5.13 Visual Resources

5.13.1 Introduction

On August 16, 2001, GWF Energy LLC filed an Application for Certification (AFC) with the California Energy Commission (CEC) for the Tracy Peaker Project (TPP). The CEC found the AFC data adequate on October 17, 2001. The CEC released a staff assessment on December 28, 2001, and a supplemental staff assessment on February 1, 2002. The CEC published its Presiding Member's Proposed Decision on May 31, 2002, with the project receiving its Final Decision on July 17, 2002. These documents are incorporated by reference into this AFC and are presented in electronic form in Appendix 1A.

While existing conditions in the project area have changed somewhat since that AFC was completed, some descriptions presented in that AFC are still valid and comprise a data source for this AFC; the original AFC is cited as "GWF, 2001." The CEC Staff Report on the original TPP, along with the Final Decision are the primary sources for the discussion of the original TPP project's potential impacts and corresponding mitigation measures; the Staff Report is cited as "CEC, 2002a," and the Final Decision is cited as "CEC, 2002b." These references are included in Appendix 1A. The land use assessment for the current project (see Section 5.6) is also a primary reference for this current assessment.

Visual resources are the natural and cultural features of the environment that can be seen and that contribute to the public's enjoyment of the environment. Visual resource or aesthetic impacts are generally defined in terms of a project's physical characteristics and potential visibility, and the extent that the project's presence would change the visual character and quality of the environment in which it would be located.

This section was prepared following CEC guidelines for preparing visual impact assessments for AFC. Section 5.13.2 describes the laws, ordinances, regulations, and standards (LORS) applicable to visual resources. Section 5.13.3 documents the visual conditions that currently exist in the GWF Tracy Combined Cycle Power Plant (GWF Tracy) area. Section 5.13.4 discusses the potential environmental effects as they relate to visual resources. Section 5.13.5 discusses the potential cumulative impacts of this and other projects in the area. Section 5.13.6 summarizes the mitigation measures proposed to reduce project impacts on visual resources. Section 5.13.7 presents agencies involved and agency contacts. Section 5.13.8 lists permits required. Section 5.13.9 cites the references used in preparation of this section. Appendix 5.13A includes the appended methodology for the evaluation of the project's potential impacts to visual resources.

5.13.2 Laws, Ordinances, Regulations, and Standards

This subsection describes the LORS relevant to the visual resource issues associated with GWF Tracy. While no federal, state, or regional visual resource LORS exist, GWF Tracy is subject to the provisions of the San Joaquin County General Plan 2010 (General Plan) and the San Joaquin County Development Title (Development Title). San Joaquin County recognizes in the General Plan the value and importance of providing and maintaining a visually attractive environment (San Joaquin County, 1992). The Development Title is similar to a zoning ordinance in that it sets development standards for zoning districts in the

unincorporated parts of the county (San Joaquin County, 2001). Table 5.13-1 lists the chapters of the General Plan and Development Title that contain policies and standards pertinent to visual resources and aesthetic elements. The specific provisions of each that have potential relevance to the project are identified in Sections 5.13.5.1, 5.13.5.2, and 5.13.5.3.

As indicated in Section 5.6, Land Use, GWF Tracy is located within an existing industrial area San Joaquin County and outside of the city limits but within the sphere of influence of the City of Tracy. The project's onsite natural gas line, water line, and electric transmission lines are also located in the County. The project site is designated General Agriculture according to the County General Plan.

TABLE 5.13-1
Laws, Ordinances, Regulations, and Standards for Visual Resources

LORS	Requirements/Applicability	Administering Agency	AFC Section Explaining Conformance
San Joaquin County General Plan 2010 Overall Implementation Program - Open Space New Actions	The Overall Implementation Program highlights new implementation actions from chapters including the Summary of Open Space Plan, which addresses the preservation of natural resources.	San Joaquin County Community Development Department	Section 5.13.5.1
San Joaquin County General Plan 2010 Community Development Chapter	Establishes development pattern and image of the County, providing framework for ensuring the logical organization of residential, commercial, industrial, and public facilities and services.	San Joaquin County Community Development Department	Section 5.13.5.2
San Joaquin County Development Title	Specifies the zoning districts that correspond with the land use designations of the San Joaquin County General Plan. The Development Title, which is very much like a zoning ordinance, sets the development standards such as allowable uses, activities, set backs, and height requirements for each zoning district in the unincorporated areas.	San Joaquin County Community Development Department	Section 5.13.5.3

5.13.2.1 San Joaquin County General Plan 2010 Open Space Section

The General Plan Open Space Section includes policies related to scenic views, vistas and routes as presented in Table 5.13-2.

TABLE 5.13-2
Conformity with the San Joaquin County General Plan 2010 Open Space Element

Provision	Conformity?
Open Space Policy 10: Views of waterways, hilltops, and oak groves from public land and public roadways shall be protected.	Yes. GWF Tracy would not eliminate views of any waterways or oak groves. In views from the east, the proposed equipment additions would obstruct views of a segment of the hills that are currently visible in the background. However, the ridgelines, and thus hilltops, would remain intact in these views.
Open Space Policy 11: Outstanding scenic vistas shall be preserved and public access provided to them whenever possible. **Open Space Policy 12:** The County should recognize roads shown in Figure VI-2 as scenic routes and as valuable in enhancing the recreational experience for County residents and non-residents. **Open Space Policy 13:** Development proposals along scenic routes shall not detract from the visual and recreational experience.	Yes. There are no vista points or other important scenic viewpoints in the project vicinity. Interstate 580 is a State- and County-designated scenic road. However, the effect of the proposed project on the view from I-580 is less than significant, as GWF Tracy would not appear as being out of scale with the existing visible industrial facilities, and, as documented in Section 5.13.2.4.2, would not substantially alter the visual character or visual quality of views from this roadway.
Open Space Implementation Policy 7. Scenic Route Enhancement. The County shall: b) require landscape plans for development along scenic routes; and c) include in the Design Review Manual guidelines for development in the viewshed of the scenic route.	Yes. GWF Tracy would adhere to and maintain the landscape plan originally prepared for the TPP in response to Condition of Certification VIS-1 (CEC, 2002b). The landscape plan was required by CEC to ensure that the project would blend in with its surroundings and that plants and trees would screen the project from view to the extent possible. It should be noted that the scenic route in question (I-580) is never closer than approximately 1 mile from the project site.

Source: San Joaquin County, 1992.

5.13.2.2 San Joaquin County General Plan 2010 Community Development Element

The General Plan Community Development Element includes policies that address the importance of aesthetics in new developments, as presented in Table 5.13-3.

TABLE 5.13-3
Conformity with the County of San Joaquin General Plan Community Development Element

Provision	Conformity?
Community Development Policy 11: Development should complement and blend in with its setting.	Yes. Equipment additions would occur within the footprint of the existing TPP, which is located within an existing cluster of industrial uses, including a warehouse and a glass container manufacturing plant.
Community Development Policy 12: Aesthetics should be considered when reviewing development proposals.	Yes. Aesthetics have been considered by identifying materials and finishes, addressing light and glare and ensuring consistency with the existing landscape plan to reduce visual impacts.

