

Chapter 4

AESTHETIC RESOURCES

4.1 Introduction

This chapter describes the existing conditions and regulations applicable to aesthetic resources, discusses potential impacts on aesthetic resources that would result from the Clearwater Program, determines the significance of impacts, and provides mitigation measures, where feasible, that would reduce these impacts.

Issues related to aesthetic resources include the effect of project elements on the visual character of the area and potential adverse changes in daytime and nighttime views. Project compliance with adopted polices to protect valued views and issues related to glare and shadows are also discussed.

As discussed in Section 3.6.1, a Preliminary Screening Analysis (Appendix 1-A) was performed to determine impacts associated with the construction and operation of program and project elements by resource area. During preliminary screening, each element was determined to have no impact, a less than significant impact, or a potentially significant impact. Those elements determined to be potentially significant were further analyzed in this environmental impact report/environmental impact statement (EIR/EIS). This EIR/EIS analysis discloses the final impact determination for those elements deemed potentially significant in the Preliminary Screening Analysis. The location of the aesthetic resources impact analysis for each program element is summarized by alternative in Table 4-1. As shown in the table, program-level impacts on visual quality are discussed in the Preliminary Screening Analysis (Appendix 1-A) and, therefore, are not included in this chapter.

Table 4-1. Impact Analysis Location of Program Elements by Alternative

Program Element	Alternative						Analysis Location	
	1	2	3	4	5 ^a	6 ^b	PSA	EIR/EIS
Conveyance System								
Conveyance Improvements	X	X	X	X	X	N/A	C,O	-
SJCWRP								
Plant Expansion	X	X	X	X	X	N/A	C,O	-
Process Optimization	X	X	X	X	N/A	N/A	C,O	-
WRP Effluent Management	X	X	X	X	X	N/A	O	-
POWRP								
Process Optimization	X	X	X	X	N/A	N/A	C,O	-
WRP Effluent Management	X	X	X	X	X	N/A	O	-
LCWRP								
Process Optimization	X	X	X	X	N/A	N/A	C,O	-
WRP Effluent Management	X	X	X	X	X	N/A	O	-

Table 4-1 (Continued)

Program Element	Alternative						Analysis Location	
	1	2	3	4	5 ^a	6 ^b	PSA	EIR/EIS
LBWRP								
Process Optimization	X	X	X	X	N/A	N/A	C,O	-
WRP Effluent Management	X	X	X	X	X	N/A	O	-
WNWRP								
WRP Effluent Management	X	X	X	X	X	N/A	O	-
JWPCP								
Solids Processing	X	X	X	X	X	N/A	C,O	-
Biosolids Management	X	X	X	X	X	N/A	O	-
JWPCP Effluent Management	X	X	X	X	N/A	N/A	Evaluated at the project level. See Table 4-2.	
WRP effluent management and biosolids management do not include construction.								
^a See Section 4.4.7 for a discussion of the No-Project Alternative.								
^b See Section 4.4.8 for a discussion of the No-Federal-Action Alternative.								
PSA = Preliminary Screening Analysis								
C = construction								
O = operation								
N/A = not applicable								

As discussed in Section 3.2.2, Joint Water Pollution Control Plant (JWPCP) effluent management was the one program element that was carried forward as a project. The location of the aesthetics resources impact analysis for each project element is summarized by alternative in Table 4-2.

Table 4-2. Impact Analysis Location of Project Elements by Alternative

Project Element	Alternative						Analysis Location	
	1	2	3	4	5 ^a	6 ^b	PSA	EIR/EIS
Tunnel Alignment								
Wilmington to SP Shelf (onshore)	X				N/A	N/A	C,O	-
Wilmington to SP Shelf (offshore)	X				N/A	N/A	C,O	-
Wilmington to PV Shelf (onshore)		X			N/A	N/A	C,O	-
Wilmington to PV Shelf (offshore)		X			N/A	N/A	C,O	-
Figueroa/Gaffey to PV Shelf (onshore)			X		N/A	N/A	C,O	-
Figueroa/Gaffey to PV Shelf (offshore)			X		N/A	N/A	C,O	-
Figueroa/ Western to Royal Palms (onshore)				X	N/A	N/A	C,O	-
Shaft Sites								
JWPCP East	X	X			N/A	N/A	C,O	C,O
JWPCP West			X	X	N/A	N/A	C,O	C,O
TraPac	X	X			N/A	N/A	C,O	-
LAXT	X	X			N/A	N/A	C,O	-

Table 4-2 (Continued)

Project Element	Alternative						Analysis Location	
	1	2	3	4	5 ^a	6 ^b	PSA	EIR/EIS
Southwest Marine	X	X			N/A	N/A	C,O	-
Angels Gate			X		N/A	N/A	C,O	C,O
Royal Palms				X	N/A	N/A	C,O	C,O
Riser/Diffuser Areas								
SP Shelf	X				N/A	N/A	C,O	C
PV Shelf		X	X		N/A	N/A	C,O	C
Existing Ocean Outfalls	X	X	X	X	N/A	N/A	C,O	C

^a See Section 4.4.7 for a discussion of the No-Project Alternative.
^b See Section 4.4.8 for a discussion of the No-Federal-Action Alternative.
PSA = Preliminary Screening Analysis
C = construction
O = operation
N/A = not applicable

4.1.1 Concepts and Terminology

Identifying an area's visual resources and conditions involves three steps:

- Objectively identify the visual features (visual resources) of the landscape
- Assess the character and quality of those resources relative to the region's overall visual character
- Determine the importance of visual resources views (i.e., viewer sensitivity)

The aesthetic value of an area is a measure of its visual character and quality, combined with the viewer response to the area (FHWA 1988:26–27, 37–43, 63–72). Scenic quality can best be described as the overall impression that an individual viewer retains after driving through, walking through, or flying over an area (BLM 1980:2–3). Viewer response is a combination of viewer exposure and viewer sensitivity. Viewer exposure is a function of the number of viewers, number of views seen, distance of the viewers, and viewing duration. Viewer sensitivity relates to the extent of the public's concern for a particular viewshed. These terms and criteria are described in detail in the following section.

4.1.1.1 Visual Character

Natural and artificial landscape features contribute to the visual character of an area or view. Visual character is influenced by geologic, hydrologic, botanical, wildlife, recreational, and urban features. Urban features include those associated with landscape settlements and development, including roads, utilities, structures, earthworks, and the results of other human activities. The perception of visual character can vary significantly seasonally, even hourly, as weather, light, shadow, and elements that compose the viewshed change. The basic components used to describe visual character for most visual assessments are the elements of form, line, color, and texture of the landscape features (USFS 1995:28–34, 1–2–1–15; FHWA 1988:37–43). The appearance of the landscape is described in terms of the dominance of each of these components.

4.1.1.2 Visual Quality

Visual quality is evaluated using the well-established approach to visual analysis adopted by the Federal Highway Administration (FHWA), employing the concepts of vividness, intactness, and unity (FHWA 1988:46–59; Jones et. al. 1975:682–713), which are described below.

- Vividness is the visual power or memorability of landscape components as they combine in striking and distinctive visual patterns.
- Intactness is the visual integrity of the natural and human-built landscape and its freedom from encroaching elements. This factor can be present in well-kept urban and rural landscapes, and in natural settings.
- Unity is the visual coherence and compositional harmony of the landscape considered as a whole. It frequently attests to the careful design of individual components in the landscape.

Visual quality is evaluated based on the relative degree of vividness, intactness, and unity, as modified by its visual sensitivity. High-quality views are highly vivid and relatively intact, and exhibit a high degree of visual unity. Low-quality views lack vividness, are not visually intact, and possess a low degree of visual unity.

4.1.1.3 Visual Exposure and Sensitivity

The measure of the quality of a view must be tempered by the overall sensitivity of the viewer. Viewer sensitivity or concern is based on the visibility of resources in the landscape, proximity of viewers to the visual resource, elevation of viewers relative to the visual resource, frequency and duration of views, number of viewers, and type and expectations of individuals and viewer groups.

The importance of a view is related in part to the position of the viewer in relation to the resource. Therefore, visibility and visual dominance of landscape elements depend on their placement within the viewshed. A viewshed is defined as all of the surface area visible from a particular location (e.g., an overlook) or sequence of locations (e.g., a roadway or trail) (FHWA 1988:26–27). To identify the importance of views of a resource, a viewshed must be broken into distance zones of foreground, middleground, and background. Generally, the closer a resource is to the viewer, the more dominant it is and the greater its importance. Although distance zones in a viewshed may vary between different geographic regions or types of terrain, the standard foreground zone is 0.25–0.5 mile from the viewer, the middleground zone extends from the foreground zone to 3–5 miles from the viewer, and the background zone extends from the middleground zone to infinity (Jones et al. 1975:688).

