

5.13 Visual Resources

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 impacts or impacts to the aesthetics of the natural and cultural environment 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 California Energy Commission (CEC) guidelines for preparing visual impact assessments for Applications for Certification (AFC). Section 5.13.1 documents the visual conditions that currently exist in the area of the existing Huntington Beach Generating Station site. Section 5.13.2 discusses the potential environmental effects of the Huntington Beach Energy Project (HBEP) as they relate to visual resources. Section 5.13.3 discusses the potential cumulative impacts of the HBEP and other projects in the area. Section 5.13.4 summarizes the mitigation measures proposed to reduce Project impacts on visual resources. Section 5.13.5 describes the laws, ordinances, regulations, and standards (LORS) relevant to visual resources. Section 5.13.6 lists agencies involved and agency contacts, and Section 5.13.7 discusses permits and permits schedules. Section 5.13.8 lists the references used in preparation of this section.

5.13.1 Setting and Affected Environment

5.13.1.1 Setting

The HBEP site is located in an industrial area of Huntington Beach at 21730 Newland Street, just north of the intersection of the Pacific Coast Highway (Highway 1) and Newland Street. The project will be located entirely within the existing Huntington Beach Generating Station, an operating power plant. The HBEP site is bounded on the west by a manufactured home/recreational vehicle park, on the north by a tank farm, on the north and east by the Huntington Beach Channel and residential areas, on the southeast by the Huntington Beach Wetland Preserve / Magnolia Marsh wetlands, and to the south and southwest by the Huntington Beach State Park and the Pacific Ocean. The site is located on a gently sloping coastal plain.

HBEP is a 939-megawatt combined-cycle power plant, consisting of two power blocks. Each power block is composed of three combustion turbines with supplemental fired heat recovery steam generators, a steam turbine generator, an air-cooled condenser, and ancillary facilities. HBEP will reuse existing onsite potable water, natural gas, stormwater, process wastewater, and sanitary pipelines and electrical transmission facilities. No offsite linear developments are proposed as part of the project.

The project will use potable water, provided by the City of Huntington Beach, for construction and operational process and sanitary uses. During operation, stormwater and process wastewater will be discharged to a retention basin and then ultimately to the Pacific Ocean via an existing outfall. Sanitary wastewater will be conveyed to the Orange County Sanitation District via the existing City of Huntington Beach sewer connection. Two 230-kilovolt (kV) transmission interconnections will connect HBEP Power Blocks 1 and 2 to the existing onsite Southern California Edison (SCE) 230-kV switchyard.

HBEP construction will require the removal of the existing Huntington Beach Generating Station Units 1, 2, and 5. Demolition of Unit 5, scheduled to occur between the fourth quarter of 2014 and the end of 2015, will provide the space for the construction of HBEP Block 1. Construction of Blocks 1 and 2 are each expected to take approximately 42 and 30 months, respectively, with Block 1 construction scheduled to occur from the first quarter of 2015 through the second quarter of 2018, and Block 2 construction scheduled to occur from the first quarter of 2018 through the second quarter of 2020. Removal/demolition of existing Huntington Beach Generating Station Units 1 and 2 is scheduled to occur from the fourth quarter of 2020 through the third quarter of 2022.

Existing Huntington Beach Generating Station Units 3 and 4 were licensed through the California Energy Commission (00-AFC-13C) and demolition of these units is authorized under that license and will proceed irrespective of the HBEP. Therefore, demolition of existing Huntington Beach Generating Station Units 3 and 4 is not part of the HBEP project definition. However, to ensure a comprehensive review of potential project impacts,

the demolition of existing Huntington Beach Generating Station Units 3 and 4 is included in the cumulative impact assessment. Removal/demolition of existing Huntington Beach Generating Station Units 3 and 4 will be in advance of the construction of HBEP Block 2.

HBEP construction will require both onsite and offsite laydown and construction parking areas. Approximately 22 acres of construction laydown will be required, with approximately 6 acres at the Huntington Beach Generating Station used for a combination of laydown and construction parking, and 16 acres at the AGS used for construction laydown (component storage only/no assembly of components at AGS). During HBEP construction, the large components will be hauled from the construction laydown area at the AGS site to the HBEP site as they are ready for installation.

Construction worker parking for HBEP and the demolition of the existing units at the Huntington Beach Generating Station will be provided by a combination of onsite and offsite parking. A maximum of 330 parking spaces will be required during construction and demolition activities. As shown on Figure 2.3-3 in Section 2.0, Project Description, construction/demolition worker parking will be provided at the following locations:

- Approximately 1.5 acres onsite at the Huntington Beach Generating Station (approximately 130 parking stalls)
- Approximately 3 acres of existing paved/graveled parking located adjacent to HBEP across Newland Street (approximately 300 parking stalls)
- Approximately 2.5 acres of existing paved parking located at the corner of Pacific Coast Highway and Beach Boulevard (approximately 215 parking stalls)
- 225 parking stalls at the City of Huntington Beach shore parking west of the project site.
- Approximately 1.9 acres at the Plains All American Tank Farm located on Magnolia Street (approximately 170 parking stalls)

The HBEP site is located across the Pacific Coast Highway (PCH) from the Pacific Ocean and Huntington State Beach. To the west, north, and east, the HBEP site is surrounded by a mix of wetlands, roads, and residential, recreational, and commercial development. Palm trees line the beach and southwestern edge of the PCH as it passes the site and enters into the heart of Huntington Beach. Wetlands to the southeast of the project site provide a small natural barrier in the manmade development of the cities of Huntington Beach and Newport Beach and, south of the project site, they provide a natural buffer along the inland side. The wetlands are crossed from southwest to northeast by Magnolia and Brookhurst streets between Huntington Beach and Newport Beach. The rise in elevation from sea level is gradual and the distant views available along the coast are quickly obscured by intervening structures as one travels inland. The areas surrounding the wetlands and the project site consist of mainly residential and park land uses. Edison Park and residential areas further north of the project site are crossed by the electrical transmission lines that connect the existing Huntington Beach Generating Station to the regional electrical transmission system.

Land uses within a 0.5-mile radius of the HBEP site are less dense and/or recreational in nature and the views are more open towards the project site. In the area immediately southeast of the project site, the Huntington Beach Wetland Preserve / Magnolia Marsh Wetland is an open space area along PCH between the project site and the Santa Ana River. The Huntington-by-the-Sea Mobile Estates and RV Park is directly across Newland Street from the project. Surrounding vegetation consists mainly of wetlands and landscaping. The Huntington-by-the-Sea Mobile Estates and RV Park location provides close access to the Huntington State Beach and a number of the manufactured homes have views toward the beach or the wetlands to the north. Continuing north on Newland across the wetland to the intersection with Hamilton Avenue, the presence of residential and commercial buildings start to screen the views toward the existing buildings and structures at the existing Huntington Beach Generating Station.

Dense commercial and residential uses are generally clustered in the centers of Huntington Beach to the northwest, Newport Beach to the southeast, and Fountain Valley to the north. The land gradually contours upward from sea level. It also gradually trends upwards between the border of Huntington Beach and the Huntington Cliffs. This stretch of the PCH is characterized by a variety of residential, recreational/maritime, and

commercial uses. Huntington Beach Pier, located about 1.5 miles northwest of the project site, is a dominant manmade feature contributing to the aesthetic character of the area when approaching the project site from the northwest, and it is visible in views from throughout the area, including from within and near the project site.

The PCH is an officially designated state scenic highway, and considered a scenic corridor by the City of Huntington Beach. 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], 2009). Views of the existing Huntington Beach Generating Station are direct and immediate from nearby segments of the PCH, and tend to dominate views from up to a mile to the southeast, and when travelling northwest along the PCH. For drivers on the PCH entering Huntington Beach from Newport Beach, the existing Huntington Beach Generating Station is visible in the center of the view.

The project site is zoned Public/Semi-Public, in the City of Huntington Beach's General Plan and Zoning Ordinance. The Public/Semi-Public designation allows for power plant uses. The General Plan includes policies pertaining to scenic resources in the Coastal Zone. Specific policies that would apply to the HBEP include those related to preservation of the scenic qualities of the PCH corridor. Policies and policy consistency are discussed in Section 5.13.5.

5.13.1.2 Project Site

The project site is relatively flat with an approximate elevation of 10 to 14 feet above mean sea level. The project site is on the existing Huntington Beach Generating Station. The existing Huntington Beach Generation Station was built in 1958 with additional generating capacity added in 2003. The existing Huntington Beach Generating Station site extends approximately 345 yards along the southwest property line, fronting PCH and the Huntington State Beach near the southernmost boundary of the City of Huntington Beach. There are currently screening walls and plantings along the perimeters of the site fronting the PCH and Newland Street that obscure ground-level views into the site. A berm planted with trees obscures views of the project from portions of Magnolia Street and Hamilton Avenue.

The existing Huntington Beach Generation Station was initially designed and built as a dual fuel fired electricity steam generation plant. The plant primarily burned fuel oil with natural gas as the secondary fuel; however, the facility now uses only natural gas as its fuel source. Five generating units are located on the existing Huntington Beach Generation Station site. Four of the units generate steam to produce electricity (Units 1–4). Units 1–4 are currently operating, with Units 3 and 4 scheduled for permanent retirement by November 2012. The fifth unit (Unit 5) is a combustion turbine that was retired from service in 2002. The current nominal generating output of the existing Huntington Beach Generating Station, including Units 3 and 4, is 880 MW. An electrical switchyard, owned and operated by SCE, is situated on a separate parcel that is located in the central part of the existing Huntington Beach Generating Station.

Six fuel tanks are situated on the north and east sides of the existing Huntington Beach Generating Station site. Four large fuel tanks that were used to hold fuel oil for the generating units are now empty and decommissioned. One small fuel tank on the eastern edge of the property previously contained JP-8 fuel for the decommissioned turbine peaker, Unit 5, and the sixth, and smallest, tank on the northwest side of the property is currently leased to and in use by Plains All American Oil Pipeline, L.P. One of the four large decommissioned fuel oil tanks in the northeast corner of the property is owned by the City of Huntington Beach.

Two detention basins are located along the southwestern edge of the site. Most of the site is paved or landscaped with the exception of the open sandy areas around the fuel storage tanks. The new HBEP generating units (Blocks 1 and 2) will be constructed in the southern portion of the site. Block 1 will be located in the southeastern portion of the site where the southernmost fuel oil tank and existing Unit 5 is located, while Block 2 will be constructed in the area where Units 3 and 4 currently stand.

No changes to the existing linear components (transmission line, and underground natural gas potable water, process water, and sanitary wastewater lines) are planned or required for HBEP. For the purpose of this analysis, the affected environment study area is defined as those areas within 1 mile of the HBEP site, which includes the

offsite construction/demolition worker parking areas, and within 1 mile of the 16-acre offsite construction laydown area that will be located adjacent to the AGS (described in Section 5.13.1.3).