Source: San Joaquin County, 1992.

5.13.2.3 San Joaquin County Development Title

Division 6 of the San Joaquin County Development Title provides development standards for lands in agricultural zones. The proposed site and most of the area surrounding the site are zoned Agriculture (AG 40). As detailed in Section 5.6, Land Use, power-generating facilities are a conditionally permitted use under the San Joaquin County Development Title for areas zoned Agriculture (AG 40).

Development standards related to height and height limits are of concern in visual impact analyses. Non-conformity with specific height restrictions could result in aesthetic impacts. According to the Development Title, there are no restrictions on height for non-dwelling structures located on land that is zoned Agriculture. Therefore, the issue of standard conformity does not apply to the GWF Tracy project; there are no maximum height limits for the structures that would be built and/or augmented as part of the project.

In addition, there are no limits on lot coverage by buildings in areas zoned Agriculture (AG 40).

5.13.2.4 Summary of Project's Conformity with Applicable LORS

The project complies with applicable laws, ordinances, regulations, and standards related to visual resource issues.

5.13.3 Affected Environment

5.13.3.1 Regional Setting

GWF Tracy is located on a 40-acre parcel along the northwestern edge of the San Joaquin Valley (see Figures 1.1-1 and 1.1-2). The site is in an unincorporated part of San Joaquin County, southwest of Tracy and approximately 20 miles southwest of Stockton. The land surrounding the plant is expansive and generally flat, and the area is characterized by industrial, warehouse, agricultural and rural uses. GWF Tracy is bounded by the Delta-Mendota Canal to the southwest, agricultural property to the south and east, and the Union Pacific Railroad to the north. Immediately north of the railroad are the Owens-Brockway glass container manufacturing plant and the Nutting-Rice warehouse. The Tracy Biomass power plant is approximately 0.6 mile to the northwest. Large distribution facilities for Safeway and Costco are located approximately 1.25 miles to the west of the project site, on the western side of Hansen Road, between the Delta-Mendota Canal and the California Aqueduct. Interstate 580 (I-580) is beyond the California Aqueduct to the west.

Population density in the vicinity of the site is low, with fewer than a dozen residences located within 0.5 mile of GWF Tracy. Most of the residences near the site are either in small clusters of two to three homes that border existing roads or are scattered ranch-style homes on larger parcels associated with agricultural uses. A residential subdivision is approximately 1 mile northeast of the project site, forming the southwestern urban edge of Tracy.

The segment of I-580 between Interstate 5 and the Alameda County line is officially designated as a State Scenic Highway.[1] This is the segment located to the west of the project

[1] The status of a proposed state scenic highway changes from eligible to officially designated when the local governing body applies to Caltrans for scenic highway approval, adopts a Corridor Protection Program, and receives notification that the highway has been officially designated a Scenic Highway (California Department of Transportation, 2008). Open space policies in the San Joaquin County General Plan (San Joaquin County, 1992), which are described in detail in Section 5.13.5.1,

site. The California Scenic Highway Program protects and enhances the natural scenic beauty of California highways and adjacent corridors through special conservation treatment (California Department of Transportation [Caltrans], 2008). A highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. San Joaquin County recognizes all State-designated scenic highways within the county as scenic routes and as valuable in enhancing the recreational experience for county residents and non-residents (San Joaquin County, 1992).

5.13.3.2 Project Site and Linear Routes

GWF Tracy would modify the existing TPP, which sits on a 13.1-acre fenced site within a 40-acre parcel in an unincorporated portion of San Joaquin County. Two simple-cycle GE 7EA combustion turbines (CTGs) with a total nominal output of 169-megawatts MW are currently in operation at the site. The Applicant proposes to convert the existing TPP into a combined-cycle facility by building a heat recovery steam generator (HRSG) on the exhaust of each CTG, which will provide steam to a nominal 145-MW steam turbine generator. This would result in GWF Tracy being a nominal 314-MW, combined-cycle power plant, on a 16.38-acre fenced site within the existing 40-acre parcel. At present, the most prominent features of the TPP are the two 100-foot-tall, 16-foot-diameter exhaust stacks. Along with some of the interconnecting frames and poles associated with the switchyard, the exhaust stacks are the tallest elements in the existing facility.

The GWF Tracy conversion would consist of the steam power plant, connections to the existing onsite 115-kilovolt (kV) switchyard, onsite natural gas, water supply from the Delta-Mendota Canal irrigation channel interconnection, a new onsite 115-kV electric transmission line entailing installation of two new transmission structures, relocation of the stormwater retention basin, and relocation of the equipment storage. Interconnection of GWF Tracy will require the re-conductoring of several segments of the nearby transmission line, both adjacent to the project site and north of the project site near Interstate 205 (see Figure 1.1-3). Re-conductoring will only require the replacement of existing conductors with new conductors; no modifications to transmission poles or towers will be required. The tallest elements of the proposed project would be the 150-foot-tall HRSG stacks, which would be approximately 50 feet taller than the existing exhaust stacks. The air-cooled condenser (ACC), at 114 feet, would also be taller than any existing feature of the TPP.

The current transmission interconnection at the TPP uses a tap into the adjacent Pacific Gas and Electric Company (PG&E) 115-kV transmission line. This interconnection would be unchanged. A new circuit for the steam turbine generator (STG) would be added to the onsite PG&E Schulte Switching Station. A new interconnect tap for the STG will connect the new circuit from the PG&E Schulte Switching Station to the Tesla-Manteca 115-kV transmission line that runs adjacent to GWF Tracy. The interconnect tap will require the installation of two new transmission structures.

address the protection and maintenance of scenic corridors. These policies constitute San Joaquin County's corridor protection activities (Martin, 2008). Official designation as a State Scenic Highway does not preclude development, but an effective Corridor Protection Program "will ensure activities within the scenic corridor are compatible with scenic resource protection and consistent with community values while still allowing appropriate development" (California Department of Transportation, 2008).

The property is minimally landscaped, with trees along portions of its northern, eastern, and western edges, as required by Condition VIS-1 in the TPP 2001 AFC (CEC, 2002b). The landscaping proposed in Condition VIS-1 ensured that plantings originally proposed by the applicant would be more effective in blending the project with its surroundings and in screening the project from view to the extent possible from I-580 and other key observation points (KOPs). Condition VIS-1 required the use of fast- and tall-growing evergreen species to achieve maximum screening as soon as possible. CEC staff testified that it would take 10 to 15 years for the landscaping plan to mitigate the visual impacts from the project to a level of insignificance. However, staff also stated that the intent of mitigation for projects such as this one is not necessarily to fully screen the project or fully block views of it, but to partially screen and help blend the project with its surroundings. It was concluded that the proposed landscaping would provide at least partial screening prior to the time the mitigation is fully effective, and the CEC concluded that, with implementation of Condition VIS-1, the potential visual impacts would be less than significant (CEC, 2002b, p. 252).[2]

The property is surrounded by industrial facilities to the north, and agricultural uses to the east, south and west, including the Delta-Mendota Canal. An orchard is located on the side of the canal opposite the TPP. None of these neighboring sites contain features of scenic significance and the level of visual quality of these neighboring sites is low.