Visual sensitivity depends on the number and type of viewers, and the frequency and duration of views. Visual sensitivity is also modified by viewer activity, awareness, and visual expectations in relation to the number of viewers and viewing duration. For example, visual sensitivity is generally higher for views seen by people who are driving for pleasure; people engaging in recreational activities, such as hiking, biking, or camping; and homeowners. Sensitivity tends to be lower for views seen by people driving to and from work or while at work (USFS 1995:3-3-3-13; FHWA 1988:63–72; U.S. Soil Conservation Service 1978:3, 9, 12). Commuters and non-recreational travelers have generally fleeting views and tend to focus on traffic, not on surrounding scenery. Therefore, they are generally considered to have low visual sensitivity. Residential viewers typically have extended viewing periods and are concerned about changes in the views from their homes. Therefore, they are generally considered to have high visual sensitivity. Viewers using recreation trails and areas, scenic highways, and scenic overlooks are usually assessed as having high visual sensitivity.

Judgments of visual quality and viewer response must be made based on the regional frame of reference (U.S. Soil Conservation Service 1978). The same landform or visual resource appearing in different geographic areas could have a different degree of visual quality and sensitivity in each setting. For example, a small hill may be a significant visual element in a flat landscape but have very little significance in mountainous terrain.

4.2 Environmental Setting

4.2.1 Regional Setting

The visual character of the Joint Outfall System (JOS) service area provides a context and frame of reference for assessing the visual quality of the program and project sites. Information regarding the regional setting is taken in part from the Program Environmental Impact Report for the Joint Outfall System 2010 Master Facilities Plan (Jones & Stokes 1994:15-1–15-8), which is incorporated herein by reference.

The region is a broad coastal plain bordered by the partially forested San Gabriel Mountains to the north, the Santa Ana Mountains to the east, and the Pacific Ocean to the south and west. Views of the San Gabriel Mountains to the north can be dramatic and vivid from the coastal plain, especially in winter and after storms when the mountains are snow-capped and the air is clear. However, poor air quality due to smog, fog, and haze often limits the extent and quality of views throughout the region. The area is developed and highly urbanized with pockets of open space in the form of public parks and spaces. Natural landscape features are generally subordinate to the area's urban character. Conversely, the dynamic coastline is a highly valued visual resource that also defines the regional visual character. The industrialized, active Port of Los Angeles provides visual testament to the region's current and historical maritime activities.

Several important rivers and tributaries flow generally south from the mountains and across the coastal plain. Most rivers, streams, and drainages in the urbanized areas are contained in concrete-lined channels. Streamside or other naturally occurring vegetation is scarce. Where it does exist, it is an important visual element in the regional landscape. Coastal salt marshes occur in small areas along the coast and are visually important because of their high visibility and scarcity in the region. Most existing vegetation in the coastal plain is urban landscaping and street trees.

Because the area is heavily urbanized, the unity and vividness of urban form and elements are important criteria for defining visual character and quality. However, throughout much of the region, the extensive urbanization also creates a generally low degree of intactness. Many diverse land uses are mixed throughout the region, providing little design cohesiveness and low unity of design elements. Numerous high-voltage power lines and freeways are highly visible linear elements in the generally level and open coastal plain. These elements cross the landscape and reduce any strong sense of design order or cohesiveness in the regional landscape. Freeways are dominant visual elements in the region and also provide one of the most important vantage points for viewing the area for both residents and visitors. Other streets and roads are important viewing locations as well.

4.2.2 Program Setting

This section does not include a discussion of program elements, which would have no impacts or less than significant impacts on aesthetic resources, as determined in the Preliminary Screening Analysis (see Appendix 1-A). However, although program elements at the JWPCP were dismissed from further

analysis during preliminary screening, the JWPCP provides the aesthetic context for the JWPCP East and JWPCP West shaft sites and, therefore, it is included in the following discussion.

Joint Water Pollution Control Plant

The JWPCP is located in an area containing industrial, commercial, and residential land uses. Portions of the plant are visible from the surrounding streets and neighborhoods. The heavily traveled Interstate (I-) 110 runs north-south adjacent to the site's west side. Much of the site is highly visible from the elevated I-110, especially for northbound travelers. The plant also is visible from heavily traveled surface streets (e.g., Sepulveda Boulevard, Lomita Boulevard, and Figueroa Street) and other nearby local roadways. A portion of the southeast side of the site is visible from a residential neighborhood south of Lomita Boulevard.

Intactness, vividness, and unity for the area are low because of the diverse forms and structures in the area. Little substantial vegetation exists around or on the site. Some sparse vegetation provides screening along a concrete channel on the site's west side between the JWPCP and I-110. This vegetation softens the industrial character of the area but is not extensive enough to substantially improve the intactness, vividness, or unity of views of the plant and its surroundings. The Bixby Marshland, a small wetland with a few large riparian trees and tall shrubs, is located along the northwest side of the site. The marshland is visible from several locations to the west, including I-110. The Wilmington Athletic Complex is located in the southeast corner of the site, and includes a large open space recreational area. The Burlington Northern Santa Fe railroad line runs east-west through the site and is currently used for freight purposes; it carries no passengers.

The JWPCP site itself contains numerous tanks and industrial structures. The structures vary greatly in form and are generally less than 40 feet in height. They are painted mostly in subdued earth tones, primarily tan. The JWPCP is moderately unified in design by its generally consistent color scheme and industrial character. Light-colored and metallic materials used throughout the plant site create glare. Night lighting for security and operations also creates nighttime light and glare that is visible from the nearby travel routes and the residential neighborhood to the southeast. The perimeter of the plant consists mostly of ornamental block walls, wrought iron fencing, trees, and/or landscaped areas that provide partial screening from visual receptors. In several portions of the JWPCP site, flowers and nursery plants are being raised as part of commercial operations. Although colorful, these areas are not vivid because of the appurtenant structures and equipment present.

4.2.3 Project Setting

This section includes a discussion of existing conditions at sites where the project could occur. Visual character is inventoried and documented from key observation points (KOPs), which represent key views of the project site for individuals and viewer groups. The locations of these KOPs and associated views are graphically displayed in Figures 4-1 through 4-4. Photorealistic simulations are also provided in Figures 4-1 through 4-4 and are used as a tool to evaluate impacts on aesthetics that would occur with the project in place, as discussed in Section 4.4. All simulations were prepared by the Sanitation Districts of Los Angeles County (Sanitation Districts) and are compiled at the end of this chapter.

4.2.3.1 Tunnel Alignment

The onshore tunnel alignments are located underground and, therefore, would not be visible at ground level. The aboveground visual setting along the tunnel alignments is the same as that for the regional setting.

4.2.3.2 Shaft Site

During preliminary screening, the Trans Pacific Container Service Corporation (TraPac), Los Angeles Export Terminal (LAXT), and Southwest Marine shaft sites were determined to have a less than significant impact on visual quality. Discussion of these project elements is located in the Preliminary Screening Analysis (Appendix 1-A).

JWPCP East

The JWPCP East shaft site is located in an area containing industrial, residential, and commercial land uses. The site is bound to the north by a railway and other JWPCP facilities. KOP and simulated KOP locations for the JWPCP East shaft site are shown on Figure 4-1. Main Street follows the eastern edge of the site and is lined with industrial warehouses. Commercial development is located northeast and southwest of the Main Street and Lomita Boulevard intersection. Lomita Boulevard follows the southern edge of the site and is lined with residential development. The western edge of the site is bound by other JWPCP facilities. Most views of the site are from Main Street and Lomita Boulevard. The warehouse facilities located on the east side of Main Street are oriented with their entrances in a north-south direction, and views of the shaft site are not readily available. Views of the southeastern portion of the shaft site are available from the residential and commercial areas looking northwest from the Main Street and Lomita Boulevard intersection (Figure 4-1a, KOP 1). Residential viewers looking north along Lomita Boulevard have the most direct, extended views of the southernmost portion of the shaft site (Figure 4-1a, KOP 2; Figure 4-1b, KOP 3). An earth-toned block wall and black aluminum security fence that runs along the eastern and southern edges of the shaft site limits ground-level views to the interior. Landscaping along the fence provides an attractive visual contrast and serves to soften and reduce the vertical appearance of the wall.

As part of the larger JWPCP complex, as described in Section 4.2.2, vividness and unity for the area are low because of the diverse forms and structures in the area. Intactness of the area is generally moderate in the immediate vicinity of the site because land uses are somewhat cohesive, consisting of the local roadways, residences, and industrial and commercial areas. The JWPCP East shaft site does not contain any buildings. Utilities and infrastructure are common visual elements. Roadways and industrial, commercial, and residential areas all have night lighting for security and safety purposes that result in nighttime light and glare.