5.13.1.3 Temporary Construction Support Areas

As discussed above, four potential offsite construction worker parking areas are available near the HBEP site (see Figure 5.13-1a). Construction workers personal vehicles will be allowed to park in these areas during the construction period. Figures 5.13-2 through 5.13-5 show photos of the existing conditions at each of the planned offsite construction worker parking areas. Currently, the proposed offsite parking areas near the HBEP site are vacant lots. The offsite parking to the west of HBEP, on the south side of the PCH, is located on a portion of the City's Huntington State Beach paved parking area.

Also discussed above, temporary construction support for HBEP will include a 16-acre offsite construction laydown area (component storage only/no assembly of components) that will be located at the AGS site in Long Beach, approximately 13 miles northwest of the HBEP site. Figure 5.13-2 shows a photograph of the existing appearance of the area that will be used for construction laydown as viewed from the southern end of the AGS property, facing north.

5.13.1.4 Sensitive Viewing Areas and Key Observation Points

To begin the analysis of the HBEP effects on visual resources, the project's viewshed was determined. The viewshed is the area surrounding a project from which the project is, or could be, visible to viewers. To identify the HBEP viewshed, an analysis was conducted using ArcInfo GIS. The analysis took into account the maximum heights of the proposed HBEP structures and surrounding topography to identify locations where the HBEP facilities would theoretically be visible via an unobstructed or partial line-of-sight. This analysis considers the extent to which topography would block views of HBEP facilities, but does not take into account the potential screening effects of existing buildings and vegetation. The results of this analysis are presented on Figure 5.13-1b, which indicate the areas in which the HBEP facilities would have the potential to be visible, and areas where the HBEP facilities would not have the potential to be visible. Based on review of the results of the viewshed analysis, areas were identified where the HBEP facilities might be visible from areas of high visual sensitivity.¹

During field work conducted in February 2012, CH2M HILL staff visited the potentially sensitive locations in the project study area, and observed and photo-documented the existing views from these areas. CH2M HILL staff reviewed the views from the many locations in the project study area that they had visited and documented, and in consultation with Mark Hamblin of the CEC staff, selected five of these viewpoints as KOPs to be used as the basis for the analysis of the project's visual effects. The five KOPs chosen for this analysis were selected to represent the best viewing conditions from major areas of viewer sensitivity, including the closest residential areas, the nearest scenic roadway, and the closest visitor and recreation areas. Based on the observations made in the field and review of the field photos, CH2M HILL staff documented and evaluated the existing visual conditions of the views from each of the five KOPs. Assessments of existing visual conditions were made based on professional judgment that took into consideration the following conditions: visual quality, viewer concern, visibility, number of viewers, and duration of view. These conditions were then factored into an overall rating of viewer exposure and viewer sensitivity. This is the approach used by CEC staff in making a determination of impact in the visual resource analysis for the Avenal Energy Project (CEC, 2009). The CEC uses the following definitions in this approach:

- **Visual Quality** – An expression of the visual impression or appeal of a given landscape and the associated public value attributed to the resource. Visual quality is rated from high to low. A high rating is generally reserved for landscapes viewers might describe as picture-perfect. Landscapes rated high generally are memorable because of the way the components combine in a visual pattern; in analysis of specific views, such qualities are referred to as vividness. In addition, those landscapes are free from encroaching elements, thus retaining their intactness, or visual integrity. Finally, landscapes with high visual quality have a high degree of

¹ Typically, residents and recreationists are considered to be 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.

unity; they are visually coherent and harmonious when each element is considered as part of the whole. Conversely, landscapes rated low are often dominated by visually discordant human alterations.

- **Viewer Concern** – Viewer concern represents the reaction of a viewer to visible changes in the viewshed, an area of land visible from a fixed vantage point. For example, viewers have a high expectation of viewshed quality for views formally designated as scenic areas or travel corridors and for recreational and residential areas. Viewers generally expect that the quality of such views will be preserved. Travelers on highways and roads, including those in agricultural areas, are generally considered to have moderate viewer concerns and expectations. Viewers tend to have low-to-moderate viewer concern, when viewing commercial buildings; and industrial uses typically have the lowest viewer concern. For any viewshed type, the level of concern could be lower if the existing landscape contains discordant elements. Conversely, some areas of lower visual quality and degraded visual character may contain particular views of substantially higher visual quality or interest to the public.
- **Visibility** – Visibility is a measure of how well an object can be seen. Visibility depends on the angle or direction of views; extent of visual screening; and topographical relationships between the object and existing homes, streets, or parks. In that sense, visibility is determined by considering any and all obstructions that may be in the sightline—trees and other vegetation; buildings; transmission poles or towers; general air quality conditions such as haze; and general weather conditions such as fog.
- **Number of Viewers** – Number of viewers is a count or estimate of the number of persons per day who would have a view of the proposed project. Number of viewers is organized into the following categories: residential according to the number of residences; motorist according to the number of vehicles; and recreationists.
- **Duration of View** – Duration of view is the amount of time to view the site. For example, a high or extended view of a project site is one reached across a distance in 2 minutes or longer. In contrast, a low or brief duration of view is reached in a short amount of time—generally less than 10 seconds.
- **Viewer Exposure** – Viewer exposure is a function of three elements previously listed: visibility, number of viewers, and duration of view. Viewer exposure can range from a low to high. A partially obscured and brief background view for a few motorists represents a low value; and unobstructed foreground view from a large number of residences represents a high value.
- **Visual Sensitivity** – Visual sensitivity is composed of three elements previously listed: visual quality, viewer concern, and viewer exposure. Viewer sensitivity tends to be higher for homeowners or people driving for pleasure or engaged in recreational activities and lower for people driving to and from work or as part of their work.

Existing conditions in views from each of the five KOPs are described below. Figures 5.13-1a and 5.13-1b indicate the location of each KOP relative to the project site. Figure 5.13-1a is presented on a topographic map at 1:24,000, in accordance with the requirements of AFC Siting Regulations Appendix B (g)(6)(A)(i). Figure 5.13-1b identifies the project viewshed, KOP locations, and streets and roads. Figures 5.13-2 through 5.13-5 depict the existing conditions at the offsite construction laydown area, which is located at the AGS site in Long Beach, and the various temporary construction parking areas. Figures 5.13-6a through 5.13-10b represent the existing view from each KOP for HBEP and a simulation of what the view would look like with the project in place (all figures are provided at the end of this section).

5.13.1.4.1 KOP-1 – View from Huntington State Beach

Figure 5.13-6a depicts the view from KOP-1, which is located at Huntington State Beach, directly across the PCH from the project site. KOP-1 is representative of close views of the existing Huntington Beach Generating Station from Huntington State Beach. The PCH and Huntington State Beach facilities can be seen in the foreground of the view.

This viewpoint was selected because it is representative of views from the recreational area closest to the project site. This view is seen by visitors to the beach. The viewpoint is set back approximately 300 feet from PCH. Because this viewpoint provides one of the closest and least obstructed views of the project site, it provides the

basis for developing a worst-case assessment of the proposed project's visual effects on this area. Viewer sensitivity at Huntington State Beach is high.

The visual quality of views from KOP-1 toward the project site is moderately low. The existing Huntington Beach Generating Station is the most vivid manmade feature visible in the landscape and dominates the view. The view's level of visual unity is moderate, and because of the presence of the existing Huntington Beach Generating Station's structures, the level of visual intactness is low. Visibility of the existing Huntington Beach Generating Station facilities is high from this location because the elements in the foreground provide little screening of the direct views toward the existing Huntington Beach Generating site. Overall, this view has a highly developed character, a low level of visual coherence, and a moderately low level of visual quality.

Because this view is from a recreational area of regional importance that receives a high level of use, viewer concern is assumed to be high. While, the most visibly prominent features in the view to the north from KOP-1 are the existing Huntington Beach Generating Station components, views from this location to the east and west along the beach, or south towards the Pacific Ocean, are of high to very high visual quality.

The number of viewers at this location is relatively high. Because this view is intended to represent the view from a recreational area, duration of the view is assumed to be high. Taking into account the high visibility, high number of viewers, and high duration of view, viewer exposure is high for KOP-1.

Visual sensitivity is high. While the visual quality of this view is moderate, viewer concern is high and viewer exposure is also high. A high degree of sensitivity is typically expected from viewpoints located near or within recreational areas.

5.13.1.4.2 KOP-2 – View toward the Project Site from Huntington Beach Pier

Figure 5.13-7a depicts the view from KOP-2, which is located at the end of the Huntington Beach Pier, approximately 1.5 miles northwest of the HBEP site. This viewpoint was selected because the pier is an elevated pedestrian walkway in the project vicinity that affords a mostly unobstructed view toward the project site at a middle distance. Visitor-oriented commercial uses are concentrated on the pier and in the land-side areas nearby. The view of the project site from the pier is seen by pedestrians accessing the many restaurants and shops on the pier and the area surrounding it. Visual quality is moderate to high in this area, with coherent architectural and streetscape design and outstanding ocean views. Visual sensitivity is very high at this primary visitor destination. Views of the existing Huntington Beach Generating Station, though visually subordinate at this distance, are visible, prominent, and tend to attract the eye due to the conspicuous height and location of the plant.

The visual quality of the view from KOP-2 is moderately high. A variety of land uses and features are visible from this location, including the Hyatt Regency at Huntington Beach, which is the large, red-roofed structure in the middleground north of the manufactured home park. Structures and stacks associated with the existing Huntington Beach Generating Station can be seen beyond the hotel and are the last dominant structures in the view tracking southeast.

The areas and uses to the north of the project site are compatible residential and commercial, and therefore create a landscape mosaic in which there is some visual coherence. The palm trees lining the beach, visible in the distance, screen the view of cars and the PCH, and add a linear element of natural-appearing vividness to this California beach town view. The area is generally retail commercial and recreational in visual character. Viewer concern is assumed to be high due to the recreational nature of the area.

Views toward the site from KOP-2 are exceptional, and viewers in this area are assumed to have high expectations regarding the quality of views. Visibility of the project site from KOP-2 is moderate. The existing Huntington Beach Generating Station facilities stand out as a visually discordant feature within the beach view. The Huntington Beach Generating Station is co-dominant in the view with the large Hyatt Regency Hotel, the natural feature line of the beach and the backdrop of hills. The view of the project site is mostly unobstructed, except for portions that are blocked by palm trees located along the PCH. The number of viewers is high, given the foot traffic volume on the pier. Duration of views toward the site is high as the viewers are likely to be walking to and from local

shops and restaurants and would have time to survey their surroundings. However, there are many visually attractive features in the view that draw viewers' attention away from the project site.

The overall viewer exposure for this viewpoint is high, given the moderate visibility, high number of viewers, and high duration of views. Visual sensitivity for KOP-2 is high.

5.13.1.4.3 KOP-3 – View toward Project Site from Edison Park

Figure 5.13-8a depicts the view from KOP-3, which is located approximately 0.45 mile northeast of the project site in Edison Park, near the intersection of Hamilton Avenue and Magnolia Street, across Magnolia Street from Edison High School. This viewpoint was selected because the park serves as a green buffer between residential areas and the project, transmission facilities, and commercial properties to the south and west. Approximately 1,000 homes are within 0.5 mile of Edison Park in this residential community and, in addition, some students may walk from school through the park to their homes. This view is representative of how the existing Huntington Beach Generating Station is seen by park users and students. The view also approximates the view from the residential community closest to the project site.

The visual quality of the view from KOP-3 is moderately low. The vegetation in the park and the berm visible in the middle-ground tend to focus the views of users inward toward the park features. The green of the park and the recreational equipment create some vividness and a degree of unity to the view. However, existing transmission facilities crossing the park and the tall exhaust stack visible in the distance are discordant features that reduce the view's overall intactness. The existing Huntington Beach Generating Station is a co-dominant feature of this view. Including its supporting infrastructure, it occupies a substantial portion of the view. The visual character is mixed, defined less by any one dominant land use, but more by the elements present in the view, which are dedicated to recreational facilities on the one hand and the production and transmission of electricity on the other. Viewer concern is assumed to be moderate.

Visibility of the project site from KOP-3 is moderate. The project site is directly visible from the viewpoint, but views are partially screened by vegetation and a berm that can be seen in the intervening middle ground between the viewer and the existing Huntington Beach Generating Station. The berm runs down Hamilton Avenue to the east then bends south on Magnolia Street and continues to the wetlands. The transmission structures in the right-hand portion of the view would also appear between viewers and the project site. The number of viewers is moderately high, due to the high number of residences located in the vicinity and the presence of Magnolia and Hamilton Avenue, both highly travelled routes. Duration of views from the park and the nearby residential areas would be high. Viewer exposure from this KOP would therefore be high.

Given the moderately low visual quality of this view, moderate viewer concern, and high viewer exposure, visual sensitivity for KOP-3 is moderately high. A relatively large number of viewers would have somewhat sustained views of the project site from this area, though the views are not high-quality views, and the project site is partially screened by existing vegetation and other human alterations.

5.13.1.4.4 KOP-4 – View toward the Project Site from Magnolia Street

Figure 5.13-9a depicts the view from KOP-4, which is located approximately 0.3 mile east of the project site, along Magnolia Street between intersections with the PCH to the south and Hamilton Avenue to the north. This viewpoint was selected because of the residential community that lines the east side of the street and has access to some views of the project site. The area to the northeast of this KOP location is heavily residential; however, there is a landscaped berm which blocks most views toward the project site from north of this KOP location. The landscaped berm has been planted with trees and runs along Magnolia Street to Hamilton Avenue. At Hamilton Avenue, the berm bends west screening much of the project site from the view of residences to the northeast of the project site. This view is seen by motorists traveling southbound on Magnolia Street, toward the intersection with the PCH and it also approximates the view from the residences to the east of the KOP. This view is also seen by pedestrians who may use the sidewalks along Magnolia Street for access to and from the beach.

The visual quality of the view from KOP-4 is moderate. The wetlands on both sides of Magnolia Street and the palm-tree-lined beach visible in the distance provide a measure of vividness to the view, and the large open space

created by the wetlands lend a degree of visual unity. However, the existing Huntington Beach Generating Station and transmission facilities, including the tall exhaust stacks visible in the foreground, are discordant features that reduce the view's overall intactness. Further, the most visually dominant element in the view is the existing Huntington Beach Generating Station facility, itself. Including its supporting infrastructure, it occupies a substantial portion of the view. The visual character of this view is mixed, defined less by any one dominant land use, but more by the two opposing elements present in the view, which are dedicated to wetlands restoration on the one hand, and the production and transmission of electricity, on the other.

The Huntington Beach Wetland Preserve / Magnolia Marsh Wetlands is likely considered as an important visual resource by residents. Viewer concern is assumed to be moderately high. Visibility of the project site from KOP-4 is high. However, directly north of KOP-4 on Magnolia Street, the project is obscured by a tall, steep berm that runs along the west side of Magnolia Street to Hamilton Avenue then bends west to follow the south side of Hamilton Avenue. This limits visibility of the project from the closest residences to a degree because 10 yards to the north of this viewpoint the stacks cannot be seen.

The stacks in the left of the view dominate views to the west. The number of viewers would be moderate because traffic volumes on Magnolia Street are comparable with other nearby surface streets (see Section 5.12, Traffic and Transportation), and the view from the nearby residences is somewhat obscured. For a motorist, view duration would be moderate as the existing Huntington Beach Generating Station comes into view from behind the berm located on Magnolia Street. However, because pedestrians and residents travelling to the beach from their homes could see this area for extended amounts of time, duration of views would be moderately long. Pedestrians and nearby residents most likely value this area as a visual point of interest. In sum, viewer exposure from KOP-4 would be moderately high.

Given the moderate visual quality of this view, moderately high viewer concern, and moderately high viewer exposure, visual sensitivity for KOP-4 is moderately high.

5.13.1.4.5 KOP-5 – View toward Project Site from Huntington-By-The-Sea Mobile Estates and RV Park

Figure 5.13-10a depicts the view from KOP-5, which is located at the eastern edge of the Huntington-By-The-Sea Mobile Estates and RV Park, which is directly across Newland Street from the project site. This viewpoint was selected because the Huntington-by-the-Sea Mobile Estates and RV Park is the closest residential area in the project vicinity that affords unobstructed views toward the project site. This view is seen by residents of the manufactured homes, visitors in their RVs, pedestrians walking to the beach or nearby neighborhood, and motorists traveling on Newland Street.

The visual quality of the view from KOP-5 is moderately low. The view is dominated by existing Huntington Beach Generating Station features visible in the foreground. These areas and uses appear to encroach on one another, and therefore create a bifurcated landscape of opposing extremes. The palm trees lining the street and Huntington-by-the-Sea Mobile Estates and RV Park property belie the coastal nature of the surrounding area, however, they do not diminish the heavily developed character of this view. Viewer concern is assumed to be moderate; though the overall visual character of the area is heavily developed in nature, and dominated by the existing Huntington Beach Generating Station. While there are views in other directions of other prominent elements of coastal life that are enjoyed by the residents and visitors to this location, viewers in this area are accustomed to the industrial nature of the existing Huntington Beach Generating Station as it has been a long-established part of the local environment. Viewer concern is slightly higher than it would be for an area that included solely power generation uses and is therefore assumed to be moderate.

Visibility of the existing Huntington Beach Generating Station site from KOP-5 is high. The view of the site is mostly unobstructed, except for portions that are partially screened by the wall and landscaping along the border of the existing Huntington Beach Generating Station and the palm trees located within the manufactured home park. The number of viewers is moderately high, given the high density of the manufactured home and RV park, and the traffic volume on Newland Street relative to other nearby roadways (see Section 5.12, Traffic and Transportation). Duration of views toward the site is moderately high. Extended views are available, given the residential nature of the manufactured home and RV park, the high volume of pedestrian traffic, and the low

speeds of vehicles traveling on Newland Street. The overall viewer exposure for this viewpoint is high, given the high visibility, moderately high number of viewers, and extended duration of views.

Visual sensitivity for KOP-5 is moderately high. Views toward the site from KOP-5 are not exceptional, and viewers in this area are not assumed to have high expectations regarding the quality of views toward the project site because the existing Huntington Beach Generating Station has been in place for many years. However, the area in general contains high quality views, and enough viewers are able to see the project site for a long enough time to assume a relatively high degree of viewer exposure, and therefore an overall moderately high level of visual sensitivity.

5.13.2 Environmental Analysis

5.13.2.1 Analysis Procedure

This assessment of the project's potential effects on visual resources was conducted through the review of applicable planning documents, site reconnaissance and photography, production of visual simulations, and the application of a systematic method for evaluating the potential aesthetic effects of proposed power plant projects. This evaluation depends in part on the assessment of landscape visual quality under existing conditions and with the proposed project. Visual quality ratings range from outstanding to low. 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 (Federal Highway Administration, 1988). This method has been adopted by the staff of the CEC.² Finally, a determination of impact significance was made following the four California Environmental Quality Act (CEQA) Guidelines checklist questions discussed in Section 5.13.2.2.

The initial step in the evaluation process was the review of planning documents (including the City of Huntington Beach General Plan) applicable to the project area 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 then given to the existing visual setting within the project's viewshed, which is defined as the geographical area in which the project can be seen.

Potential project impacts were evaluated using a KOP analysis, among other tools and information sources. Site reconnaissance was conducted to view the site and surrounding area, identify potential KOPs, and take representative photographs of existing visual conditions. A single-lens reflex digital camera set to take photos with a focal length equivalent to that of photos taken with a 35 millimeter (mm) camera with a 50-mm lens (view angle 40 degrees) was used to shoot site photographs. Photographs from the site reconnaissance were selected 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 after completion of construction of all phases of the project. 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 typical elevations for the components of the HBEP electrical transmission interconnection to the existing SCE 230-kV switchyard (as discussed in Section 3.0, Transmission System Engineering, there are no changes to the existing SCE 230-kV switchyard or to the offsite SCE transmission system as a result of HBEP). These data 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 generating facility and portions of the overhead transmission system.

² The rationale for the CEC's application of this method was appended to its Staff Report for the Avenal Energy Project (CEC, 2009).

For each viewpoint, viewer location was identified based on in-field global positioning system logs, and the eye level was assumed to be 5 feet. 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 were produced from the digital image files using a color printer. The “before” site photographs are included for each KOP in Figures 5.13-6 through 5.13-10 along with the “after” visual simulations.

Review of the existing condition and simulated with-project views is an important element of the visual resource analysis. The determination of visual effects considered the elements of contrast, dominance, view blockage, and visual change, as defined below.

- **Contrast** – Contrast concerns the degree to which a project’s visual characteristics or elements (form, line, color, and texture) differ from the same visual elements in the existing landscape. The degree of contrast can range from low to high. A landscape with forms, lines, colors, and textures similar to those of a proposed energy facility is more visually absorbent; that is, more capable of accepting those characteristics than a landscape in which those elements are absent. Generally, visual absorption is inversely proportional to visual contrast.
- **Dominance** – Dominance is a measure of the proportion of the total field of view occupied by the field, a feature’s apparent size relative to other visible landscape features, and the conspicuousness of the feature due to its location in the view. A feature’s level of dominance is lower in a panoramic setting than in an enclosed setting with a focus on the feature itself. A feature’s level of dominance is higher if it is near the center of the view; elevated relative to the viewer; or has the sky as a backdrop. As the distance between a viewer and a feature increases, its apparent size decreases; and consequently, its dominance decreases. The level of dominance ranges from low to high.
- **View Disruption** – The extent to which any previously visible landscape features are blocked from view constitutes view disruption. The view is also disrupted when the continuity of the view is interrupted. When considering a project’s features, higher-quality landscape features can be disrupted by lower-quality project features, thus resulting in adverse visual impacts. The degree of view disruption can range from none to high.
- **Visual Change** – Visual change is a function of contrast, dominance, and view disruption. Generally, contrast and dominance contribute more to the degree of visual change than does view disruption.