The character of the view within GWF Tracy's immediate proximity is industrial; the site is already dominated by the existing facility, which includes stacks, exposed pipelines, tanks, fences, and several other industrial-appearing structures. In addition, multiple transmission lines are visible adjacent to the project site and in nearby areas visible from the project site. The site has previously been described as having moderately low visual quality, due to encroaching elements such as the large industrial facilities, water tanks, and transmission towers, and despite the moderately high quality views of orchards, agricultural fields and coastal hills (CEC 2002a, CEC 2002b). In views from the surrounding area, the existing TPP is viewed alongside the Owens-Brockway plant and the Nutting-Rice warehouse, with the Tracy Biomass power plant, Safeway, and Costco distribution facilities visible in some views. This collection of structures, along with associated transmission lines and nearby water canals, maintains the appearance of encroachment by large-scale industrial and infrastructure elements on the nearby, more rural and residential parts of the existing landscape. As such, the site retains a moderately low visual quality.

5.13.3.3 Construction Laydown Area

GWF Tracy would result in the temporary disturbance of 12.38 acres for construction laydown and parking on a previously disturbed portion of the 40-acre parcel that is outside of the existing plant fence line. This location was previously used for construction laydown and parking during construction of the original facility. No scenic resources would be impacted by the construction laydown area, because GWF Tracy would adhere to and maintain requirements set forth in Condition of Certification VIS-2, which included measures to adequately mitigate visual impacts of project construction (CEC, 2002b).

[2] A total of five Conditions of Certification were included in the Final Decision, each with protocol and methods for verification. Conditions address project construction (VIS-2), color of project structures (VIS-3), reflectivity of project structures (VIS-4), and site lighting (VIS-5), such that implementation of all conditions as described in the record of evidence would ensure no significant adverse impacts to visual resources from the TPP (see CEC, 2002b, pp. 254-260). All Conditions of Certification for the previous TPP project are assumed to have been implemented. GWF Tracy will adhere to and maintain the actions required by each of these Conditions of Certification.

5.13.3.4 Potential Project Visibility

Currently, the TPP is visible in unobstructed views from locations along surrounding roadways (including from I-580) and from locations adjacent to the industrial areas to the west and the residential clusters to the east and west. However, many views of the TPP are also obstructed by large buildings that are part of the area's agricultural and industrial uses. Visibility from the west, at the very base of the nearby foothills, is similarly intermittent due to the presence of hills and berms, which block some views. The GWF Tracy stacks would have a maximum height approximately 50 feet taller than that of the existing stacks at the TPP, and would also include the relatively large ACC. While views of the proposed project would still be obstructed by other uses from numerous locations (including those from which the TPP is not visible), the overall increase in scale on the project site would potentially result in the greater overall visibility of the structures from locations throughout the surrounding area.

GWF Tracy would adhere to and maintain the landscape plan originally prepared for the TPP in response to Condition of Certification VIS-1 (CEC, 2002b). As previously described, the landscape plan was required by CEC to ensure that the project would blend in with its surroundings and to ensure that plants and trees would screen the project from view to the extent possible.

5.13.3.5 Sensitive Viewing Areas and Key Observation Points

To structure the analysis of GWF Tracy's effects on visual resources, the view areas that would be the most sensitive to the project's potential visual impacts and the sensitive receptors in those areas were identified.[3] Representative viewpoints from these sensitive receptor locations are referred to as key observation points. The three KOPs chosen for this analysis, which were selected in coordination with CEC, represent the best viewing conditions from the three major areas of viewer sensitivity: the view from the westbound lane of West Schulte Road (east of South Lammers Road), from the westbound lane of I-580, and from a point along the residential segment of Hansen Road. The locations of the KOPs are indicated on Figure 5.13-1. Views from these KOPs, both under existing conditions and after the equipment additions, are presented in Figures 5.13-2 through 5.13-4.[4]

Based on field work conducted in February 2008 by CH2M HILL staff, the existing visual conditions of the views from each of the KOPs were documented and evaluated. Assessments of existing levels of scenic quality were made based on professional judgment that took a broad spectrum of factors into consideration, including:

- Natural features, including topography, water courses, rock outcrops, and natural vegetation
- The positive and negative effects of cultural alterations and built structures on visual quality

[3] Typically, residents and recreationists are considered to be the most sensitive receptors to changes in the landscape. This is because of the potential for effects to their long-term views or their enjoyment of a particular landscape or activity.

[4] The landscaping depicted in the simulations included in Figures 5.13-2A, 5.13-3A, and 5-13-4A shows the approximate maturity of the vegetation used in landscaping five years after planting. The simulations included in Figures 5.13-2B, 5.13-3B, and 5.13-4B depict the landscaping at full maturity.

- Visual composition, including an assessment of the vividness, intactness, and unity of patterns in the landscape[5]

The final scenic quality ratings assigned to each view fit within the rating scale summarized in Table 5.13-4. Development of this scale builds on a scale developed for use with an artificial intelligence system for evaluation of landscape visual quality (Buhyoff et al., 1994), and incorporates landscape assessment concepts applied by the U.S. Forest Service (1995) and the U.S. Department of Transportation (1988).

TABLE 5.13-4
Landscape Scenic Quality Scale

Rating	Explanation
Outstanding Visual Quality	A rating reserved for landscapes with exceptionally high visual quality. These landscapes are significant nationally or regionally. They usually contain exceptional natural or cultural features that contribute to this rating. They are what we think of as "picture post card" landscapes. People are attracted to these landscapes to view them.
High Visual Quality	Landscapes that have high quality scenic value. This may be due to cultural or natural features contained in the landscape or to the arrangement of spaces contained in the landscape that causes the landscape to be visually interesting or a particularly comfortable place for people. These landscapes have high levels of vividness, unity, and intactness.
Moderately High Visual Quality	Landscapes that have above average scenic value but are not of high scenic value. The scenic value of these landscapes may be due to man-made or natural features contained within the landscape, to the arrangement of spaces, in the landscape or to the two-dimensional attributes of the landscape. Levels of vividness, unity, and intactness are moderate to high.
Moderate Visual Quality	Landscapes, that are common or typical landscapes that have, average scenic value. They usually lack significant cultural or natural features. Their scenic value is primarily a result of the arrangement of spaces contained in the landscape and the two-dimensional visual attributes of the landscape. Levels of vividness, unity, and intactness are average.
Moderately Low Visual Quality	Landscapes that have below average scenic value but not low scenic value. They may contain visually discordant man-made alterations, but these features do not dominate the landscape. They often lack spaces that people will perceive as inviting and provide little interest in terms of two-dimensional visual attributes of the landscape.
Low Visual Quality	Landscapes that have below average scenic value. They may contain visually discordant man-made alterations, and often provide little interest in terms of two-dimensional visual attributes of the landscape. Levels of vividness, unity, and intactness are below average.