JWPCP West

The JWPCP West shaft site is located in an area containing industrial, residential, and recreational land uses. KOP and simulated KOP locations for the JWPCP West shaft site are shown on Figure 4-2. The site is bound to the north by Lomita Boulevard and other JWPCP facilities north of the roadway. To the east, the site is bound by Figueroa Street, the Wilmington Athletic Complex, and the Wilmington Boys and Girls Club. The JWPCP West shaft site does not contain any buildings. Oil wells located within the shaft site boundary are visible above the landscape buffer from within the Wilmington Athletic Complex (Figure 4-2a, KOP 1). The Wilmington Athletic Complex is fenced and landscaped with tall vegetation on both its western and eastern perimeters, obstructing views into the shaft site from the residential strip along Eudora Avenue (Figure 4-2a, KOP 2). The western edge of the site is bound by I-110, which is elevated as it passes by the site and affords travelers on I-110 views into the site (Figure 4-2a, KOP 3). These views are fleeting at normal highway speeds but are of longer duration during peak traffic periods. The residential development south of the Wilmington Boys and Girls Club has very limited views of the southern end of the shaft site. A black, decorative wrought-iron fence surrounds the northern, eastern, and southern edges of the shaft site, and a landscape buffer is planted along Figueroa Street to limit views to the interior of the site (Figure 4-2b, KOP 4).

As part of the larger JWPCP complex, as described in Section 4.2.2, vividness and unity for the area are low because of the diverse forms and structures in the area. Intactness of the area is generally moderate in the immediate vicinity of the site because land uses are somewhat cohesive, consisting of the local roadways, residences, and industrial and recreational areas. Utilities and infrastructure are common visual elements. Roadways and industrial and residential areas all have night lighting for security and safety purposes that create nighttime light and glare. However, the Wilmington Athletic Complex is not typically used for nighttime events, as evidenced by its lack of permanent lighting.

Angels Gate

The Angels Gate shaft site is located south of Angels Gate Park, at the base of the hill where the Korean Bell of Friendship is housed, and southeast of Angels Gate Continuation High School (which is also the location of the future South Region High School No. 15). The site is north of Point Fermin Park and West Paseo Del Mar/Shepard Street. KOP and simulated KOP locations for Angels Gate are shown on Figure 4-3. South Gaffey Street and a residential development border the site to the east. The western and southern perimeter is bound by West Paseo Del Mar/Shepard Street and the northwest corner of Point Fermin Park. The Pacific Ocean is prominently visible to the west. The shaft site location is highly visible to all viewer groups in the area. Recreationists have ground-level views from within the Point Fermin Park coastal trail (Figure 4-3a, KOP 1) or local sidewalks and bike lanes along West Paseo Del Mar/Shepard Street. Residents southeast and east of the site have direct, unobstructed views of the shaft site, as do travelers using adjacent roadways and sidewalks (Figure 4-3a, KOP 2 and Figure 4-3b, KOP 3, respectively). Recreationists have elevated views into the site from the Angels Gate Park hillside, south of the Korean Bell of Friendship (Figure 4-3e, KOP 4).

Vividness, intactness, and unity for the area are moderate because nearby residential land uses are complemented by landscaped parks, open space, and the coastline, which create an attractive viewshed and form a cohesive coastal community setting. Roadways, parks, parking areas, and residential areas all have night lighting for security and safety purposes that create nighttime light and glare. Lights located along the coast reflect off the water's surface, contributing to nighttime glare, but this is often perceived as an attractive visual element.

Royal Palms

The Royal Palms shaft site is located within Royal Palms Beach, just west of White Point Park and northwest of White Point Beach. KOP and simulated KOP locations for Royal Palms are shown on Figure 4-4. The site is situated at the base of the bluff, the top of which is lined with luxury homes along West Paseo Del Mar that have views looking down on the shaft site. Recreationists using White Point Park have views looking down on the shaft site from the bluff above (Figure 4-4a, KOP 1). Roadway users on West Paseo Del Mar do not have views of the shaft site. Recreationists using Royal Palms Beach have ground-level views of the shaft site looking southeast and northwest from the parking lots, promenade and restroom area, the beach, and water (Figure 4-4d, KOP 2 and Figure 4-4g, KOP 3, respectively).

Vividness, intactness, and unity for the area are high because nearby residential land uses, landscaped parks, and open spaces do not detract from the dynamic visual presence of the ocean, rocky and sandy shorelines, and rising bluffs. These elements comprise an attractive viewshed and form a cohesive coastal setting that changes seasonally, with variations in the climate, and with changes brought about by weather fronts, creating drastically different vistas. Roadways, parks, parking areas, and residential areas all have night lighting for security and safety purposes that create nighttime light and glare. Lights located along the coast reflect off the water's surface, contributing to nighttime glare, but this is often perceived as an attractive visual element.

4.2.3.3 Riser/Diffuser Areas

The riser and diffuser areas for the San Pedro Shelf (SP Shelf) and Palos Verdes Shelf (PV Shelf), and the existing ocean outfalls are described herein. The discussion includes a description of the location of KOPs and the associated KOP photographs. Additionally, KOP simulations are provided at certain KOPs as a tool to evaluate project impacts, which are discussed in Section 4.4.

San Pedro Shelf

The SP Shelf riser and diffuser would be located on the ocean floor, over 7.5 miles off the coast at a depth of approximately 200 feet and, therefore, would not be visible during operation. There are, however, coastal views of the water from which construction would occur above the riser and diffuser area. These coastal views can change drastically with the seasons and are high in vividness, intactness, and unity because of the dynamic visual presence of the ocean, rocky and sandy shorelines, and rising bluffs. The ocean surface above the riser and diffuser area can be seen from land- and water-based vantage points. The KOP location for the SP Shelf riser and diffuser is shown on Figure 4-3 (same as Angels Gate shaft site). Land-based views are available to residents, recreationists, roadway travelers, and workers (in both commercial and industrial settings). Ocean views are available to commercial and recreational boaters using motorboats, sailboats, kayaks, and canoes; swimmers; surfers; wind surfers; jet skiers; and scuba divers. Ocean views are most accessible from Angels Gate Park (Figure 4-3h, KOP 5), Lookout Point, Point Fermin Park, the southern extents of the Port of Los Angeles, and from residences and roadways in the general area. Because of distance and typical atmospheric conditions, boat activity and the water above the SP Shelf is visible to a lesser degree from Royal Palms Beach, White Point Park, and White Point Beach.

Palos Verdes Shelf

The PV Shelf riser and diffuser would be located on the ocean floor approximately 2 miles off the coast at a depth of approximately 175 feet and, therefore, would not be visible during operation. There are, however, coastal views of the water from which construction would occur above the riser and diffuser area. These coastal views can change drastically with the seasons and are high in vividness, intactness, and unity because of the dynamic visual presence of the ocean, rocky and sandy shorelines, and rising bluffs. The area above the riser and diffuser area can be seen from land- and water-based vantage points. KOP and simulated KOP locations for the PV Shelf riser and diffuser are shown on Figure 4-3 (same as Angels Gate shaft site). Land-based views are available to residents, recreationists, roadway travelers, and workers (in both commercial and industrial settings). Ocean views are available to commercial and recreational boaters using motorboats, sailboats, kayaks, and canoes; swimmers; surfers; wind surfers; jet skiers; and scuba divers. Views are most accessible near Angels Gate and Point Fermin Parks and from residences and roadways in the general area (Figure 4-3i, KOP 6). Because of distance and typical atmospheric conditions, the PV Shelf is visible to a lesser degree from Royal Palms Beach, White Point Park, and White Point Beach.

Existing Ocean Outfalls

The existing ocean outfalls connect to a manifold structure at Royal Palms Beach and extend approximately 2 miles into the Pacific Ocean to a depth of approximately 200 feet on the PV Shelf. They are located on the ocean floor and are not visible from the ocean surface or from land. There are, however, coastal views of the water above the existing ocean outfalls where rehabilitation would occur. These coastal views can change drastically with the seasons and are high in vividness, intactness, and unity because of the dynamic visual presence of the ocean, rocky and sandy shorelines, and rising bluffs. The ocean surface above the existing ocean outfalls can be seen from land- and water-based vantage points. Land-based views are available to residents, recreationists, roadway travelers, and workers (in both commercial and industrial settings). KOP and simulated KOP locations for the existing ocean

outfalls are shown on Figure 4-4 (same as Royal Palms shaft site). Ocean views are available to commercial and recreational boaters using motorboats, sailboats, kayaks, and canoes; swimmers; surfers; wind surfers; jet skiers; and scuba divers. Views of the existing ocean outfalls area are most accessible from White Point Park (Figure 4-4g, KOP 4), Royal Palms Beach, Harbor Walkway, White Point Beach, residences above the bluff (Figure 4-4h, KOP 5), and roadways in the general area. Because of distance and typical atmospheric conditions, the ocean surface above the existing ocean outfalls is visible to a much lesser degree from Angels Gate Park.

4.2.4 Existing Viewer Groups and Viewer Responses

4.2.4.1 Residents

The cities of Carson and Los Angeles, including the communities of Wilmington and San Pedro, would be affected by construction at the shaft sites, work within the riser and diffuser areas, and rehabilitation of the existing ocean outfalls. The residents in areas surrounding the inland shaft sites would be moderately sensitive to changes in views of their environment. These views are in areas that are highly developed and that experience construction activities through development or roadway improvements on a fairly regular basis. Views would be limited to residences fronting the shaft sites or travel routes and, most often, would not extend to residences on nearby streets.

