

# D.14 Visual Resources

## D.14.1 Environmental Setting for the Proposed Project

### Visual Inventory Methodology

In the following analysis the project's visual setting is described in terms of landscape units of contiguous, broadly consistent visual character and quality, generally corresponding with physiographic types as well as land use. Where appropriate, subdivisions of a landscape unit possessing distinct visual character, referred to as image types, are also indicated. Visual character refers to formal attributes of the visual setting and is descriptive. Visual quality is an evaluative measure that reflects a judgment of a landscape's attractiveness as determined by characteristics widely recognized as valued and preferred by most viewers.

Within each landscape type, Key Observation Points (KOPs) are identified to represent the most critical viewing locations and viewer groups likely to be affected by the project. Assessments of project impact are determined from these KOPs.

Finally, the existing landscape setting and its viewers are characterized in terms of their overall visual sensitivity. The sensitivity of the setting and its viewers reflects their susceptibility to significant impacts as a result of visual changes caused by the proposed project. The components of visual sensitivity are the existing visual quality of the setting (landscape unit) and the anticipated level of viewer concern, based primarily on scenic expectations associated with viewer activity types. These characteristics are combined in a rating of overall sensitivity for a particular representative KOP.

In the impact analysis, overall visual sensitivity of the setting is considered in combination with the level of visual change from the project at particular KOPs, to arrive at preliminary findings of potential project impact significance, as described further in Section D.14.3.1, below.

### Project Viewshed: Landscape Units and KOPs

The project study area is located within Fenneman's Lower Californian physiographic province, characterized as a 'dissected westward-sloping granite upland' (Fenneman, 1946). The Marine Corps Base Camp Pendleton (MCBCP) and the adjacent portion of the Cleveland National Forest to the east are the only major undeveloped land area along the southern California coast between Los Angeles and the Mexican border.

Figure D.14-1 shows the viewshed of the Proposed Project. This encompasses the entire area from which the proposed transport routes might be seen. Broadly, the project viewshed comprises a narrow band defined by two major landscape units: the slopes and ridges of the Santa Margarita Mountains to the east, extending northeast of I-5 to ridge elevations of up to 1700 feet (San Onofre Mountain) and dissected by numerous northeast trending canyons; and the level marine terrace, coastal bluffs, beaches, and ocean to the west.

In addition the Santa Margarita River, Camp Del Mar, including its associated boat basin, Highway I-5, and SONGS (the OCA and Mesa east of I-5), represent distinct units with their own particular visual and viewer characteristics. Various smaller developed areas within or adjoining MCBCP contrast with the predominantly natural character of Landscape Unit 1 in which they are located, and are identified as a distinct image type within the larger unit. These are identified in Figure D.14-1 with the symbol 'D.'

## Landscape Unit 1: Coastal Marine Terrace, Bluffs, and Beaches

The coastal terrace (shown in Figure D.14-2) is a relatively level, predominantly open, undeveloped landscape characterized by expanses of green coastal scrub habitat and, in some areas, chaparral or non-native ruderal vegetation and grasslands. Beaches are not visible beyond the coastal terrace from I-5 or most other publicly accessible viewpoints due to the intervening tall coastal bluffs. Views of the ocean and horizon however are visible from most of I-5 and other public viewpoints in the study area.

The MCBCP uses most of these lands for training purposes, which involve frequent movement along the beach and other roads with heavy, tracked vehicles. The beach portion of the base is used as an active military transport corridor. However, large vehicular movements seen from I-5 are not highly commonplace and overall this landscape is highly scenic due to the extensive areas of natural habitat and striking views of the ocean. MCBCP is identified in the San Diego County General Plan as the most significant area of open space on the coast between Los Angeles and the Mexico border. KOPs within this landscape unit are described below.

**KOP 1: San Onofre State Beach.** Figure D.14-3 shows San Onofre State Beach and Bluffs Campground. This park is located in the northern portion of the study area immediately south of SONGS and west of I-5 and includes beaches, picnic areas, and the Bluffs Campground. Potentially affected portions of the San Onofre State Beach/Bluffs Campground consist of a roughly 3-mile segment of Old Highway 101, paralleling I-5 south of SONGS; and a narrow band of adjoining parking, recreational vehicle (RV) camp sites, and picnicking facilities directly west of Old Highway 101. These recreational use areas are generally enclosed to the west by extensive coastal scrub vegetation. Access trails lead from the paved areas through coastal scrub to the bluff edge and beaches, 500 feet or more to the west. The ocean is visible from much of the park. Beaches are not visible from the paved portions of San Onofre State Beach due both to bluff topography and dense vegetation. Many of these paved portions of San Onofre State Beach are visible from I-5 southbound lanes, which overlook the park from a slightly higher elevation. Although park is open for day use year-round, the Bluffs Campground is typically closed from December 1 through March. Visual quality and viewer sensitivity at San Onofre State Beach are both high, and overall visual sensitivity is thus considered to be *high*.

**KOP 2: I-5 Vista Point.** Figure D.14-4 shows this vista point off of southbound I-5. This recreational facility is located between Las Pulgas and Horno Canyons, at a point relatively close to the coastline, and is characterized by outstanding elevated views of the Pacific Ocean. This KOP has particular visual sensitivity due to the specific focus of visitors toward the scenic ocean views. Overall visual sensitivity is thus considered *high*.

Figure D.14-1. Landscape Units and KOPs within the Proposed Project's Viewshed  
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Figure D.14-2. Landscape Unit 1: Coastal Marine Terrace, Bluffs, and Beaches  
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Figure D.14-3. KOP 1: San Onofre State Beach  
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Figure D.14-4. KOP 2: Interstate 5 Vista Point; MCBCP Facilities within Landscape Unit 1  
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### Other Developed Areas (MCBCP and Caltrans Facilities)

Figures D.14-4 and D.14-1 show that portions of the coastal terrace landscape within the MCBCP are developed with various facilities including a rail marshalling yard, the Navy Landing Craft Assault Center, and other buildings east and west of I-5 near Stuart Mesa. There is also a prominent Caltrans immigration checkpoint facility on northbound I-5 near San Onofre State Beach and SONGS. These utilitarian features are characterized by correspondingly low visual quality. Though locally prominent these areas overall occupy a small proportion of the coastal terrace parts of the project viewshed. Personnel at these various MCBCP and Caltrans facilities would be exposed to the Proposed Project route or alternatives. However, the work-oriented activities of personnel in these locations, their limited numbers, and the brief, transient nature of their potential visual exposure to the project alternatives indicate a low level of viewer sensitivity. Consequently, no KOPs were identified among these facilities.

### Landscape Unit 2: Santa Margarita Mountains

The Santa Margarita Mountains are shown in Figure D.14-5. The slopes and ridges rising east of I-5 are largely open and undeveloped throughout the project study area, contributing a defining, distinctive, highly scenic character to the project viewshed. They are characterized by low-growing, predominantly tan and brown-colored chaparral land cover. Towers and power lines of the transmission corridor leading from SONGS are visible on the west-facing slopes in the northern portions of the study area at foreground distances from I-5. Otherwise, with the exception of some visible but inconspicuous MCBCP roadways, this landscape is largely open and undisturbed. Potential receptors in this unit are few or negligible, and no KOPs were identified.

### Landscape Unit 3: Santa Margarita River

The Santa Margarita River is shown in Figure D.14-5. This unit, consisting of the broad, low-lying river floodplain, is a significant and distinctive scenic feature of the I-5 travel corridor, characterized by long, open views of distinctive low-growing riparian vegetation, and open water as seen by very high numbers of freeway motorists. Camp Del Mar and portions of the City of Oceanside are visible from southbound I-5 within the broad view corridor created by the river floodplain. The area is unoccupied and unused; thus no KOPs were identified within it.