5.13.3.5.1 KOP-1—View from South Lammers Road

The top image in Figure 5.13-2A depicts the view from KOP-1, located approximately 1 mile northeast of GWF Tracy. This viewpoint was selected because it affords an unobstructed view of the project site from a roadway that provides access to the residential development nearest to the site. There are also a number of stand-alone residences scattered throughout the area. KOP-1 is located along the shoulder of the southbound lane of South Lammers Road, just south of its northern intersection with West Schulte Road. Therefore, this view is

[5] These three variables provide the basis for landscape assessments prepared using the Federal Highway Administration visual impact assessment method. Vividness is the memorability of the visual impression received from contrasting landscape elements as they combine to form a striking and distinctive visual pattern. Intactness is the integrity of visual order in the natural and man-built landscape, and the extent to which the landscape is free from visual encroachment. Unity is the degree to which the visual resources of the landscape join together to form a coherent, harmonious visual pattern. Unity refers to the compositional harmony of intercompatibility between landscape elements (US DOT FHWA, 1988).

seen by residents who either live in the vicinity or who may be traveling from the residential neighborhoods to points west (e.g., taking West Schulte Road to Mountain House Parkway, which intersects with I-580).

The existing view in this location is rural and industrial in character. Applying the scale presented in Table 5.13-4, this view is rated as having a moderately low level of visual quality. The area in this view is defined visually by the substantial portion of the landscape occupied by structures dedicated to industry and energy production and transmission. The existing TPP is visible in the center of the view. Visible to the immediate north of the TPP (in the right-hand side of the view) is the Owens-Brockway glass container manufacturing plant, the bulk and height of which make it the most prominent structure in the view. The Nutting-Rice warehouse is also visible further to the north. Transmission lines visibly extend through the middleground and hilly background in the southern half (left-hand side) of this view. In the hills to the northwest of the TPP, a complex of wind turbines is perceptible. The agricultural land in the foreground and hills in the background provide a moderate degree of intactness and vividness in the view. However, the presence of the industrial facilities in the middleground, as well as the energy infrastructure throughout the middleground and background, do not allow the elements of the view to add up to a coherent whole, resulting in a low level of visual unity. Aesthetic sensitivity is described in terms of viewer activity, awareness, and visual expectations in relation to the number of viewers and viewing duration. Drivers (including commuters and non-recreational travelers) generally have fleeting views and are assumed to focus their attention away from surrounding scenery and onto commute traffic. As a viewer group, drivers, therefore, are generally considered to have low aesthetic sensitivity. Residential viewers typically have extended viewing periods and are generally assumed to be concerned about changes in views from their homes. As a viewer group, residential viewers are considered aesthetically sensitive.

The majority of the viewers of GWF Tracy from KOP-1 will be drivers along South Lammers Road and nearby roads. However, residential viewers from the homes scattered throughout the area, many of which have extended views of the existing TPP, will have similarly extended views of the GWF Tracy facility. The aesthetic sensitivities of viewers in the area will range from low (for drivers) to high (for residents).

5.13.3.5.2 KOP-2—View from Interstate 580

The top image in Figure 5.13-3A is the view from KOP-2, a viewpoint from the westbound lane of I-580, approximately 1.4 miles from GWF Tracy. This KOP provides an elevated, panoramic view of the project site from the only designated scenic roadway within the project's viewshed. In this view, the existing TPP is identifiable as part of a larger industrial landscape, which also includes the Nutting-Rice warehouse (visible behind the TPP to the west) and the Owens-Brockway glass container manufacturing plant (visible behind the TPP to the east). This KOP is located within the northern portion of the segment of I-580 from which views of the project site from the westbound lane are unobstructed. This segment extends to the intersection of I-580 and Coral Hollow Road. Views of the project site are generally too distant from points south of Coral Hollow Road. North of KOP-2, views become intermittent because of topography and the intervening presence of the industrial facilities northwest of the project site.

The foreground of this view is rural in character and includes mostly agricultural land and ranch-style residences, along with the aqueduct and canal that run through the area. The terrain in the foreground slopes gently downward toward the valley floor and the project site. The middleground is characterized by the aforementioned industrial uses, which are prominent in the center of the view. The middleground also includes transmission lines, which extend horizontally through the entire view. The urbanized area centered around the community of Tracy is visible in the background. Applying the visual quality scale presented in Table 5.13-4, this view is rated as having a moderately low level of visual quality. While the topography and rural/agricultural uses in the foreground provide a moderate level of vividness to the view, the prominence of the existing industrial uses contribute to a low level of visual intactness. The visually contrasting elements in the view result in a moderately low level of visual unity.

Although drivers are typically considered to have low viewer sensitivity, I-580 is a designated State and County scenic route and is a major carrier of travelers in the state. This portion of the highway receives heavy use by a broad cross section of travelers, including people traveling for leisure and to and from recreation destinations. In addition, because viewers are somewhat elevated above the valley, views are panoramic. Consequently, many viewers, including both drivers and passengers, may have a higher awareness of their surroundings and may be more conscious of the character and quality of the visual environment. However, while both the hills to the west and the valley to the east may be of visual interest to drivers and passengers along the segment of roadway on which KOP-2 is located, the large industrial facilities visible in the middleground are prominent and appear from this viewpoint as incongruous structures encroaching on the agricultural and rural residential land between the viewer and the TPP. As such, the level of visual sensitivity is for this viewpoint is moderate.

5.13.3.5.3 KOP-3—View from Hansen Road

The top image in Figure 5.13-4A is the view from KOP-3, a viewpoint along Hansen Road approximately 1 mile to the west-southwest of GWF Tracy. This somewhat elevated viewpoint is representative of views toward the project site from the cluster of ranch and farm residences along Hansen Road. The foreground in this view is mostly rural in character on account of the open space and the home and farm structures visible; however, a transmission line extends from the middleground into the southern edge of the foreground view. The middleground is industrial in character and is defined by the existing TPP (in the center of the view), as well as the Owens-Brockway glass container manufacturing plant and Nutting-Rice warehouse, which are both to the north of the TPP. As in the view from KOP-2, the urbanized area of greater Tracy is visible in the background, and appears to extend across the entire view from this viewpoint.

Applying the visual quality scale presented in Table 5.13-4, this view is rated as having a moderately low level of visual quality. Except for the open space that creates a moderate level of vividness in the foreground, this view has few elements that create a sense of memorability. The encroachment of industrial elements in the landscape—the transmission lines and towers extending into the foreground, as well as the manner in which the Nutting-Rice warehouse appears to sit directly behind the farm structure in the northern edge of the view—results in a low level of intactness. As a result of the numerous structures and facilities visible in the fore- and middleground, many of which appear to extend in disparate

directions, the degree of visual unity in this view is low. However, because this view represents the views from a residential area, the level of visual sensitivity is high.

5.13.4 Environmental Analysis

5.13.4.1 Analysis Procedure

This assessment of the proposed project's potential effects on visual resources was conducted by applying the systematic method for evaluating the potential aesthetic effects of proposed power plant projects that has been adopted by the staff of the CEC. Appendix 5.13A provides a more complete description of the visual resources evaluation process that was followed.

As an initial step in the evaluation process, planning documents applicable to the project area (including San Joaquin County documents and documents related to previous applications for the project site) were reviewed to gain insight as to the type of land uses intended for the area, and the guidelines given for the protection or preservation of visual resources. Consideration was given to the existing visual setting within the project viewshed, which is defined as the geographical area in which the project can be seen. An assessment was then made of the visual changes that the project would cause to determine impact significance, in terms of the four California Environmental Quality Act (CEQA) Guidelines checklist questions listed in Section 5.13.2.2.

Potential project impacts were evaluated using an approach that focused on views from representative KOPs. Site reconnaissance was conducted by CH2M HILL staff to view the site and surrounding area, to identify potential KOPs, and to take representative photographs of existing visual conditions. A single-lens reflex 35-mm camera with a 50-mm lens (view angle 40 degrees) was used to shoot site photographs. As reported previously, CEC staff participated in the selection of final KOPs.

Photographs are presented to represent the "before" conditions from each KOP. Visual simulations were produced to illustrate the "after" visual conditions from each of the KOPs, to provide the viewer with a clear image of the location, scale, and visual appearance of the proposed project. These simulation images represent the project's appearance in the period after completion of construction and 5 years after installation of the landscaping (with subsequent simulations showing the landscaping at full maturity). The computer-generated simulations are the result of an objective analytical and computer modeling process described briefly below. The images are accurate within the constraints of the available site and project data.

Computer modeling and rendering techniques were used to produce the simulated images of the views of the site as they would appear after development of the project. Existing topographic and site data provided the basis for developing an initial digital model. The project engineers provided site plans and digital data for the proposed generation facility, and site plans and elevations for the components of the transmission system. These were used to create three-dimensional (3-D) digital models of these facilities. These models were combined with the digital site model to produce a complete computer model of the proposed facility additions, including portions of the overhead transmission system.

For each viewpoint, viewer location was digitized from topographic maps and scaled aerial photos, using 5 feet as the assumed eye level. Computer "wire frame" perspective plots were then overlaid on the photographs of the views from the KOPs to verify scale and viewpoint location. Digital visual simulation images were produced as a next step, based on computer renderings of the 3-D model combined with high-resolution digital versions of base photographs. The final "hardcopy" visual simulation images that appear in this AFC document were produced from the digital image files using a color printer.

Once all potential impacts were examined, a determination was made as to whether any impacts would reach a level that would be significant under CEQA's standards, and thus require mitigation beyond that proposed as a part of the initial project design. Under CEQA, any required mitigation must be specific to an identified impact, and must be feasible.

5.13.4.2 Impact Evaluation Criteria

The following criteria from the CEQA Guidelines were considered in determining whether a visual impact would be significant.

The CEQA Guidelines define a "significant effect" on the environment to mean a "substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including… objects of historic or aesthetic significance" (CCR, title 14, §15382).

Appendix G of the CEQA Guidelines, under Aesthetics, lists the following four questions to be addressed regarding whether the potential impacts of a project are significant:

1. Would the project have a substantial adverse effect on a scenic vista?
2. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway?
3. Would the project substantially degrade the existing visual character or quality of the site and its surroundings?
4. Would the project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

5.13.4.3 Project Appearance

5.13.4.3.1 Project Structures and Dimensions

The proposed project facilities are described in detail in Section 2.0, Project Description. Figures 1.1-4 and 2.1-1 show the general arrangement and layout of the proposed project features on the site, and Figure 2.1-2 provides typical elevation views. Table 5.13-5 summarizes the dimensions, finishes, and materials of the facility's major features.

The exteriors of all major project equipment will be treated with a light green finish intended to visually integrate the facility with the surrounding environment. The project will continue to be surrounded by a chain-link security fence, and access will be provided by the existing 3,300-foot, asphalt-paved service road southward from West Schulte Road, which leads to the facility's gated entrance.

TABLE 5.13-5
Approximate Dimensions and Colors, Materials, and Finishes of the Major Project Features

Feature	Height (feet)	Length (feet)	Width (feet)	Diameter (feet)	Color	Materials	Finish
Heat Recovery Boiler (HRSG)	90	70	25	—	Green	Metal	Flat/Untextured
HRSG Stack	150	—	—	17	Green	Metal	Flat/Untextured
Steam Turbine Generator: Area Structure	20	110	80	—	Green	Metal	Flat/Untextured
Steam Turbine Generator: Pedestal	20	90	25	—	Gray	Concrete	Flat/Untextured
Steam Turbine Generator: Equipment (T/G)	38	80	14	—	Green	Metal	Flat/Untextured
Air Cooled Condenser	114	234	215	—	Green	Metal	Flat/Untextured
Water Treatment Structure	20	75	75	—	Sandstone Tan	Metal	Flat/Untextured
Condensate Storage Tank	24	—	—	30	Green	Metal	Flat/Untextured
GSU Transformer: Firewall	18	35	—	—	Gray	Concrete	Flat/Untextured
GSU Transformer: Equipment	18	20	10	—	Gray	Metal	Flat/Untextured
Auxiliary Boiler: Stack	50	—	—	4	Green	Metal	Flat/Untextured
Auxiliary Boiler: Equipment	15	20	10		Green	Metal	Flat/Untextured

5.13.4.3.2 Transmission Line

The current transmission interconnection uses a tap into the adjacent PG&E 115-kV transmission line. This interconnection will be unchanged. A new circuit for the STG would be added to the onsite PG&E Schulte Switching Station. A new interconnect tap for the STG will connect the new circuit from the PG&E Schulte Switching Station to the Tesla-Manteca 115-kV transmission line that runs adjacent to GWF Tracy. This will require the addition of two new transmission structures, which will be approximately 40 to 50 feet tall. It will also require the replacement of existing conductors along segments of the transmission line with new conductors. No modifications to transmission poles or towers will be required.

5.13.4.3.3 Pipelines

No new, expanded or modified offsite linear facilities would result from construction of Tracy GWF. All gasline construction would occur within the existing project site. The existing water supply pipeline would continue to be used, as well, with no structural changes required. All sanitary wastewater would be routed onsite to a septic tank/leach field. Industrial wastewater from Tracy GWF would be trucked offsite for disposal.

5.13.4.3.4 Construction Laydown Area

As discussed in Section 5.13.1.3, there would be temporary disturbance of 12.38 acres for construction laydown and parking on a previously disturbed portion of the 40-acre parcel

that is outside of the existing plant fence line. This area was previously used for construction laydown and parking for the original facility construction.

5.13.4.3.5 Landscaping

GWF Tracy will adhere to and maintain the perimeter landscape plan required of the TPP by Condition of Certification VIS-1 (CEC, 2002b). This landscape plan resulted in a number of trees—mainly fast and tall growing evergreen species—being planted along the northern, eastern, and western edges of the TPP site. As described in greater detail in Section 5.13.1.2, the purpose of requiring the planting of the trees was to blend the project with its surroundings and screen the project from view to the extent possible from I-580 and other KOPs.

The landscaping depicted in the simulations included in Figures 5.13-2A, 5.13-3A, and 5-13-4A shows the approximate maturity of the vegetation used in landscaping five years after planting. The simulations included in Figures 5.13-2B, 5.13-3B, and 5.13-4B depict the landscaping at full maturity.

5.13.4.3.6 Lighting

GWF Tracy would operate approximately 8,000 hours per year. Under current conditions at the TPP, the lighting system provides personnel with illumination for operation under normal conditions and for egress under emergency conditions, and includes emergency lighting to perform manual operations during an outage of the normal power source. GWF Tracy's operation will require similar onsite nighttime lighting for safety and security, and task lighting would be used as necessary. Emergency lighting may be employed during occasional training events.

As required by Condition of Certification VIS-5 (CEC, 2002b) light at the TPP is currently directed toward the interior of the plant to minimize off-site light and glare impacts. Lighting fixtures include shields and hoods to minimize backscatter light and maintain the current relatively low levels of ambient and fugitive light. GWF Tracy would adhere to and maintain the specifications required by Condition VIS-5. Because the purpose of additional lighting required by GWF Tracy is to illuminate the surfaces and ground plane of the facility, the lighting fixtures would be similarly shielded and hooded. All additional exterior lights will be hooded, and lights will be directed on site so that significant light or glare would be minimized. Low-pressure sodium lamps and fixtures of a non-glare type will be specified. For areas where lighting is not required for normal operation, safety, or security, switched lighting circuits will be provided, thus allowing these areas to remain unilluminated (dark) at most times, minimizing the amount of lighting potentially visible off site.

Project construction activities are planned to occur between 6:00 a.m. and 6:00 p.m., Monday through Saturday, for 22 months. If needed, a second shift will be added during months 15-20 and would probably take place between 3:00 p.m. and 11:00 p.m. (Monday through Saturday). During periods when nighttime construction activities take place, illumination that meets state and federal worker safety regulations will be required. To the extent possible, the nighttime construction lighting will be erected pointing toward the center of the site where activities are occurring, and will be shielded. Task-specific lighting will be used to the extent practical while complying with worker safety regulations.

5.13.4.3.7 Water Vapor Plumes

Experience at natural gas-fired, combined-cycle power plants similar to the combined-cycle units for GWF Tracy has demonstrated that the high velocity and temperature of the HRSG stack exhaust results in a quick dispersion of stack plumes. This combination of high velocity and temperature minimize the probability that a visible water vapor plume will be created above the stacks. Based on previous experience with combined-cycle power plants, it is likely that formation of visible plumes from the two GWF Tracy HRSG exhaust stacks will be rare occurrences related to a combination of cold and damp conditions and, that when present, the water vapor plumes will be relatively small. The water vapor plumes, if they occur, will tend to occur during conditions when visibility is already reduced (i.e., during conditions of rain, fog, or high humidity and cold temperatures). If fog is present, plumes may or may not be discernible in the fog. Because the auxiliary boilers will be operated infrequently, the frequency and magnitude of visible exhaust stack plumes are not expected to be significant. In addition, because the cooling system proposed for GWF Tracy would be a dry cooling system and would not emit water into the atmosphere, the ACC is not expected to produce any water vapor plumes.[6]

GWF Tracy includes a steam turbine lubricating oil Wet Surface Air Cooler (WSAC) to cool the lubricating oil during warm ambient conditions, up to 550 hours per year. Because warm ambient conditions are not conducive to visible plume formation, significant visible plumes are not expected from the WSAC.

5.13.4.4 Assessment of Visual Effects

5.13.4.4.1 KOP-1—View from West Schulte Road

The top image in Figure 5.13-2A presents a photograph of the existing view toward the project site from South Lammers Road and the bottom image in Figure 5.13-2A presents a simulation of the view as it would appear upon completion of the additions that are proposed as part of GWF Tracy, with landscaping after five years of growth (Figure 5.13-2B compares the existing view of the site and a simulated view of the site with landscaping at full maturity). Comparison of the two images indicates that GWF Tracy would appear in the view as being more prominent than the TPP, due to the increased height of the stacks and the addition of the ACC. However, the scale of GWF Tracy would still not exceed that of the adjacent Owens-Brockway glass container manufacturing plant, which would remain the most prominent structure in the view. GWF Tracy would obstruct views of a small segment of the hills that are currently visible in the background. While the skyline would remain intact, an area of the foothills visible to the north of the existing TPP would be somewhat blocked by the ACC. In addition, the switchyard on the south side of the project site would encroach slightly on the view of the foothills, though it would not obstruct the view completely. The overall presence of industrial uses in the landscape—already prominent in the existing view—would be increased with GWF Tracy. While the hills visible in the background account for a moderate degree of vividness and intactness, the low overall level of visual unity in the existing view would remain low. The site's existing character, as seen from this viewpoint, would not be substantially altered by GWF Tracy. Applying the scale

[6] CEC Siting Regulations (CEC, 2007; Appendix B(g)(6)(E)) require the provision of cooling tower and HRSG exhaust design parameters that affect visible plume formation, including a range of ambient conditions (temperature and relative humidity), and proposed operating scenarios. This information is included in Appendix 5.1B.

presented in Table 5.13-4, the view from KOP-1 would retain the moderately low level of visual quality present in the existing view.

5.13.4.4.2 KOP-2—View from I-580

The top image in Figure 5.13-3A presents a photo of the existing view toward the project site from the westbound lane of I-580 and the bottom image in Figure 5.13-3A presents a simulation of the view as it would appear upon completion of the additions that are proposed as part of GWF Tracy, with landscaping after five years of growth (Figure 5.13-3B compares the existing view of the site and a simulated view of the site with landscaping at full maturity). Comparison of the two images indicates that GWF Tracy would appear taller and more massive than the existing TPP, but that such changes would not be substantial. As previously described, the TPP is identifiable in the existing view as part of a larger industrial landscape, a cluster in the middle of the view that also includes the warehouse to the west and the glass container manufacturing plant to the east. In this view, the proposed additions to the facility would not appear to extend the horizontal space occupied by the industrial landscape, and would, therefore, not encroach on the adjacent rural and agricultural areas. The increased height of GWF Tracy would not appear out of scale with other nearby facilities. The mostly open land in the foreground provides the moderate level of vividness to this view, and that vividness would remain unchanged upon completion of GWF Tracy. Similarly, the existing level of intactness, which is low, would be neither enhanced nor diminished by the minor obstruction of the view toward downtown Tracy by the stacks and ACC. Therefore, applying the scale presented in Table 5.13-4, the view from KOP-2 would retain the moderately low level of visual quality present in the existing view.