Portions of the communities of Wilmington and San Pedro have scenic views of San Pedro Bay and the Pacific Ocean, and would potentially have above-water views of the riser and diffuser areas. These views consist of the ocean and bay outlines, opposite landforms, development massings, larger vegetation massings, and rolling hills. However, distance often makes finer details indistinguishable from the various vantage points. Given the distance from the site, residents are considered to have low sensitivity to visual changes resulting from the project.

There are very few residences on parcels of land immediately along the coastline (primarily along West Paseo Del Mar), but they are physically closer to the features that give the coastline its astounding scenic quality. Residents have chosen to live here for these scenic qualities, for the resources available along the coastline, such as wildlife, and for opportunities for land and water recreation. Residents along the coastline are likely to have high sensitivity to visual changes because of their proximity to coastal features, appreciation of the surrounding natural environment and visual experience, and high sense of ownership over such experiences and features.

4.2.4.2 Businesses

Businesses in the project area offer commercial, industrial, and recreational services. Commercial businesses and operations generally serve residents and workers in their immediate vicinity. Industrial businesses and operations tend to be service-based, and manufacture, supply, ship, and distribute goods mostly to commercial entities for public use. Sensitivity of commercial and industrial business viewers would be low because employees of these businesses are likely to be highly occupied with their work activities. In addition, these viewers are likely accustomed to the traffic and activities associated with industry and construction. Given their limited viewing times, their focus on tasks at hand, and the current level of construction within their viewsheds, these viewers are considered to have low sensitivity to changes in views.

Recreational businesses and operations generally serve specific, focused groups. Their livelihoods tend to rely on the land- or water-based recreational opportunities in the area. These opportunities are often closely tied not only to the activity at hand but also to the visual experience. Therefore, employees and

customers are more likely to be affected by changes in the visual environment and would, therefore, have high sensitivity to changes in views.

4.2.4.3 Roadway Users

One of the largest viewer groups affected by the project would be travelers along local roadways. Many of these roadways serve as commercial and commuter routes, with truck drivers and commuters being the most frequent viewers. Speeds vary by route and peak and off-peak hours. During commute hours, single views could be quite long. However, viewers who frequently travel high-traffic roadways generally possess low visual sensitivity to their surroundings. The passing landscape becomes familiar, and their attention is typically focused elsewhere. At standard roadway speeds during off-peak hours, views are short, and travelers are fleetingly aware of surrounding traffic, road signs, the automobile's interior, and other visual features of the environment. Roadway travelers also have low sensitivity because they need to concentrate on exiting/merging from one roadway to another. Other, smaller local roadways may be traveled more for their scenic qualities and coastal views. Travelers on such roadways are likely to have moderate sensitivity because they seek out such routes for their aesthetic viewsheds.

4.2.4.4 Recreationists

People involved in recreational activities view the project area from lands along the coast, public parks, surrounding waterways, and public roadways. The primary inland recreational uses in the project areas are sporting activities and passive recreational uses in local parks. The primary coastal recreational uses in the project areas are boating (motorboats, sailboats, kayaks, and canoes), swimming, surfing, wind surfing, jet skiing, scuba diving, fishing, hiking, and wildlife and nature viewing. Other recreational uses in the project area are running, jogging, and bicycling along local public roads. Waterway users have unique views based on their location in the landscape, and are accustomed to variations in the level of industrial, commercial, and recreational activities in the vicinity. Most recreationists in the area are moving through the landscape as opposed to staying in one area for extended periods of time. Beach and park users (e.g., picnickers) are the exceptions, as they often stay in one location longer than other recreationists. Their views may differ based on their location, and their attention is often focused both on their immediate activities and the surrounding landscape. Users of parks or public use areas along the coast in the project area are likely to seek out sweeping views of the bay, ocean, and natural areas from trails, park roadways, and other access points.

Recreationists who frequent the project area and surrounding vicinity likely are accustomed to seeing some level of maintenance activities (including the presence of heavy equipment) associated with roadway maintenance, development, infrastructure, and shipping. Generally, those participating in recreational activities in the project area are more likely to highly value the natural environment, appreciate the visual experience, and be sensitive to changes in views. Because of their appreciation of the natural landscape, combined with the importance and value of the recreational areas, this viewer group has high sensitivity to changes in views.

4.3 Regulatory Setting

4.3.1 Federal

4.3.1.1 California Coastal National Monument

The California Coastal National Monument (CCNM), which is managed by the United States (U.S.) Bureau of Land Management (BLM), was established on January 11, 2000, under presidential proclamation stating:

The islands, rocks, and pinnacles of the California Coastal National Monument overwhelm the viewer, as white-capped waves crash into the vertical cliffs or deeply crevassed surge channels and frothy water empties back into the ocean. Amidst that beauty lies irreplaceable scientific values vital to protecting the fragile ecosystems of the California coastline. At land's end, the islands, rocks, exposed reefs, and pinnacles off the coast above mean high tide provide havens for significant populations of sea mammals and birds. They are part of a narrow and important flight lane in the Pacific Flyway, providing essential habitat for feeding, perching, nesting, and shelter. (BLM 2000.)

The legislation protects “islands, rocks, exposed reefs, and pinnacles above mean high tide within 12 nautical miles of the shoreline of the State of California” for the entire 840 miles of California’s Pacific coastline (BLM 2000). The coastline affected by the project is part of the CCNM on the Palos Verdes Peninsula that includes Royal Palms Beach and Point Fermin Park as points of interest (BLM 2010).

4.3.1.2 California Coastal National Monument Resource Management Plan

The CCNM Resource Management Plan only applies to BLM lands within the CCNM (BLM 2005:2–15). The sections that apply to visual resources are listed below.

Allowable Uses

AU-VRM-1: On-Monument Developments. Any new site developments on BLM lands will be located and designed so that they do not detract from coastal vistas. New facilities will be constructed so that no or minimal impacts occur to the immediate coastal viewshed.

AU-VRM-2: Aids-to-Navigation. In areas where coastal rocks present navigation hazards, any analysis of safety/navigation aids will consider opportunities for placing aids in adjoining waters or land. Only where it is determined that these aids will not be effective elsewhere, or will cause greater impacts on the coastal landscape, will they be considered for on-monument placement. Where on-monument (i.e., on-rock) navigation aids are determined to be the only reasonable solution, efforts will be made to balance the need to provide for navigational safety while minimizing visual impacts.

Operating Framework

FR-VRM-1: Agency Coordination. Work with county governments, the California Coastal Commission, the [U.S. Coast Guard] USCG, and other agencies with management jurisdiction to ensure that coastal developments do not detract from the scenic integrity of the area.

FR-VRM-2: Mainland Facilities. Locate and design any new CCNM-related facilities on the mainland (for instance, on BLM partner lands) so that these facilities do not detract from coastal vistas. New facilities will be constructed so that no or minimal impacts occur to the immediate coastal viewshed.

4.3.1.3 Coastal Zone Management Act of 1972

Sections of the Coastal Zone Management Act of 1972 that are most relevant to the project are highlighted below.

Section 302 (U.S. Government Code [USC], Title 16, Section 1451). (Congressional findings) states:

- (b) The coastal zone is rich in a variety of natural, commercial, recreational, ecological, industrial, and esthetic resources of immediate and potential value to the present and future well-being of the Nation and that (e) important ecological, cultural, historic, and esthetic values in the coastal zone which are essential to the well-being of all citizens are being irretrievably damaged or lost.

Section 303 (16 USC 1452). (Congressional declaration of policy) declares:

It is the national policy (2) to encourage and assist the states to exercise effectively their responsibilities in the coastal zone through the development and implementation of management programs to achieve wise use of the land and water resources of the coastal zone, giving full consideration to ecological, cultural, historic, and esthetic values as well as the needs for compatible economic development, which programs should at least provide for (F) assistance in the redevelopment of deteriorating urban waterfronts and ports, and sensitive preservation and restoration of historic, cultural, and esthetic coastal features.

Section 306 (16 USC 1455). (Administrative grants) states:

Management programs for administrative grants submitted by coastal states are required to have (2)(G) a definition of the term *beach* and a planning process for the protection of, and access to, public beaches and other public coastal areas of environmental, recreational, historical, esthetic, ecological, or cultural value.

Section 306 (16 USC 1455). (Administrative grants) further states:

- (9) The management program includes procedures whereby specific areas may be designated for the purpose of preserving or restoring them for their conservation, recreational, ecological, historical, or esthetic values.

4.3.2 State

4.3.2.1 Scenic Roadways

No roadways that would be affected by the project are designated in state plans as scenic roadways or corridors worthy of protection to maintain and enhance scenic viewsheds.

4.3.2.2 California Ocean Plan

Policies from the California Ocean Plan (SWRCB 2005:3, 5) that apply to visual resources are described below.

Beneficial Uses

- (A) The beneficial uses of the ocean waters of the State that shall be protected include industrial water supply; water contact and non-contact recreation, including aesthetic enjoyment; navigation; commercial and sport fishing; mariculture; preservation and enhancement of designated Areas of Special Biological Significance; rare and endangered species; marine habitat; fish migration; fish spawning and shellfish harvesting.

Water Quality Objectives

- (C) Physical Characteristics, (2) The discharge of waste shall not cause aesthetically undesirable discoloration of the ocean surface.

4.3.2.3 California Coastal Act

The California Coastal Act includes the following policy that applies to visual resources.

Chapter 3. Coastal Resources Planning and Management Policies, Article 6. Development: Section 30251 – Scenic and Visual Qualities. 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.

4.3.3 Regional

4.3.3.1 Water Quality Control Plan, Los Angeles Region

Uses identified as beneficial by the Water Quality Control Plan for the Los Angeles Region (California CRWQCB 1994:2-2, 5-5) are discussed below.

Water Contact Recreation (REC 1)

See Chapter 13.

Non-Contact Water Recreation (REC 2)

Uses of water for recreational activities involving proximity to water, but not normally involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tide pool and marine life study, hunting, sightseeing, or aesthetic enjoyment in conjunction with the above activities.

4.3.4 Local

4.3.4.1 City of Carson General Plan

The City of Carson General Plan (City of Carson 2004:LU25–LU36) identifies the area of the JWPCP as “heavy industrial.” Policies on visual resources applicable to the project are listed below.

Land Use Element

Policy LU-6.8. Manage truck-intensive uses.

Policy LU-7.2. Locate truck intensive uses in areas where the location and circulation pattern will provide minimal impacts on residential and commercial uses.

Policy LU-7.3. Promote the use of buffers between more intensive industrial uses and residential uses.

Policy LU-9.5. Develop design standards to address permanent and effective screening of areas in transition and heavy industrial uses such as outdoor storage yards, pallet yards, salvage yards, auto dismantling yards, and similar uses.

Policy LU-12.5. Improve City appearance by requiring landscaping to screen, buffer and unify new and existing development. Mandate continued upkeep of landscaped areas.

4.3.4.2 City of Los Angeles General Plan

The City of Los Angeles General Plan Land Use Element consists of the San Pedro (City of Los Angeles 1999a) and Wilmington-Harbor City (City of Los Angeles 1999b) Community Plans that occur within the JOS service area.

San Pedro Community Plan

Policies from the San Pedro Community Plan (City of Los Angeles 1999a:III-7, III-14, III-17-23, V-6-8) that apply to visual resources are discussed below.

Residential

Policy 1-9.1. The preservation of existing scenic views from surrounding residential uses, public streets and facilities, or designated scenic view sites be a major consideration in the approval of zone changes, conditional use permits, variances, divisions of land and other discretionary permits.

Industrial

Policies 3-3.1. Require urban design techniques, such as appropriate building orientation and scale, landscaping, buffering and increased setbacks in the development of new industrial properties to improve land use compatibility with adjacent uses and to enhance the physical environment.

Open Space

The San Pedro Community Plan defines open space as:

land that is essentially free of structures and buildings and/or is natural in character and which functions in one or more of the following ways:

1. Recreational and educational opportunities.
2. Scenic, cultural, and historic values.
3. Public health and safety.
4. Preservation and creation of community identity.
5. Rights-of-way for utilities and transportation facilities.
6. Preservation of natural resources or ecologically important areas.
7. Preservation of physical resources including ridge protection.

Policy 5-1.1. Encourage the retention of passive and visual open space that provides a balance to the urban development of the community.

Policy 5-1.2. Protect significant environmental resources from environmental hazards.

Policy 5-1.8. Coastal areas containing ecological or scenic resources be preserved and protected within State reserves, preserves, parks, or natural wildlife refuges.

San Pedro Local Coastal Program Specific Plan

Policy 6-2.1. That the scenic and visual qualities of San Pedro be protected as a resource of Community as well as regional importance, with permitted development sited and designed to: protect views to and along the ocean, harbor, and scenic coastal areas; minimize the alteration of natural landform; be visually compatible with the character of the surrounding area; and prevent the blockage of existing views for designated public scenic view areas and Scenic Highways.

Policies 6-3.1 and 6-5.1. That existing coastal-oriented recreational facilities be maintained, developed, and expanded where needed to provide local as well as regional access to and enjoyment of San Pedro's unique coastal resources.

Policy 6-6.1. That visual access to coastal views be provided by means of appropriately located scenic overlooks, turnouts, view spots and other areas for limited vehicular parking, especially along designated Scenic Highways and Bikeways. Turn-out and view site areas from Paso Del Mar shall provide unobstructed views of the ocean. All development seaward of the turn-out and viewsite areas of Paseo Del Mar and Shepard Street shall be sited, designed and constructed so that public views to and along the ocean are protected to the maximum extent feasible. All development in this area, including public recreation and public works, shall be subordinate to their setting and minimize in height and bulk to the maximum extent feasible to accomplish view protection. Until a "Corridor Plan" is prepared for Scenic Highway, any development adjacent to a Scenic Highway shall protect public views to the ocean to the maximum extent feasible, be adequately landscaped to soften the visual impact of the development, and, where appropriate, provide hiking or biking trails, a turnout, vista points and other complementary facilities.

Policy 6-6.2. The Osgood/Farley Battery site, Lookout Point site, and the Korean Bell site shall be designated as public view sites and any development that obstructs views from these sites shall be prohibited.

Urban Design – Industrial

Structures. The purpose is to create attractive buffers along street frontages of industrial sites, and to serve such practical purposes as security, sound attenuation, the separation of functional areas, and the screening of unsightly nuisances, by:

1. Designing the site and building(s) to convey visual interest and to be visually compatible with adjacent uses.
2. Treating large expanses of blank walls and tilt-up concrete walls visible from the public right-of-way with contrasting complementary colors, building plane variation, murals, planters and/or other landscape elements to create visual interest.
3. Screening of mechanical and electrical equipment from public view.
4. Screening of all rooftop equipment and building appurtenances from public view.
5. Requiring the enclosure of trash areas for all projects.
6. Screening of open storage areas from public view.
7. Requiring freestanding walls to use articulations, surface perforations or other elements, and to include plantings of vines or tall shrubs or trees on exterior faces, to relieve long monotonous expanses and mitigate graffiti.
8. Using landscaping effectively to screen parking and loading areas from roadways, as a surface treatment adjacent to building walls, and to screen from public view storage areas, trash containers and utility equipment.

Lighting. Directing exterior lighting onto the project site and locating flood lighting so as not to impact any surrounding residential uses.

Design for Industrial/Residential Interface Areas. In order to mitigate potential negative impacts generated by industrial uses when they are located adjacent to residentially zoned neighborhood, new development of industrial uses shall incorporate the following design guidelines:

Loading Areas:

1. New development of industrial uses located across a local or collector street from a residentially zoned area shall be designed in such a manner that truck loading/unloading is restricted to the rear portion of the lot, and/or separated from the street by the structure housing the industrial use.
2. New development adjacent (abutting) residentially zoned areas shall locate facilities for loading and unloading or open storage of material and finished products on the project site and/or street frontage furthest from the residential development.

Walls/Landscaping:

1. Where vehicle parking, loading, or open storage for a new industrial development is located within 50 feet of a public street which separates the industrial and residential uses, a minimum 3 ½ - foot high solid decorative masonry wall shall be provided in a front yard, or a minimum 5-foot, 9-inch to 8-foot solid decorative masonry wall in a side or rear yard. A minimum 5-foot landscaped setback buffer with an installed automatic sprinkler system shall be located in front of said wall, along the street frontage.

2. New industrial development located directly across a local or collector street from a residential neighborhood shall provide a minimum 5-foot landscaped setback along any portion of the frontage, not required for driveways, facing the residential use. Said landscaping shall contain a minimum of one 24-inch box tree (with a minimum trunk diameter of two inches, a height of eight feet at the time of planting, and with an installed automatic sprinkler system) for every 20 feet of street frontage.
3. On any other interior property line that separates an industrial use from an abutting residential zone, a minimum 5-foot, 9-inch to 8-foot solid decorative masonry wall shall be provided.

Architectural Guidelines:

1. New industrial development located directly across a local or collector street, or with a lot line adjoining a residentially zoned area, shall have outdoor, on-site, lighting designed and installed with shielding, such that the light source cannot be seen from adjacent residential properties.
2. New industrial development on local or collector streets fronting onto residentially zoned areas shall be designed with articulated facades (for example, facades that have architectural details, wall breaks, or other architectural features which provide at least 5 feet of relief to a minimum depth of 8 inches every 20 feet of length of the building wall) facing the residential development.
3. New industrial development adjacent to residentially zoned areas shall be designed with no window openings facing residential properties and the construction of a 5-foot, 9-inch to 8-foot high solid decorative masonry wall adjacent to these properties if no such wall exists. There shall be no window openings higher than the adjacent wall.
4. All exhaust fans and exterior or rooftop mechanical equipment shall be enclosed and sound absorbing and shielding provisions shall be incorporated in the design of the project. Such equipment shall be set back as far as possible from residential property lines.

San Pedro Specific Plan

The following policies from the San Pedro Specific Plan (City of Los Angeles 1990:8) apply to visual resources.

Visual Resources

1. Lookout Point and its immediately surrounding (Appendix C) view area, as shown on the Special Features map, is designated a public viewsite. The visual corridor extending from this viewsite shown on said map shall be protected. New construction or remodeling within the immediate vicinity of the viewsite on the easterly side of Gaffey Street, as shown on said map, shall be limited to an absolute height of 24 feet, measured as set forth in Section 5B 1(a). However, the Director of Planning may permit additional height to the maximum otherwise allowed in this ordinance if he finds that such height will not obstruct the view from the viewsite. Evidence may include, but is not limited to photographs taken from the viewsite with the proposed project superimposed upon it or a topographic map showing proposed elevations of the project.
2. The Korean Bell monument and the surrounding structure, and the Osgood-Farley Battery site, as shown on the Special Features map (Appendix C), are designated public view sites. The visual corridors extending from these viewsites shall be protected. New construction or remodeling within the immediate vicinity of the viewsites, as shown on the Special Features map, shall be limited to a total height of 24 feet, measured as set forth in Sections 5B and 5C.

However, the Director of Planning may permit additional height to the maximum otherwise allowed in this ordinance if he finds that such height will not obstruct the view from the viewsite. Evidence may include, but is not limited to photographs taken from the viewsite with the proposed project superimposed upon it or a topographic map showing proposed elevations of the project.

3. White Point Reservation is designated a public viewsite and all development therein shall provide for public viewing to and along the coast.
4. Turn-out and viewsite areas from Paseo Del Mar, as shown on the Special Features map (Appendix C), shall provide unobstructed views of the ocean.
5. Utilities serving new structures shall be placed underground. Utilities for existing buildings converted to condominiums or stock cooperatives shall be placed underground. The Advisory Agency may as a condition of map approval waive any requirement for underground utilities if he finds that such would result in an unnecessary hardship inconsistent with the purposes of the Specific Plan or that there are special circumstances applicable to the subject property such as soil, shape, topography or other conditions that would make underground installations unreasonable or impractical.

Wilmington-Harbor City Community Plan

The following policies from the Wilmington-Harbor City Community Plan (City of Los Angeles 1999b:III-2, III-28, III-40-41, III-42, V-4-6) apply to visual resources.

Open Space

Policy 5-1.1. Encourage the retention of passive and visual open space that provides a balance to the urban development of the community.

Public Transportation

Policy 10-1.2. Encourage the provision of safe, attractive and clearly identifiable transit stops with user-friendly design amenities.

Relationship to the Port of Los Angeles

Policy 18-3.1. The Port's Wilmington land acquisition program should develop adequate buffers, landscaping and transitional uses between the Port and the community.

Policy 18-3.3. Port land acquisitions and development in Wilmington should bring about the timely removal of blighting activities and their replacement with uses consistent with Port development objectives and which enhance the physical, visual and economic environment of the community.

Coastal Resources

Policy 19-1.4. New and/or expanded industrial facilities to be sited to provide a sufficient open space, landscaped and maintained buffer area to minimize adverse impacts on surrounding property.

Policy 19-1.5. Provide public access and viewing areas for the public enjoyment and education of the Coastal Zone environment, including access to and viewing of recreational and industrial activities in the Port of Los Angeles consistent with public safety, efficient Port operation and the California Coastal Act.

Urban Design – Industrial

Structures. The purpose is to create attractive buffers along street frontages of industrial sites, and to serve such practical purposes as security, sound attenuation, the separation of functional areas, and the screening of unsightly nuisances, by:

1. Designing the site and building(s) to convey visual interest and to be visually compatible with adjacent uses.
2. Treating large expanses of blank walls and tilt-up concrete walls visible from the public right-of-way with contrasting complementary colors, building plane variation, murals, planters and/or other landscape elements to create visual interest.
3. Screening of mechanical and electrical equipment from public view.
4. Screening of all rooftop equipment and building appurtenances from public view.
5. Requiring the enclosure of trash areas for all projects.
6. Screening of open storage areas from public view.
7. Requiring freestanding walls to use articulations, surface perforations or other elements, and to include plantings of vines or tall shrubs or trees on exterior faces, to relieve long monotonous expanses and mitigate graffiti.
8. Using landscaping effectively to screen parking and loading areas from roadways, as a surface treatment adjacent to building walls, and to screen from public view storage areas, trash containers and utility equipment.

Lighting: Integrating exterior lighting with site design and directing exterior lighting onto the project site and locating flood lighting so as not to impact any surrounding residential uses.

Design for Industrial/Residential Interface Areas: In order to mitigate potential negative impacts generated by industrial uses when they are located adjacent to residentially zoned neighborhood, new development of industrial uses shall incorporate the following design guidelines:

Loading Areas:

1. New development of industrial uses located across a local or collect or street from a residentially zoned area shall be designed in such a manner that truck loading/unloading is restricted to the rear portion of the lot, and/or separated from the street by the structure housing the industrial use.
2. New development adjacent (abutting) residentially zoned areas shall locate facilities for loading and unloading or open storage of material and finished products on the project site and/or street frontage furthest from the residential development.

Walls/Landscaping:

1. Where vehicle parking, loading, or open storage for a new industrial development is located within 50 feet of a public street which separates the industrial and residential uses, a minimum 3 ½-foot high solid decorative masonry wall shall be provided in a front yard, or a minimum 5 foot-9 inch to 8-foot solid decorative masonry wall in a side or rear yard. A minimum 5-foot landscaped setback buffer with an installed automatic sprinkler system shall be located in front of said wall, along the street frontage.

2. New industrial development located directly across a local or collector street from a residential neighborhood shall provide a minimum 5-foot landscaped setback along any portion of the frontage, not required for driveways, facing the residential use. Said landscaping shall contain a minimum of one 24-inch box tree (with a minimum trunk diameter of two inches, a height of eight feet at the time of planting, and with an installed automatic sprinkler system) for every 20 feet of street frontage.
3. On any other interior property line that separates an industrial use from an abutting residential zone, a minimum 5-foot, 9-inch to 8-foot solid decorative masonry wall shall be provided.

Architectural Guidelines:

1. New industrial development located directly across a local or collector street, or with a lot line adjoining a residentially zoned area, shall have outdoor, on-site, lighting designed and installed with shielding, such that the light source cannot be seen from adjacent residential properties.
2. New industrial development on local or collector streets fronting onto residentially zoned areas shall be designed with articulated facades (for example, facades that have architectural details, wall breaks, or other architectural features which provide at least 5 feet of relief to a minimum depth of 8 inches every 20 feet of length of the building wall) facing the residential development.
3. New industrial development adjacent to residentially zoned areas shall be designed with no window openings facing residential properties and the construction of a 5 foot-9 inch to 8-foot high solid decorative masonry wall adjacent to these properties if no such wall exists. There shall be no window openings higher than the adjacent wall.
4. All exhaust fans and exterior or rooftop mechanical equipment shall be enclosed and sound absorbing and shielding provisions shall be incorporated in the design of the project. Such equipment shall be set back as far as possible from residential property lines.

Transportation Element

The Transportation Element of the City of Los Angeles General Plan (City of Los Angeles 1999c) designates Paseo Del Mar, Harbor Boulevard, and South Pacific Avenue as Future Alignments Designated as Scenic, but they are not Officially Designated City Scenic Highways.

Conservation Element

The following policy from the Conservation Element of the City of Los Angeles General Plan (City of Los Angeles 2001:II-48) applies to visual resources.

Land Form and Scenic Vistas

Continue to encourage and/or require property owners to develop their properties in a manner that will, to the greatest extent practical, retain significant existing land forms (e.g., ridge lines, bluffs, unique geologic features) and unique scenic features (historic, ocean, mountains, unique natural features) and/or make possible public view or other access to unique features or scenic views.

4.4 Environmental Impacts and Mitigation Measures

4.4.1 Methodology and Assumptions

Because evaluating visual impacts is inherently subjective, federal and professional standards of visual assessment methodology have been used to determine potential impacts on the aesthetic values of the project area.

Using the concepts and terminology described in Section 4.1.1, and thresholds for determining significance, described herein, analysis of the visual effects of the project is based on:

- Direct field observation from vantage points, including neighboring buildings, property, and roadways (February 26, 2010 and May 4, 2011).
- Photographic documentation of key views of and from the project site, as well as the regional visual context.
- Photorealistic simulations used to depict proposed noise barriers' heights, noise barriers, and/or cranes, as well as ocean-based construction activities.
- Shade and shadow analysis using AutoCAD Civil 3D to evaluate shadow cast from the 20-foot-tall noise barrier during the winter and summer solstices, December 21 and June 21, respectively. The noise barrier at the JWPCP East shaft site was modeled to determine the distance of the shadow for these dates. Because all of the barriers would be approximately 20 feet tall, the information gained from modeling at the JWPCP East shaft site was used to infer the potential for the noise barrier to shade at other shaft sites.
- Review of the project in regard to compliance with state and local ordinances and regulations and professional standards pertaining to visual quality.

4.4.1.1 Professional Standards

According to professional standards, a project may be considered to have a significant impact if it would significantly:

- Conflict with local guidelines or goals related to visual quality
- Alter the existing natural viewsheds, including changes in natural terrain
- Alter the existing visual quality of the region or eliminate visual resources
- Increase light and glare in the project vicinity
- Result in backscatter light into the nighttime sky
- Result in a reduction of sunlight or introduction of shadows in community areas
- Obstruct or permanently reduce visually important features
- Result in long-term (that is, persisting for 2 years or more) adverse visual changes or contrasts to the existing landscape as viewed from areas with high visual sensitivity

4.4.1.2 Baseline

CEQA Baseline

The California Environmental Quality Act (CEQA) baseline includes visual resource conditions within the viewshed of project elements. The reference date for the CEQA baseline is 2008. Under CEQA, cumulative projects are not considered part of the baseline. For example, the Los Angeles Unified School District (LAUSD) is constructing South Region High School No. 15 on the Upper Fort MacArthur Reservation, but it was not yet completed when the notice of preparation was issued. Therefore, impacts on recreational viewers using the school's facilities will not be evaluated under CEQA.

NEPA No-Federal-Action Baseline

The National Environmental Policy Act (NEPA) no-federal-action baseline for the Clearwater Program is described in Section 1.7.4.2. The NEPA baseline in general represents the conditions of resources at the year 2022 when construction of project elements under the U.S. Army Corps of Engineers' (Corps') jurisdiction would conclude.

The NEPA no-federal-action baseline is the same as the CEQA baseline. However, LAUSD's South Region High School No. 15 for which construction has been initiated in 2010 would be part of the NEPA no-federal-action baseline. Therefore, impacts on recreational viewers using the school's facilities will be evaluated under NEPA.

Note that the NEPA analysis includes direct and indirect impacts as discussed in Section 3.5.2. Any impact associated with project elements located within the Corps' geographic jurisdiction (i.e., the marine environment) during construction would be the direct result of the Corps permit and considered a direct impact under NEPA. Any impact associated with project elements located outside the Corps' geographic jurisdiction during construction would be the indirect result of the Corps permit and considered an indirect impact under NEPA. Any impact that occurs during operation would be considered an indirect impact under NEPA.

4.4.2 Thresholds of Significance

The project would pose a significant impact if it exceeds any of the following thresholds for aesthetic resources (AES):

AES-1. Conflicts with adopted goals or policies that protect visual quality of a designated scenic vista or scenic resource, resulting in an adverse aesthetic impact such as obstruction of view or degradation of visual character.

AES-2. Substantially damages scenic resources (including, but not limited to, trees, rock outcroppings, and historic buildings) within a state scenic highway.

AES-3. Substantially degrades the existing visual character or quality of the site or its surroundings.

AES-4. Results in an adverse effect due to shading on existing visual character or quality of the site or its surroundings.

AES-5. Creates a new source of substantial light or glare that would adversely affect day or nighttime views of the area.

Program and project elements were analyzed by threshold in the Preliminary Screening Analysis (Appendix 1-A) to identify potentially significant impacts on aesthetic resources before mitigation. Table 4-3 identifies which elements were brought forward for further analysis by threshold in this EIR/EIS for Alternatives 1 through 4. If applicable, Table 4-3 also identifies thresholds evaluated in this EIR/EIS if an emergency discharge into various water courses were to occur under the No-Project or No-Federal Action Alternatives, as described in Sections 3.4.1.5 and 3.4.1.6.

Table 4-3. Thresholds Evaluated

Project Element	Alt.	Threshold				
		AES-1	AES-2	AES-3	AES-4	AES-5
JWPCP East Shaft Site	1,2			X	X	X
JWPCP West Shaft Site	3,4			X	X	X
Angels Gate Shaft Site	3	X		X	X	X
Royal Palms Shaft Site	4	X		X	X	X
SP Shelf Riser/Diffuser Area	1			X		X
PV Shelf Riser/Diffuser Area	2,3	X		X		X
Existing Ocean Outfalls Riser/Diffuser Area	1-4	X		X		X

Alt. = alternative

In the alternatives analysis that follows, if a program or project element is common to more than one alternative, a detailed discussion is presented only in the first alternative in which it appears. Additionally, in subsequent alternatives where no new elements are introduced under a specific threshold, that threshold is not repeated.

4.4.3 Alternative 1

4.4.3.1 Program

Alternative 1 (Program) would result in no impacts or less than significant impacts on aesthetic resources. A detailed discussion on the determinations can be found in the Preliminary Screening Analysis (Appendix 1-A).

4.4.3.2 Project

Impact AES-1. Would Alternative 1 (Project) conflict with adopted goals or policies that protect visual quality of a designated scenic vista or scenic resource, resulting in an adverse aesthetic impact such as obstruction of view or degradation of visual character?

Riser/Diffuser Area – Existing Ocean Outfalls

Construction

CEQA Analysis

Rehabilitation of the existing ocean outfalls would conflict with adopted goals and policies that are in place to protect highly valued scenic views of the coast and the coastal areas that are a part of the CCNM. Construction would take place near shore in approximately 20 to 50 feet of water and would last 9 months

at 5 days per week (Monday–Friday), 10 hours per day. Marine vessels would be doing the work, and a fixed platform or structure would not be needed. Land-based views from Royal Palms Beach, White Point Park (Figure 4-4g, KOP 4), and Harbor Walkway would be adversely affected by rehabilitation of the existing ocean outfalls because these places are highly visited for their water access, recreational uses, and scenic resources. As shown in simulated KOP 5 on Figure 4-4i, residential views from atop the bluff would change from the foreground views of the ocean and waves breaking on rocks with middleground and background views of passing vessels to foreground views of a large floating platform or barge containing industrial equipment, with rock-laden barges and industrial vessels traveling back and forth to the platform or offloading material into the water. Limiting construction to typical workweek days (Monday–Friday) would eliminate construction activities seen by residents on weekends, the days when they are typically at home, and for recreationists spending weekend time in the area. Impacts resulting from rehabilitation of the existing ocean outfalls would be significant, and there is no feasible mitigation to reduce impacts to less than significant.

NEPA Analysis

Environmental impacts would be the same as described for the CEQA analysis, and would occur for the duration of construction. Baseline conditions would resume upon termination of construction. With respect to the Corps' NEPA scope of analysis described in Section 3.5, the environmental impacts would be considered direct impacts.

CEQA Impact Determination

Construction on the existing ocean outfalls for Alternative 1 (Project) would conflict with adopted goals or policies that protect visual quality of a designated scenic vista or scenic resource, resulting in an adverse aesthetic impact such as obstruction of view or degradation of visual character. Impacts under CEQA would be significant.

Mitigation

No mitigation is feasible.

Residual Impacts

While construction activities would occur during the work week, which would reduce impacts by limiting views of construction activities to Monday through Friday, land-based viewing areas such as Royal Palms Beach, White Point Park, and Harbor Walkway still would receive a large number of viewers during the week. Residual impacts during construction would be significant and unavoidable.

NEPA Impact Determination

Construction on the existing ocean outfalls for Alternative 1 (Project) would conflict with adopted goals or policies that protect visual quality of a designated scenic vista or scenic resource, resulting in an adverse aesthetic impact such as obstruction of view or degradation of visual character. Impacts under NEPA would be significant with respect to the No-Federal-Action Alternative (see Section 3.4.1.6).

Mitigation

No mitigation is feasible.

Residual Impacts

Residual impacts during construction would be significant and unavoidable, as described under the CEQA impact determination.

Impact AES-3. Would Alternative 1 (Project) substantially degrade the existing visual character or quality of the site or its surroundings?

Shaft Site – JWPCP East

Construction

CEQA Analysis

The JWPCP East shaft site would be a working and/or exit shaft site. It would take 10 to 12 months to complete the infrastructure needed to begin tunnel excavation. Construction activities would introduce considerable heavy equipment and associated vehicles (including dozers, graders, scrapers, cranes, and trucks) into the viewshed of the shaft site, public roadways, and residential and commercial properties. Safety and directional signage would also be a visible element. Construction activities would adversely affect the existing visual character of the site and its surroundings.

There is a 12-foot-tall block wall between the JWPCP East shaft site and the adjacent streets. The wall would block most construction activities from view. However, as shown in simulated KOP 3 on Figure 4-1c, an approximately 20-foot-tall noise barrier would be erected to screen construction activities and reduce noise. There would be at least one crane on site, approximately 100 feet high, up to 60 feet of which would be visible over the noise barrier.

The JWPCP East shaft site is being analyzed as a working shaft site, as a worst-case scenario, and would be in operation for 4 to 8 years. The noise barrier would remain intact for the duration of tunnel excavation. Onsite facilities, such as construction worker parking, office trailers, mechanical shops, and excavated-material separating and storage area, would not be visible over the noise barrier.

Residents located immediately across Lomita Boulevard from the site would be the most directly affected viewers. Their views of an approximately 12-foot-tall block wall would change to an approximately 20-foot-tall noise barrier behind the existing wall within the bounds of the shaft site. The sensitivity of these residents to such impacts would be high, and they are likely to regard the construction of the noise barrier as a negative visual intrusion. Although the 12-foot-tall wall would limit background views, the noise barrier would block large portions of the sky and be perceived as an imposing vertical structure. Such a feature would detract from the existing visual character of the site and its surroundings until construction activities cease and the noise barrier is removed. Impacts on these residents are considered adverse because residents would experience a notable change in the visual character of available views during construction of the project. Mitigation Measure (MM) AES-3a would reduce these impacts but not to a less than significant level.

Truck trips to accommodate the transport of excavated material from the site and supplies to the site would occur 5 days per week (Monday–Friday) for 10 hours per day as further detailed in Chapter 18. However, these trucks would not greatly increase the degree of truck traffic on Sepulveda Boulevard and Figueroa Street as current truck traffic is already high along these routes. Impacts associated with truck traffic would be less than significant.

NEPA Analysis

Environmental impacts would be the same as described for the CEQA analysis, and would occur for the duration of construction. Baseline conditions would resume upon termination of construction. With respect to the Corps' NEPA scope of analysis described in Section 3.5, the environmental impacts would be considered indirect impacts.

Operation

CEQA Analysis

Once construction of the tunnel is complete and the tunnel boring machine (TBM) and noise barriers are removed, the only visible element remaining would be an access hatch to the shaft, minimal aboveground equipment, and, potentially, a surge tower that would be approximately 30 feet tall. The surge tower is shown in simulated KOP 3 on Figure 4-1d. The access shaft would be 40 to 60 feet in diameter, and it is assumed that the hatch would be either flush with the ground or protrude slightly above the ground's surface. However, because of the 12-foot-tall block wall (currently under construction), the hatch and aboveground pipes would not be visible. The top half of the surge tower would be visible above the wall. This would be a significant impact before mitigation. MM AES-3b would reduce visual impacts associated with the surge tower at the JWPCP East shaft site to less than significant.

NEPA Analysis

Environmental impacts would be the same as described for the CEQA analysis, and would occur for the operational life of the structure. With respect to the Corps' NEPA scope of analysis described in Section 3.5, the environmental impacts would be considered indirect impacts.

Riser/Diffuser Area – San Pedro Shelf

Construction

CEQA Analysis

Construction activities on the SP Shelf would take place approximately 7.5 miles off the coast and would last 3 years. Marine vessels and a fixed platform or structure would be required to install the riser and diffuser. While activities would occur 7.5 miles off the coast, views are still available, as evidenced by available views of Catalina Island, which is located 20 miles off the coast. However, atmospheric conditions and distance would lessen the prominence of the platform and construction activities. Land-based views from Angels Gate Park (Figure 4-3h, KOP 5) and Point Fermin Park, and from residences and roadways in the general area, would not be adversely affected by construction because views of construction activities would be barely visible within the middleground due to distance, atmospheric haze, scale of the platform, and materials of the platform, which would allow the structure to recede into the viewshed. Views of the structure would be similar in appearance and scale to boats and large vessels entering and exiting the Port of Los Angeles and passing by at a similar distance. Because of distance and typical atmospheric conditions, the riser and diffuser construction site would be visible to a lesser degree from Royal Palms Beach, White Point Park, White Point County Beach, Harbor Walkway, and from residences and roadways in the general area. Ocean views close to the construction site, especially as seen by recreationists, would be affected by construction activities and equipment. However, water-based recreationists are generally not stationary, and their views would be temporary as they passed by the construction site. Impacts on visual quality would be less than significant during construction.

NEPA Analysis

Environmental impacts would be the same as described for the CEQA analysis, and would occur for the duration of construction. Baseline conditions would resume upon termination of construction. With respect to the Corps' NEPA scope of analysis described in Section 3.5, the environmental impacts would be considered direct impacts.

Riser/Diffuser Area – Existing Ocean Outfalls

Construction

CEQA Analysis

Rehabilitation of the existing ocean outfalls would affect the existing visual character and quality of scenic views of the coastal area. Construction would take place near shore in approximately 20 to 50 feet of water and would last 9 months at 5 days per week (Monday–Friday), 10 hours per day. Marine vessels would be doing the work, and a fixed platform or structure is not needed. Land-based views of the existing ocean outfalls from Royal Palms Beach, White Point Park, and Harbor Walkway would be adversely affected by construction because these places are highly visited for their water access, recreational uses, and scenic resources. As shown in simulated KOP 5 on Figure 4-4d, views would change from the foreground views of the ocean and waves breaking on rocks with middleground and background views of passing vessels to foreground views of a large floating platform containing industrial equipment with rock-laden barges and industrial vessels traveling back and forth to the platform, or offloading material into the water. Limiting construction to typical workweek days (Monday–Friday) would eliminate construction activities seen by residents on weekends, the days when they are typically at home, and for recreationists spending time in the area. However, impacts would be significant, and there is no feasible mitigation to reduce impacts to less than significant.

NEPA Analysis

Environmental impacts would be the same as described for the CEQA analysis, and would occur for the duration of construction. Baseline conditions would resume upon termination of construction. With respect to the Corps' NEPA scope of analysis described in Section 3.5, the environmental impacts would be considered direct impacts.

CEQA Impact Determination

Construction and operation of the JWPCP East shaft site for Alternative 1 (Project) would substantially degrade the existing visual character or quality of the site or its surroundings. Impacts under CEQA would be significant before mitigation. Construction on the existing ocean outfalls for Alternative 1 (Project) would also substantially degrade the existing visual character or quality of the site or its surroundings. Impacts under CEQA would be significant, and there is no feasible mitigation to reduce impacts to less than significant.

Mitigation

MM AES-3a. Implement visual measures to improve the aesthetic quality of the noise barrier to ensure the design blends with the surrounding environment. A mural or similar aesthetic treatment will be applied to the sections of the noise barrier prominently visible to nearby residents and/or recreationists. Appropriate paint type and surfacing materials will be selected to ensure durability of the painted or treated surfaces until the barrier is removed. Barriers will have low-sheen and non-reflective surface materials to reduce the potential for glare. The paint color or aesthetic treatment will be maintained and any graffiti will be removed in a timely manner. During the final design process, the input of residents and/or recreationists that will be affected by the placement of the noise barriers will be accepted. Their comments will be evaluated for inclusion in the design to ensure the final treatment meets expectations to the greatest extent feasible.

MM AES-3b. Implement visual measures to reduce the visibility of new structures by painting prominent metal surfaces with colors that will blend with the setting. Selected colors will be shades that are slightly darker than the general surrounding area to reduce contrast and promote compositional

harmony of architectural features. An appropriate paint type will be selected for the finished structures to ensure long-term durability of the painted surfaces, and the finish will be maintained over time.

Residual Impacts

Although MM AES-3a would reduce impacts by improving the visual quality of the noise barrier at the JWPCP East shaft site, visual effects associated with the presence of the noise barrier and crane would remain significant during construction. Additionally, there would be no feasible mitigation for visual impacts associated with rehabilitation of the existing ocean outfalls. Residual impacts during construction would be significant and unavoidable.

Operational impacts at the JWPCP East shaft site would be reduced to less than significant with implementation of MM AES-3b, which would minimize and screen the visual effects of the surge tower and aboveground equipment that would be visible over the concrete block wall after the noise barrier is removed.

NEPA Impact Determination

Construction and operation at the JWPCP East shaft site for Alternative 1 (Project) would substantially degrade the existing visual character or quality of the site or its surroundings. Impacts under NEPA would be significant before mitigation with respect to the No-Federal-Action Alternative (see Section 3.4.1.6). Construction on the existing ocean outfalls for Alternative 1 (Project) would also substantially degrade the existing visual character or quality of the site or its surroundings. Impacts under NEPA would be significant with respect to the No-Federal-Action Alternative (see Section 3.4.1.6), and there is no feasible mitigation to reduce impacts to less than significant.

Mitigation

Implement MM AES-3a and MM AES-3b.

Residual Impacts

Residual impacts during construction would be significant and unavoidable, as described under the CEQA impact determination. Residual impacts during operation would be less than significant.

Impact AES-4. Would Alternative 1 (Project) result in an adverse effect due to shading on existing visual character or quality of the site or its surroundings?

Shaft Site – JWPCP East

Construction

CEQA Analysis

AutoCAD Civil 3D was used to model shadows cast from the noise barrier at the JWPCP East shaft site during the winter and summer solstices, December 21 and June 21, respectively. The noise barrier would only cast shadows just before sunset on residences and businesses located east and south of the site. Impacts would be less than significant.

NEPA Analysis

Environmental impacts would be the same as described for the CEQA analysis, and would occur for the duration of construction. Baseline conditions would resume upon termination of construction. With respect to the Corps' NEPA scope of analysis described in Section 3.5, the environmental impacts would be considered indirect impacts.

Operation

CEQA Analysis

The only feature that would cast a shadow would be the surge tower, which would be no more than 30 feet tall and would not be located directly adjacent to Lomita Boulevard or Main Street. