground partially to fully screened by buildings). Bay Side Drive serves as a primary access route to residential areas, the Riverview Park, and the Pittsburg Marina. The PPP lies 0.4 mile to the east-northeast in the foreground distance zone. Travelers on Bay Side Drive have intermittent views of all seven units of the existing PPP, with mature vegetation and existing structures providing partial to full screening. This view represents moderate sensitivity viewers and represents low to moderate scenic quality because of the co-dominant to dominant presence of the existing generating facilities visible, including exhaust stacks and generation buildings.

KOP 4 (Figure 7.11-5). KOP 4 is on a gazebo structure in a channel serving as a boat access to the Sacramento River Delta through the Pittsburg Marina. This channel is used by residents on either side for tying up boats at the back of their houses. Immediately adjacent to the gazebo are a small park/open space area and a community hot tub. This view represents potential views from residents and recreational viewers, including water bound travelers in the channel. The existing PPP is in the foreground at approximately 0.4 mile. Views of the PPP are partially to fully screened by the existing residential buildings and in some cases mature vegetation. The exhaust stacks of Units 1 through 7 are visible with Units 5 through 7 being the most visually dominant due to their height. Overall, this view is of moderate scenic quality from high sensitivity viewers.

KOP 5 (Figure 7.11-6). Views from KOP 5 represent high sensitivity residential viewers from Willow Pass Road in a middleground distance zone of 1.2 miles from the existing PPP facilities. This KOP, at the end of Mayport Court, has views of all seven units of the PPP, the cooling towers of Units 5 and 6, and numerous steel-lattice transmission towers and their conductors. The scenic quality in this view is low to moderate, considering the view distance and the high number of dominant industrial facilities.

KOP 6 (Figure 7.11-7). Views from KOP 6 are representative of moderate sensitivity viewers traveling east on Willow Pass Road, a road that provides access to several residential areas, local business, and industrial areas. KOP 6 is a middleground view (1.3 miles) near a bend in the road. It provides the first open views of the existing PPP facilities, including the cooling towers, above ground storage tanks, generation buildings, exhaust stacks of Units 1 through 7 and numerous steel-lattice transmission towers and their associated conductors. The PPP becomes more visible traveling east, but the view angle from a vehicle becomes more off-angle to the left (looking north) away from the direction of travel. Scenic quality in this view is low to moderate, considering the view distance and the high number of dominant industrial facilities.

KOP 7 (Figure 7.11-8). This KOP is on the north deck of the Wedgewood Banquet Hall on the northern end of the Delta View Golf Course. Views from this KOP are to the north, approximately 2 miles from the existing PPP, a middleground view distance. Views toward the project are across a parking lot and through multiple transmission lines and steel-lattice transmission towers that dominate the view. All seven units of the PPP are visible in this view, including the generation buildings, exhaust stacks, wet coolers, and above ground storage tanks. This view is of low scenic quality because of the extreme visual clutter of the transmission lines and steel-lattice towers in the foreground. This KOP is considered a high sensitivity recreation viewer.

KOP 8 (Figure 7.11-9). This KOP is at the end of Encinal Place in the foothills to the south of the project. This KOP represents high sensitivity residential viewers with long distance views as a result of their elevated location. Views of the existing PPP and the project are to the north about 3.2 miles in the extreme middleground distance zone. The Sacramento River delta, lands and hills on the north side, and

the low lying portions of the City of Pittsburg are all visible in this largely open panoramic view. From this KOP all seven units of the PPP are visible, including the exhaust stacks, generation buildings, wet cooling towers, and above ground storage tanks. The exhaust stacks and generation buildings of Units 5 through 7 are the most prominent vertical elements in this view and tend to capture the viewer's focus. Overall, scenic quality in this is moderate to high.

KOP 9 (Figure 7.11-10). KOP 9 is on the north side of the river in the extreme middleground distance zone. This view from Collinsville Road, near a cemetery, represents moderate sensitivity travelers heading south to the small community of Collinsville (approximately 20 residences on or near the north shore) and affords similar views to those from the community. It should be noted that the community of Collinsville possess likely open, partially screened, and fully screened views of the project, but “no trespassing” postings limited access during field review. The existing PPP is noticeable from this KOP, but the facility is subordinate in this view due to the backdropping provided by the hills on the south side of the river. Scenic quality in this view is high overall.

Other Viewing Areas (OVA) within the Visual Sphere of Influence

OVA 1 – Mariner Walk Park Baseball Field (Figure 7.11-11). OVA 1 looks northwest toward the project area from approximately 0.25 mile away, a foreground view distance. The potential view from this OVA, on the southwest corner of the Mariner Walk Park ball fields, is screened heavily by earthen berms, mature vegetation, and existing steel-lattice transmission lines. Although this location represents high sensitivity recreational viewers, actual view potential is minimal and typical views to watch baseball or softball games would be away from the project. The landscape in the direction of this view is of low visual quality.

OVA 2 – Residential Area in Southwest Pittsburg Hills (Figure 7.11-11). This OVA is on Dawnview Court, a residential street in the foothills to the southwest of the project, representing high sensitivity viewers. The elevated location of this view provides for the opportunity to experience long distance views of areas generally to the north and east. This location is in the extreme middleground distance zone at approximately 3.8 miles from the PPP and the project. The background views of this landscape are of moderate visual quality, although manmade modifications in the foreground, middleground, and background are evident. The PPP is noticeable but not dominant in this view.

OVA 3 – State Route 4 at Willow Pass (Figure 7.11-11). OVA 3 is in the background distance zone of the project and the existing PPP, at approximately 4.5 miles away. This OVA is elevated and on a curve before descending into the City of Pittsburg. The existing PPP is noticeable and dominant from this location. Because typical speeds in this area are 55 to 60 miles per hour (mph), the view duration is short, especially as the road angles away to the east, placing the project outside the direction of travel. Additionally, at this view angle, Unit 7 of the PPP will provide some screening of the WPGS. Overall this view is of moderate scenic quality, considering the highway elements and industrial view elements of the PPP. It should be noted that this segment of State Route (SR) 4 is not designated as scenic or eligible for scenic designation,, therefore this view represents moderate sensitivity viewers.

7.11.2 Environmental Consequences

This section describes the assessment methods and potential significance of impacts to visual resources within the vicinity of the project. Detailed criteria for determining significance are provided in the following section.

7.11.2.1 Significance Criteria

The assessment of significant visual impacts is based primarily on CEQA requirements. Appendix G of the CEQA guidelines defines the criteria and areas of concern regarding a project's potential impact on visual resources as follows:

- A substantial adverse effect on a scenic vista.
- Substantial damage of scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings.
- Substantial degradation of the existing visual character or quality of the site and its surroundings. In this analysis, substantial degradation is defined as a perceptible, long-term (longer than 1 year), high level of visual impacts occurring within moderately to highly sensitive public views.
- Creation of a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

In addition, the CEC requires that consideration be given to the following questions:

- Will the project comply with local guidelines or goals related to scenic quality?
- Will the project significantly alter the existing natural viewsheds, including any changes in natural terrain?
- Will the project significantly change the existing scenic quality of the region or eliminate visual resources?
- Will the project significantly increase light and glare in the project vicinity, particularly nighttime glare?
- Will the project result in significant amounts of back-scattered light into the nighttime sky?
- Will the project result in a significant reduction of sunlight, or the introduction of shadows, in areas used extensively by the community?

Table 7.11-1 describes the matrix used to determine visual impact significance for KOPs. The level of impact significance is determined by combining visual impact susceptibility with severity. A brief definition of impact levels is provided below.

- **Significant:** Will likely cause a substantial long-term and adverse effect on landscape character or scenic quality on an existing viewshed due to the contrast between the project and the level of existing scenic integrity.
- **Adverse but Not Significant:** Will create a noticeable but not substantial change in landscape character/scenic quality or will cause a noticeable but not substantial change on a KOP viewshed.
- **Less than Significant:** May or may not be perceptible, but is considered minor in the context of existing landscape characteristics and view opportunity.

7.11.2.2 Assessment Methodology

The main component of the assessment of impacts to landscape character is the determination of whether the project is compatible with the image type within which it occurs, as well as the adjacent image types.

The three main components of the assessment of impacts to sensitive viewers are:

- Determination of visibility potential levels;
- Determination of visual contrast and modification levels; and
- Determination of impact levels.

Image Type Compatibility

The assessment of compatibility between the project and the existing image types included consideration of the level of aesthetic quality of the landscape and the magnitude of change that would occur to the aesthetic quality of the landscape as a result of the project. Typically, the more similar the landscape characteristics (e.g., colors, textures, materials, and architectural styles) of a given image type with the proposed changes, the higher the aesthetic compatibility. For example, elements characteristic of industrial landscapes (such as steel buildings, exhaust stacks, tanks, chain-link fences, and utilitarian structures), are more compatible with the project than residential or open space areas with entirely different landscape characteristics.

Sensitive Viewer Impacts

Visibility Potential. Visibility potential refers to how sensitive viewers (i.e., KOPs and OVAs) would perceive the project within the landscape. The two main factors driving visibility potential are viewing distance and screening due to intervening vegetation, buildings, or other structures. Within the VSOI, varying levels of potential project visibility have been identified. The highest levels of project visibility typically exist when the viewer is in close proximity to the project and/or there is no screening, or when views are elevated (e.g., south of the project site viewing north toward the Suisun Bay). Conversely, the lowest level of visibility typically exists when the viewer is at greater distances from the project site and/or within partial to fully screened conditions.

Other contributing variables that may affect visibility are the duration of the view, orientation of the viewer, and elevation of the viewer. The duration and orientation of view are important to consider in determining visibility potential (e.g., a long-term, fixed view from a residence may result in higher impact levels versus a short-term, transient view from a roadway like SR 60). Middleground and background views from higher elevations (e.g., residential areas along the foothills south of the WPGS project site) can potentially increase visibility potential.

Additionally, visibility potential with a project of this nature varies under different atmospheric conditions and during nighttime hours. Atmospheric conditions have the most influence during periods of significant rainfall, fog, or visible haze caused by pollution or dust, where views of both local (i.e., neighborhoods) and regional (i.e., distant mountains) are restricted. Viewing conditions are much different from daytime to nighttime, with operational and safety lighting being a critical element contributing to increased visibility potential during nighttime hours.

Visibility potential levels for this project were characterized as high, moderate, and low primarily by considering the relationship of viewing distance and screening. The other viewing variables described above contributed to the refinement of the visibility potential of sensitive viewers for this project. Visibility potential levels are shown in Table 7.11-2.

Visual Contrast and Modification Levels. Visual contrast is defined as the perceived visual change in the landscape that would result from the construction and operation of the project. Three components contribute to visual contrast: (1) physical change to landform, (2) removal of vegetation, and (3) the addition of structural elements in the landscape. For this project, the primary components influencing visual contrast are the demolition of four generating units and exhaust stacks and the addition of two new generating units and exhaust stacks. Landform contrast would be somewhat minimal.

Visual absorption capacity (VAC) is defined as the extent to which the complexity of the landscape can absorb new structural elements without changing the overall visual character of the area. For the project, VAC is expected to substantially influence how the project would be perceived throughout the VSOI. For example, the facilities of the existing PPP create landscape conditions where VAC would be considered high, which in turn would reduce the level of visual contrast to sensitive viewers.

Visual contrast levels for the project could be characterized as strong, moderate, or weak. Strong visual contrast levels associated with a project of this nature would typically occur in a landscape that was previously undeveloped/undisturbed. Weak visual contrast levels would typically occur in a landscape that was previously developed/disturbed, such as the case with the WPGS site and adjacent landscapes. For the project, isolated cases of moderate visual contrast levels could occur based on localized viewing conditions in proximity to the project site.

Visual modification levels were determined by combining project visibility with visual contrast levels (see Table 7.11-3). Four visual modification levels were used to characterize the anticipated level of visual change associated with the project from sensitive views. The visual modification levels are described below:

- **Not Noticeable:** Changes or contrasts in the landscape may be visible within the viewshed, but generally would be overlooked by all but the most concerned and interested viewers. Changes generally would not be noticed unless pointed out. Such changes are often inconspicuous because of such factors as distance, adjacent screening, weak visual contrast with context, or other landscape features prominent in view, including the adverse impacts of past activities.
- **Noticeable:** Changes or contrasts in the landscape would not be overlooked, but are visually subordinate (noticeable to most without being pointed out); they may attract some attention but do not compete for it with other features in the field of view, including the adverse impacts of past activities. Such changes often are perceived as being in the background or within the confines of previous development.
- **Co-Dominant:** Changes or contrasts in the landscape compete for attention with other landscape features in the view, including adverse impacts of past activities. Such changes would draw attention about as frequently as other features in the landscape.
- **Dominant:** Changes or contrasts in the landscape are the focus of attention and tend to become the dominant feature within the view. Such changes are typically substantial in character and often cause a lasting impression in the affected landscape.

Visual Impact Levels. Visual impact levels were determined by combining viewer sensitivity of KOPs and OVAs with visual modification levels (see Table 7.11-4). The three levels of potential impact to sensitive viewers as a result of the project are high, moderate, and low. High impacts could occur when the project would result in a substantial change to views in the landscape. Moderate impacts could occur

when the project would result in modest change to views in the landscape. Low impacts could occur when the project would result in a marginal change to views in the landscape.

A high or moderate level of impact could warrant the development and application of mitigation measures to minimize or reduce potential impacts to lower levels, while low levels of impact may not warrant mitigation measures.

Visual Impact Severity. In addition to visual modification levels, other influences on visual impact severity include the following:

- Blockage in views toward key landscape features or within open view corridors (e.g., in views to the Suisun Bay corridor or to prominent hills)
- Loss of distinctive landscape features or overall change in visual character of the area
- Changes in solar access, sunlight glare, or shading
- Night-lighting effects such as glare, level of lighting, and backscatter into the night sky

These effects have been characterized as follows. Very noticeable changes are described as the addition of high levels of visible light when compared with existing nighttime conditions. Noticeable changes are described as the addition of moderate levels of visible light when combined with existing nighttime conditions. Slightly noticeable changes are described as the addition of low levels of visible light when compared with existing nighttime conditions.

The severity of visual impacts is determined primarily by combining visual modification levels with the visual sensitivity of a given KOP, and considering other influences as appropriate. However, where there are other key influences on visual impact as described above, these can increase the level of visual impact beyond those indicated.

7.11.2.3 Photo Simulations

The development of photographic simulations helped to determine and verify the impacts associated with the selected KOPs. The approach used to develop these photographic simulations is described below.

Photographic/Three-Dimensional Model Composite Simulation

To ensure a high degree of visual accuracy in the simulations, computer-aided design (CAD) equipment and global positioning systems (GPS) were used to create life-sized, computer-generated models of the project. This translates to using real-world scale and coordinates to locate facilities, other site data, and the actual camera locations corresponding to three-dimensional (3D) simulation viewpoints. The degree of accuracy of the CAD equipment is absolute in terms of model design parameters; the accuracy for the GPS location data is to within approximately 1 meter, or 3.3 feet.

Microstation/AutoCad, 3D Computer-Aided Design, and GPS Data Integration

A digital elevation model is used to provide a 3D representation of earth's surface within the project vicinity, and a CAD site map is imported as a background reference. CAD drawings of both existing and proposed facilities are placed on top of the site map to register and orient the correct locations of KOPs. The 3D massing models of both the existing structures and the proposed modifications are generated in real world scale. The GPS camera-positioning information is then referenced to the 3D data set.

Model View Professional/3D Studio Max/Adobe Photoshop

An electronic camera lens matches the camera lens that was actually used in the field. An 8-megapixel camera with a 50-millimeter lens was used consistently throughout the process. This lens selection allows for viewing of the computer-generated model in the same way that the project would be viewed in the field.

Next, the digital photograph is transferred into the 3D database as an environment within which the view of the 3D model is generated. To generate the correct view relative to the actual photograph, the electronic camera is placed in the digital environment at a location corresponding to the real-world location from which the photograph was taken. This is provided by GPS records collected during field study. From here, the 3D wire-frame model is displayed on top of the existing structures, topography, or natural features to ensure proper alignment, scale, angle, and distance. When all lines of the wire-frame model exactly match the photograph, the camera target position is confirmed.

To complete this phase, the sun angle is set, materials and textures are applied, and the composite image is rendered through a computer image process known as ray tracing. Any additional filters required for appropriate atmospheric conditions (such as blur, focus, or haze) are applied at this time.

The photographic simulations developed for this project have been designed to be viewed on 11-inch by 17-inch size paper positioned 10 inches from the viewer's eye. This distance will portray the most realistic life-sized image from the location of the KOPs.

7.11.2.4 Visual Project Description

The following description is a summary of those features of the project that are relevant to the visual assessment or those that may result in significant visual impacts.

The site arrangement drawings (plot plans, elevation views, and an oblique aerial view of the proposed power generation facility) are shown in Figures 2.5-1, 2.5-2, and 2.5-3, respectively.

The most visually prominent features of the project include the following (see Table 7.11-5):

- Exhaust stacks (two stacks, approximately 150 feet tall)
- Air cooled heat exchangers, (two units, approximately 46 feet tall)
- Siemens combustion turbine generators (two units, approximately 30 feet tall)
- Heat recovery steam generators (two units, approximately 88 feet tall)

Appurtenant features would include on site roads, parking areas, fencing, lighting, hazardous material building, hazardous waste building and approximately 1,600 feet of new overhead transmission lines. A series of screening walls will also be installed between each of the above ground storage tanks along the east side of the PPP site (Tanks 1 through 6), adjacent to the WPGS site. The walls will be 48 feet tall, matching the height of the existing tanks. The majority of the project is on the area currently occupied by existing PPP Units 1 through 4, which are now retired and which were last operated in 2003; an unused surface impoundment; an administration building; one unused #6 fuel oil storage tank (Tank 7); temporary buildings; and other ancillary facilities. Most of these current facilities will be demolished and the area will be regraded to accommodate the project, with the exception of the unused surface impoundment on the WPGS site, which will remain in place.

Offsite facilities include 5-mile-long water supply and water discharge pipelines connecting the WPGS site to the Delta Diablo Sanitation District Wastewater Treatment Plant (DDSD WTP). Three miles of the five-mile-long route currently contains an unused fuel oil pipeline owned by Mirant Delta, which historically

was used to convey oil between the Contra Costa Power Plant and the PPP. The existing pipeline is 10.75 inches in diameter, is now out of service, and will be replaced by the new water pipelines. The water pipeline alignment runs through the PPP site, crosses under Willow Pass Road/West 10th Street and Burlington Northern Santa Fe (BNSF) railroad, then turns east and runs adjacent to the Union Pacific Railway. The east section of the water pipeline alignment crosses under Pittsburg-Antioch Highway, runs along the north side of the Highway, and continues north on Arcy Lane to the DDSW WTP.

The water pipelines will be located underground, except near the intersection of Harbor Street, where the pipeline will cross overhead adjacent to the railroad tracks, consistent with the location of the existing unused fuel oil pipeline.

Approximately 21.5 acres of temporary construction laydown, storage, and parking areas for the WPGS are within the PPP site and the adjacent PG&E switchyard. One area is on the east side of the PPP property, around the existing six above-ground storage tanks. The second area is within the PG&E switchyard. A third area is located immediately north of the WPGS northern boundary.

7.11.2.5 Visual Impact Results

This section summarizes the resulting visual impacts in relation to the landscape character and to individual KOPs.

Visual Impacts on Landscape Character/Scenic Quality

The landscape of the project area is currently heavy industrial in character, due to the large energy-related structures present. Adjacent areas are a mix of railroad, commercial, light industrial, recreation, and residential, as described in Section 7.11.1.4.

The project features are similar in appearance to the existing structures, but significantly smaller in overall scale and dominance. The demolition of the retired Units 1 through 4 of the existing PPP facility and their replacement with the two Siemens Flex Plant 10 power blocks of the WPGS project represent a reduction in overall facilities present on the project site. Two new 150-foot stacks will replace the four 211-foot stacks of Units 1 through 4 of the PPP. All of the remaining facilities of the WPGS are smaller than the facilities they are replacing, resulting in a reduction in visible industrial features.

The WPGS would represent a replacement of old facilities with new smaller facilities on a site that is currently heavily developed, and would represent a very minimal to moderate change to the existing condition. In the context of the surrounding industrial modifications to the landscape, the project would not represent a significant impact on landscape character/scenic quality.

The proposed water pipeline alignment, approximately 5 miles long, is located underground along Union Pacific Railway and the Pittsburg-Antioch Highway. Associated construction activities, including excavation and the operation of heavy equipment, would represent short-term visual impacts on landscape character. After installation of the pipelines, portions of disturbed roadway will be repaved and any disturbed vegetation restored. These project components will not be visible over the long term; therefore, no significant impacts are anticipated for the water supply and discharge pipelines. The portion of the pipelines at the Harbor Street intersection that will be installed in an overhead structure will not change the existing condition of the area, and therefore, impacts would be less than significant.

Short-term construction impacts on visual resources would result from the temporary presence of vehicles and heavy equipment, facility components, and workers who would be visible during the demolition of Units 1 through 4 on the WPGS site, construction of the WPGS, and final demobilization and restoration activities and restoration. Temporary or short-term impacts may also include the scraping or disturbance

of soil, and possible removal of vegetation in demolition areas, construction laydown areas, or along pipeline routes. As necessary, restoration of disturbed areas will eliminate long-term impacts to the landscape character. Therefore, the visual intrusion of construction equipment, materials, and personnel would constitute an adverse but not significant impact, because it would occur only for a relatively short time and would not result in a long-term landscape change following site restoration for construction areas.

Visual Impacts on KOPs

The visual impacts expected to result from the WPGS project are discussed below and summarized in Table 7.11-6, Visual Impact Summary. The results are representative of typical worst-case conditions. This means that all viewers in a given viewing area may not have the same level of impact. For example, views of the project that are on the edge of a residential neighborhood may be open, resulting in high impacts, while views from the internal areas of the same neighborhood would be screened due to the adjacent development, resulting in low impacts.

The following discussion focuses primarily on the long-term impacts of the operating project. In general, short-term construction impacts are not expected to lead to visual impacts of greater severity than those of project operation and, due to their temporary nature, are not expected to lead to significant impacts. Some short-term impacts will result from construction, primarily to the high sensitivity viewers within foreground views. These short-term impacts would be due to activities associated with the construction of the project (e.g., cranes, scaffolding, or temporary lighting) and dust.

KOPs within the Visual Sphere of Influence

KOP 1. Viewers within this area include moderate to high-sensitivity viewers recreating or traveling by boat, or walking the trail on the breakwater. KOP 1 would have a moderate to high level of project visibility, with foreground views. These views would have partial screening from the mature vegetation in the Riverview Park. The WPGS facilities would be about 225 feet farther south than the retired Units 1 through 4. Overall, the project would have a decreased potential for visual impacts (see Figure 7.11-12). The surrounding landscape features (e.g., the PPP Units 5 through 7 and the existing above ground storage tanks) represent substantially more dominating facilities than the project, rendering it visually subordinate, thereby helping to reduce the visual contrast introduced into the landscape to *weak*. Viewers would also be transient and would have temporal views of the project, further reducing visibility potential to *noticeable*. Considering the removal of retired Units 1 through 4, the introduction of the WPGS may represent net reduction in visual modification in this view. Visual modification levels are anticipated to be *not noticeable to noticeable*, with a low to moderate viewer impact level.

Because the retired Units 1 through 4 are currently unlit, the addition of new lights for the WPGS could potentially increase the visibility of the project during nighttime hours. However, the lighting would be similar in terms of color and intensity to the existing lighting in the vicinity of the project site. The WPGS lighting would remain subordinate to the lighting on Units 5 through 7 of the PPP and therefore no increase in modification level is anticipated. In consideration of the mitigation detailed in Section 7.11.4, visual impacts from night lighting are anticipated to be less than significant to significant but not adverse. Impacts to recreational viewers are expected to be less than significant to adverse but not significant. Additionally, the inherent project design features (e.g., fewer stacks, shielding and controlling of night lighting) would minimize and further reduce potential viewer impacts from this area.

KOP 2. High-sensitivity residential viewers in this area would have a low level of project visibility, with foreground views that are partially to fully screened by an earthen berm, mature vegetation, and existing above ground storage tanks (see Figure 7.11-13). Removal of the retired Units 1 through 4 of the PPP

and replacement by the WPGS, a visually less dominant or subordinate facility, would slightly reduce the overall appearance of the energy-related features that potentially can be seen from this area, thereby reducing visual contrast. Screening walls, installed between each of the above ground storage tanks, would be present in this view. The screening walls will be finished and colored to blend in with the tanks and will be the same height as the tanks. In this view, the wall would partially screen views of Units 5 and 6; which would have increased in visibility with the removal of Units 1 through 4. Overall the anticipated visual modification levels are *noticeable*.

Because the retired Units 1 through 4 are currently unlit, the addition of new lights for the WPGS could potentially increase the visibility of the project during nighttime hours. From this KOP, it is not anticipated that an increase in modification level would occur due to screening. Additionally, the screening wall is likely to provide increased screening of lights from Units 5 and 6. The WPGS lighting would be similar in terms of color and intensity to the existing lighting in the vicinity of the project site. In consideration of the screening and mitigation, detailed in Section 7.11.4, visual impacts from night lighting are anticipated to be less than significant.

Visual impacts to viewers in this area and the general vicinity are expected to be low and thus less than significant due to the additional screening provided by the screening wall. It is anticipated that a small number of viewers may perceive the visual impacts as potentially adverse due to the visually dominant appearance of the screening wall, however, the impacts would not be significant. Additionally, the project and its design features (e.g., smaller facilities, fewer stacks, no vapor plumes, shielding and controlling of night lighting) would minimize and further reduce potential viewer impacts from this area.

KOP 3. Because of the partial to full screening of the WPGS facilities in the foreground and the speed of travel (typically 25 to 30 mph), moderate sensitivity viewers traveling north on Bay Side Drive would have a low level of project visibility. The most visible portion of the project would likely be the upper portion of the new exhaust stacks (see Figure 7.11-14). Because of the removal of Units 1 through 4 of the PPP and the dominant nature of the remaining units, a reduction in visual contrast to *weak* is anticipated in this landscape setting. Visual modification levels for viewers in this area are anticipated to be *not noticeable* as a result.

Because the retired Units 1 through 4 are currently unlit, the addition of new lights for the WPGS could potentially increase the visibility of the project during nighttime hours. Considering the lower overall height of the WPGS facilities (with the exception of the exhaust stacks), new lighting for the project would likely be partially to fully screened. This results in no change to the modification level. Additionally, the lighting would be similar in terms of color and intensity to the existing lighting in the vicinity of the project site. With the mitigation detailed in Section 7.11.4, visual impacts from night lighting are anticipated to be less than significant.

Impacts to viewers in this area and the general vicinity are expected to be low. Additionally, the inherent project design features (e.g., smaller facilities, fewer stacks, no vapor plumes, shielding and controlling of night lighting) would minimize and further reduce potential viewer impacts from this area. These impacts would be less than significant.

KOP 4. Viewers within this area are primarily high-sensitivity residential and recreational viewers. The residents of this neighborhood would have a moderate level of project visibility; with foreground views that are partially screened due to existing residential structures and some vegetation (see Figure 7.11-15). Additionally, Units 5 through 7 of the PPP provide dominant features, thus helping to reduce the visual contrast introduced into the landscape. This, along with the removal of Units 1 through 4, results in a *weak* overall visual contrast. Visual modification levels are anticipated to be *not noticeable*.

Because the retired Units 1 through 4 are currently unlit, the addition of new lights for the WPGS could potentially increase the visibility of the project during nighttime hours. However, with the presence of substantial lighting from existing facilities, screening, and appropriate mitigation measures, the visibility level and associated modification levels are not expected to increase.

Impacts to viewers in this area and the general vicinity are expected to be low; they would represent less-than-significant visual impact levels due to reduced visibility potential and reduced visual contrast. Additionally, the inherent project design features (e.g., smaller facilities, fewer stacks, no vapor plumes, shielding and controlling of night lighting) would minimize and further reduce potential viewer impacts from this area.

KOP 5. Viewers from KOP 5 are primarily high-sensitivity residential viewers. This view is dominated by Units 5 through 7 of the PPP and the steel lattice transmission structures that span across the view in front of the PPP and the WPGS site (see Figure 7.11-16). Views while potentially open and in the middleground, are heavily modified and contain a large amount of visual clutter from the transmission facilities and associated conductors. This visual clutter contributes to a high visual absorption capacity. The project's proximity to the existing PPP, the removal of Units 1 through 4, and the relatively small size of the WPGS would provide a reduced visual contrast level of *weak*. Visual modification levels for viewers in this area are anticipated to be *not noticeable*.

Because the retired Units 1 through 4 are currently unlit, the addition of new lights for the WPGS could potentially increase the visibility of the project during nighttime hours. The lighting would be similar in terms of color and intensity to the existing lighting in the vicinity of the project site. In consideration of the mitigation detailed in Section 7.11.4, visual impacts from night lighting are anticipated to be less than significant.

Impacts to viewers in this area are expected to be moderate but less than significant. Additionally, the inherent project design features (e.g., smaller facilities, fewer stacks, no vapor plumes, shielding and controlling of night lighting) would minimize and further reduce potential viewer impacts from this area.

KOP 6. KOP 6 represents moderate sensitivity viewers traveling east on Willow Pass Road. Existing residential development is visible on the south side of the road. Views to the north side include prominent views of the existing PPP facilities. Units 5 through 7 of the PPP visually dominate this view, and the WPGS facility would be largely unscreened and in the middleground, detectable but subordinate in the simulation (see Figure 7.11-17). The project's proximity to the existing PPP, the removal of Units 1 through 4, and the relatively small size of the WPGS would provide a reduced visual contrast level of *weak*. Visual modification levels for this area are anticipated to be *not noticeable*.

Because the retired Units 1 through 4 are currently unlit, the addition of new lights for the WPGS could potentially increase the visibility of the project during nighttime hours. However, with the presence of substantial lighting from existing facilities, and appropriate mitigation measures, the visibility level and associated modification levels are not expected to increase.

Viewer impact levels in this area are expected to be low and would be less than significant. Additionally, the inherent project design features (e.g., smaller facilities, fewer stacks, no vapor plumes, shielding and controlling of night lighting) would minimize and further reduce potential viewer impacts from this area.

KOP 7. Viewers from KOP 7 are primarily high-sensitivity recreational viewers from a banquet hall on the north end of a golf course. This middleground view of the project site and the existing PPP is dominated by the visual clutter of existing steel-lattice transmission towers and their conductors, which have an effect similar to partial screening. The WPGS would be subordinate to the other visual elements

in this view, including Units 5 through 7 of the PPP and the transmission facilities. The project's proximity to the existing PPP, the removal of Units 1 through 4, and the relatively small size of the WPGS would provide a reduced visual contrast level of *weak*. Visual modification levels in this area are anticipated to be *not noticeable* (see Figure 7.11-18).

Because the retired Units 1 through 4 are currently unlit, the addition of new lights for the WPGS could potentially increase the visibility of the project during nighttime hours. In consideration of the view distance, substantial lighting in the parking lot of the banquet hall/golf course and the presence of substantial lighting from existing facilities, and with appropriate mitigation measures, the visibility level and associated modification levels are not expected to increase.

Viewer impact levels in this area are expected to be low and less than significant. Additionally, the inherent project design features (e.g., smaller facilities, fewer stacks, no vapor plumes, shielding and controlling of night lighting) would minimize and further reduce potential viewer impacts from this area.

KOP 8. This view from high sensitivity residential viewers in the foothills of southern Pittsburg represents an open middleground view of the WPGS project and the existing PPP facilities. Considering the removal of Units 1 through 4, the dominant scale of Units 5 through 7, and the project's proximity to the existing facilities, the resultant visual contrast is assessed as *weak* (see Figure 7.11-19). Overall, the visual modification level from this KOP is anticipated to be *not noticeable*.

Because the retired Units 1 through 4 are currently unlit, the addition of new lights for the WPGS could potentially increase the visibility of the project during nighttime hours. However, from this distance, with the presence of substantial lighting from existing facilities, and with appropriate mitigation measures, the visibility level and associated modification levels are not expected to increase.

Viewer impact levels in this area are expected to be low and less than significant. Additionally, the inherent project design features (e.g., smaller facilities, fewer stacks, no vapor plumes, shielding and controlling of night lighting) would minimize and further reduce potential viewer impacts from this area.

KOP 9. Viewers from KOP 9 represent moderate sensitivity travelers heading south on Collinsville Road. Views of the WPGS site and the existing PPP are to the southwest, to the right of the direction of travel. From this middleground and nearly background distance, the WPGS and PPP would be at times partially or fully screened, depending on where on the road one looks. At this location, the view of the WPGS and PPP would be open but backdropped by the foothills to the south of the City of Pittsburg. While the elements of the WPGS are subordinate to Units 5 through 7 of the PPP, all of these features would be subordinate to the view of the hills. This, along with the removal of Units 1 through 4, results in a *weak* visual contrast and visual modification level of *not noticeable* (see Figure 7.11-20).

Because the retired Units 1 through 4 are currently unlit, the addition of new lights for the WPGS could potentially increase the visibility of the project during nighttime hours. However, from this distance, with the presence of substantial lighting from existing facilities, and with appropriate mitigation measures, the visibility level and associated modification levels are not expected to increase.

Viewer impact levels in this area are expected to be low and less than significant. Additionally, the inherent project design features (e.g., smaller facilities, fewer stacks, no vapor plumes, shielding and controlling of night lighting) would minimize and further reduce potential viewer impacts from this area.

OVA's within the Visual Sphere of Influence

OVA 1 – Mariner Park Baseball Field. Foreground, high-sensitivity views of the WPGS from this area would have a low level of project visibility. This is due in part to partial and fully screened views in the

immediate foreground from vertical steel lattice transmission towers, earthen berms, and mature vegetation. Visual modification levels are expected to be *not noticeable*.

The addition of new lights as result of the project could potentially increase the visibility of the project during nighttime hours. However, considering the amount of screening, and the presence of substantial lighting from existing facilities, it is anticipated that the modification levels are not expected to increase.

Impacts to viewers from this facility are expected to be low and would not be significant. Additionally, the inherent project design features (e.g., smaller facilities, fewer stacks, no vapor plumes, shielding and controlling of night lighting) would minimize and further reduce potential viewer impacts from this area.

OVA 2 – Residential Area in Southwest Pittsburg Hills. Viewers within the area are primarily high sensitivity with extreme middleground views and moderate visibility levels. Visual contrast is anticipated to be *weak* due to the evident modifications in the view and subordinate scale of the WPGS in relation to the existing PPP. Visual modification levels are expected to be *not noticeable*.