5.13.4.4.3 KOP-3—View from Hansen Road

The top image in Figure 5.13-4A presents a photo of the existing view toward the project site from a viewpoint along Hansen Road approximately 1 mile to the west-southwest of GWF Tracy and the bottom image in Figure 5.13-4A presents a simulation of the view as it would appear upon completion of the additions that are proposed as part of GWF Tracy, with landscaping after five years of growth (Figure 5.13-4B compares the existing view of the site and a simulated view of the site with landscaping at full maturity). Comparison of the two images indicates that GWF Tracy would appear taller and more massive than the existing TPP, but that it would appear to remain contained by the existing industrial envelope prominent in the middleground in this view. The taller HRSG stacks and part of the ACC would appear to extend above the horizon and would block a portion of the view toward Tracy in the background. The view would retain a moderate level of vividness on account of the open space in the foreground. The level of intactness would remain low. In addition to the proximity of the warehouse in the northern edge of the view and the extension of the transmission line in the southern edge of the view from the middleground into the foreground, the height of the GWF Tracy HRSG stacks would increase the appearance of encroachment in this view, as they breech the horizon. Visual unity would, therefore, remain low. Applying the scale presented in Table 5.13-4, the view from KOP-3 would retain the moderately low level of visual quality present in the existing view.

5.13.4.4.4 Light and Glare

The project's effects on visual conditions during hours of darkness will be limited. The existing TPP and surrounding industrial uses already create an area in the view within which some night lighting is visible. As indicated in Section 5.13.2.3.6, some additional night

lighting will be required by GWF Tracy for operational safety and security. Additional visible lighting will be associated with the project stacks and open site areas. High illumination areas not occupied on a regular basis will be provided with switches or motion detectors to light these areas only when occupied. At times when lights are turned on, the lighting would not be highly visible off site and would not produce offsite glare effects. The offsite visibility and potential glare of the lighting would be restricted by specification of non-glare fixtures and placement of lights to direct illumination into only those areas where it is needed. With construction of GWF Tracy, the overall change from the existing lighting conditions at the project site, as viewed from nearby locations and from vantage points, would not be substantial. As previously noted, GWF Tracy will adhere to and maintain the requirements include in Condition of Certification VIS-5 (CEC, 2002b).

Lighting that may be required to facilitate nighttime construction activities would, to the extent feasible and consistent with worker safety codes, be directed toward the center of the construction site and shielded to prevent light from straying off site. Task-specific construction lighting would be used to the extent practical while complying with worker safety regulations. In spite of these measures, there may be limited times during the 22-month construction period when the project site may appear as a brightly lit area as seen in views from surrounding hillside residential areas. Because the duration of these effects will be limited, the impact will be less than significant.

5.13.4.4.5 Water Vapor Plumes

As described in Section 5.13.2.3.7, based on previous experience with combined-cycle power plants, it is likely that formation of visible plumes from the two GWF Tracy exhaust stacks will be rare occurrences related to a combination of cold and damp conditions and that, when present, the water vapor plumes will be relatively small. Any water vapor plumes will likely occur during conditions when visibility is already reduced (i.e., during conditions of rain, fog, or high humidity and cold temperatures). If fog is present, plumes may or may not be discernible in the fog. The auxiliary boilers will be operated infrequently. Finally, the WSAC will operate during warm ambient conditions and is not expected to result in significant water vapor plumes. Therefore, the visual effects of visible moisture plumes would be less than significant.

In its evaluation of the Roseville Energy Park Project (03-AFC-01), the standard that CEC staff applied in evaluating the visual impacts of visible water vapor plumes was that plume impacts are significant if plumes occur more than 20 percent of seasonal (October through March) daylight, no rain/fog, high visual contrast (i.e., clear) hours.[7] Given the rarity of plume formation related to the combustion turbine exhaust stacks/WSAC and the plant's expected operational regime, it is very unlikely that visible water vapor plumes of any size would be present during more than 20 percent of the hours of concern. Therefore, any plume-related visual impacts would be less than significant.

5.13.4.5 Impact Significance

A discussion regarding whether the visual effects of the project would be significant pursuant to CEQA is provided below. The assessment of these impacts has been structured by applying the criteria set forth in Appendix G of the CEQA Guidelines. The CEQA

[7] CEC, 2004. Final Staff Assessment for the Roseville Energy Park. p. 4.12-13p

Guidelines define a "significant effect" on the environment to mean a "substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including objects of historic or aesthetic significance." (CCR, title 14, §15382) The four questions related to aesthetics that are posed for lead agencies and the answers to them are:

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

No. There are no vista points or other important scenic viewpoints in the project vicinity. I-580 is a State- and County-designated scenic road. However, the effect of the proposed project on the view from I-580 (see the analysis of KOP-2 in Section 5.13.2.4.2) was determined to be less than significant, because GWF Tracy would not appear as being out of scale with the existing visible industrial facilities, nor would it substantially alter the already industrial character of the immediate area. Further, as described in the analysis of views from the KOPs, the existing moderately low level of visual quality in each view would not be substantially altered by the proposed project; there would be no net change in visual quality rating with GWF Tracy included the views.

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

No. All construction would take place within the previously existing, 40-acre TPP site, and would have no direct effect on the right of way of a state scenic highway. The only state scenic highway in the vicinity of the project area is I-580, which is approximately 1 mile from the project site at its closest point. As the analysis above related to scenic vistas indicates, the project would not substantially change the visual character and quality of views toward the project site seen from the portion of I-580 that has been designated as a state scenic highway. In addition, there would be no changes to any offsite gas or water supply lines. Also, it should be noted that the scenic route in question (I-580) is never closer than approximately 1 mile from the project site. Thus, there will be no project-related changes that will occur within a state scenic highway.

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

No. The site itself is a flat parcel in an area devoted to industrial and warehouse uses—including the current TPP—and does not contain any resources of scenic significance that would be affected by the proposed project.

As indicated above, the project would be visible in views from KOPs -1, -2, and -3. However, the project's facilities would not dominate these views, and would, to varying degrees, be visually absorbed into the existing industrial setting within which it is located. The presence of the project would not alter the visual character of the views from the nearby residential area (KOP-1). While the facility's overall height and bulk would increase, it would still be less prominent in views than the nearby glass container plant, which contributes to the area's industrial character. In views from I-580 (KOP-2) and Hansen Road (KOP-3), the proposed GWF Tracy additions would be absorbed into the surrounding area compared with views from KOP-1. The degree of change in the visual character of views from these areas would, therefore, be relatively low. Overall, GWF Tracy would have a limited effect on the visual quality of the views from these

areas. There would be no net change in visual quality rating from any of the KOPs. Changes in the appearance of the facility would be noticeable, but not substantial, and thus would not be significant.

As discussed previously, it is highly unlikely that the plant would generate visible water vapor plumes that would be present during more than 20 percent of the non-rain, non-fog, clear daylight hours, staying below the threshold the CEC has established for significant impacts related to the presence of visible plumes.

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

No. As described in Section 5.13.2.4.4, project light fixtures will be restricted to areas required for safety, security, and operations. Lighting will be directed on site; it will be shielded from public view, and non-glare fixtures and use of switches, sensors, and timers to minimize the time that lights not needed for safety and security are on will be specified. These measures will substantially reduce the offsite visibility of project lighting.

Because the generation facility now on the site has nighttime illumination, the lighting associated with the proposed project is not likely to create a substantial change in nighttime lighting at the site compared to the existing baseline. Given the limited level of lighting proposed for the project, the measures that will be taken to minimize offsite effects, and the minimal level of change from existing conditions, GWF Tracy's night lighting impacts will be less than significant.