Once all effects were examined, a determination was made as to whether any potential impacts would reach a level that would be significant under CEQA 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.

5.13.2.2 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” (14 CCR 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?

5.13.2.3 Project Appearance

5.13.2.3.1 Project Structures and Dimensions

The HBEP facilities are described in detail in Section 2.0, Project Description. Figure 2.1-2 shows the general arrangement and layout of the proposed project features on the site, and Figures 2.1-3a and 2.1-3b provide typical elevation views. Table 5.13-1 summarizes the dimensions, finishes, and materials of the generating facility's major features. The exteriors of major project equipment would be treated with a neutral gray finish to optimize its visual integration with the surrounding environment.

TABLE 5.13-1
Approximate Dimensions and Colors, Materials, and Finishes of the Major Project Features

Feature	Height (feet)	Length (feet)	Width (feet)	Diameter (feet)	Color	Materials	Finish
Combustion Gas Turbine (CGT)	32	89	34	—	Flat Gray	Steel	Flat/untextured
CGT Generator Enclosure	16	39	34	—	Flat Gray	Flat Mild Steel Plate	Flat/untextured
CGT/HRSG Transition Duct	14	32	31	—	Flat Gray	A-36 Steel Plate	Flat/untextured
CGT Enclosure	41	32	25	—	Flat Gray	Flat Mild Steel Plate	Flat/untextured
Fuel Gas Skid	20	12	15	—	Flat Gray	Struct. Steel shape	Flat/untextured
CGT Control/Lube oil skid	50	14.5	--	—	Flat Gray	Flat Mild Steel Plate	Flat/untextured
Step UP transformer	35	23	15	—	Flat Gray	Custom Steel Shape	Flat/untextured
Turbine Cooling Air skid	10	8	—	—	Flat Gray	Struct. Steel Shape	Flat/untextured
CGT Step-up Transformer	35	23	9	—	Flat Gray	Custom Steel Shape	Flat/untextured
CO ₂ F/F (LP tank)	15	55	40	—	Stark White	A-106 Pressure Vessel	Flat/untextured
STG Enclosure	59	55	40	—	Flat Gray	Flat Mild Steel Plate	Flat/untextured
HRSG	77	44	92	—	Flat Gray	A-36 Steel Plate	Flat/untextured
Stack	65	—	—	18	Flat Gray	A-36 Steel Plate	Flat/untextured
CGT Air intake system	40	17	38	—	Flat Gray	Flat Mild Steel Plate	Flat/untextured
Control Package	40	20	15	—	Flat Gray	Flat Mild Steel Plate	Flat/untextured
Electrical Package	40	20	15	—	Flat Gray	Flat Mild Steel Plate	Flat/untextured
SFC Transformer	11	8	10	—	Flat Gray	Custom Steel Shape	Flat/untextured
SEC Transformer	11	8	10	—	Flat Gray	Custom Steel Shape	Flat/untextured
Unit Transformer	9	11	9	—	Flat Gray	Custom Steel Shape	Flat/untextured
Generator Main Circuit Breaker	28	20	—	—	Flat Gray	Flat Mild Steel Plate	Flat/untextured
Fuel Gas Compressor Building	144	75	25	—	Flat Gray	Ribbed Sheet Steel	Flat/untextured
Boiler Feed Pump Building	30	30	15	—	Flat Gray	Ribbed Sheet Steel	Flat/untextured
CEMS	15	15	10	—	Flat Gray	Ribbed Sheet Steel	Flat/untextured
BOP Fin Fan Cooler	86	48	15	—	Flat Gray	A-36 Steel shapes	Flat/untextured

TABLE 5.13-1
Approximate Dimensions and Colors, Materials, and Finishes of the Major Project Features

Feature	Height (feet)	Length (feet)	Width (feet)	Diameter (feet)	Color	Materials	Finish
Steam Turbine Generator (STG)	52	23	—	—	Flat Gray	Custom Steel Shape	Flat/untextured
STG Control/Lube Oil Skid	38	17	—	—	Flat Gray	Flat Mild Steel Plate	Flat/untextured
Fuel Gas Conditioning Skid	71.5	34	—	—	Yellow	Steel pipe and supp.	Flat/untextured
Existing Service/Fire Water Tank (rescue)	—	—	48	40	Flat Gray	A-36 Steel	Flat/untextured
Existing Fire Water Enclosure	22	30	12	—	Flat Gray	Ribbed Sheet Steel	Flat/untextured
Relocated Gas Metering station	108	82	—	—	Yellow	Steel pipe and supp.	Flat/untextured
Air-cooled Condenser	209	127	104	—	Flat Gray	A-36 Steel shapes	Flat/untextured
Existing RO/EDI Building	113	51	30	—	Flat Gray	Ribbed Sheet Steel	Flat/untextured
New Control/Admin Building	100	72	40	—	Tan	Ribbed Sheet Steel	Flat/untextured
New Maintenance/Warehouse Building	72	60	35	—	Tan	Ribbed Sheet Steel	Flat/untextured
Ammonia Tank and Containment	18	38	14	—	Stark White	A-106 Pressure Vessel	Flat/untextured
Existing Distilled Water Tanks (2)	—	—	32	28	Flat Gray	A-36 Steel	Flat/untextured
Existing Shops and Warehouse	214	115	17	—	Tan		Flat/untextured
Existing Admin. Building	81	57	11	—	Tan		Flat/untextured
Transformer Blast Wall	53	42	30	—	Untinted	Concrete	Flat/untextured
Transmission Structure	135	—	—	—	Flat Gray	A-36 Steel Shapes	Flat/untextured
Existing Brine Tank	—	—	22	24	Flat Gray		Flat/untextured
Ammonia Unloading	56	12	—	—			

5.13.2.3.2 Electrical Transmission Lines

No new offsite transmission lines will be required for HBEP, and no changes will be required to the existing offsite SCE transmission line to support HBEP. Because there will be no changes to the existing offsite transmission lines, the offsite transmission lines are not discussed further in this section.

HBEP Blocks 1 and 2 will connect to the existing SCE switchyard located on a separate parcel within the existing Huntington Beach Generating Station via new double-circuit 230-kV lines. For additional information on the transmission lines, see Section 3.0, Transmission System Engineering.

5.13.2.3.3 Pipelines

No changes to the pipelines that support the existing Huntington Beach Generating Station are required for HBEP. As discussed in Section 2.0, Project Description, HBEP will be served by the following existing pipelines:

- **Natural Gas Supply Pipeline:** Natural gas is delivered to the plant site via an existing 16-inch-diameter pipeline by the Southern California Gas Company to an existing gas metering station. Natural gas will then be distributed onsite to the HBEP combustion turbine fuel gas compressors and subsequently to the HBEP combustion turbines and directly to the duct burners.
- **Potable Water Supply Pipeline:** Potable water to the site is supplied from an existing 8-inch-diameter pipeline from the City of Huntington Beach.

- **Wastewater Discharge Pipeline:** Sanitary wastewater will be discharged to the City of Huntington Beach existing sewer main that services the existing Huntington Beach Generating Station. Plant process wastewater and site stormwater will be collected in an existing onsite retention basin and then discharged to the ocean outfall.

5.13.2.3.4 Construction Laydown and Temporary Parking Areas

Approximately 22 acres of construction laydown area will be required, with approximately 6 acres at the existing Huntington Beach Generating Station used for a combination of laydown and construction parking, and 16 acres at the AGS site used for construction laydown (component storage only/no assembly of components at the offsite construction laydown area). During HBEP construction, these large components will be hauled from the construction laydown area at the AGS site to the HBEP site as they are required.

As noted previously, four parking areas are available near the HBEP site for temporary construction/demolition worker parking. The offsite parking areas are on Newland Street, off of the PCH at Beach Boulevard, at a portion of the City of Huntington Beach shore parking, and at the Plains All American Tank Farm (see Figure 5.13-1a for locations of the offsite temporary construction parking areas, and Figures 5.13-2 through 5.13-5 for photographs of the offsite laydown area at the AGS site and the offsite construction parking areas). Construction access to the project site will generally be from Newland Street.

As shown on Figure 2.10-1 in Section 2.0, Project Description, temporary construction/demolition parking includes:

- Approximately 1.5 acres onsite at the Huntington Beach Generating Station (approximately 130 parking stalls)
- Approximately 3 acres of existing paved/graveled parking located adjacent to HBEP across Newland Street (approximately 300 parking stalls)
- Approximately 2.5 acres of existing paved parking located at the corner of the PCH and Beach Boulevard (approximately 215 parking stalls)
- 225 parking stalls at the City of Huntington Beach shore parking west of the project site.
- Approximately 1.9 acres at the Plains All American Tank Farm located on Magnolia Street (approximately 170 parking stalls)

During the construction period, construction materials, equipment, trucks, and parked vehicles would be visible at the offsite laydown area at the AGS site and at the offsite parking areas. Views of the laydown area at the AGS site would be limited. Direct views would be available only from bike route 10, which runs along the river, and from the 2nd Street Bridge. Some other areas have indirect views of the southern portions of the AGS facility and would see portions of the laydown area.

Two construction worker parking areas are located along the PCH. One is located at the intersection of Beach Boulevard and the PCH; this area is currently a paved and fenced lot that appears to be vacant. The other proposed temporary parking area uses the existing City of Huntington Beach shore parking areas to the west of the project site. Vehicles staged in the parking areas located along the PCH would be immediately visible from nearby segments of the PCH.

Views of the construction parking area located adjacent to the HBEP on Newland Street would be direct and immediate, as seen from Huntington-By-The-Sea Mobile Estates and RV Park. The Huntington-By-The-Sea Mobile Estates and RV Park is adjacent west of this temporary parking area, and residents would have a high level of exposure to the temporary construction parking area. Also this parking area would be visible to motorists and pedestrians moving through the area.

Views of the parking area located at the Plains All American Tank Farm would be partially visible, but not in the main field of view seen from Magnolia Street. Motorist views from Magnolia Street would also be of short duration because people traveling along this road would be moving towards PCH or Hamilton Avenue.

After construction is complete, all material would be removed from the construction laydown area at the AGS site and the offsite construction worker parking areas would revert back to open lots.

5.13.2.3.5 Lighting

HBEP will be operational (though not necessarily generating power) 24 hours per day, 7 days per week and will require night lighting for safety and security. The lights will provide illumination for operation under normal conditions, for safety under emergency conditions, and for manual operations during a power outage. The system will also provide 120-volt convenience outlets for portable lamps and tools.

To reduce offsite lighting impacts, lighting for HBEP will be restricted to areas required for safety and operation. Exterior lights will be hooded and will be directed onsite to minimize glare and light spill off of the site. Low-pressure sodium lamps and fixtures of a non-glare type will be specified. In addition, switched lighting circuits will be provided for areas where lighting is not required for normal operation or safety to allow these areas to remain dark at most times and to minimize the amount of lighting potentially visible offsite.

Lighting will be required to facilitate HBEP night construction and commissioning activities. Construction/commissioning lighting 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 offsite. Task-specific construction/commissioning lighting will be used to the extent practical while complying with worker safety regulations. Typically, construction will be scheduled to occur between 6:00 a.m. and 6:00 p.m., Monday through Saturday. Additional hours may be necessary to make up schedule deficiencies or to complete critical construction activities (for example, pouring concrete at night during hot weather, working around time-critical shutdowns and constraints). During some construction periods and during the commissioning/startup phase of the project, some activities will continue 24 hours per day, 7 days per week. During periods when nighttime construction/commissioning activities take place, illumination that meets state and federal worker safety regulations will be required. To the extent possible, the nighttime construction/commissioning 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. Despite these measures, there may be limited times during the construction/commissioning period when the project site may appear as a brightly lit area as seen in close views and from distant hillside residential areas.

5.13.2.3.6 Water Vapor Plumes

Visible plumes from power plants (and other sources) form when the mass of water in an exhaust plume exceeds the saturation point of the exhaust gases. The saturation point of air is directly related to its temperature with warm air having a higher saturation point (being able to carry more water in a vapor state) than cold air. When the saturation point is reached, water will condense out of vapor state to a liquid state, forming fine water droplets. These water droplets are visible in an exhaust plume.

Experience with plants of the type proposed here has demonstrated that the high velocity and temperature of the stack exhaust result in a quick dispersion of stack plumes, minimizing the probability that a visible plume would be created above the stacks. Based on previous experience with these kinds of systems, it is likely that formation of visible plumes from the project would be a rare occurrence related to unusual combinations of cold and damp conditions and that, when present, the plumes would be relatively small. For the heat recovery steam generator exhausts, moisture content (percent by weight) is 6.7 to 10.6 percent by volume. Exhaust mass flow rate is 2,154,700 lb/hr to 3,377,600 lb/hr, and; the exhaust temperature is 358 to 394°F. Due to the higher exhaust gas temperature, visible stack plumes would not be expected.

Because HBEP will use an air-cooled condenser, it will have no cooling tower and therefore no cooling tower vapor plumes.

5.13.2.3.7 Landscaping

The existing Huntington Beach Generating Station is currently screened by concrete block walls along Newland Street and along the perimeter of the site behind the Wildlife Care Facility that lies in the long, narrow parcel located between the existing Huntington Beach Generating Station and the PCH. Zones of dense plantings lie

behind the screening walls on these two sides of the site. In addition, screening plantings extend along the southeastern perimeter of the existing Huntington Beach Generating Station. To the east of and outside of the existing Huntington Beach Generating Station along Magnolia Street, north of the wetland, a berm planted with trees obscures views of the site from portions of Magnolia Street. With development of HBEP, the existing screening walls and onsite landscape areas will be left exactly as they are, and because the project site is already screened and landscaped, no additional screening walls or landscaping are being proposed.

5.13.2.4 Assessment of Visual Effects

5.13.2.4.1 KOP-1 – View towards Project from Huntington State Beach

Figure 5.13-6a presents a photograph of the existing view toward the project site from Huntington State Beach and a simulation of the view as it will appear during the project's operational period is shown in Figure 5.13-6b. Comparison of the existing view with the view with the project in place indicates that development of the project will remove an assemblage of structures, tanks, and stacks located across the foreground of the view. These project elements will be replaced with units that are shorter and set back farther to the north from the PCH than the existing facilities. Although the project will remain larger in scale than other objects in the view, and will continue to obstruct views of the backdrop, the overall dominance of the project will be substantially diminished. A number of project facilities—most notably the exhaust stacks—will be reduced in height and streamlined. The general form of a power station will remain. The lines, colors, and textures present in the existing Huntington Beach Generating Station are clearly distinguishable from those of the proposed HBEP; however, the form, line, colors and textures observable in the HBEP are consistent with the existing development. These changes represent an improvement in the visual conditions that now exist in this view.

The proposed project's degree of contrast with its existing setting will be low to non-existent, as it will diminish the dominance of the most visually disruptive feature in the view. The project will not remove elements of visual importance from the view and will not block aesthetically important features now visible in the background. However, the project will alter the view from KOP-1 in that it will open up the view to some extent, increasing the visibility of the ridgeline in the distance. Because the proposed structures will appear shorter than those that now exist on the site, the existing landscaping along the edge of the project site and the groupings of palm trees along PCH will be somewhat more effective in screening them than the existing structures. Although the proposed facility will be smaller in scale than the existing facility, it will remain the backdrop of the view. The existing view's visual character as a landscape of energy production will remain, but the proposed power plant facilities will dominate the views less than the existing facilities.

The visual quality of the view with the project in place would remain moderately low. Because of the project's low degree of contrast and the reduction in dominance, along with the moderately diminished degree of view blockage, the project would result in a moderate but positive degree of visual change in views from KOP-1.

5.13.2.4.2 KOP-2 – View from Huntington Beach Pier

Figure 5.13-7 presents a photograph of the existing view toward the project site from Huntington Beach Pier (Figure 5.13-7a) and a simulation of the view as it will appear during the project's operational period (Figure 5.13-7b). Comparison of the existing view and the view with the project in place indicates that HBEP will be less visible in views from the pier than the existing Huntington Beach Generating Station facility, and that the character of the overall view will remain generally the same.

Because of the reduction of the heights of the stacks and air-cooled condenser, the blockage of the view of the distant ridgeline will be reduced to some extent, and the stacks will no longer extend above the ridgeline and be skylined against the sky. The effect of the project will be to slightly reduce the overall level of development visible in the view, which will result in a small increase to the already relatively high level of visual quality in the view at present.

The project will continue to be an important element in the views into the distance from the pier, but the overall degree of view contrast and view blockage it creates will be reduced from what now exists. Overall, the project would result in a low to moderate but positive degree of visual change in views from KOP-2.

5.13.2.4.3 KOP-3 – View from Edison Park

Figure 5.13-8a presents a photograph of the existing view toward the HBEP site from Edison Park (Figure 5.13-8a) and a simulation of the view as it will appear during the project’s operational period (Figure 5.13-8b). Comparison of the view of the existing Huntington Beach Generating Station with the view with the project in place indicates that development of the project will remove an assemblage of structures and stacks of the existing Huntington Beach Generating Station located across the middle-ground of the view, behind the berm. These existing Huntington Beach Generating Station elements will be replaced with upgraded HBEP elements that appear smaller in scale, yet are also slightly closer than the existing Huntington Beach Generating Station features.

The project features will remain co-dominant with many other objects in the view at present, but will not obstruct views of surrounding areas due to the location of the berm in the intervening space. The project would remain as the backdrop in the view from this park and residential area. Several of the project facilities—most notably the exhaust stacks and air-cooled condensers—will remain silhouetted against the sky.

The project’s degree of contrast with its setting will remain moderate and the air-cooled condenser will remain a dominant feature in the view. The project will not remove elements of visual importance from the view and will not block aesthetically important features in the background. It will, however, substantially alter the view from KOP-3. The HBEP, located slightly closer to the viewer, will remain the backdrop for the view. The energy production visual character identified in the background of the existing view will not be intensified.

The visual quality of the view with the project in place would remain moderately low. Because of the project’s low degree of contrast and dominance, along with the low degree of view blockage, HBEP will result in a very low, yet a positive degree of visual change in views from KOP-3 as compared to the existing view of the existing Huntington Beach Generating Station.

5.13.2.4.4 KOP-4 View Toward Project from Magnolia Street

5.13-9 presents a photograph of the existing view toward the project site from a location along Magnolia Street about halfway between PCH and Hamilton Avenue (Figure 5.13-9a) and a simulation of the view as it will appear during the project’s operational period (Figure 5.13-9b). Comparison of the existing view with the view with the project in place indicates that the HBEP facility will be prominently visible in view across the Huntington Beach Wetland Preserve / Magnolia Marsh Wetlands, but that the existing visual character of the view will not be substantially altered by the project.

The moderate level of visual quality of the existing view will not be substantially altered by the project changes. There will be no change to the Huntington Beach Wetland Preserve/ Magnolia Marsh Wetlands, which is the most vivid element of the view. The removal of Units 3 and 4 will eliminate the tall stacks and scaffold-covered structures, which are now the most visually discordant elements of the view, increasing the view’s level of visual intactness. Because of the lower heights and more uniform proportions of the power plant components on the redeveloped site, the view will have a somewhat higher level of visual unity.

Overall, the project will result in a low to moderate level of positive visual change to the view.

5.13.2.4.5 KOP-5 View Toward the Project from Huntington-By-The-Sea Mobile Estates and RV Park

Figure 5.13-10 presents a photograph of the existing view toward the project site from the eastern edge of the property (Figure 5.13-10a) and a simulation of the view as it would appear during the project’s operational period (Figure 5.13-10b). Comparison of the existing view with the view with the project in place indicates that the HBEP, similar to the existing Huntington Beach Generating Station will be prominent in the view from KOP-5. The existing visual character will not be altered, but the primary visual features in the view, namely the views toward HBEP in the foreground, will be altered. At present, the view from KOP-5 is characterized by the presence of the existing Huntington Beach Generating Station to the east and the Pacific Ocean to the south. With the existing Huntington Beach Generating Station in the view, the presence of an industrial facility is already established, resulting in an existing contrast in the view. The visual dominance of the HBEP will remain high, given the degree to which it appears above the existing skyline in the view, above the palm trees associated with the project site, and the wall visible in the foreground. While the project will remain dominant in the view, it will not remove

visually important elements from the view, nor will it substantially block existing views of aesthetically important features.

The moderately low level of visual quality of the existing view will not be substantially altered by the project changes. There will be a change in the degree to which the view is dominated by the power plant, which is the most vivid element of the view. The removal of Units 1 – 4 will eliminate the tall stacks and scaffold-covered structures, which are now the most visually discordant elements of the view, increasing the view's level of visual intactness. Because of the lower heights and more uniform proportions of the power plant components on the redeveloped site, the view will have a somewhat higher level of visual unity.

Overall, the project will result in a low to moderate level of positive visual change to the view.

5.13.2.4.6 Light and Glare

The project's effects on visual conditions during hours of darkness would be limited. As indicated in Section 5.13.2.3.5, some night lighting would be required for operational safety and security. To reduce offsite lighting impacts, lighting at the HBEP facility will be restricted to areas required for safety and operation. Exterior lights will be hooded and will be directed onsite to minimize glare and light spill off of the site. Low-pressure sodium lamps and fixtures of a non-glare type will be specified. In addition, switched lighting circuits will be provided for areas where lighting is not required for normal operation or safety to allow these areas to remain dark at most times and to minimize the amount of lighting potentially visible offsite.

There would be additional visible lighting associated with the project stacks and open site areas. At times when lights are turned on, the lighting would not be highly visible offsite and would not produce offsite glare effects. The offsite light visibility and glare 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 the construction of the HBEP, the overall change in ambient lighting conditions in the area surrounding the site would not be substantial. The lighting associated with HBEP will not substantially exceed, and may represent and slight decrease in the lighting used on the existing Huntington Beach Generating Station. Therefore, there would be no significant change to light and glare effects.

5.13.2.4.7 Water Vapor Plumes

No significant water vapor plumes are expected to form from HBEP, but there is the potential to create small visible plumes from the HRSG stacks when the HBEP is operating during times of low temperature and high humidity. Given these conditions, the most likely times for plume formation would be cold nights. Given that plume formation occurs mostly during times of low temperature and high humidity, it is unlikely that they would form during times of clear weather because daylight hours during spring, summer, and fall months when weather is fair tend to have relatively high temperatures and low humidity. Because HBEP does not use a cooling tower, there would be no cooling tower plumes.

5.13.2.5 Impact Significance

A discussion regarding whether the visual effects of the HBEP would be significant pursuant to CEQA is provided below. The assessment of these impacts applies the criteria set forth in Appendix G of the CEQA Guidelines. 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." (14 CCR 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. While the HBEP is in the viewshed of the PCH, a designated scenic highway, and it is within the Coastal Zone including scenic resources such as Huntington State Beach and the Huntington Beach Wetland Preserve/Magnolia Marsh Wetlands, the overall changes to the project features will result in a slight diminishing of the dominance of the HBEP overall. The stack heights will be decreased from the existing 200-foot-tall stacks for the existing Huntington Beach Generating Station, which will be removed, to 120-foot-tall stacks for HBEP

Blocks 1 and 2. In addition, HBEP Blocks 1 and 2 will appear to be further from the PCH and Huntington State Beach. The effect of the changes will serve to slightly improve the overall aesthetic qualities of the project in context of the surrounding highly scenic areas.

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

No. The existing Huntington Beach Generating Station does not include any scenic resources such as trees, rock outcroppings or historic buildings. The project will alter existing facilities. The result would be a reduction in the scale and dominance as compared to the existing Huntington Beach Generating Station, and a slight opening of views to the surrounding areas.

- **Would the Project substantially degrade the existing visual character or quality of the site and its surroundings?**

No. The HBEP will not substantially alter the existing visual character of the project site and its surroundings. At present, the character of the site is that of a power production facility that is a dominant element of the surrounding landscape. With the project, this visual character would not change, but may be slightly diminished, particularly in views from Huntington State Beach (KOP-1), and Huntington Beach Pier (KOP-2). The HBEP would remain the dominant feature in many views from this area.

The presence of the Huntington Beach Generating Station is already considered be a visual issue in the Coastal Zone of the City of Huntington Beach. The project will represent a slight improvement over the existing visual quality of the project area as viewed from KOP-1, a location from which viewer concern is high and viewer sensitivity moderately high. HBEP would continue to occupy a large portion of the visible area from this location, but would be substantially diminished in scale and would be set back further from the viewer, resulting in less dominance of viewer attention. It may also improve views from KOP-2 which is also an area of high visual quality and high viewer concern and exposure.

Because of the smaller visual footprint of the HBEP structures, some of the background features, now blocked by the existing Huntington Beach Generating Station's facilities would become more visible. Construction of the HBEP would not produce a substantial adverse change in visual character and quality of views from any of the KOPs, a residential area with sensitive viewers, or nearby recreational areas. The project's visual impacts will be generally positive and less than significant.

- **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 5.13.2.4.6, project light fixtures will be restricted to areas required for safety and operations. Lighting will be directed onsite and will be shielded from public view. Non-glare fixtures will be specified, as will switches, sensors, and timers to minimize the use of the lights. These measures would substantially reduce the offsite visibility of project lighting.

Given the limited level of lighting proposed for the project and the measures that will be taken to minimize offsite effects, night lighting impacts from HBEP would be less than significant.

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 offsite. Task-specific construction lighting will be used to the extent practical while complying with worker safety regulations.

Any lighting that will be installed for operational safety or security purposes will, to the extent feasible and consistent with worker safety codes, be directed toward the project site and shielded to prevent light from straying offsite.

5.13.3 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 (Public Resources Code Section 21083; 14 CCR Sections 15064(h), 15065(c), 15130, and 15355).

Because the incremental effect of the project will be to decrease the height and dominance of the existing Huntington Beach Generating Station's features, and to set HBEP further away from local recreational uses such as Huntington State Beach and important scenic resources such as the PCH, HBEP would not contribute to adverse impacts of other projects. The project may increase visual quality and thereby add cumulatively to other projects that increase visual quality of the area.

The project may contribute to temporary visual impacts associated with construction. This could add cumulatively with other projects that are to be constructed over the same time period (see Table 5.6-5 in Section 5.6, Land Use). However, cumulative construction-related impacts, such as degraded air quality and increased noise or traffic, are not expected because a temporal overlap with the construction periods of the projects listed in Table 5.6-5 Major Projects List, of the Land Use Section, is considered unlikely.

The closest projects with the potential to cause cumulative visual effects with HBEP are the demolition of existing Huntington Beach Generating Station Units 3 and 4, and the construction and operation the Poseidon seawater desalination facility. The demolition of Huntington Beach Generating Station Units 3 and 4 would have an overall beneficial effect on the viewshed because the existing facility is considered to detract from visual quality; therefore, effects of the demolition of existing Units 3 and 4 as a cumulative project will have a positive effect on the visual setting of HBEP.

The proposed Poseidon desalination facility is located on an 11-acre portion of the existing Huntington Beach Generating Station site, and will use the existing Huntington Beach Generating Station's ocean water once-through cooling system intake and outfall pipelines for its operations. However, because the expectation is that HBEP will not cause adverse impacts to existing visual quality, no additive or synergistic cumulative effects are anticipated as a result of the combined HBEP and the proposed Poseidon desalination facility. HBEP will contribute to a consolidation of the industrial facilities on the site, even when compared with the Poseidon desalination plant in place. The Environmental Impact Report for the Poseidon project determined that the Poseidon project would improve visual quality of the site. Therefore, there is no potential for negative cumulative effects.

HBEP is not expected to have any cumulatively considerable visual effects in conjunction with any of the other projects listed in Table 5.6-5 of the Land Use section. Therefore, no cumulative impacts are expected.

5.13.4 Mitigation Measures

This analysis has documented that HBEP will not substantially change the existing visual character and quality of the project site as viewed from any of the KOPs. In fact, it would slightly increase the overall visual quality. Therefore, the project will not result in a significant visual impact and visual resource mitigation measures are not required for HBEP because the visual impacts are at a less-than-significant level.

5.13.5 Laws, Ordinances, Regulations, and Standards

This subsection describes the LORS relevant to the visual resource issues associated with the HBEP. The HBEP site is within the city limits of Huntington Beach. While the project is not located within any of the City's 14 Specific Plan areas, it is located within the Coastal Zone. Visual resource and urban design concerns applicable to the project are also addressed in the City of Huntington Beach General Plan and the City of Huntington Beach Municipal Code. No federal LORS are known that would apply to the project's potential effect on visual resources.

5.13.5.1 State LORS

5.13.5.1.1 California Coastal Act

The California Coastal Act and the California Scenic Highway Program will apply to the HBEP. The project is located within the City's Coastal Zone and is subject to the California Coastal Act. Section 30251 of the California Coastal Act requires that "permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas." In compliance with the requirements of the Coastal Act, the City of Huntington Beach prepared a Coastal Element of its General Plan (2001). This element was certified by the California Coastal Commission in 2001 and now implements the Coastal Act, including Section 30251, through the Local Coastal Program. The current available version of the General Plan includes amendments to the Local Coastal Program made through 2008, and the project's consistency with the General Plan's Coastal Element is discussed in greater detail in Section 5.13.5.2.3.

5.13.5.1.2 California Scenic Highway Program

The California Scenic Highway Program protects and enhances the natural scenic beauty of California highways and adjacent corridors through special conservation treatment (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. 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. At present, the segment of the PCH that extends through Huntington Beach and borders the existing Huntington Beach Generating Station is designated as eligible for listing as a state scenic highway, but it has not been formally adopted as an officially designated State Scenic Highway (Caltrans, 2012).

5.13.5.2 Local LORS

Visual resource and urban design concerns applicable to the project are also addressed in the City of Huntington Beach General Plan, and the City of Huntington Beach Municipal Code. The project is not located within any of the City's 14 Specific Plan areas.

Table 5.13-2 lists the plans and ordinances that are pertinent to the HBEP elements. The specific provisions of each plan or ordinance that have potential relevance to the project are identified in Sections 5.13.5.1, 5.13.5.2, and 5.13.5.3.

5.13.5.2.1 City of Huntington Beach General Plan

The HBEP site is located within the city limits of Huntington Beach and is, therefore, subject to the provisions of the City of Huntington Beach General Plan. The project site is zoned for Public Use. The most applicable standards are contained in the Coastal Element of the General Plan. Policies pertaining to visual resources that are applicable to the project are summarized and evaluated in Table 5.13-3.

5.13.5.3 City of Huntington Beach Municipal Code

The project site is designated in the City of Huntington Beach General Plan for Public Use (P). Likewise the project is zoned for Public-Semi-Public (PS) uses in the municipal code. The most applicable standards are contained in chapter 214 of the City of Huntington Beach zoning ordinance for Public Semi-Public uses.

The provisions of the code that are applicable to the project are discussed in detail in Section 5.6, Land Use. Those that pertain to visual resources are summarized in Table 5.13-3.

TABLE 5.13-2
Laws, Ordinances, Regulations, and Standards for Visual Resources

LORS	Requirements/Applicability	Administering Agency	AFC Section Explaining Conformance
California Coastal Act	Section 30251 of the California Coastal Act addresses the protection and, where feasible, enhancement of visual resources and visual quality when permitting a proposed development. The California Coastal Commission certified the Coastal Element of the City of Huntington Beach General Plan in 2001. With this certification, and through the Local Coastal Program, the General Plan therefore implements the Coastal Act, including Section 30251.	City of Huntington Beach Planning Division	Section 5.13.5.4
California Scenic Highway Program	Protects and enhances the natural scenic beauty of California highways and adjacent corridors through special conservation treatment	Caltrans	Section 5.13.5.1.2
City of Huntington Beach General Plan	Comprehensive long-range plan to serve as the guide for the physical development of the City of Huntington Beach.	City of Huntington Beach Planning Division	Section 5.13.5.2.1
City of Huntington Beach Municipal Code	Establishes zoning districts governing land use and the placement of buildings and district improvements.	City of Huntington Beach Planning Division	Section 5.13.5.2.2
City of Huntington Beach Coastal Element	The Huntington Beach Coastal Element of the General Plan meets the requirements of the California Coastal Act and guides civic decisions regarding growth, development, enhancement and preservation of the City's Coastal Zone and its resources.	City of Huntington Beach Planning Division	Section 5.13.5.2.3

5.13.5.4 Summary of Project's Conformity with Applicable Local LORS

The project complies with applicable LORS related to visual resource issues. However, the height of the HBEP stacks (120 feet tall as compared to the 200-foot-tall stacks for the existing Huntington Beach Generating Station) remains above height limits for the Public (P) zone. The project changes will decrease the height of facilities overall at the project site, thereby conforming with other important LORS such as the many Goals and Policies in the General Plan meant to protect and enhance the visual quality of the Coastal Zone. The existing Huntington Beach Generation Station's Units 1–4 stacks are 200 feet tall and, as such, are an allowable existing use greater than 50 feet. The stacks for HBEP Blocks 1 and 2 will be approximately 120 feet tall.

Section 230.72, Exceptions to Height Limits states that the Zoning Administrator may approve structures with heights greater than 50 feet through issuance of a conditional use permit (CUP). Within the coastal zone, exceptions to height limits may be granted only when public visual resources are preserved and enhanced where feasible.

Section 236.06, Alterations to Non-Conforming Structure or Use states that the Planning Director may permit alteration of non-conforming structures if alteration will improve the aesthetic appearance, will not increase the number of stories, and will not cause FAR to exceed more than 10 percent of the floor area at the time the use became nonconforming.

Construction of HBEP will maintain (or improve) existing state of public visual resources in the coastal zone as there are preexisting uses onsite of equivalent or greater height, and will otherwise meet the requirements for modification to a non-conforming structure. Therefore, HBEP will comply with applicable laws, ordinances, regulations and standards related to visual resources.

TABLE 5.13-3
Project Conformity with Local Visual Resources Plans and Policies

Goal/Objective/Policy	Project Consistency
City of Huntington Beach General Plan	
Land Use Element	
<p>Objective LU 4.1. Promote the development of residential, commercial, industrial, and public buildings and sites that convey a high quality visual image and character.</p> <p>Policy LU 4.1.2 – Require that an appropriate landscape plan be submitted and implemented for development projects subject to discretionary review.</p> <p>Policy LU 4.1.6 – Require that commercial and industrial development incorporate adequate drought-conscious irrigation systems and maintain the health of the landscape.</p>	<p>Yes. The existing Huntington Beach Generating Station has landscaping in place that complies with the requirements for setbacks, screening and vegetation. The HBEP would not affect landscaping that is already in place. Therefore, HBEP will be consistent with these policies.</p>
<p>Objective LU 5.1 - Provide for the protection and maintenance of environmental resources as new development and redevelopment projects occur during the planning, project review and permitting process.</p> <p>Policy LU 5.1.1 – Require that development protect environmental resources by consideration of the policies and standards contained in the Environmental Resources/Conservation Element of the General Plan and Federal (NEPA) and CEQA regulations. During the development review process:</p>	<p>Yes. HBEP will comply with applicable policies set forth in the General Plan, and as required by state regulations. HBEP has been designed to comply with all setback and buffer requirements.</p>
Coastal Element	
<p>Goal C1 – Develop a land use plan for the Coastal Zone that protects and enhances coastal resources, promotes public access and balances development with facility needs.</p> <p>Objective C1.1 – Ensure that adverse impacts associated with coastal zone development are mitigated or minimized to the greatest extent feasible.</p> <p>Policy C 1.1.1 -With the exception of hazardous industrial development, new development shall be encouraged to be located within, contiguous or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public service and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources.</p>	<p>Yes. HBEP will be developed within an existing electricity generating facility and will not result in a land use change that adversely affects coastal resources.</p>

TABLE 5.13-3
Project Conformity with Local Visual Resources Plans and Policies

Goal/Objective/Policy	Project Consistency
Recreation and Community Services Element	
Goal RCS 6 – Provide a beach environment which enhances the enjoyment of the natural resources by the community.	Yes. Parking for construction workers is proposed for a portion of the City’s beach parking lot northwest of the HBEP site. However, temporary parking for a portion of the construction workforce would not have a significant impact on beach parking access for recreational users nor obstruct the City from providing satisfactory community facilities.
Urban Design Element	
Goal UD 1 – Enhance the visual image of the City of Huntington Beach.	
<p>Policy UD 1.2.1 – Require public improvements to enhance the existing setting for all key nodes and pedestrian areas through the consideration of the following:</p> <p>f. Incorporate landscaping to mask oil operations and major utilities, such as the SCE generating station.</p>	Yes. The existing Huntington Beach Generating Station currently complies with the City’s landscaping and buffering requirements. The HBEP would not change the buffers or landscaping that currently exists. Therefore, HBEP will comply with these policies.
Goal UD 2 – Protect and enhance the City’s public coastal views and Oceanside character and screen any uses that detract from the City’s character.	
Objective UD 2.1. Minimize the visual impacts of new development on public views to the coastal corridor, including views of the sea and the wetlands.	Yes. HBEP will comply with the City’s development standards related to massing, height and site orientation. Overall the project would decrease massing and height of features on site and orient the new features back from the beach area, thereby contributing to visual quality of the area. Therefore, the project will comply with this policy.
Policy UD 2.1.1 – Require that new development be designed to consider coastal views in its massing, height and site orientation.	
Objective UD 2.2. Minimize the visual impacts of oil production facilities and other utilities where they encroach upon view corridors or are visually incompatible with their surrounding uses.	Yes. The existing Huntington Beach Generating Station has landscaping and buffering in place that complies with the City’s landscaping and buffering requirements. HBEP will not change the landscaping and buffering that is already in place. Therefore, HBEP will comply with these policies.
Policy UD 2.2.1 – Require landscape and architectural buffers and screens around oil production facilities and other utilities visible from public rights-of-way.	
Policy UD 2.2.5 – Require the review of new and or expansions of existing industrial and utility facilities to ensure that such facilities will not visually impair the City’s coastal corridors and entry nodes.	

TABLE 5.13-3
Project Conformity with Local Visual Resources Plans and Policies

Goal/Objective/Policy	Project Consistency
Utilities Element	
Policy U 5.1.4 – Require the review of new and or expansions of existing industrial and utility facilities to ensure that such facilities will not visually impair the City's coastal corridors and entry nodes.	Yes. HBEP will improve visual quality slightly. Therefore, HBEP will comply with this policy.
City of Huntington Beach Municipal Code	
Zoning Ordinance	
214.08 – Development Standards for Public-Semipublic District	
Minimum lot area – 2 acres	Yes. HBEP site is larger than 2 acres. Project will include setbacks of greater than 10 feet for any new project elements.
Minimum setbacks – 10 ft for front and street side, 0 ft for side and rear	The existing Huntington Beach Generation Station's Units 1–4 stacks are 200 feet tall and, as such, are an allowable existing use greater than 50 feet. The stacks for HBEP Blocks 1 and 2 will be approximately 120 feet tall.
Maximum height of structures – 50 ft; in the coastal zone, the maximum allowable height of structures shall be reduced as necessary to retain compatibility with the established physical scale of the area and to preserve and enhance public visual resources.	Section 230.72, Exceptions to Height Limits states that the Zoning Administrator may approve structures with heights greater than 50 feet through issuance of a CUP. Within the coastal zone, exceptions to height limits may be granted only when public visual resources are preserved and enhanced where feasible. But for the CEC process, that supersedes local permitting requirements, in this zone district, approval of a CUP would be required by the Zoning Administrator.
Maximum floor-area ratio (FAR) – 1.5	Section 236.06, Alterations to Non-Conforming Structure or Use states that the Planning Director may permit alteration of non-conforming structures if alteration will improve the aesthetic appearance, will not increase the number of stories, and will not cause FAR to exceed more than 10 percent of the floor area at the time the use became nonconforming.
Minimum site landscaping – 8%	<p>Construction of HBEP will maintain (or improve) existing state of public visual resources in the coastal zone as there are preexisting uses onsite of equivalent or greater height, and will otherwise meet the requirements for modification to a non-conforming structure. Therefore, HBEP will be in compliance with these policies.</p> <p>The project site is located within the boundary of the existing developed Huntington Beach Generating Station. Application of the FAR provision does not pertain to modifications to an existing approved use within its current footprint.</p> <p>The project site currently has landscaping and buffering in place that complies with the City's landscaping and buffering requirements. Therefore, the project will comply with these policies.</p>

TABLE 5.13-3
Project Conformity with Local Visual Resources Plans and Policies

Goal/Objective/Policy	Project Consistency
<p>221.10 Requirements for New Development Adjacent to Resource Protection Area</p> <p>As a condition of new development adjacent to a resource protection area, which includes any wetland, ESHA, associated buffers, land zoned Coastal Conservation, as the same are defined in the City's Local Coastal Program, an applicant shall comply with the requirements listed below. These requirements shall be applicable to all lots within new subdivisions as well as development proposed on existing lots within and/or adjacent to resource protection areas.</p> <p>A. Landscape Plan shall be prepared that prohibits the planting, naturalization or persistence of invasive plants, and encourages low-water-use plants, and plants primarily native to coastal Orange County.</p> <p>D. Street lighting, exterior residential lighting and recreational lighting adjacent to resource protection areas shall not significantly disrupt habitat values within the resource protection areas.</p>	<p>Yes. Project will comply with the City's requirements by: 1) including existing landscaping and buffering, and 2) addressing exterior lighting requirements to minimize light exposure to the adjacent ESHA.</p>
<p>221.28 – Maximum Height – The maximum height limits within the CZ Overlay District are 35 feet for a residential structure and 50 feet for a commercial structure, or the base district height limit, whichever is lower.</p>	<p>Yes. The existing Huntington Beach Generation Station's Units 1 – 4 stacks are 200 feet tall and, as such, are an allowable existing use greater than 50 feet. The stacks for HBEP Blocks 1 and 2 will be approximately 120 feet tall.</p> <p>Section 230.72, Exceptions to Height Limits states that the Zoning Administrator may approve structures with heights greater than 50 feet through issuance of a CUP. Within the coastal zone, exceptions to height limits may be granted only when public visual resources are preserved and enhanced where feasible. But for the CEC process, that supersedes local permitting requirements, in this zone district, approval of a CUP would be required by the Zoning Administrator.</p> <p>Section 236.06, Alterations to Non-Conforming Structure or Use states that the Planning Director may permit alteration of non-conforming structures is alteration will improve the aesthetic appearance, will not increase the number of stories, and will not cause FAR to exceed more than 10 percent of the floor area at the time the use became nonconforming.</p> <p>Construction of HBEP will maintain (or improve) existing state of public visual resources in the coastal zone as there are preexisting uses onsite of equivalent or greater height, and will otherwise meet the requirements for modification to a non-conforming structure. Therefore, HBEP will comply with this policy.</p>

5.13.6 Agencies and Agency Contacts

The City of Huntington Beach is responsible for project design review in the City (Table 5.13-4).