Because the retired Units 1 through 4 are currently unlit, the addition of new lights for the WPGS could potentially increase the visibility of the project during nighttime hours. However, from this distance and view angle, with the presence of substantial lighting from existing facilities, and with appropriate mitigation measures, the visibility level and associated modification levels are not expected to increase.

Impacts to viewers from this residential community are expected to be low and would not be significant. Additionally, the inherent project design features (e.g., smaller facilities, fewer stacks, no vapor plumes, shielding and controlling of night lighting) would minimize and further reduce potential viewer impacts from this area.

OVA 3 – State Route 4 at Willow Pass Road. Background views from the moderate sensitivity viewers traveling east on SR 4 would have a low overall visibility potential due largely to speed and the short segment of the road that provides direct views toward the project. Visual contrast is anticipated to be *weak* as the WPGS would be subordinate to the existing Units 5 through 7 of the PPP. Overall visual modification levels in this area would be *not noticeable*.

At this view distance and view angle, and with presence of substantial lighting from existing facilities; the potential for the addition of new lights for the WPGS to increase visibility and associated modification levels is anticipated to be low. With the appropriate mitigation measures concerning lighting, this would be further reduced.

Impacts to viewers in the area are expected to be low and would be less than significant. Additionally, the inherent project design features (e.g., smaller facilities, fewer stacks, no vapor plumes, shielding and controlling of night lighting) would minimize and further reduce potential viewer impacts from this area.

7.11.3 Cumulative Impacts

The WPGS project would add a noticeable but not significant or dominant change in the surrounding industrial area in this portion of Contra Costa County and City of Pittsburg. The presence of PPP Units 5 through 7 and other existing energy-related facilities, including the PG&E switchyard and the existing above ground storage tanks, exhibit a more dominant relationship with the WPGS project. Other industrial projects in the larger regional area include Calpine's Delta Energy Center, Calpine's Los Medanos Energy Center, the Dow Chemical Company plant, Koch Carbon, GFW Systems, and others to the east. In combination with these projects, the WPGS project would result in a minimal degree of cumulative impact as a result of the proximity to these projects. Considering the demolition of the retired

Units 1 through 4 of the PPP as part of the project, the overall density of views of an industrial nature would represent a slight decrease in visual dominance within the immediate area of the project.

7.11.4 Mitigation Measures and Design Features to Reduce Impacts

Mitigation measures for the project fall into two categories: (1) generic mitigation measures built into the project description to reduce overall visual impacts, and (2) specific mitigation measures recommended to address individual impacts to visual resources. This section summarizes the mitigation measures that the applicant has identified to reduce potential visual impacts resulting from the WPGS project.

Because no significant visual impacts are expected with the implementation of the project, no mitigation measures are warranted at this time. However, the following design features were incorporated into the project to reduce the potential visual impacts:

VIS- 1 Power Plant

- Structures, stacks, buildings, and storage tanks will be painted in accordance with CEC guidelines and colors will be selected to blend in with the existing visual conditions.
- The colors will provide for subtle variations and contrast. The selected color will help the project to blend more naturally with the natural setting.
- Reflectivity of surfaces will be reduced by using nonreflective elements where practical.

VIS-2 Lighting

- Lighting on the project site will be limited to areas required for safety, will be directed on site to avoid backscatter, and will be shielded from public view to the extent practical.
- All lighting that is not required to be on during nighttime hours will be controlled with sensors or switches operated so that the lighting will be on only when needed.
- High-pressure sodium vapor fixtures will be used. These lights typically produce low-intensity amber light, which will reduce visual contrast with the night sky.
- Stacks and other tall project elements will be lit in accordance with Federal Aviation Administration guidelines.

VIS-2 Gas and Water Pipelines

- After construction, areas where pavement or vegetation has been removed will be restored to be consistent with the surrounding area. Pipeline routes may also follow road rights-of-way and therefore will be placed under pavement or prepared dirt surfaces.

7.11.5 Laws, Ordinances, Regulations, and Standards

The project will be constructed and operated in accordance with all LORS applicable to visual resources. This section briefly discusses the identified LORS. Table 7.11-7 provides a summary of the applicable LORS, as described in Sections 7.11.5.1 through 7.11.5.3, and provides the basis for project compliance.

7.11.5.1 Federal

The project is on private land and is not subject to any federal regulations pertaining to visual resources.

7.11.5.2 State

The California Department of Transportation maintains a statewide system of designated and eligible scenic highways with the intent of recognizing and protecting the more scenic corridors along the state highway system (Caltrans, 1996). Approximately 13 miles east-southeast of the WPGS site, a portion of SR 4 is listed as an Eligible State Scenic Highway. The WPGS is not visible from this portion of SR 4.

The protection of scenic qualities along designated scenic highways is the responsibility of the local agency, via an approved scenic corridor protection plan and local ordinances. No specific local ordinances enforcing controls on eligible Scenic Highway SR 4 and applicable to the project were identified, except for the protection of scenic corridors identified above. The general intent of the scenic highway program has been reflected in the high visual sensitivity assigned to these viewpoints in the assessment above. Specifically, the analysis of OVA 1 at Willow Pass Road from SR 4 determined that anticipated impacts would be less than significant.

7.11.5.3 Local

County

The site is within the City of Pittsburg, and, Contra Costa County, will be subject to local LORS pertaining to protecting and maintaining visual character and quality. Applicable LORS are from the *City of Pittsburg General Plan* (2004) and the *Contra Costa County General Plan 2005-2020* (2005) and are identified below. These LORS are summarized in Table 7.11-7.

The *Contra Costa County General Plan* (Contra Costa County, 2005) contains the following policies and implementation measures:

Land Use Element

Policy 3-19: Buffers shall be provided between new industrial developments and residential areas by establishing setbacks, and park-like landscaping or other appropriate mechanisms.

Policy 3-42: Industrial development shall be concentrated in select locations adjacent to existing major transportation corridors and facilities.

Policy 3-43: Industrial employment centers shall be designed to be unobtrusive and harmonious with adjacent areas and development

Implementation Measures 3-Z: Initiate and enforce, if necessary, specific development standards for both proposed and existing businesses to achieve appropriate landscaping design and sign structures.

Transportation and Circulation Element – Scenic Routes

Policy 5-35: Scenic corridors shall be maintained with the intent of protecting attractive natural qualities adjacent to various roads throughout the county.

Policy 5-37: Scenic views observable from scenic routes shall be conserved, enhanced, and protected to the extent possible.

Policy 5-43: Provide special protection for natural topographic features, aesthetic views, vistas, hills and prominent ridgelines at “gateway” sections of scenic routes. Such “gateways” are located at unique transition points in topography and land use, and serve as entrances to regions of the County.

Open Space Element Scenic Resource Policies and Goals

Goal 9-11: To protect major scenic ridges, to the extent practical, from structures, roadways, or other activities which would harm their scenic qualities.

Goal 9-12: To preserve the scenic qualities of the San Francisco Bay/Delta estuary system and the Sacramento – San Joaquin River/Delta shoreline.

Goal 9-19: New water tanks that would harm the visual quality of a scenic ridge shall be buried, camouflaged or screened to mitigate their impacts.

Policy 9-20: New power lines shall be located parallel to existing lines in order to minimize their visual impact.

Policy 9-26: The involvement of public interest groups shall be encouraged when identifying, acquiring, and maintaining those areas of unique visual quality in the County.

Policy 9-27: The appearance of the County shall be improved by eliminating negative features such as non-conforming signs and overhead utility lines, and by encouraging aesthetically designed facilities with adequate setbacks and landscaping.

Policy 9-28: Maintenance of the scenic waterways of the County shall be improved by eliminating negative features such as non-conforming signs and overhead utility lines, and by encouraging aesthetically designed facilities with adequate setbacks and landscaping.

Policy 9-30: Physical and visual public access to established scenic routes shall be protected

City of Pittsburg

The City of Pittsburg General Plan (2004) contains the following policies:

Open Space Policies

Section 10.3.2.b.: Implement the design standards of the Community Image and Design Element so as to maintain views of the San Joaquin River, Mount Diablo and its foothills, Black Diamond Mines Regional Preserve and other scenic features, and protect the natural character of Antioch’s hillside areas as set forth in the Community Image and Design Element.

Section 10.3.2.c.: Maintain the shoreline of the San Joaquin River as an integrated system of natural (wetlands) and recreational (trails and viewpoints) open space as set forth in the Land Use Element and Public Services and Facilities Element.

Development Transitions and Buffering Policies

Section 5.4.12.c.: Provide appropriate buffering to separate residential and non-residential uses, using one or more of the following techniques as appropriate.

- *Increase setbacks along roadways and common property lines between residential/non residential uses.*
- *Provide a heavily landscaped screen along the roadway or common property line separating residential and non-residential use.*

Industrial Development

Section 5.4.10.a.: The primary design objective for industrial development is the arrangement of structures and functions in an efficient manner. Within the constraints of utility and economic feasibility, manufacturing and industrial buildings shall display architectural statements that are aesthetically pleasing, and shall be designed in accordance with the following design guidelines:

- *Architectural design and details are generally to be oriented toward public views with utilitarian work, maintenance, and storage areas screened from public view.*
- *Architectural design and details should be used to break up the boxlike appearance of the tilt-up construction typically used for industrial buildings.*

Section 5.4.10.b.: Entries into industrial buildings should be well defined through the use of projections, recesses, entry space frames, pergolas, colonnades, raised planters, seating elements, surface texture and enhanced paving elements, low-level lighting bollards, or other elements designed to announce entrance into these structures. Blank unarticulated building entries are to be avoided.

Section 5.4.10.c.: Where long, linear walls or fences are needed, a combination of wall/fence along a landscape berm is to be encouraged.

Section 5.4.10.d.: Truck docks and trash storage areas are to be closed off by roll-down or another appropriate type of door, and should be arranged in an organized manner, integrated within the overall design of the project.

- *Although no particular “style” is suggested, the use of contemporary, clean, architectural expressions is encouraged.*
- *Blank building elevations plotted parallel to public streets and highways are inappropriate. Variety should be provided in the surface of exterior walls facing public streets or highways with pilasters, deep reveals at construction joints, and staggering of wall components to create projections and recesses in an otherwise flat wall surface.*

Section 5.4.10.e.: Service areas should be simple and efficient, and not interfere visually or physically with other building operations. Service areas should not be visible from public roadways and highways.

Section 5.4.10.g.: Signs for multi-tenant uses shall be integrated with building designs and coordinated to create an overall sign theme for the project.

Section 5.4.10.h.: Adequate lighting shall be required to provide adequate lighting for the security and safety of on-site parking, loading, shipping and receiving, and pedestrian and working areas.

Section 4.4.4.2.e.: All manufacturing and industrial uses shall be adequately screened to reduce glare, noise, dust, and vibrations.

Community Image and Design

Section 5.4.2.c.: Maintain view corridors from public spaces to natural ridgelines and landmarks, such as Mount Diablo and distant hills, local ridgelines, the San Joaquin River, and other water bodies.

Section 5.4.2.j.: Within multi-family, commercial, office and business parks, and industrial developments, screen enclosures, loading areas, mechanical equipment, and outdoor storage areas from view from public streets, and, as appropriate, from other public views.

Section 5.4.2.o.: Design onsite lighting to improve the visual identification of adjacent structures.

Section 5.4.2.p.: Lighting should accommodate night use of streets and promote security while complying with the provision of a dark night sky. Streetscape areas that are used by pedestrians at night should be well lit. Within rural and open space areas, limit street lighting to intersections and other locations that are needed to maintain safe access (e.g., sharp curves).

Community Image and Design

Section 5.4.13.c. Limit the size of signs to that necessary to adequately provide identification and direction.

Section 5.4.13.g. Pole signs are not to be permitted. Signs are to be designed to reflect the general low-rise character of the City. Low monument-type signs are appropriate for identifying freestanding commercial uses, shopping centers, and business/office complexes. Where roof signs are permitted, they are to be architecturally integrated with the overall building design.

7.11.6 Involved Agencies and Agency Contacts

Agency information is provided in Table 7.11-8.

7.11.7 Permits Required and Permit Schedule

No specific permits are required for visual resources for this project.

7.11.8 References

- Adams, Jim and Paula David, 2008. Personal communication with Richard Stuhan and David Lawrence, URS Corporation, May 16.
- BLM (Bureau of Land Management). 1986. Visual Resource Management Inventory and Contrast Rating System.
- Caltrans (California Department of Transportation), 1996. Guidelines for the Official Designation of Scenic Highways. Office of Landscape Architecture, Caltrans, Sacramento.
- City of Pittsburg, 2001. Pittsburg 2020: A Vision for the 21st Century, City of Pittsburg General Plan, Draft Environmental Impact Report, January 2001.
- City of Pittsburg, 2004. Pittsburg 2020: A Vision for the 21st Century, City of Pittsburg General Plan, adopted November 16, 2001, (updated December 2004).
- Contra Costa County. 2005. Contra Costa General Plan 2005-2020, January.
- U.S. Forest Service, 1995. *Scenery Management System*. U.S. Department of Agriculture.



| Table 7.11-1 Visual Impact Significance Matrix | | | |
|---|--|-----------------------------|-----------------------------|
| Visual Impact Severity | Visual Impact Susceptibility | | |
| | High | Moderate | Low |
| High | Significant ¹ | Significant | Adverse But Not Significant |
| Moderate | Adverse But Not Significant ² | Adverse But Not Significant | Less than Significant |
| Low | Less than Significant ³ | Less than Significant | Less than Significant |

Notes:

- 1 Significant impacts can be mitigated to a level that is not significant or can be avoided altogether with feasible mitigation. Without mitigation, the impact could exceed environmental thresholds.
- 2 Adverse but Not Significant Impacts are perceived as negative but do not exceed environmental thresholds.
- 3 Less-than-Significant impacts may or may not be perceptible but are considered minor in the context of existing landscape characteristics and view opportunity.

| Table 7.11-2 Visibility Potential Levels | | | |
|---|-------------------------|---------------------|-------------------|
| Screening | Viewing Distance | | |
| | Foreground | Middleground | Background |
| Open views | High | Moderate | Low |
| Partial Screening | Moderate | Moderate/Low | Low |
| Screened views | Low | Low | Low |

Other variables that may potentially reduce project visibility include:

- Duration of viewing opportunities
- Orientation of viewers
- Elevation of viewers
- Atmospheric conditions
- Nighttime lighting

| Table 7.11-3 Visual Modification Levels | | | |
|--|-----------------------------|-----------------|----------------|
| Project Contrast | Visibility Potential | | |
| | High | Moderate | Low |
| Strong | Dominant | Co-Dominant | Noticeable |
| Moderate | Co-Dominant | Noticeable | Not Noticeable |
| Weak | Not Noticeable | Not Noticeable | Not Noticeable |

| Table 7.11-4 Viewer Impact Levels | | | |
|--|---------------------------|-----------------|------------|
| Modification Level | Viewer Sensitivity | | |
| | High | Moderate | Low |
| Not Noticeable | Low | Low | Low |
| Noticeable | Moderate | Moderate | Low |
| Co-dominant | High | Moderate | Low |
| Dominant | High | High | Moderate |

| Table 7.11-5 Major Structures (Page 1 of 2) | | | | |
|--|-----------------|---|---|---|
| Structure | Quantity | Size, L×W×H (feet) | Service/Remarks | Visual |
| Common Structures | | | | |
| Natural gas compressor enclosure | 1 | 50 × 75 × 12 | | Corrugated steel, painted tan |
| Water treatment building | 1 | 68 × 110 × 15 | | Corrugated steel, painted tan |
| Demineralized water storage tank | 1 | 52 feet DIA × 52 feet | 800,000-gallon tank HRSG makeup | Steel tank, painted tan |
| Waste water storage tank | 1 | 46 feet DIA × 46 feet | 600,000-gallon capacity | Steel tank, painted tan |
| Reverse osmosis permeate tank | 1 | 54 feet DIA × 54 feet | 0.9-million-gallon capacity | Steel tank, painted tan |
| Settling Basin | 1 | 32 feet by 64 feet by 10 feet deep | 150,000-gallon capacity | |
| Transmission structure (A frame) | 5 | 85 to 115 feet tall A-Frame | | Weathered or galvanized steel structure |
| Transmission structure (lattice) | 1 | 150 feet high | | weathered or galvanized steel structure |
| Admin/control building | 1 | 220 feet × 324 feet (warehouse section is 15 feet tall; and office section is three floors, 30 feet tall) | 75,000 square feet | Corrugated steel, painted tan |
| Combustion turbine generators | 2 | 75 × 47 × 76 (top of inlet air filter) | ULN combustion control with evaporative inlet air coolers | Industrial equipment, primarily steel painted tan |
| Steam turbine generator | 2 | 60 × 22 × 28 including support structures | Back pressure STG | Industrial equipment located inside metal panel enclosure, painted tan |
| Heat recovery steam generators | 2 | 123 × 25 × 88 | Single pressure | Industrial equipment Casing and ducting steel painted tan Steam drums on top, silver metal insulation |

| Table 7.11-5 Major Structures (Page 2 of 2) | | | | |
|--|-----------------|---|--|---|
| Structure | Quantity | Size, L×W×H (feet) | Service/Remarks | Visual |
| Aqueous ammonia storage tank | 1 | 35 feet 6 inches × 10 feet DIA | NO _x control (19 wt percent ammonia solution) | Steel horizontal tank, painted white |
| HRSG stacks | 2 | 21 feet 4-inch DIA 150 feet, 6 inches tall | Self-supported | Steel vertical cylinder, painted desert tan |
| Air-cooled Heat Exchanger | 2 | 127 × 90.5 × 46 | 12 Cells | Industrial equipment, coil and fan assembly with painted gray steel side (wind) walls on 22 feet tall steel support structure, painted tan. |
| Screening Wall | 5 | 150 to 172 feet long (each wall) × 48 | | Painted tan similar to existing Tanks 1 through 6 |
| <p>Notes: HRSG= heat recovery steam generator NO_x = oxides of nitrogen STG = steam turbine generator ULN = ultra low NO_x</p> | | | | |

**Table 7.11-6
Visual Impact Summary (Page 1 of 4)**

| KOP/OVA and Distance | Representative View Location | Viewer Sensitivity | Mitigation | Viewing Variables | Other Influences | Visual Modification | Initial Impact Levels | Visual Impact |
|-----------------------------|--|---------------------------|--|-----------------------------------|---|------------------------------|------------------------------|--|
| KOP 1 (0.31 miles) | Trail on breakwater of marina (accessible from Riverview Park) | High | <ul style="list-style-type: none"> Shielding and controlling of lighting Minimize use of high-intensity lights | Partially screened views | <ul style="list-style-type: none"> Removal of Units 1 through 4 and construction of WPGS represents reduced visual contrast. Subordinate visual scale Potential for increased project visibility during nighttime lighting | Not noticeable to noticeable | Low to moderate | Less than Significant to Adverse but Not Significant |
| KOP 2 (0.16 miles) | Stewart Memorial Methodist Church and neighborhood | Moderate/High | <ul style="list-style-type: none"> Shielding and controlling of lighting Minimize use of high-intensity lights | Partially to fully screened views | <ul style="list-style-type: none"> Subordinate visual scale Potential for increased project visibility during nighttime lighting | Noticeable | Low to Moderate | Less than Significant to Adverse but Not Significant |
| KOP 3 (0.38 miles) | St. Peter Martyr School and Bay Side Drive | Moderate | <ul style="list-style-type: none"> Shielding and controlling of lighting Minimize use of high-intensity lights | Partially to fully screened views | <ul style="list-style-type: none"> Subordinate visual scale Potential for increased project visibility during nighttime lighting | Not Noticeable | Low | Less than Significant |

**Table 7.11-6
Visual Impact Summary (Page 2 of 4)**

| KOP/OVA and Distance | Representative View Location | Viewer Sensitivity | Mitigation | Viewing Variables | Other Influences | Visual Modification | Initial Impact Levels | Visual Impact |
|-----------------------------|---|---------------------------|--|--|--|----------------------------|------------------------------|-----------------------|
| KOP 4 (0.35 mile) | Gazebo on channel off of Pelican Loop | High | <ul style="list-style-type: none"> Shielding and controlling of lighting Minimize use of high-intensity lights | Partially screened views | <ul style="list-style-type: none"> High VAC Subordinate visual scale Potential for increased project visibility during nighttime lighting | Not Noticeable | Low | Less than Significant |
| KOP 5 (1.2 miles) | Mayport Court (neighborhood) | High | <ul style="list-style-type: none"> Shielding and controlling of lighting Minimize use of high-intensity lights | Partially screened views | <ul style="list-style-type: none"> High VAC Subordinate visual scale Potential for increased project visibility during nighttime lighting | Not Noticeable | Moderate | Less than Significant |
| KOP 6 (1.33 miles) | Willow Pass Road | Moderate | <ul style="list-style-type: none"> Shielding and controlling of lighting Minimize use of high-intensity lights | Travel speed | <ul style="list-style-type: none"> Subordinate visual scale Potential for increased project visibility during nighttime lighting | Not Noticeable | Low | Less than Significant |
| KOP 7 (2 miles) | Delta View Golf Course and Wedgewood Banquet Hall | High | <ul style="list-style-type: none"> Shielding and controlling of lighting Minimize use of high-intensity lights | Visual clutter, partially screened views | <ul style="list-style-type: none"> High VAC Subordinate visual scale Potential for increased project visibility during nighttime lighting | Not Noticeable | Low | Less than Significant |

**Table 7.11-6
Visual Impact Summary (Page 3 of 4)**

| KOP/OVA and Distance | Representative View Location | Viewer Sensitivity | Mitigation | Viewing Variables | Other Influences | Visual Modification | Initial Impact Levels | Visual Impact |
|-----------------------------|---|---------------------------|--|-----------------------------------|--|----------------------------|------------------------------|-----------------------|
| KOP 8 (3.22 miles) | Cul de Sac on Encinal Place | High | <ul style="list-style-type: none"> Shielding and controlling of lighting Minimize use of high-intensity lights | Open views and view distance | <ul style="list-style-type: none"> Subordinate visual scale Potential for increased project visibility during nighttime lighting | Not Noticeable | Low | Less than Significant |
| KOP 9 (3.85 miles) | Collinsville Road | Moderate | <ul style="list-style-type: none"> Shielding and controlling of lighting Minimize use of high-intensity lights | View distance, backdropping | <ul style="list-style-type: none"> Subordinate visual scale Potential for increased project visibility during nighttime lighting | Not Noticeable | Low | Less than Significant |
| OVA 1 (0.25 miles) | Mariner Park Baseball Field | High | <ul style="list-style-type: none"> Shielding and controlling of lighting Minimize use of high-intensity lights | Partially to fully screened views | <ul style="list-style-type: none"> High VAC Subordinate visual scale Potential for increased project visibility during nighttime lighting | Not Noticeable | Low | Less than Significant |
| OVA 2 (3.8 miles) | Residential Area in Southwest Pittsburg Hills | High | <ul style="list-style-type: none"> Shielding and controlling of lighting Minimize use of high-intensity lights | Open views, view distance | <ul style="list-style-type: none"> Subordinate visual scale Potential for increased project visibility during nighttime lighting | Not Noticeable | Low | Less than Significant |

**Table 7.11-6
Visual Impact Summary (Page 4 of 4)**

| KOP/OVA and Distance | Representative View Location | Viewer Sensitivity | Mitigation | Viewing Variables | Other Influences | Visual Modification | Initial Impact Levels | Visual Impact |
|-----------------------------|-------------------------------------|---------------------------|--|--------------------------|---|----------------------------|------------------------------|-----------------------|
| OVA 3 (4.5 miles) | SR 4 at Willow Pass | Moderate | <ul style="list-style-type: none"> • Shielding and controlling of lighting • Minimize use of high-intensity lights | Travel speed | <ul style="list-style-type: none"> • High VAC • Subordinate visual scale • Potential for increased project visibility during nighttime lighting • Distance Visibility • Short duration | Not Noticeable | Low | Less than Significant |

Notes:

KOP = key observation point
 OVA = other viewing area
 SR = State Route
 VAC = visual absorption capability

| Table 7.11-7 Applicable Visual Resources Laws, Ordinances, Regulations, and Standards | | | |
|--|--|--|--|
| Laws, Ordinances, Regulations, and Standards | Applicability | Administering Agency | Application for Certification Section and Basis for Compliance |
| State | | | |
| The California Department of Transportation (Caltrans) Designated Scenic Highways | State regulation of scenic qualities related to SR 4. | Contra Costa County | Sections 7.11.1.5 and 7.11.2.5 discuss potential views from SR 4. Eligible Scenic Highway portions of SR 4 are more than 13 miles away to the south east and thus not considered affected. |
| County | | | |
| Contra Costa County Land Use Element: Policy 3-19 | Buffers shall be provided between new industrial developments and residential areas by establishing setbacks, and park-like landscaping or other appropriate mechanisms. | Contra Costa County, Building Department | Section 7.11.4 discusses the design features that will be incorporated into the project to reduce the potential of visual impacts. There are no expected significant visual impacts; therefore, no mitigation measures are warranted at this time. However, design features will be incorporated into the project to reduce the potential of visual impacts. |
| Contra Costa County Land Use Element: Policy 3-42 | Industrial development shall be concentrated in select locations adjacent to existing major transportation corridors and facilities. | Contra Costa County, Building Department | Sections 7.11.1.4 and 7.11.2.5 discuss the project's location in a highly industrialized site adjacent to the PPP, as well as other industrial developments. |
| Contra Costa County Land Use Element: Policy 3-43 | Industrial employment centers shall be designed to be unobtrusive and harmonious with adjacent areas and development. | Contra Costa County, Building Department | Sections 7.11.1.4 and 7.11.2.5 discuss the project's location in a highly industrialized site adjacent to the PPP, as well as other industrial developments. No significant visual impacts are expected. |

| Table 7.11-7 Applicable Visual Resources Laws, Ordinances, Regulations, and Standards (Continued) | | | |
|--|---|---|---|
| Laws, Ordinances, Regulations, and Standards | Applicability | Administering Agency | Application for Certification Section and Basis for Compliance |
| Contra Costa County Transportation and Circulation Element-Scenic Routes: Policy 5-35 | Scenic corridors shall be maintained with the intent of protecting attractive natural qualities adjacent to various roads throughout the county. | Contra Costa County, Transportation Planning Division | As discussed in Sections 7.11.1.5 and 7.11.2.5, SR 160 and SR 4 are considered scenic highways in Contra Costa County. Views from SR 160 are nearly 8 miles distant, so the project would not be discernable. Potential views from SR 4 are either distant (i.e., OVA 1) or are partially to fully screened. The existing visual quality in the PPP and the WPGS project site is already low and visual impacts would be less than significant. Therefore, the project is consistent with the existing landscape character. |
| Contra Costa County Transportation and Circulation Element-Scenic Routes: Policy 5-37 | Scenic views observable from scenic routes shall be conserved, enhanced, and protected to the extent possible. | Contra Costa County, Transportation Planning Division | As discussed in Sections 7.11.1.5 and 7.11.2.5, SR 160 and SR 4 are considered scenic highways in Contra Costa County. Views from SR 160 are nearly 8 miles distant, so the project would not be discernable. Potential views from SR 4 are either distant (i.e., OVA 1) or are partially to fully screened. The existing visual quality in the PPP and the WPGS project site is already low and visual impacts would be less than significant. Therefore, the project is consistent with the existing landscape character. |
| Contra Costa County Transportation and Circulation Element-Scenic Routes: Policy 5-43 | Provide special protection for natural topographic features, aesthetic views, vistas, hills and prominent ridgelines at “gateway” sections of scenic routes. Such “gateways” are located at unique transition points in topography and land use, and serve as entrances to regions of the County. | Contra Costa County, Transportation Planning Division | Sections 7.11.1.4 and 7.11.2.5 discuss the project’s location in a highly industrialized site adjacent to the PPP. There no expected significant visual impacts to natural topographic features, aesthetic views, vistas, hills or prominent ridgelines. |
| Contra Costa County Open | To protect major scenic ridges, to the extent practical, from structures, roadways, or other | Contra Costa County, | Sections 7.11.1.4 and 7.11.2.5 discuss the project’s location in a highly industrialized site adjacent to the |

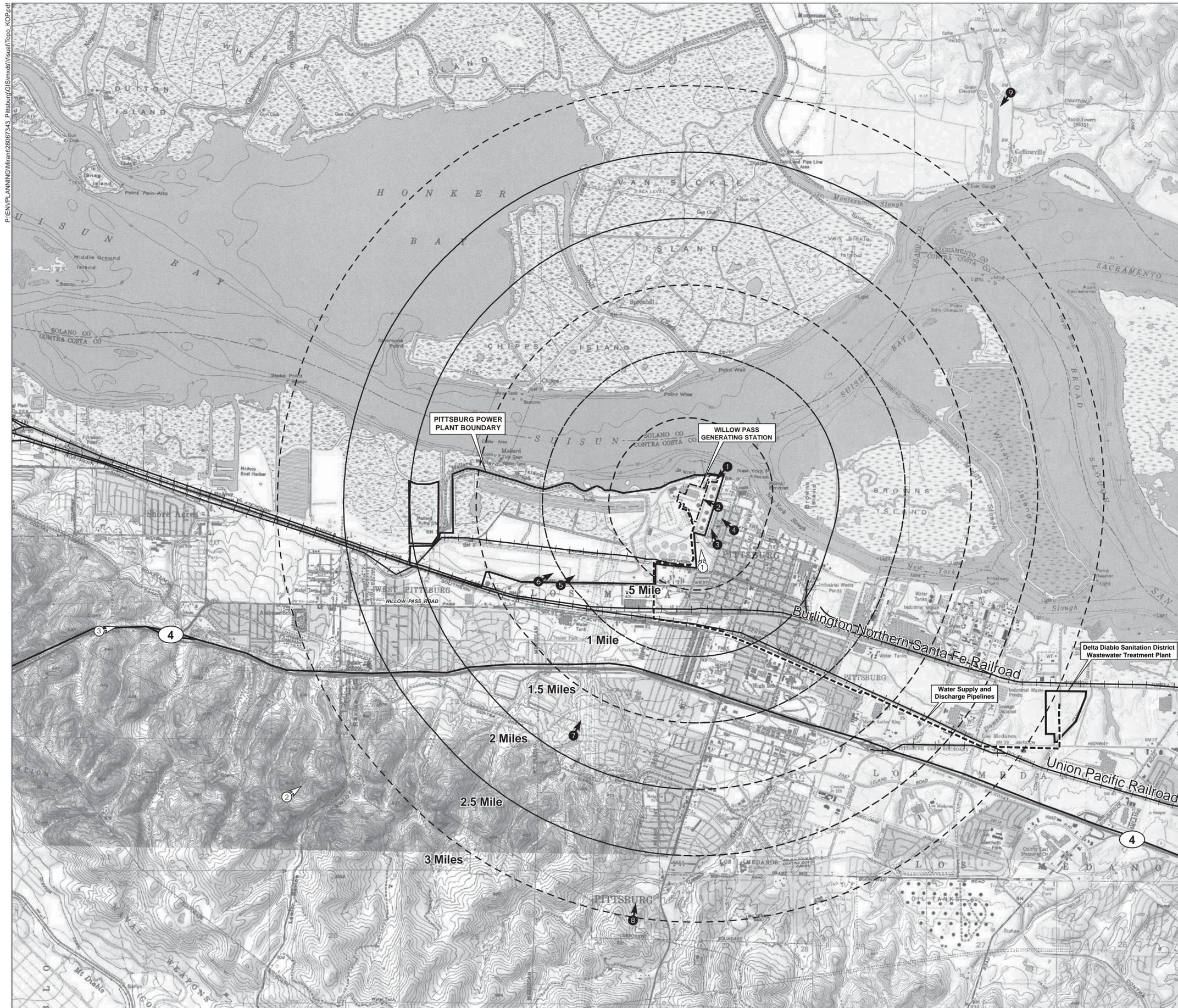
| Table 7.11-7 Applicable Visual Resources Laws, Ordinances, Regulations, and Standards (Continued) | | | |
|--|--|---|--|
| Laws, Ordinances, Regulations, and Standards | Applicability | Administering Agency | Application for Certification Section and Basis for Compliance |
| Space Element- Scenic Routes: Goal 9-11 | activities which would harm their scenic qualities. | Transportation Planning Division | PPP. No significant visual impacts are expected to major scenic ridges. |
| Contra Costa County Open Space Element- Scenic Routes: Goal 9-12 | To preserve the scenic qualities of the San Francisco Bay/Delta estuary system and the Sacramento – San Joaquin River/Delta shoreline. | Contra Costa County, Transportation Planning Division | Sections 7.11.1.4 and 7.11.2.5 discuss the project's location in a highly industrialized site adjacent to the PPP. No significant visual impacts are anticipated. |
| Contra Costa County Open Space Element- Scenic Routes: Policy 9-19 | New water tanks that would harm the visual quality of a scenic ridge shall be buried, camouflaged or screened to mitigate their impacts. | Contra Costa County, Transportation Planning Division | Section 7.11.4 discusses the design features that will be incorporated into the project to reduce the potential of visual impacts. There are no expected significant visual impacts; therefore, no mitigation measures are warranted at this time. However, design features will be incorporated into the project to reduce the potential of visual impacts. |
| Contra Costa County Open Space Element- Scenic Routes: Policy 9-20 | New power lines shall be located parallel to existing lines in order to minimize their visual impact. | Contra Costa County, Transportation Planning Division | Section 7.11.4 discusses the design features that will be incorporated into the project to reduce the potential of visual impacts. The WPGS project will connect with the adjacent PG&E switchyard; no offsite power lines are necessary. |
| Contra Costa County Open Space Element- Scenic Routes: Policy 9-26 | The involvement of public interest groups shall be encouraged when identifying, acquiring, and maintaining those areas of unique visual quality in the County. | Contra Costa County, Transportation Planning Division | Section 7.11.1.1 describes the regional landscape setting. While areas of unique visual quality exist in the region, the project site is not one of these areas and is on an existing power plant property |
| Contra Costa County Open | The appearance of the County shall be improved by eliminating negative features such | Contra Costa County, | Section 7.11.4 discusses the design features that will be incorporated into the project to reduce the potential of |

| Table 7.11-7 Applicable Visual Resources Laws, Ordinances, Regulations, and Standards (Continued) | | | |
|--|--|---|--|
| Laws, Ordinances, Regulations, and Standards | Applicability | Administering Agency | Application for Certification Section and Basis for Compliance |
| Space Element- Scenic Routes: Policy 9-27 | as non-conforming signs and overhead utility lines, and by encouraging aesthetically designed facilities with adequate setbacks and landscaping. | Transportation Planning Division | visual impacts. The project will be sited in a highly industrialized site adjacent to the PPP. There will be a high rate of VAC and no significant visual impacts are expected. |
| Contra Costa County Open Space Element- Scenic Routes: Policy 9-28 | Maintenance of the scenic waterways of the County shall be improved by eliminating negative features such as non-conforming signs and overhead utility lines, and by encouraging aesthetically designed facilities with adequate setbacks and landscaping. | Contra Costa County, Transportation Planning Division | Section 7.11.4 discusses the design features that will be incorporated into the project to reduce the potential of visual impacts. The project will be sited in a highly industrialized site adjacent to the PPP. There will be a high rate of VAC and no significant visual impacts are expected. |
| Contra Costa County Open Space Element- Scenic Routes: Policy 9-30 | Physical and visual public access to established scenic routes shall be protected | Contra Costa County, Transportation Planning Division | Section 7.11.4 discusses the design features that will be incorporated into the project to reduce the potential of visual impacts. The project will be sited in a highly industrialized site adjacent to the PPP. There will be a high rate of VAC and no expected significant visual impacts. The project is not immediately adjacent to any scenic corridor. |
| Local | | | |
| City of Pittsburg Urban Design Goals: Views, Ridges, and Edges, 4-G-1 | “Preserve views of major and minor ridgelines within the southern hills, as designated in Figure 4-2.” | City of Pittsburg, Planning Department | Section 7.11.4 discusses the design features that will be incorporated into the project to reduce the potential of visual impacts. The project sited in a highly industrialized site adjacent to the PPP. Although the site is within close proximity of Suisun Bay, there will be a high rate of VAC and no significant visual impacts are expected. |
| City of Pittsburg Urban Design | “As part of the development review process, limit building heights and massing where views | City of Pittsburg, | Section 7.11.4 discusses the design features that will be incorporated into the project to reduce the potential of |

| Table 7.11-7 Applicable Visual Resources Laws, Ordinances, Regulations, and Standards (Continued) | | | |
|---|--|---|---|
| Laws, Ordinances, Regulations, and Standards | Applicability | Administering Agency | Application for Certification Section and Basis for Compliance |
| Policies: Views, Ridges, and Edges, 4-P- 3 | of the hills from adjacent properties and public spaces could be preserved.” | Planning Department | visual impacts. The project will be sited in a highly industrialized site within the PPP. Although the site is within close proximity of Suisun Bay, there will be a high rate of VAC and no expected significant visual impacts. |
| City of Pittsburg Urban Design Policies: Views, Ridges, and Edges, 4-P- 65 | “Work with the California Department of Transportation to incorporate landscaping and signage and to improve views and access to the Pittsburg Civic Center and other destination points – such as the Suisun Bay waterfront – from State Route 4” | City of Pittsburg, Planning Department | The project will be sited in a highly industrialized site within the PPP. Although the site is within close proximity of Suisun Bay, there will be a high rate of VAC and no expected significant visual impacts. |
| City of Pittsburg Biological Resources and Habitat Goals: Drainage and Erosion, 9-G-4 | “Minimize the runoff and erosion caused by earth movement by requiring development to use best construction management practices (BMPs).” | City of Pittsburg, Planning Department | The project will comply with BMPs related to construction. |
| City of Pittsburg Sign Ordinance 05-1257 Subsection 4(part), 2005; 958 Subsection 1, 1988; 928 Subsection 1 (part),1987 | “Exempt signs include those placed for public utilities. The following signs or devices do not require a sign review under this title and are not included in the total on-site allowable sign area for a business or use. However, if an otherwise exempt sign exceeds the size limitations set forth here, it is subject to issuance of a sign review permit. The owner of an exempt sign must comply with Section 19.08.050 of this title, and Sections 19.12.010 and 19.12.060 of this chapter. Exempt signs under this section include: | City of Pittsburg, Planning Department | The project will comply with required permanent sign type, size and design. |

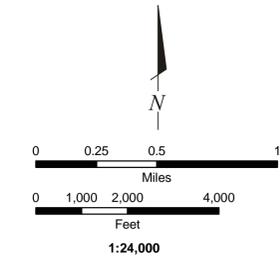
| Table 7.11-7 Applicable Visual Resources Laws, Ordinances, Regulations, and Standards (Continued) | | | |
|---|--|--|---|
| Laws, Ordinances, Regulations, and Standards | Applicability | Administering Agency | Application for Certification Section and Basis for Compliance |
| | A. A sign, other than an on-site sign, placed by a government agency or public utility, including a traffic, parking, directional, warning or regulatory sign or device or legal notice;...” | | |
| City of Pittsburg Sign Ordinance 928 Subsection 1(part), 1987 | Ordinance regarding type and size of signs for manufacturing, research, warehouse and industrial uses. | City of Pittsburg, Planning Department | The project will comply with required permanent sign type, size and design. |
| <p>Notes: CBC = California Buildings Standards Code CEC = California Energy Commission RWQCB = Regional Water Quality Control Board U.S. EPA = U.S. Environmental Protection Agency</p> | | | |

| Issue | Agency/Address | Contact/Title | Telephone |
|--|--|--|------------------|
| Selection of representative KOPs within VSOI | California Energy Commission Energy Facilities Siting Division 1516 9th Street, MS 40 Sacramento, CA 95814-5504 | Jim Adams, Environmental Planner | (916) 653-0702 |
| Selection of representative KOPs within VSOI | California Energy Commission Energy Facilities Siting Division 1516 9th Street, MS 40 Sacramento, CA 95814-5512 | Paula David, Community Resources Supervisor | (916) 654-4228 |

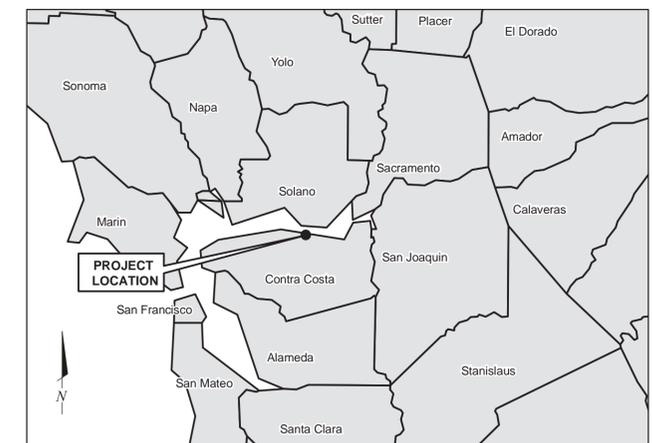


LEGEND

- Viewpoint Location**
- Key Observation Point (KOP)
 - Other Viewing Area (OVA)
 - Pittsburg Power Plant Boundary
 - Willow Pass Generating Station Site
 - Offsite Water Supply and Discharge Pipeline Route
 - 1/2-Mile Distance Markers



Source:
 USGS digital orthographic quarter quads (DOQQ),
 URS Corporation 2008.
 Mirant Corporation 2008.



KEY OBSERVATION POINT (KOP) AND OTHER VIEWING AREAS (OVAs)
 Willow Pass Generating Station
 Mirant Willow Pass, LLC
 28067343
 Pittsburg, California
URS
 FIGURE 7.11-1

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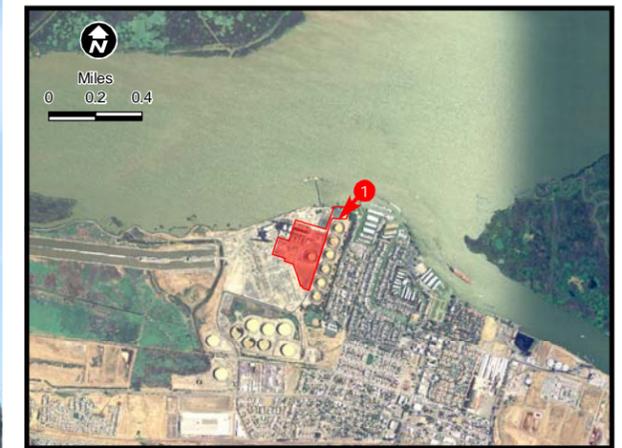
Photograph is intended to be viewed 10 inches from viewer's eyes when printed on 11x17 paper. The photograph below has been cropped top and bottom to show a wide angle of view with the above photograph's area shown in yellow.



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Area of enlarged map below



Viewpoint Location Maps

Legend

- Proposed Project Area
- Demolition Area
- City Boundary (Prior to Recent Annexation of PPP Site)
- State Route
- 📍 KOP Location

Photograph Information

| | |
|----------------------|-------------------|
| Time of photograph: | 10:17 AM |
| Date of photograph: | May 15, 2008 |
| Distance to project: | 0.31 mile |
| Weather condition: | Clear |
| Viewing direction: | Southwest |
| Latitude: | 38° 2' 32.37" N |
| Longitude: | 121° 53' 19.23" W |

KOP 1: VIEW FROM MARINA BREAKWATER EXISTING CONDITIONS

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FIGURE 7.11-2

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Area of enlarged map below



Viewpoint Location Maps

Legend

- Proposed Project Area
- Demo Area
- City Boundary (Prior to Recent Annexation of PPP Site)
- State Route
- ↑ KOP Location

Photograph Information

| | |
|----------------------|----------------|
| Time of photograph: | 10:04 AM |
| Date of photograph: | May 15, 2008 |
| Distance to project: | 0.16 mile |
| Weather condition: | Clear |
| Viewing direction: | West |
| Latitude: | 38° 2'16.52"N |
| Longitude: | 121°53'23.56"W |

KOP 2: VIEW FROM STEWART MEMORIAL METHODIST CHURCH EXISTING CONDITIONS

Willow Pass Generating Station
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FIGURE 7.11-3



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Viewpoint Location Maps

- Legend**
- Proposed Project Area
 - Demolition Area
 - City Boundary (Prior to Recent Annexation of PPP Site)
 - State Route
 - ▲ KOP Location

Photograph Information

| | |
|----------------------|-------------------|
| Time of photograph: | 12:11 PM |
| Date of photograph: | May 16, 2008 |
| Distance to project: | 0.38 mile |
| Weather condition: | Clear |
| Viewing direction: | Northwest |
| Latitude: | 38° 2' 1.72" N |
| Longitude: | 121° 53' 23.68" W |

KOP 3: VIEW FROM BAY SIDE DRIVE AND ST. PETER MARTYR SCHOOL EXISTING CONDITIONS

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FIGURE 7.11-4

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Area of enlarged map below



Viewpoint Location Maps

Legend

- Proposed Project Area
- Demolition Area
- City Boundary (Prior to Recent Annexation of PPP Site)
- State Route
- ▲ KOP Location

Photograph Information

| | |
|----------------------|-------------------|
| Time of photograph: | 11:21 AM |
| Date of photograph: | May 15, 2008 |
| Distance to project: | 0.35 mile |
| Weather condition: | Clear |
| Viewing direction: | Northwest |
| Latitude: | 38° 2' 7.56" N |
| Longitude: | 121° 53' 15.58" W |

KOP 4: VIEW FROM GAZEBO IN A RESIDENTIAL BOAT CHANNEL COMMUNITY EXISTING CONDITIONS

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FIGURE 7.11-5

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Area of enlarged map below



Viewpoint Location Maps

Legend

- Proposed Project Area
- Demolition Area
- City Boundary (Prior to Recent Annexation of PPP Site)
- State Route
- ▲ KOP Location

Photograph Information

| | |
|----------------------|-------------------|
| Time of photograph: | 11:42 AM |
| Date of photograph: | May 15, 2008 |
| Distance to project: | 1.2 miles |
| Weather condition: | Clear |
| Viewing direction: | Northeast |
| Latitude: | 38° 1' 44.89" N |
| Longitude: | 121° 54' 41.32" W |

KOP 5: VIEW FROM RESIDENCES ON MAYPORT COURT EXISTING CONDITIONS

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FIGURE 7.11-6



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Area of enlarged map below



Viewpoint Location Maps

Legend

- Proposed Project Area
- Demolition Area
- City Boundary (Prior to Recent Annexation of PPP Site)
- State Route
- ▲ KOP Location

Photograph Information

| | |
|----------------------|-------------------|
| Time of photograph: | 2:32 PM |
| Date of photograph: | May 16, 2008 |
| Distance to project: | 1.33 miles |
| Weather condition: | Clear |
| Viewing direction: | Northeast |
| Latitude: | 38° 1' 46.20" N |
| Longitude: | 121° 54' 52.45" W |

KOP 6: VIEW FROM WILLOW PASS ROAD EXISTING CONDITIONS

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FIGURE 7.11-7

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Area of enlarged map below



Viewpoint Location Maps

Legend

- Proposed Project Area
- Demolition Area
- City Boundary (Prior to Recent Annexation of PPP Site)
- State Route
- ▲ KOP Location

Photograph Information

| | |
|----------------------|-------------------|
| Time of photograph: | 1:35 PM |
| Date of photograph: | May 15, 2008 |
| Distance to project: | 2.02 miles |
| Weather condition: | Clear |
| Viewing direction: | North |
| Latitude: | 38° 0' 45.92" N |
| Longitude: | 121° 54' 33.89" W |

KOP 7: VIEW FROM WEDGEWOOD RECEPTION HALL AND DELTA VIEW GOLF COURSE EXISTING CONDITIONS

Willow Pass Generating Station
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FIGURE 7.11-8

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Area of enlarged map below



Viewpoint Location Maps

Legend

- Proposed Project Area
- Demolition Area
- City Boundary (Prior to Recent Annexation of PPP Site)
- State Route
- ▲ KOP Location

Photograph Information

| | |
|----------------------|------------------|
| Time of photograph: | 4:23 PM |
| Date of photograph: | May 15, 2008 |
| Distance to project: | 3.22 miles |
| Weather condition: | Clear |
| Viewing direction: | North |
| Latitude: | 37° 59' 33.71" N |
| Longitude: | 121° 54' 2.87" W |

KOP 8: VIEW FROM RESIDENCES ON ENCINAL PLACE EXISTING CONDITIONS

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FIGURE 7.11-9

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Area of enlarged map below



Viewpoint Location Maps

Legend

-  Proposed Project Area
-  Demolition Area
-  City Boundary (Prior to Recent Annexation of PPP Site)
-  State Route
-  KOP Location

Photograph Information

Time of photograph: 1:33 PM
 Date of photograph: May 16, 2008
 Distance to project: 3.85 miles
 Weather condition: Clear
 Viewing direction: Southwest
 Latitude: 38° 5' 0.94" N
 Longitude: 121° 51' 0.92" W

KOP 9: VIEW FROM COLLINSVILLE ROAD EXISTING CONDITIONS

Willow Pass Generating Station
 Mirant Willow Pass, LLC
 June 2008
 28067343
 Pittsburg, California



FIGURE 7.11-10



OVA #1: Mariner Walk Park Baseball Field



OVA #2: Residential Area in Southwest Pittsburg Hills



OVA #3: State Route 4 at Willow Pass

OTHER VIEWING AREAS (OVAs)

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FIGURE 7.11-11

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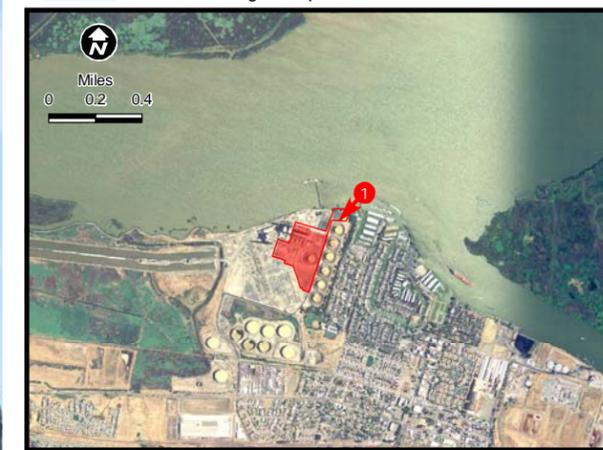
Photograph is intended to be viewed 10 inches from viewer's eyes when printed on 11x17 paper. The photograph below has been cropped top and bottom to show a wide angle of view with the above photograph's area shown in yellow.



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Area of enlarged map below



Viewpoint Location Maps

Legend

- Proposed Project Area
- Demolition Area
- City Boundary (Prior to Recent Annexation of PPP Site)
- State Route
- 📍 KOP Location

Photograph Information

| | |
|----------------------|-------------------|
| Time of photograph: | 10:17 AM |
| Date of photograph: | May 15, 2008 |
| Distance to project: | 0.31 mile |
| Weather condition: | Clear |
| Viewing direction: | Southwest |
| Latitude: | 38° 2' 32.37" N |
| Longitude: | 121° 53' 19.23" W |

**KOP 1: VIEW FROM MARINA BREAKWATER
SIMULATION SHOWING PROJECT**

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FIGURE 7.11-12



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Area of enlarged map below



Viewpoint Location Maps

Legend

- Proposed Project Area
- Demo Area
- City Boundary (Prior to Recent Annexation of PPP Site)
- State Route
- ▲ KOP Location

Photograph Information

| | |
|----------------------|----------------|
| Time of photograph: | 10:04 AM |
| Date of photograph: | May 15, 2008 |
| Distance to project: | 0.16 mile |
| Weather condition: | Clear |
| Viewing direction: | West |
| Latitude: | 38° 2'16.52"N |
| Longitude: | 121°53'23.56"W |

KOP 2: VIEW FROM STEWART MEMORIAL METHODIST CHURCH SIMULATION SHOWING PROJECT

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FIGURE 7.11-13



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Area of enlarged map below



Viewpoint Location Maps

Legend

- Proposed Project Area
- Demolition Area
- City Boundary (Prior to Recent Annexation of PPP Site)
- State Route
- ▲ KOP Location

Photograph Information

| | |
|----------------------|-------------------|
| Time of photograph: | 12:11 PM |
| Date of photograph: | May 16, 2008 |
| Distance to project: | 0.38 mile |
| Weather condition: | Clear |
| Viewing direction: | Northwest |
| Latitude: | 38° 2' 1.72" N |
| Longitude: | 121° 53' 23.68" W |

KOP 3: VIEW FROM BAY SIDE DRIVE AND ST. PETER MARTYR CHURCH SIMULATION SHOWING PROJECT

Willow Pass Generating Station
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FIGURE 7.11-14

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Area of enlarged map below



Viewpoint Location Maps

Legend

- Proposed Project Area
- Demolition Area
- City Boundary (Prior to Recent Annexation of PPP Site)
- State Route
- ▲ KOP Location

Photograph Information

| | |
|----------------------|-------------------|
| Time of photograph: | 11:21 AM |
| Date of photograph: | May 15, 2008 |
| Distance to project: | 0.35 mile |
| Weather condition: | Clear |
| Viewing direction: | Northwest |
| Latitude: | 38° 2' 7.56" N |
| Longitude: | 121° 53' 15.58" W |

KOP 4: VIEW FROM GAZEBO IN A RESIDENTIAL BOAT CHANNEL COMMUNITY SIMULATION SHOWING PROJECT

Willow Pass Generating Station
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FIGURE 7.11-15

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Area of enlarged map below



Viewpoint Location Maps

Legend

- Proposed Project Area
- Demolition Area
- City Boundary (Prior to Recent Annexation of PPP Site)
- State Route
- ▲ KOP Location

Photograph Information

| | |
|----------------------|-------------------|
| Time of photograph: | 11:42 AM |
| Date of photograph: | May 15, 2008 |
| Distance to project: | 1.2 miles |
| Weather condition: | Clear |
| Viewing direction: | Northeast |
| Latitude: | 38° 1' 44.89" N |
| Longitude: | 121° 54' 41.32" W |

KOP 5: VIEW FROM RESIDENCES ON MAYPORT COURT SIMULATION SHOWING PROJECT

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FIGURE 7.11-16

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Area of enlarged map below



Viewpoint Location Maps

Legend

- Proposed Project Area
- Demolition Area
- City Boundary (Prior to Recent Annexation of PPP Site)
- State Route
- ▲ KOP Location

Photograph Information

| | |
|----------------------|-------------------|
| Time of photograph: | 2:32 PM |
| Date of photograph: | May 16, 2008 |
| Distance to project: | 1.33 miles |
| Weather condition: | Clear |
| Viewing direction: | Northeast |
| Latitude: | 38° 1' 46.20" N |
| Longitude: | 121° 54' 52.45" W |

**KOP 6: VIEW FROM WILLOW PASS ROAD
SIMULATION SHOWING PROJECT**

Willow Pass Generating Station
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FIGURE 7.11-17

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Area of enlarged map below



Viewpoint Location Maps

Legend

- Proposed Project Area
- Demolition Area
- City Boundary (Prior to Recent Annexation of PPP Site)
- State Route
- ▲ KOP Location

Photograph Information

| | |
|----------------------|-------------------|
| Time of photograph: | 1:35 PM |
| Date of photograph: | May 15, 2008 |
| Distance to project: | 2.02 miles |
| Weather condition: | Clear |
| Viewing direction: | North |
| Latitude: | 38° 0' 45.92" N |
| Longitude: | 121° 54' 33.89" W |

KOP 7: VIEW FROM WEDGEWOOD RECEPTION HALL AND DELTA VIEW GOLF COURSE SIMULATION SHOWING PROJECT

Willow Pass Generating Station
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FIGURE 7.11-18

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Area of enlarged map below



Viewpoint Location Maps

Legend

- Proposed Project Area
- Demolition Area
- City Boundary (Prior to Recent Annexation of PPP Site)
- State Route
- ▲ KOP Location

Photograph Information

| | |
|----------------------|------------------|
| Time of photograph: | 4:23 PM |
| Date of photograph: | May 15, 2008 |
| Distance to project: | 3.22 miles |
| Weather condition: | Clear |
| Viewing direction: | North |
| Latitude: | 37° 59' 33.71" N |
| Longitude: | 121° 54' 2.87" W |

KOP 8: VIEW FROM RESIDENCES ON ENCINAL PLACE SIMULATION SHOWING PROJECT

| | |
|-----------|--------------------------------|
| June 2008 | Willow Pass Generating Station |
| 28067343 | Mirant Willow Pass, LLC |
| | Pittsburg, California |



FIGURE 7.11-19

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Area of enlarged map below



Viewpoint Location Maps

Legend

- Proposed Project Area
- Demolition Area
- City Boundary (Prior to Recent Annexation of PPP Site)
- State Route
- 📍 KOP Location

Photograph Information

| | |
|----------------------|------------------|
| Time of photograph: | 1:33 PM |
| Date of photograph: | May 16, 2008 |
| Distance to project: | 3.85 miles |
| Weather condition: | Clear |
| Viewing direction: | Southwest |
| Latitude: | 38° 5' 0.94" N |
| Longitude: | 121° 51' 0.92" W |

**KOP 9: VIEW FROM COLLINSVILLE ROAD
SIMULATION SHOWING PROJECT**

June 2008
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Willow Pass Generating Station
Mirant Willow Pass, LLC
Pittsburg, California



FIGURE 7.11-20