GWF Tracy will also adhere to and maintain TPP Conditions of Certification VIS-3 and VIS-4, which require the treatment of project structures, transmission facilities, fences and walls with non-reflective finishes. Because none of the major project features will have surfaces that are highly reflective, the project will not be a source of daytime glare.

Any lighting that will be installed to facilitate nighttime construction activities will, to the extent feasible and consistent with worker safety codes, be directed toward the center of the construction site and shielded to prevent light from straying off site. Task-specific construction lighting will be used to the extent practical while complying with worker safety regulations. Because of these impact attenuation measures, the construction lighting will not create a significant impact.

5.13.5 Cumulative Effects

A cumulative impact refers to a proposed project's incremental effect together with other closely related past, present, and reasonably foreseeable future projects whose impacts may compound or increase the incremental effect of the proposed project (Pub. Resources Code § 21083; CCR, title 14, §§ 15064(h), 15065(c), 15130, and 15355).

Section 5.6.8 includes a list of cumulative projects that was developed in consultation with the City of Tracy and San Joaquin County. A number of projects within a 6-mile radius of GWF Tracy are currently in various stages of planning an approval. These projects range from warehouse-size retail stores and a business park to specific plans for residential developments and a high school. Three separate specific plans have been prepared for residential developments within 1 mile of GWF Tracy.

The project area is part of a larger cluster of industrial uses that collectively borders rural, agricultural and residential areas. Additional plans for development, such as the residential developments in the nearby specific plan areas and the warehouse grocery stores proposed for areas north of the project area, would be likely call for newer and larger structures near the project area. Any new residential development would be likely to provide additional screening of GWF Tracy, thus reducing its visibility and contrast with the surrounding area. There are no known projects that would remove surrounding structures and make the project more visible. For these reasons, GWF Tracy will not cause any adverse cumulative visual resources impacts.

5.13.6 Mitigation Measures

This analysis has documented the fact that no significant visual impacts will result from implementation of the proposed project. Therefore, no mitigation measures are proposed.

5.13.7 Agencies and Agency Contacts

Visual resources permit and agency contact information are shown in Table 5.13-6. The San Joaquin County Community Development Department is responsible for design review.

TABLE 5.13-6
Permits and Agency Contacts for Visual Resources

Permit or Approval	Agency Contact	Applicability
Design Review including Site Plan review Review of site plan, architecture, and landscaping and issuance of approval Permit required prior to construction	Chandler Martin Deputy Director Planning Division San Joaquin County Community Development Department 1810 East Hazelton Avenue Stockton, CA 95205-6232 cmartin@sjgov.org (209) 468-3144	Design Review

5.13.8 Permits and Permit Schedule

The required permit that is of the most direct relevance to visual resource issues is the Design Review, which includes site plan, architectural, and landscape elements. This permit is required prior to construction.

5.13.9 References

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United States Department of Agriculture Forest Service. 1995. Landscape Aesthetics: A Handbook for Scenery Management. Agriculture Handbook No. 701. December.

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FIGURE 5.13-1
KEY OBSERVATION POINTS

GWF TRACY COMBINED CYCLE POWER PLANT PROJECT
SAN JOAQUIN COUNTY, CA

CH2MHILL

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View of project site from KOP-1 (along South Lammers Road, south of the northern intersection with West Schulte Road, and generally northeast of the project site). The existing TPP is visible in the center of this view. The Owens-Brockway glass container manufacturing plant and Nutting-Rice warehouse are visible in the right side of the view, to the north of the TPP.

Simulated view from KOP-1 with the proposed project additions (shown with landscaping after five years of growth).

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FIGURE 5.13-2A
KEY OBSERVATION POINT 1
GWF TRACY COMBINED CYCLE POWER PLANT PROJECT
SAN JOAQUIN COUNTY, CA

CH2MHILL

View of project site from KOP-1 (along South Lammers Road, south of the northern intersection with West Schulte Road, and generally northeast of the project site). The existing TPP is visible in the center of this view. The Owens-Brockway glass container manufacturing plant and Nutting-Rice warehouse are visible in the right side of the view, to the north of the TPP.

Simulated view from KOP-1 with the proposed project additions (shown with landscaping at full maturity).

FIGURE 5.13-2B
KEY OBSERVATION POINT 1
GWF TRACY COMBINED CYCLE POWER PLANT PROJECT
SAN JOAQUIN COUNTY, CA

CH2MHILL

View of the project site from KOP-2 (the westbound lane of Interstate 580, generally south of the project site). The existing TPP is visible in the center of this view. It appears as part of a larger industrial landscape beyond the rural residential/agricultural area in the foreground. The Nutting-Rice warehouse appears to the left of the TPP in this view, and the Owens-Brockway glass container manufacturing plant appears behind and to the right of the TPP.

Simulated view from KOP-2 with the proposed project additions (shown with landscaping after five years of growth).

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FIGURE 5.13-3A
KEY OBSERVATION POINT 2
GWF TRACY COMBINED CYCLE POWER PLANT PROJECT
SAN JOAQUIN COUNTY, CA

CH2MHILL

View of the project site from KOP-2 (the westbound lane of Interstate 580, generally south of the project site). The existing TPP is visible in the center of this view. It appears as part of a larger industrial landscape beyond the rural residential/agricultural area in the foreground. The Nutting-Rice warehouse appears to the left of the TPP in this view, and the Owens-Brockway glass container manufacturing plant appears behind and to the right of the TPP.

Simulated view from KOP-2 with the proposed project additions (shown with landscaping at full maturity).

FIGURE 5.13-3B
KEY OBSERVATION POINT 2
GWF TRACY COMBINED CYCLE POWER PLANT PROJECT
SAN JOAQUIN COUNTY, CA

CH2MHILL

View of the project site from KOP-3 (along Hansen Road, generally west of the project site). The existing TPP is visible in the center of this view. It appears to the right of both the Nutting-Rice warehouse and the Owens-Brockway plant. All of these industrial structures appear beyond the rural residential/agricultural area in the foreground. The City of Tracy is visible in the background view from this location.

Simulated view from KOP-3 with the proposed project additions.

FIGURE 5.13-4A
KEY OBSERVATION POINT 3
GWF TRACY COMBINED CYCLE POWER PLANT PROJECT
SAN JOAQUIN COUNTY, CA

CH2MHILL

View of the project site from KOP-3 (along Hansen Road, generally west of the project site). The existing TPP is visible in the center of this view. It appears to the right of both the Nutting-Rice warehouse and the Owens-Brockway plant. All of these industrial structures appear beyond the rural residential/agricultural area in the foreground. The City of Tracy is visible in the background view from this location.

Simulated view from KOP-3 with the proposed project additions (shown with landscaping at full maturity).

FIGURE 5.13-4B
KEY OBSERVATION POINT 3
GWF TRACY COMBINED CYCLE POWER PLANT PROJECT
SAN JOAQUIN COUNTY, CA

CH2MHILL