TABLE 5.13-4
Agency Contacts for Visual Resources

Issue	Agency	Person Contacted
Design Review	City of Huntington Beach Department of Planning and Building 2000 Main Street – 3 rd Floor Huntington Beach, CA 92648	Scott Hess Director of Planning (714) 536-5271

5.13.7 Permits and Permit Schedule

The City of Huntington Beach process that is of the most direct relevance to visual resource issues is the City's Design Review process, which includes site plan, architectural, and landscape elements. But for the CEC process, which supersedes local permitting requirements, the Design Review for HBEP would be conducted by the City of Huntington Beach. However, since the CEC process supersedes this review and approval requirement from the City of Huntington Beach, the design of HBEP will not be approved by the City. As the permitting authority for HBEP, the CEC will accomplish the design review approval with the City as a reviewing agency.

5.13.8 References Cited or Consulted

Buhyoff, G. J., P. A. Miller, J. W. Roach, D. Zhou, and L. G. Fuller. 1994. An AI Methodology for Landscape Visual Assessments. *AI Applications*. Vol. 8, No. 1, pp. 1-13.

California Department of Transportation. 2008. Scenic Highway Guidelines. Available on-line at: http://www.dot.ca.gov/hq/LandArch/scenic_highways/scenic_hwy.htm

California Department of Transportation. 2012. California Scenic Highway Program – List of Eligible and Officially Designated Scenic Highways. http://www.dot.ca.gov/hq/LandArch/scenic_highways/scenic_hwy.htm

California Energy Commission. 2009. Preliminary Staff Assessment for Avenal Energy. Appendix VR-1: Energy Commission Visual Resource Analysis Evaluation Criteria.

City of Huntington Beach. 1996. The City of Huntington Beach General Plan. Available online at: <http://huntingtonbeachca.gov/Government/Departments/Planning/gp/index.cfm>

City of Huntington Beach. 2011. The City of Huntington Beach Zoning Code and Subdivision Ordinance. Available on-line at: http://huntingtonbeachca.gov/Government/Elected_Officials/city_clerk/Zoning_Code/index.cfm?cross=tur&department=planning&sub=zoning&page

Federal Highway Administration. 1988. Visual Impact Assessment for Highway Projects.

U.S. Forest Service. 1995. Landscape Aesthetics: A Handbook for Scenery Management. Agriculture Handbook No. 701. December.



- Legend**
- Key Observation Point (KOP)
 - Viewpoint (VP)
 - AES Huntington Beach Generating Station
 - AES Huntington Beach Energy Project
 - Offsite Construction Parking
 - Onsite Construction Parking
 - 0.5-Mile Radius From Project Site
 - 1-Mile Radius From Project Site

Imagery Source:
 USGS 7.5 Minute Quadrangle
http://goto.arcgisonline.com/maps/USA_Topo_Maps

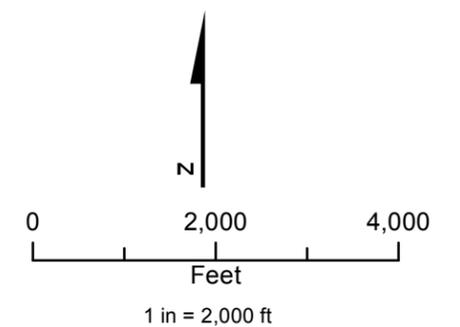
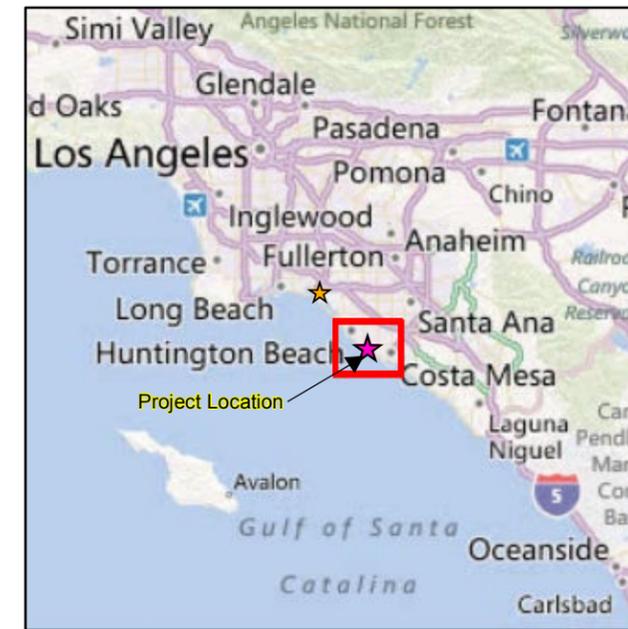
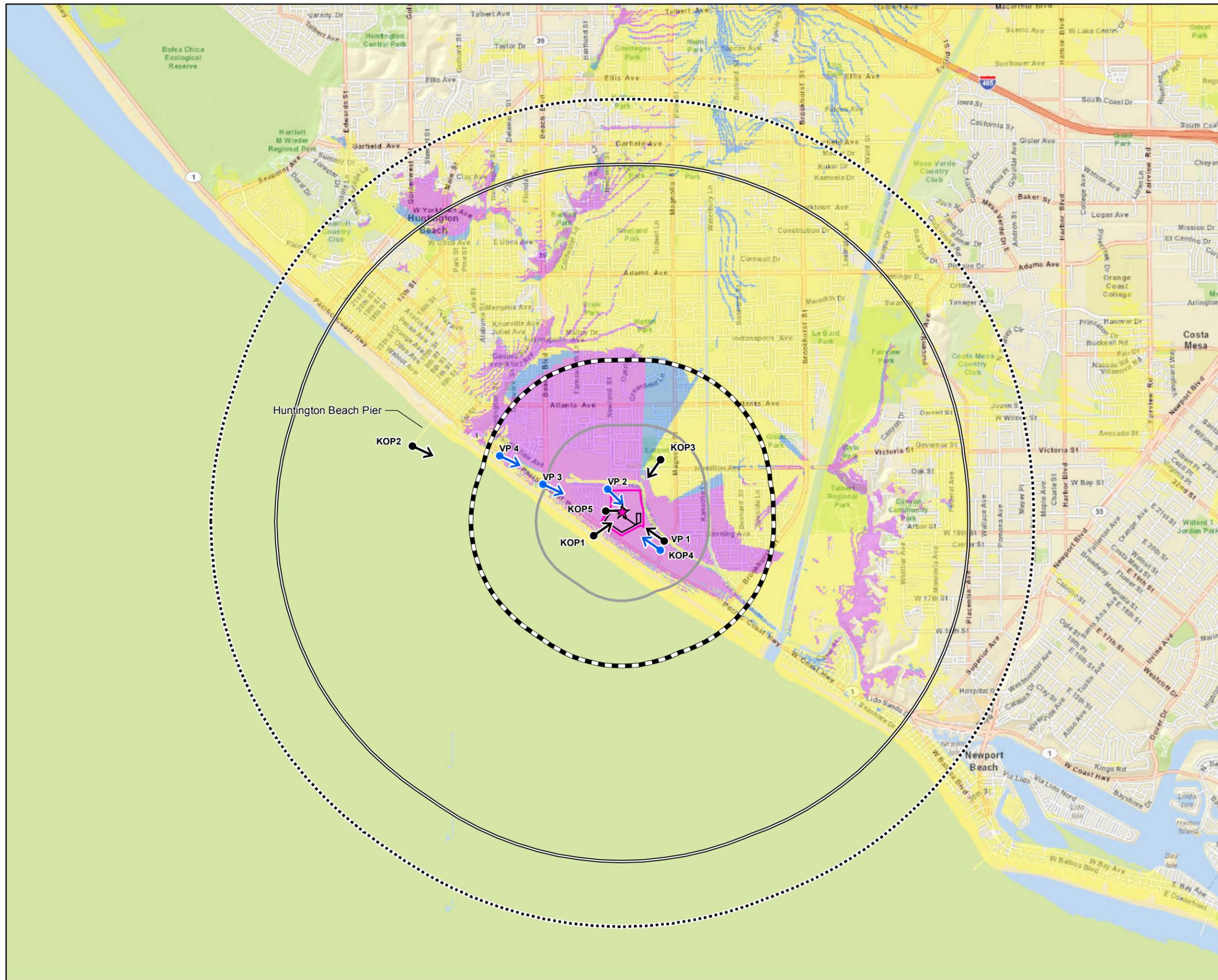


FIGURE 5.13-1a
Topographical Map of Project Area
with KOP Locations
 AES Huntington Beach Energy Project
 Huntington Beach, California



Legend

- Key Observation Point (KOP)
- Viewpoint (VP)
- AES Huntington Beach Generating Station
- AES Huntington Beach Energy Project
- 0.5-Mile Radius From Project Site
- 1.0-Mile Radius From Project Site
- 2.5-Mile Radius From Project Site
- 3.0-Mile Radius From Project Site
- Value**
- No stacks will be visible
- 1 or 2 Stacks
- 3 or 4 Stacks
- 5 or 6 Stacks

Notes:
Viewshed based on 120 foot tall stacks and USGS 10 Meter DEM.

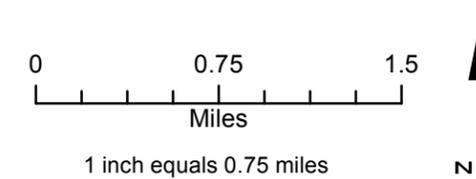


FIGURE 5.13-1b
Project Viewshed
AES Huntington Beach Energy Project
Huntington Beach, California



View of construction laydown area located at the southern edge of the Alamos Generating Station.

FIGURE 5.13-2
Offsite Construction Laydown Area

AES Huntington Beach Energy Project
Huntington Beach, California



View from Magnolia Street looking northwest toward the Plains All-American Tank Farm.



View from Newland Street looking south towards the Huntington-By-The-Sea RV Park.

FIGURE 5.13-3
Offsite Construction Parking Areas
AES Huntington Beach Energy Project
Huntington Beach, California



View from southwest corner of Beach Boulevard and Pacific Coast Highway looking towards HBEP site.



View from City of Huntington Beach Shore Parking looking southeast.

FIGURE 5.13-4
Offsite Construction Parking Areas
AES Huntington Beach Energy Project
Huntington Beach, California



A. Existing view



B. Simulated view

FIGURE 5.13-5
KOP 1 – View Toward HBEP
from Huntington State Beach

AES Huntington Beach Energy Project
Huntington Beach, California



A. Existing view



B. Simulated view

FIGURE 5.13-6
KOP 2 – View toward HBEP
from Huntington Beach Pier

AES Huntington Beach Energy Project
Huntington Beach, California



A. Existing view



B. Simulated view

FIGURE 5.13-7
KOP 3 – View toward HBEP
from Edison Park
AES Huntington Beach Energy Project
Huntington Beach, California



A. Existing view



B. Simulated view

FIGURE 5.13-8
KOP 4 – View toward HBEP
from Magnolia Street
AES Huntington Beach Energy Project
Huntington Beach, California



A. Existing view



B. Simulated view

FIGURE 5.13-9
KOP 5 – View toward HBEP from
Huntington-By-The-Sea RV Park

AES Huntington Beach Energy Project
Huntington Beach, California