### Landscape Unit 4: Camp del Mar, Boat Basin, and Beaches

**KOP 3: Camp Del Mar.** Figure D.14-6 provides a view of Camp Del Mar within MCBCP. Camp Del Mar comprises developed portions of MCBCP adjoining the boat basin at the mouth of the Santa Margarita River. It adjoins broad, undeveloped portions of the river floodplain and beaches to the north, and the City of Oceanside harbor at the mouth of the San Luis Rey River to the south. With scenic ocean, beach and river views, visual quality in the vicinity of the boat basin is moderate to high despite the existing development. Viewer sensitivity and scenic expectations are mixed: although much of the activity in the vicinity of the boat basin would be work-related, a base-managed RV campground used by both base personnel, their families, and retired military personnel is located at the northern end of Camp Del Mar Beach. Recreational boating activities occur in the boat basin, and nearby beaches are used recreationally as well. Viewer sensitivity of recreational viewers would be expected to be relatively high. Overall visual sensitivity is thus considered to be *moderate to high*.

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Figure D.14-5. Landscape Unit 2: Santa Margarita Mountains; Landscape Unit 3:  
Santa Margarita River

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Figure D.14-6. KOP 3: Camp Del Mar  
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## Landscape Unit 5: Highway I-5

**KOP 4: Highway I-5.** Figure D.14-7 shows the viewpoints of motorists on I-5. In addition to the highway in general, various specific locations within I-5 itself are considered to be KOPs where viewer exposure to particular segments of the Proposed Project route or alternatives would occur. These include highway overcrossings near Stuart Mesa, rest areas near Aliso Canyon, the Las Pulgas interchange, and the vicinity of the Caltrans immigration and weigh station. These are depicted and discussed further under the analysis of impacts in Sections D.14.3 and D.14.4.

Highway I-5 is located within the marine terrace at the foot of the hills to the east. It is discussed here as a distinct unit and as the location of the largest viewer group by far, freeway motorists. Quality of views from the road in the study area are generally highly scenic, including views of hills, undeveloped coastal terrace, and ocean. The highway's status as an eligible scenic highway underscores the focus that most motorists have on the attractive corridor landscape. Visual quality within the roadway itself is limited, and it is against this background, the actual roadway and associated structures themselves, that many of the anticipated project impacts in or adjacent to I-5 would be seen. However, due to the highway corridor's high visual quality, eligible scenic highway status, and very high numbers of viewers, overall viewer sensitivity is considered *moderate to high*.

## Landscape Unit 6: SONGS Site

**KOP 5: SONGS Site.** Figure D.14-8 shows the SONGS site and facilities. These are the most prominent existing man-made features within the project viewshed. Visually, SONGS comprises a tightly clustered group of buildings and structures, dominated by the tall, distinctive twin containment domes, prominently visible from I-5. Various smaller administrative, operational, and storage facilities and associated parking lots make up the remainder of the facility, but are largely screened and filtered by a tall perimeter masonry wall and associated landscaping, which enhance visual quality and unity as seen from I-5 and Old Highway 101. High voltage power lines and towers extend prominently from the power plant eastward.

The OCA is slightly lower than I-5 and thus visible to motorists. The Mesa portion of SONGS east of I-5 is located at a slightly higher elevation than the highway. As a result, the Mesa site and facilities are not visible to any significant degree from I-5 due to topography.

Although the visual quality of the natural coastal setting of the SONGS site was obviously very high originally and scenic ocean views remain, existing visual quality at the plant is highly compromised by the industrial character of the plant itself and is considered low to moderate overall. In addition, viewer concern with scenic quality is considered to be low due to the work-oriented nature of viewers' activities at the plant. Consequently, overall viewer visual sensitivity at SONGS is considered *low to moderate*.

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Figure D.14-7. KOP 4: Interstate 5  
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Figure D.14-8. KOP 5: SONGS Site and Facilities  
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## D.14.2 Applicable Regulations, Plans, and Standards

While various State and local policies deal with visual resources of the coastal zone, these policies are primarily concerned with controlling permanent long-term impacts on coastal scenic resources. The policies do not focus on short-term, temporary effects.

### Federal and State Standards

#### MCBCP Integrated Natural Resource Management Plan

The Integrated Natural Resource Management Plan (INRMP) sets the agenda for managing natural resources on MCBCP including the goals and objectives for recreation and public access. The INRMP aims to guide natural resource-related activities so that they do not interfere with the mission of MCBCP to operate as an amphibious training base. The aesthetic effects of SONGS-related activities on MCBCP would be considered by MCBCP through its Commanding Officer and chain of command, as described in Section D.8, Land Use, Recreation, and Military Operations.

#### California Coastal Act

Federal authority for protection of coastal resources under the Coastal Zone Management Act is delegated to the State under the California Coastal Act. Scenic qualities of the coastal areas are discussed in the following sections of the Coastal Act:

- **Coastal Act Section 30251.** The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. 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. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.
- **Coastal Act Section 30253.** New development shall . . . where appropriate, protect special communities and neighborhoods which, because of their unique characteristics, are popular visitor destination points for recreational uses.

#### State Scenic Highway Program

Highway I-5 within the project viewshed is an eligible State Scenic Highway under the state Scenic Highways Master Plan, indicating a relatively high level of existing scenic quality and viewer sensitivity. The Scenic Highways program establishes various land use controls for maintaining the visual quality of eligible scenic corridors, which local communities may adopt in order to have a highway segment designated as an official State Scenic Highway. This portion of Highway I-5 has not been so designated, but the County of San Diego identifies it as a candidate County Scenic Highway in the Scenic Highway Element of the San Diego County General Plan.

## Local Ordinances and Policies

### Coastal Plan Policies

Although the Proposed Project would be subject to the California Coastal Act requirements for federal consistency review, consultation with the California Coastal Commission reveals that there is no Local Coastal Plan with any policies specifically pertaining to the MCBCP or SONGS portions of the coast (Sarab, 2005).

### San Diego County General Plan

The San Diego County General Plan does not contain an element or policies explicitly dealing with scenic resources. However, various scenic resource issues are dealt with in the Scenic Highway Element.

#### *Scenic Highway Element*

It is the goal of the Scenic Highway Element to create a network of County Scenic Highway corridors within which scenic, historical, and recreational resources are protected and enhanced. For example, Objective 2 of the element is to: “protect and enhance scenic resources within designated scenic highway corridors.” Highway I-5 between the City of Oceanside and the Orange County line is identified as a ‘third priority’ road segment for study as a County Scenic Highway. In general, there are no Scenic Highway policies relating to short-term or temporary visual impacts.

## D.14.3 Environmental Impacts and Mitigation Measures for the Proposed Project

### D.14.3.1 Definition and Use of Significance Criteria

Appendix G of the CEQA Guidelines identifies the following circumstances that can lead to a determination of significant visual impact:

- The project has a substantial adverse effect on a scenic vista.
- The project substantially damages scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway.
- The project substantially degrades the existing visual character or quality of the site and its surroundings.
- The project creates a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

The determination of which changes cross a threshold of “substantial adverse effect” or degradation is in turn based upon the criteria described in the methodology summary (below), and in Table D.14-1, Visual Impact Significance Criteria.

Following professionally accepted practice in visual analysis, visual impacts are defined as a consequence of three primary factors: (a) the existing scenic quality of an area; (b) the level of viewer exposure and concern with visual change; and (c) the level of actual visual change caused by the project as seen by a given viewer group. The *visual sensitivity* of each location is first established, as in Section D.14.1 above. This rating is then considered together with the level of expected visual change to arrive at an assessment of potential impacts and their significance in the analysis that follows below.

In this study, the level of overall *visual change* includes an evaluation of scenic view obstruction and the degree of *visual exposure* of the project. As depicted in Table D.14-1, a substantial adverse effect can occur when viewers with high levels of overall *visual sensitivity* (i.e., high viewer concern in settings of high existing visual quality) encounter high levels of *visual change* (contrast) or scenic view obstruction as a result of the project. Visual change is an overall measure of change in basic visual attributes such as form, line, color and texture as a result of the project. Scenic view obstruction refers to the degree to which the project would block or intrude upon scenic view corridors, especially those recognized by public policies.

Table D.14-1. Visual Impact Significance Criteria

Overall Visual Change	Overall Visual Sensitivity				
	High	Moderate to High	Moderate	Low to Moderate	Low
Very Strong	Significant (Class I or II)	Significant, May Be Mitigable (Class I or II)	Potentially Significant, Mitigable (Class II)	Less Than Significant (Class III)	Less Than Significant (Class III)
Strong	Significant, May Be Mitigable (Class I or II)	Potentially Significant, Mitigable (Class II)	Potentially Significant, Mitigable (Class II)	Less Than Significant (Class III)	Insignificant (Class III)
Moderate	Potentially Significant, Mitigable (Class II)	Potentially Significant, Mitigable (Class II)	Less Than Significant (Class III)	Insignificant (Class III)	Insignificant (Class III)
Weak	Less Than Significant (Class III)	Less Than Significant (Class III)	Insignificant (Class III)	Insignificant (Class III)	Insignificant (Class III)
Negligible	Less Than Significant (Class III)	Insignificant (Class III)	Insignificant (Class III)	Insignificant (Class III)	Insignificant (Class III)

Overall *visual sensitivity* characterizes the degree of susceptibility to visual impact of viewers in an affected setting. The principal components of overall visual sensitivity are *existing visual quality* of the setting; and anticipated *viewer concern*. This value is rated on a scale of Low to High.

Overall *visual change* captures the degree of visual change or impact expected as a result of the project. The fundamental elements of visual change include *visual contrast*, *visual dominance*, and *scenic view obstruction*. These elements are enumerated or discussed in detail as applicable or relevant in the analysis. Visual contrast refers to formal contrast of form, line, color or texture of the project against the existing landscape. Visual dominance refers to the degree to which the project would demand the attention of casual viewers and reflects various considerations including contrast, spatial and orientation factors, and visual magnitude. Scenic view obstruction refers to the degree to which the project would block or intrude upon scenic view corridors, particularly those identified in public policies. The anticipated degree of *viewer exposure* to these visual changes, based particularly on duration and frequency of exposure, view conditions such as view orientation, presence of visual screening or filtering, etc., is also considered as a factor of overall visual change. Overall visual change is rated on a scale of Negligible to Very Strong.

Additionally, the project is evaluated for conformance with applicable local plans and policies. Adopted expressions of local public policy pertaining to visual resources are given great weight in determining both visual quality and viewer concern.

### **Applicant-Proposed Measures**

SCE did not propose any specific measures as part of the Proposed Project in order to manage impacts to visual resources (SCE, 2004b).

### **D.14.3.2 Replacement Steam Generator Transport**

#### **Transport from Manufacturer to Del Mar Boat Basin**

The replacement steam generators would be approximately 65 feet in height, 22 feet in diameter at the steam dome, and approximately 620 tons in weight. There would likely be two shipments from the RSG manufacturer for SONGS 2 & 3, each with two RSGs. Heavy-lift cargo ships would be used to deliver the RSGs from the fabrication facility to the Port of Long Beach. Barges would then be used to deliver the RSGs to the MCBCP Del Mar Boat Basin. Barges would enter the Del Mar Boat Basin and be moored at an existing bulkhead on the northwestern corner of the boat basin. No work on the sea floor would occur and the existing bulkhead would support this operation without modification. Depending upon the specific transport scenario, the RSGs and/or barges could remain at Del Mar Boat Basin for up to about 18 days during each delivery.

Because the shipments of RSGs to Long Beach, and from Long Beach to MCBCP would represent relatively typical cargo shipping scenarios, they would not be unusual or conspicuous either in or near Long Beach Harbor, nor enroute by barge to MCBCP. The barge route would be sufficiently distant from the coast as to be little noticed from land until arriving at Del Mar Boat Basin. Since few if any sensitive receptors would be affected in any of these transport segments, no impacts are anticipated. Potential impacts within MCBCP are discussed below.

#### **Overland Transport from Del Mar Boat Basin to SONGS**

The final segment of delivery from MCBCP Del Mar Boat Basin to the SONGS site would occur on land, using specialized heavy-haul ground transporters. The specific type of transporter would be determined in the future, but for the proposed Beach and Road Route, the transporter is expected to be approximately 25 feet wide and 150 feet long. The transporter would travel no more than 10 miles per hour during transport of the RSGs.

The transporter equipment would include:

- Four 450-horsepower (hp), diesel-powered, self-propelled, hydraulic-platform transporters (or equivalent hp rating if either wheeled or tracked machines);
- Two 460-hp, diesel-powered prime movers to assist in managing the loads on grades; and
- A variety of smaller support service vehicles.

Matting may be used as necessary to facilitate transport and protect surfaces along portions of the route depending on the type of transporter used. A self-propelled, tracked transporter may not require matting on the beach for these purposes; however, it may require matting on the paved or improved road surfaces. The transportation route along the beach is expected to be less than 30 feet wide, except for the turnout areas, where it would be approximately 60 feet wide.

After offloading of RSGs at Camp Del Mar, they would be transported approximately 15 miles to SONGS 2 & 3. (The proposed Beach and Road Route is depicted in Figures B-6a through B-6d in the Project Description). The proposed transport route would follow the beach west of the bluffs within MCBCP (Segments B and C), unpaved military transport roads within MCBCP west of I-5 (Segments D, G, and H), a short stretch of I-5 to bypass Skull Canyon (Segment F), and a portion of Old Highway 101 through San Onofre State Beach (Segment I).

A maximum of seven one-way trips between Del Mar Boat Basin and SONGS would be required if all steam generators arrive in one delivery and are transported using only one transporter, and as few as two or three trips if two transporters are used. The transporters would be disassembled and trucked away after completion of transport. The proposed transport is currently expected to occur some time during two winter seasons, October 2008 to February 2009 and October 2009 to February 2010. Each trip would require approximately 8 to 12 days. Maximum overall transport time would thus be roughly 84 days spanning the two possible delivery seasons.

The project route would briefly enter onto I-5 in order to cross over Skull Canyon (Segment F). These activities would avoid grading on the beach, MCBCP roads, or I-5. The transporter would remain on I-5, outside of MCBCP, for approximately 0.2 miles and then transition back to the MCBCP dirt road, which directly adjoins I-5, by passing through a temporary opening in the MCBCP fence that would be restored following transit. This would occur for each transport leg of each transport cycle. Segment F is the only portion of the proposed transport route to take place on I-5.

Moving of mats and other work, such as servicing of vehicles or security operations, would occur at night. Broad-coverage lighting would be supplied to facilitate night work. The lights would be directed toward the ocean or along the route and away from inland habitat along the beach.

#### Impact V-1: Short-term view intrusion, view obstruction, or night lighting by RSGs and transporters during offloading and transport

Under the Proposed Project (along the Beach and Road Route), the RSGs, transporters, and associated vehicles would represent a highly prominent, strongly contrastive visual element of industrial character as seen by various viewer groups during overland transport from the Del Mar Boat Basin to SONGS. The project would have the potential to obstruct scenic views and could also result in night lighting impacts. These effects are discussed below as they would affect different key viewer groups. The potentially affected receptor groups discussed include:

**KOP 1: San Onofre State Beach, Visitors.** Visitors at San Onofre State Beach and the Bluffs Campground would potentially be exposed to very close-up views of the RSGs and transporters (Segment I). In this segment, the RSGs would be transported along Old Highway 101, within a few feet of visitor parking areas and RV camping spaces along the entire 3-mile length of the Bluffs Campground within the park. These exposures could last up to a day per incident. Although temporary, this very strong effect could represent a substantial proportion of visitors' stay. The severity of this impact depends highly on the transport schedule, which has not yet been finalized but could occur between December and March, when the Bluffs Campground is typically closed.

The RSGs and transporters would not obstruct views of the ocean for visitors to San Onofre State Beach, because the proposed route lies to the east of the parking, picnic, and trail areas used by visitors. However, the overall transport operation including RSGs, transporters, support vehicles and equipment, and numerous personnel, would represent a very extensive, highly dominant and distracting presence com-

parable to a construction site or other large-scale activity involving heavy equipment, and would strongly interfere with recreational activity within the RV parking lots and adjacent picnic areas. Taking all the support equipment and activities into account, the project would have strong visual effects and make recreational activities in these access areas difficult or impossible for roughly one day per trip. These disruptions to San Onofre State Beach use would take place on up to 7 occasions. This impact to park visitors would be strong and potentially significant (Class II). Although there is little that could be done to reduce the level of impact to visitors while the transport activities traverse the length of the park, Mitigation Measures V-1a and V-1b are recommended below.

If the transport activities cannot occur during the seasonal closure of the Bluffs Campground, the effects on campers could be severe. If RSG transport were to take place at night, the magnitude and proximity of the activities, together with necessary night lighting, would make RV camping at the Bluffs Campground infeasible. This very strong effect would represent a potentially significant adverse light and glare impact (Class II). Controlling transporter lighting would not likely reduce the potential impacts on campers to less than significant levels. Thus, campground closure with advance notice to RV campers and other visitors for these project periods would be the only available mitigation. Implementation of Mitigation Measure V-1a and V-1b, along with Mitigation Measures L-2a (Avoid peak recreational usage) and N-1a (Provide advance notice of transport), would reduce the impact to park visitors to a less than significant level. Temporarily closing San Onofre State Beach would be an action requiring a separate decision by the California Department of Parks and Recreation (CDPR).

***Mitigation Measures for Impact V-1, Short-term view intrusion, view obstruction, or night lighting by RSGs and transporters during offloading and transport***

**V-1a Request decision on closure of San Onofre State Beach.** No later than 6 months prior to commencement of RSG transport activities, SCE shall notify the California Department of Parks and Recreation (CDPR), San Onofre State Beach, and the CPUC of the anticipated transport schedule through San Onofre State Beach with a description of daytime and nighttime transport activities within the park. If deemed appropriate by CDPR in order to avoid impacts to San Onofre State Beach visitors either during daytime or nighttime hours, a schedule of park closures shall be stipulated between SCE and CDPR and given as notification to CPUC.

**V-1b Provide advance notice of campground closure to prospective park visitors and campers.** If, based on notice of the transport schedule and activities described under Mitigation Measure V-1a, campground closure is deemed necessary by CDPR, SCE and transport contractors shall identify to CDPR and the CPUC the specific dates when the transport activity would occur in San Onofre State Beach at least 3 months in advance of each planned transporter trip through the park. SCE shall assist CDPR in notifying park visitors in advance of “black-out dates” when camping would be infeasible at the campground.

**KOP 2: I-5 Vista Point.** Transport of the RSGs would temporarily disrupt views at the public vista point off of I-5 (Segment G). The RSGs would pass within a few dozen feet of the vista, on an existing adjacent unpaved road situated directly west and slightly below the vista point. The RSGs would present strong visual contrast and strongly obstruct views to the ocean for periods of up to several hours during outbound trips from Del Mar Boat Basin to SONGS. Return trips of the transporters would be highly prominent to viewers at the vista point but would not obstruct ocean views because the transporters would not be carrying the tall RSGs. Overall visual sensitivity at the scenic vista is high. Further, this impact would represent an adverse effect on a scenic vista, adversely affect a scenic view within a State Scenic Highway corridor, and temporarily degrade the existing visual character or quality of the

site. However, because the effect would be temporary only, and of relatively short duration per incident, the impact is considered to be somewhat adverse, but weak overall and thus less than significant (Class III). Beyond those few minutes when the RSGs are directly blocking visitors' views of the ocean, the project would have no lasting effects on the scenic vista or Scenic Highway corridor. Further, the number of visitors to the vista point who could be affected by the project would represent a small fraction of the total number of visitors in any given year.

**KOP 3: Camp Del Mar, MCBCP Residents/Personnel.** Depending upon the specific transport scenario, the RSGs and/or barges would be offloaded and remain at Del Mar Boat Basin for up to 18 days during each delivery. During this time the RSGs would represent highly prominent industrial features with a high level of contrast for viewers at the boat basin and vicinity. Potential for scenic view obstruction by the project would be minor, with panoramic, scenic views accessible throughout the boat basin and surroundings. Some of the viewers at the boat basin would be recreational users, including visitors at the adjacent RV campground north of the boat basin. Others would be personnel at work. Overall viewer sensitivity at this KOP is considered moderate to high. Viewers in the vicinity of residences and offices east and south of the boat basin would be able to see the RSGs, but at these distances the RSGs would be visually subordinate, not highly prominent.

Despite the prominence of the RSGs and transporters during their presence in the boat basin vicinity, due to the very limited period of exposure and their limited effect on scenic views, the short-term presence at the basin is considered to be a somewhat adverse but weak overall level of change, and less than significant (Class III).

Night lighting at the boat basin and vicinity would have the potential to be disruptive both to recreational visitors at the RV campground, and to residents in nearby apartments in Camp Del Mar. In the worst cases, lighting could interfere with visitors and residents' ability to sleep, and it could continue for multiple days as the RSGs are maneuvered through MCBCP. Such impacts would potentially result in significant adverse impacts (Class II). Implementation of Mitigation Measure V-1c would reduce the impacts to MCBCP residents to a less than significant level.

***Mitigation Measure for Impact V-1, Short-term view intrusion, view obstruction, or night lighting by RSGs and transporters during offloading and transport***

**V-1c Minimize night lighting near receptors in MCBCP.** SCE and transport contractors shall direct project lighting and utilize shielding to restrict lighting to work areas, away from receptors. Lights shall remain off when not required. Light trespass outside of the immediate work area shall be avoided by directing lamps away from sensitive receptors and by using shielded lighting. Project-related traffic shall be routed so as to minimize disruption to the RV campground by vehicle headlights.

Transportation of the RSGs could result in substantial grade disturbance of the beach within MCBCP due to mat placement and grading required to create a level travel route, etc. Beach areas outside of MCBCP would not be affected. Potential impacts to recreational beach users within MCBCP would affect base personnel only, since public access is restricted. It is assumed that such grade disturbances would be restored by natural wave action over a relatively short period of time. Further, much of the beach within MCBCP routinely experiences similar grade disturbance from base operations and maneuvers. Such project-related impacts would thus be temporary, short-term, and similar to existing beach disturbances. The overall level of visual change would thus be adverse but weak. In the context of moderate overall visual sensitivity, this impact would be less than significant (Class III).

**KOP 4: Highway I-5, Motorists.** Motorists on I-5 would be exposed to prominent views of the RSGs, transporters, and other accompanying vehicles during transport north of Las Pulgas Road (Segment E), including about 0.2 miles of transport on southbound I-5 (Segment F) and 6.5 miles on a dirt road and Old Highway 101 immediately adjacent to southbound I-5 (Segments G, H, and I). In these segments the RSGs would be visible on MCBCP roadways in the visual foreground immediately west of southbound I-5. At these distances the RSGs would present a moderate level of contrast. They would not cause substantial view obstruction because of the higher elevation of I-5 in relation to the MCBCP transport roads and Old Highway 101. Visual quality and viewer sensitivity on I-5 are moderate to high. Transport of the RSGs on roads in the foreground of southbound I-5 would represent only a moderate level of contrast and low level of view obstruction. Together with the very fleeting exposure motorists would have to these effects, these would represent a weak level of visual change overall and a less than significant impact (Class III).

Transitioning from existing off-highway dirt roads onto a segment of I-5 at Skull Canyon and back onto the off-highway road would require removal of a portion of existing cyclone fence at the road edge, which would be restored after transit. Because the dirt road and highway nearly adjoin one another, new ground and vegetation disturbance in this location would be minimal and have negligible visual effect (Class III). No other transitions onto I-5 would be necessary for the proposed Beach and Road Route. Figure D.14-9 shows the Las Pulgas Interchange south of Segment F.

**KOP 5: SONGS Site, Workers.** SONGS employees and other project-related workers would be exposed to RSG transport activities as the RSGs are brought to their temporary storage facilities. This would represent only one part of many visually prominent project activities that would strongly affect workers on site in connection with the project. However, because of the work-oriented nature of activity at the site, viewer sensitivity is assumed to be low, and no significant impacts are anticipated.

#### Impact V-2: Potential long-term impacts to landscape and roadway within San Onofre State Beach

**KOP 1: San Onofre State Beach.** Planting beds and landscaping within San Onofre State Beach would be removed to facilitate transport of the RSGs. Currently, auto access within the park is guided by various planting beds, landscaping and curbs. In order to provide adequate access for passage of the RSGs and transporters, some of these may require removal and re-paving to provide a wider roadway and sufficient turning radius. Figure D.14-10 shows some of the potentially affected landscape beds within San Onofre State Beach. This removal of existing landscaping and the accompanying unsightly roadwork could result in a strong adverse visual change in a highly sensitive recreational setting, lasting for at least the duration of the transport portion of the project, which could extend across two winter seasons. This strong adverse change to a location with high overall sensitivity impact would be potentially significant (Class II). Implementation of Mitigation Measure V-2a would ensure that this impact is reduced to a less than significant level.

Figure D.14-9. KOP 4: Interstate 5 / Las Pulgas Road Transition

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Figure D.14-10. KOP 1: San Onofre State Beach / Landscape Beds

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***Mitigation Measure for Impact V-2, Potential long-term impacts to landscape and roadway within San Onofre State Beach***

**V-2a Minimize disturbance to roadway and landscape within San Onofre State Beach.** SCE and transport contractors shall restore original planting beds, landscape, curbs, and roadways wherever disturbed as soon after the project transport phase as feasible. Visual disturbance to park visitors shall be minimized by: restricting the transport period to the shortest feasible time; and during transport, locating equipment and material staging outside of the park to the greatest feasible extent. SCE shall minimize visual disturbance to surrounding park areas to the greatest extent feasible. For example, vegetation disturbance, spoil and debris storage, and equipment and material storage within sight of park visitors shall be minimized to the fullest extent feasible. Planting beds, landscaping, curbs, and roadways shall be fully restored to pre-project conditions as soon after completion of all transport as feasible. If San Onofre State Beach administrators determine temporary landscaping is required during the summer between delivery seasons, landscaped areas or temporary planters shall be seeded with native wildflower species and irrigated by SCE as needed to ensure survival, in order to minimize the short-term visual impacts of landscaping removal.

### D.14.3.3 Staging and Preparation

Project staging and preparation would require RSG storage and construction of various prominent temporary project facilities within SONGS and substantial additional parking. In addition, laydown areas could be required outside of the OCA site boundaries. Potential visual impacts from these various activities and facilities are summarized below.

#### **Impact V-3: Visibility of temporary project-related facilities or activities within SONGS OCA and Mesa**

Facilities required within the SONGS OCA and Mesa would not be visible from off-site viewing locations, and would thus have no impacts from the KOPs. Individually and cumulatively new project facilities would represent a strong level of visual contrast for SONGS and other project-related employees viewing them on-site at close distance. However, because the existing visual quality of the current industrial setting is low to moderate, and the level of viewer concern is assumed to be low, overall visual sensitivity of the setting is low, and this impact is considered to be less than significant (Class III).

#### **Impact V-4: Visibility of various project staging and preparation facilities or activities in the visual foreground of I-5 and San Onofre State Beach**

Temporary facilities and equipment or material storage could occur outside of the existing masonry OCA perimeter walls in the area west of I-5. Depending on how staging and preparation facilities are installed and used, such uses could result in moderate to strong levels of contrast from ground disturbance, visually chaotic material storage, and other adverse visual effects within the foreground of a State-eligible Scenic Highway. These moderate-to-strong visual disturbances would be visible to very high numbers of viewers over the entire duration of the project, between 2008 and 2011. Due to I-5's scenic status and the high levels of recreational use experienced at San Onofre State Beach, sensitivity to these impacts is considered high. These impacts would thus be potentially significant (Class II). Due to the lower elevation of the terrain west of I-5, fencing is unlikely to be highly effective as a visual screening measure, depending upon exact project siting. Mitigation Measure V-4a would reduce this impact to a less than significant level.

*Mitigation Measure for Impact V-4, Visibility of various project staging and preparation facilities or activities in the visual foreground of I-5 and San Onofre State Beach*

**V-4a Minimize or eliminate staging within the visual foreground of I-5 and San Onofre State Beach.** SCE shall avoid material and equipment storage in the visual foreground of I-5 and San Onofre State Beach. Where it is unavoidable, sites shall be selected to minimize their prominence to viewers on I-5 or in or enroute to San Onofre State Beach by: maximizing distance of staging site from the highway and Old Highway 101 access to San Onofre State Beach; selecting locations screened from view of I-5 by topography or vegetation; selecting locations west of Old Highway 101/Basilone Road; selecting sites adjacent to and south of the SONGS OCA, such that the sites will be partially screened to southbound I-5 motorists by the existing OCA walls; and, if feasible, screening staging areas with dark-colored, opaque fencing. Any ground or vegetation disturbance due to staging activities shall be fully restored with appropriate native vegetation as soon as feasible following project completion.

#### D.14.3.4 Original Steam Generator Removal, Staging, and Disposal

OSG removal would entail various visually prominent activities including containment opening, removal of the OSGs from the containment structures, and transport of the OSGs via rail in containers to a permanent disposal site.

Staging and preparation of the OSGs for disposal would occur in a temporary enclosure facility within the Owner Controlled Area, west of I-5, upon their removal from containment. OSG disposal would entail cutting the OSG into smaller pieces within the temporary OSG staging enclosure. The cut-up steam dome and other destroyed components of the original steam generators would then be loaded into shipping containers for transport by rail to a licensed LLRW disposal facility.

The visibility of these activities would be similar to those described under Impact V-3. OSG removal, staging, and preparation for disposal would take place within the OCA and would not be visible from off-site viewing locations. These activities would represent a strong level of visual contrast for SONGS and other project-related employees on-site, who would view them at close distance. However, because the existing visual quality of the current industrial setting is low to moderate, and the level of viewer concern is assumed to be low, overall visual sensitivity of the setting is low, and this impact is considered to be less than significant (Class III).

OSG disposal would entail loading the cut-up steam dome and other destroyed components into shipping containers for transport to a licensed LLRW disposal facility by rail. Because they would be cut up and transported within shipping containers, the OSGs would not represent an unusual or out-of-the-ordinary visual incident as seen by off-site viewers during shipping. They would be inconspicuous during rail transport, thus no impact is anticipated in this phase (Class III).

#### D.14.3.5 Steam Generator Installation and Return to Service

Using the containment opening created for removal of the original steam generators, the replacement steam generators would be installed. Finally, the temporary construction opening would be closed by reconstructing the containment building to return it to its original configuration and integrity.

RSG installation and the return to service would entail transport of the RSGs from the temporary storage facility to the containment structures. Although this would be a visually prominent activity, the RSGs and transporters would not contrast markedly in character with the other, larger structures of industrial

character comprising the SONGS site. Similar to Impact V-3, this moderate level of visual contrast, in the context of low visual sensitivity of workers at the plant, would represent a less than significant impact (Class III). With return to service, the various temporary structures built for staging and installation would be removed, resulting in a slight improvement in the visual character of the plant, and a return to a state essentially like that prior to the project.

## D.14.4 Environmental Impacts and Mitigation Measures for the Alternatives

### D.14.4.1 Transportation Route Alternatives

The alternatives below would differ from the Proposed Project only during the RSG transport phase. Impacts of other phases (after arrival at SONGS) would be as described above for the Proposed Project.

#### I-5/Old Highway 101 Route Alternative

Under this alternative the RSGs would be transported to SONGS overland, primarily on Highway I-5. The RSGs would be moved to I-5 from the Del Mar Boar Basin on streets within MCBCP (Segments K and L), and thereafter would follow I-5 for 2.1 miles in the southbound lanes, south of overpasses near Cocklebur Canyon and an additional 3.7 miles north of the overpasses (Segments M through S). North of Skull Canyon, this alternative would return to transport roads within MCBCP and would be identical to the route described under the Proposed Project, above, continuing on Old Highway 101 to SONGS. The transporters under this alternative, either a self-propelled or towed system, would use rubber tires and thus not require matting. One-way trips are expected to take approximately 10 to 15 days each at speeds not exceeding 10 mph on I-5, and unloaded return trips would take somewhat less time, with a maximum of 7 trips total for an overall maximum travel period of slightly less than 100 days over the two winter seasons of deliveries. Travel on I-5 would take place at night, or other non-peak hours, at the direction of Caltrans.

The potential impacts from view intrusion, view obstruction, or night lighting during transport under the I-5/Old Highway 101 Route Alternative would be similar to those described under Impact V-1. The RSGs, transporters, and associated vehicles would represent a highly prominent, strongly contrastive visual element of industrial character as seen by various viewer groups, particularly motorists on I-5. In addition, the project would have the potential to obstruct scenic views and could result in night lighting impacts. The potentially affected receptor groups are discussed separately.

**KOP 1: San Onofre State Beach, Visitors.** Impacts at this KOP would be identical to those described for the Proposed Project (Impact V-1), above. As recommended for the Proposed Project, Mitigation Measures V-1a and V-1b, along with Mitigation Measures L-2a (Avoid peak recreational usage) and N-1a (Provide advance notice of transport), would reduce this impact to a less than significant level (Class II).

**KOP 2: I-5 Vista Point.** Impacts at this KOP would be identical to those described for the Proposed Project, and would be less than significant (Class III).

**KOP 3: Camp Del Mar, MCBCP Residents/Personnel.** Effects on MCBCP personnel and residents would be essentially similar to those described under the Proposed Project. Transport from the boat basin to I-5 via Harbor Road and A Street would expose viewers to the project for a longer period of time than under the Proposed Project, but the overall duration of exposure to viewers at MCBCP would still be relatively brief, a period of four or five days including offloading, preparation, and transport. Potential for

scenic view obstruction by the project would be minor, with panoramic, scenic views accessible throughout the basin and surroundings. Due to the short duration of visual exposure, this impact would be less than significant (Class III).

The transition from A Street to I-5 at the northern corner of Camp Del Mar would likely require construction of a temporary 220-foot-by-50-foot asphalt on-ramp. Exposure of MCBCP personnel to this change would be low and the visual change itself would be relatively inconspicuous. This impact would thus be less than significant. This impact is also described separately from the point of view of motorists on I-5 (under Impact V-5 below).

As under the Proposed Project, night lighting at the boat basin and vicinity would have the potential to be disruptive both to recreational visitors at the adjacent RV campground, and to residents in nearby apartments in Camp Del Mar. In the worst cases, lighting could interfere with visitors and residents' ability to sleep, and could continue for a period of up to 18 days. Mitigation Measure V-1c (identified above) would reduce the potential impacts to receptors near Camp Del Mar to a less than significant level (Class II).

**KOP 4: Highway I-5, Motorists.** The level of exposure of I-5 motorists to the project would be much higher under the I-5/Old Highway 101 Route Alternative than under the Proposed Project. However, transport on I-5 itself would occur primarily at night, or at other non-peak traffic hours as directed by Caltrans. To the extent that I-5 transport occurred at night, scenic impacts of the project would be negligible, since scenic views of the ocean and open MCBCP landscape are limited to daytime hours. To the extent that transport occurred during daytime, motorists would be exposed to strongly contrastive close-up views of the RSGs and transporters, and to brief view obstruction. Although large numbers of viewers would potentially be affected, individual viewers would each experience relatively brief, localized impacts as they drove past the transporters. For any given viewer, views of the project would be of short duration, and would affect only a small proportion of the overall drive through the study area between Camp Del Mar and SONGS. This level of visual change, though somewhat adverse, would be weak overall and less than significant (Class III).

On non-I-5 portions of the I-5/Old Highway 101 Route from Skull Canyon (Segment F) northward, impacts of the RSGs and transporters as seen by motorists on I-5 would be as discussed under the Proposed Project, which would be less than significant (Class III).

#### **Impact V-5: Impacts to view corridor of I-5 due to ground disturbance, vegetation removal, or new paving**

Under the I-5/Old Highway 101 Alternative, paving of currently undisturbed ground in the immediate visual foreground of I-5 would potentially take place along I-5 near Camp Del Mar and at crossings in the vicinity of the Navy Landing Craft Assault Center facility (Segments L, N, and Q).

At Segment L (Camp Del Mar), this could require a minor amount of existing vegetation removal in the highway shoulder, and construction of a 220-foot-by-50-foot asphalt ramp (see Figure D.14-11). This effect could result in moderate adverse levels of contrast to the visual foreground of an eligible State Scenic Highway corridor. Due to this scenic status, overall viewer sensitivity was considered moderate to high. This impact could thus represent a potentially significant adverse impact (Class II), which would be reduced to a less than significant level with Mitigation Measure V-5a.

Figure D.14-11. KOP 4: Interstate 5 / Segments L, N, Q, R  
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*Mitigation Measure for Impact V-5, Impacts to view corridor of I-5 due to ground disturbance, vegetation removal, or new paving*

**V-5a Restore ground disturbances in visual foreground of I-5.** SCE and transport contractors shall thoroughly restore visible ground disturbances in the visual foreground of I-5 following completion of transport activities accordingly: grading disturbances resulting from road construction and related activities shall be restored to their original natural contours at the soonest feasible time following completion of transport; and any disturbance to vegetation shall be re-vegetated with native coastal scrub species appropriate to the location.

In Segment N, an asphalt pathway could be installed to connect I-5 and Coaster Way (see Figure D.14-11); and in Segment Q (Stuart Mesa north of I-5 Overcrossing), ramps would be constructed to move the transporter over the San Diego Northern Railroad tracks and onto I-5 (see Figure D.14-11). In these locations, vegetation removal would be negligible, and existing visual quality of the affected portion of roadway is low. The minor visual disturbance from transitions at these locations would have negligible visual effects (Class III).

Portions of the existing I-5 center median would be paved to facilitate transit of the RSGs across the width of I-5 at Cockleburr Canyon (Segment N) and the Stuart Mesa Overcrossing (Segment R). The center medians in these segments are narrow, marked by typical crash barriers, and of no particular visual value. The minor visual disturbance from temporary paving of the center medians in these locations would have negligible visual effects (Class III).

At the north end at Skull Canyon (Segment F), the RSGs and transporters would transition from I-5 onto the existing adjacent MCBCP transport road, as described under the Proposed Project. The transition would require removal of a portion of existing cyclone fence at the road edge, which would be restored after transit. Because the dirt road and highway nearly adjoin one another, and existing vegetation is minimal, new ground and vegetation disturbance in this location would be minimal and have negligible visual effect (Class III) as in Figure D.14-9, above.

### MCBCP Inland Route Alternative

This approximately 18-mile transport option would occur east and west of I-5 and on I-5, with most of the route on roads within MCBCP. No segments of the MCBCP Inland Route would occur in San Onofre State Beach.

The potential for impacts from view intrusion, view obstruction, or night lighting by transport activities under the MCBCP Inland Route Alternative would be similar to those described in Impact V-1. The RSGs, transporters, and associated vehicles would represent a highly prominent, strongly contrastive visual element of industrial character as seen by various viewer groups. The potentially affected receptor groups are discussed separately.

**KOP 1: San Onofre State Beach, Visitors.** The MCBCP Inland Route Alternative would not pass through San Onofre State Beach and would have negligible effect on viewers in that location (Class III). Mitigation Measures V-1a and V-1b would not be necessary under this alternative.

**KOP 2: I-5 Vista Point.** The I-5 vista point would be unaffected by the MCBCP Inland Route Alternative.

**KOP 3: Camp Del Mar, MCBCP Residents/Personnel.** Under MCBCP Inland Route Alternative, impacts within Camp Del Mar would be as described under the I-5/Old Highway 101 Alternative, above, except that rather than traveling on Avenue A and entering I-5, the route would follow the Fallbrook

Spur tracks to pass under I-5. As under the I-5/Old Highway 101 Alternative, implementing Mitigation Measure V-1c would be appropriate for reducing potentially significant night lighting impacts to personnel at Camp Del Mar and at other residential locations along the MCBCP Inland Route to less than significant levels (Class II).

The route would continue along the Fallbrook Spur tracks and portions of Lemon Grove Road, Vandergrift Road, and Stuart Mesa Road (Segments T, U, and V). Potential viewers in this portion of the route would be MCBCP personnel engaged in work activities who would have low levels of viewer sensitivity to project effects. The RSGs and transporters would be similar in scale to train cars routinely seen in this railroad right-of-way. Impacts in these segments would thus be negligible (Class III).

**KOP 4: Highway I-5, Motorists.** Visibility of the RSGs to I-5 motorists during transport within MCBCP, east of I-5 (Segments T through Y) would largely range from unseen to visually subordinate due to distance from the highway, intervening terrain, vegetation, or structures. This level of impact would be negligible and less than significant (Class III). North of Stuart Mesa (Segment P and a portion of Segment X), the route would be relatively close to viewers on I-5. In these segments the RSGs would appear visually subordinate in scale and contrast against the background of existing MCBCP development at Stuart Mesa. Overall visual exposure to I-5 viewers would be brief, and temporary. These levels of exposure would have negligible impact (Class III).

The route would pass near a northbound auto rest area east of I-5. However, the heavy landscaping at the rest area would effectively screen views of the RSGs, and impacts to visitors would be minor and less than significant (Class III).

As with Impact V-5 under the I-5/Old Highway 101 Route Alternative, impacts could occur to the I-5 view corridor of I-5 as a result of ground disturbance, vegetation removal or new paving. The transporter would transition onto I-5 via the parking lot just north of the immigration checkpoint (Segments Z and AA). This portion of the shoulder is currently fenced. Visual effects of temporary opening of the fence would be negligible (Class III).

A paved transition from I-5 southbound lanes and ramps could be required to bridge over the existing San Diego Northern Railroad tracks ballast to a second transition (Segment AC). This transition would accommodate the grade differential between the top of the San Diego Northern Railroad tracks and North Road. Construction of transition and ramps could result in minor disturbance to the immediate foreground of I-5, including a minor amount of vegetation removal. These effects could result in weak adverse levels of contrast to the visual foreground of an eligible State Scenic Highway corridor. Although overall viewer sensitivity is considered moderate to high, this weak level of impact would represent an adverse impact that could be reduced to a less than significant level with implementation of Mitigation Measure V-5a identified above (Class II).

#### D.14.4.2 OSG Disposal Alternative

##### OSG Onsite Storage Alternative

Under the OSG Onsite Storage Alternative, the long-term storage of the four OSGs would occur on the SONGS site in a suitable onsite enclosure for the remainder of the operating life of SONGS. The OSG Onsite Storage Alternative would involve the siting and construction of an OSG Storage Facility and transport of the OSGs from the SONGS 2 & 3 containment buildings to the onsite OSG Storage Facility. A large concrete structure, approximately 12,000 square feet (120 feet by 100 feet) in size and 30 feet

high would be added to the site in one of two areas, within the SONGS OCA, in the general vicinity of decommissioned Unit 1 or in the Mesa area east of I-5.

The visibility of the OSG Storage Facility, as a project-related installation within the SONGS OCA or Mesa would cause impacts similar to Impact V-3, although they would be more severe because the OSG Storage Facility would remain in place after conclusion of the steam generator replacement project.

If onsite storage occurs within the OCA, the new building would not be visually evident or conspicuous from any offsite viewing location. This would be due in part to screening by the existing masonry walls enclosing the OCA and to other intervening existing structures within the OCA. In the unlikely event that it would be visible at all to offsite viewers, it would blend in with the existing visual character of the SONGS plant, and it would be visually very subordinate to existing plant features. This low to negligible level of impact to offsite viewers would be insignificant (Class III).

The OSG Storage Facility would represent a strong level of contrast for SONGS and other project-related employees onsite, who would view them at close distance. However, because the existing visual quality of the current industrial setting is low to moderate, the level of viewer concern by on-site workers is assumed to be low, overall visual sensitivity of the setting is low, and the onsite impact is considered to be less than significant (Class III).

If onsite storage occurs at the Mesa east of I-5, preparing the OSGs for storage would likely entail loading the cut-up steam dome and other components into shipping containers for brief transport to the Mesa by truck. Because they would be cut up and packaged within containers, the OSGs would probably not represent a highly unusual or out of the ordinary visual incident as seen by offsite viewers, and in any event would be short-term and temporary, extending over a period of a few days at most. This low-level, short-term impact would be insignificant (Class III).

At the Mesa, the OSG Storage Facility would not be visually evident or conspicuous from any offsite viewing location because of intervening terrain. In the unlikely event that it would be visible at all to offsite viewers, it would blend in with the existing visual character of the existing buildings at the Mesa and be subordinate. This low to negligible level of impact to offsite viewers would be insignificant (Class III).

Like all other phases of the project that entail construction activities, the potential for visual impacts due to staging activities in the foreground of I-5 or San Onofre State Beach would occur with the OSG Onsite Storage Alternative similar to those described in Impact V-4. As with the Proposed Project, implementing Mitigation Measure V-4a would be appropriate for reducing this impact to a less than significant level (Class II).

## D.14.5 Environmental Impacts of the No Project Alternative

Depending upon the setting in which they occur, the construction and operation of replacement power plants and transmission lines may represent potentially significant impacts. Plants within industrial settings would be less likely to result in significant visual effects. Those in rural settings are more likely to strongly contrast with landscapes of high existing scenic quality, potentially resulting in significant adverse impacts. In many cases, mitigation measures are available to reduce such impacts to less than significant levels, including landscape screening, siting modifications to reduce visual exposure of sensitive viewers, painting of the power plant, and other measures. Whether or not potentially significant impacts of a gas-fired plant can be reduced to less than significant levels is entirely a function of case-specific factors including plant design and exact location, and cannot be generalized. In addition to visual impacts caused by the

physical plant facilities themselves, gas-fired plants may cause significant visual effects as a result of large-scale visible exhaust plumes, particularly from cooling towers of water-cooled plants. Whether such impacts occur is a function of plant design and climate of the specific plant location. These impacts can almost always be mitigated to less than significant levels, although at additional capital cost. Finally, new generation facilities may or may not require extensive new transmission facilities depending upon siting. Where extensive new transmission lines are required, this may often represent a potentially significant impact. Again, although various potential mitigation measures for new transmission facilities exist, the ability to successfully mitigate such impacts is entirely site-specific and cannot be generalized.

Various alternative technologies to replace SONGS capacity exist, including solar thermal, photovoltaics, wind, geothermal, hydropower, fuel cells, and biomass. All alternative technologies would similarly require new transmission facilities to connect with the grid. In many cases, the ability to effectively mitigate these technologies would be greater for facilities of smaller scale than of larger ones. Further, the possibility of replacing the entire SONGS capacity with a single facility is small or nonexistent. Rather, replacement capacity would most likely require a combination of technologies at various locations, each with different impacts and available mitigation measures. In general, by transforming landscapes into vast areas of monotonous, industrial character, many alternative technologies have the potential to cause significant adverse visual impacts. With appropriate siting, impacts of smaller individual facilities could presumably be reduced.

## D.14.6 Mitigation Monitoring, Compliance, and Reporting Table

Table D.14-2 shows the mitigation monitoring, compliance, and reporting program for Visual Resources.

**Table D.14-2. Mitigation Monitoring Program – Visual Resources**

<b>IMPACT V-1</b>	<b>Short-term view intrusion, view obstruction, or night lighting by RSGs and transporters during offloading and transport (Class II)</b>
<b>MITIGATION MEASURE</b>	<b>V-1a: Request decision on closure of San Onofre State Beach.</b> No later than 6 months prior to commencement of RSG transport activities, SCE shall notify the California Department of Parks and Recreation (CDPR), San Onofre State Beach, and the CPUC of the anticipated transport schedule through San Onofre State Beach with a description of daytime and nighttime transport activities within the park. If deemed appropriate by CDPR in order to avoid impacts to San Onofre State Beach visitors either during daytime or nighttime hours, a schedule of park closures shall be stipulated between SCE and CDPR and given as notification to CPUC.
<b>Location</b>	San Onofre State Beach/Bluffs Campground
<b>Monitoring / Reporting Action</b>	SCE to notify CDPR and CPUC of plans and schedule. SCE to consult with CDPR to stipulate a schedule of park closures, if required by CDPR
<b>Effectiveness Criteria</b>	Closures, if ordered by CDPR, shall be stipulated in time to provide advance public notice at least 3 months in advance
<b>Responsible Agency</b>	CPUC, California Department of Parks and Recreation
<b>Timing</b>	Provide transport plans at least 6 months prior to RSG transport in the park
<b>MITIGATION MEASURE</b>	<b>V-1b: Provide advance notice of campground closure to prospective park visitors and campers.</b> If, based on notice of the transport schedule and activities described under Mitigation Measure V-1a, campground closure is deemed necessary by CDPR, SCE and transport contractors shall identify to CDPR and the CPUC the specific dates when the transport activity would occur in San Onofre State Beach at least 3 months in advance of each planned transporter trip through the park. SCE shall assist CDPR in notifying park visitors in advance of "black-out dates" when camping would be infeasible at the campground.
<b>Location</b>	San Onofre State Beach/Bluffs Campground
<b>Monitoring / Reporting Action</b>	SCE to assist CDPR in implementing public noticing. CPUC to verify implementation of noticing
<b>Effectiveness Criteria</b>	CDPR publicize planned camping black-out dates at least 3 months prior RSG transport in the park
<b>Responsible Agency</b>	CPUC, California Department of Parks and Recreation
<b>Timing</b>	Circulate public notices of black-out dates at least 3 months prior to RSG transport in the park
<b>MITIGATION MEASURE</b>	<b>V-1c: Minimize night lighting near receptors in MCBCP.</b> SCE and transport contractors shall direct project lighting and utilize shielding to restrict lighting to work areas, away from receptors. Lights shall remain off when not required. Light trespass outside of the immediate work area shall be avoided by directing lamps away from sensitive receptors and by using shielded lighting. Project-related traffic shall be routed so as to minimize disruption to the RV campground by vehicle headlights.
<b>Location</b>	MCBCP Camp Del Mar
<b>Monitoring / Reporting Action</b>	SCE to provide night lighting plans prior to arrival of each shipment of RSGs. CPUC to verify that night lighting shielding and placement meet requirements of measures
<b>Effectiveness Criteria</b>	Project night lighting will not disturb RV Campground or residences in Camp Del Mar
<b>Responsible Agency</b>	CPUC, MCBCP
<b>Timing</b>	Provide lighting plans at least 60 days prior to RSG offloading

Table D.14-2. Mitigation Monitoring Program – Visual Resources

<b>IMPACT V-2</b>	<b>Potential long-term impacts to landscape and roadway within San Onofre State Beach (Class II)</b>
<b>MITIGATION MEASURE</b>	<b>V-2a: Minimize disturbance to roadway and landscape within San Onofre State Beach.</b> SCE and transport contractors shall restore original planting beds, landscape, curbs, and roadways wherever disturbed as soon after project transport phase as feasible. Visual disturbance to park visitors shall be minimized by: restricting the transport period to the shortest feasible time; and during transport, locating equipment and material staging outside of the park to the greatest feasible extent. SCE shall minimize visual disturbance to surrounding park areas to the greatest extent feasible: for example, vegetation disturbance, spoil and debris storage, and equipment and material storage within sight of park visitors shall be minimized to the fullest extent feasible. Planting beds, landscaping, curbs, and roadways shall be fully restored to pre-project conditions as soon after completion of all transport as feasible. If San Onofre State Beach administrators determine temporary landscaping is required during the summer between delivery seasons, landscaped areas or temporary planters shall be seeded with native wildflower species and irrigated by SCE as needed to ensure survival, in order to minimize the short-term visual impacts of landscaping removal.
<b>Location</b>	San Onofre State Beach/Bluffs Campground
<b>Monitoring / Reporting Action</b>	SCE to provide landscaping plans prior to RSG transport. CPUC to verify that landscaping plans would be consistent with CDPR recommendations
<b>Effectiveness Criteria</b>	Disturbances within San Onofre State Beach kept to a minimum and restoration of park landscaping implemented as soon as feasible
<b>Responsible Agency</b>	CPUC, California Department of Parks and Recreation
<b>Timing</b>	Provide landscaping plans at least 60 days prior to RSG transport in the park
<b>IMPACT V-4</b>	<b>Visibility of various project staging and preparation facilities or activities in the visual foreground of I-5 and San Onofre State Beach (Class II)</b>
<b>MITIGATION MEASURE</b>	<b>V-4a: Minimize or eliminate staging within the visual foreground of I-5 and San Onofre State Beach.</b> SCE shall avoid material and equipment storage in the visual foreground of I-5 and San Onofre State Beach. Where it is unavoidable, sites shall be selected to minimize their prominence to viewers on I-5 or in or enroute to San Onofre State Beach by: maximizing distance of staging site from the highway and Old Highway 101 access to San Onofre State Beach; selecting locations screened from view of I-5 by topography or vegetation; selecting locations west of Old Highway 101/Basilone Road; selecting sites adjacent to and south of the SONGS OCA, such that the sites will be partially screened to southbound I-5 motorists by the existing OCA walls; and if feasible, screening staging areas with dark-colored, opaque fencing. Any ground or vegetation disturbance due to staging activities shall be fully restored with appropriate native vegetation as soon as feasible following project completion.
<b>Location</b>	Visual foreground west of I-5 near SONGS and San Onofre State Beach
<b>Monitoring / Reporting Action</b>	SCE to provide plans of staging activities. CPUC to review plans and recommend modifications if necessary
<b>Effectiveness Criteria</b>	Use of visual foreground of I-5 for project staging and preparation is avoided or minimized to the greatest extent feasible
<b>Responsible Agency</b>	CPUC
<b>Timing</b>	Provide staging plans at least 60 days prior to staging and preparation activities
<b>IMPACT V-5</b>	<b>Impacts to view corridor of I-5 due to ground disturbance, vegetation removal, or new paving (Class II)</b>
<b>MITIGATION MEASURE</b>	<b>V-5a: Restore ground disturbances in visual foreground of I-5.</b> SCE and transport contractors shall thoroughly restore visible ground disturbances in the visual foreground of I-5 following completion of transport activities accordingly: grading disturbances resulting from road construction and related activities shall be restored to their original natural contours at the soonest feasible time following completion of transport; and any disturbance to vegetation shall be re-vegetated with native coastal scrub species appropriate to the location.

Table D.14-2. Mitigation Monitoring Program – Visual Resources

Location	I-5 near Camp Del Mar (Segment L of I-5/Old Highway 101 Route) and near SONGS (Segment AC of MCBCP Inland Route)
Monitoring / Reporting Action	SCE to provide plans of proposed transition ramps and ground restoration activities, including a description and photographs of vegetation to be removed
Effectiveness Criteria	Disturbance of I-5 visual foreground is minimized, limited to the shortest feasible period, and fully restored
Responsible Agency	CPUC, MCBCP, Caltrans
Timing	Provide ground restoration plans at least 60 days prior to RSG transport activities

## D.14.7 References

Fenneman, Nevin M. 1946. *Physiography of the Western United States*. Wash., D.C.: U.S.G.S.

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SCE (Southern California Edison). 2004a. PEA for Replacement of the SONGS 2 and 3 Steam Generators.

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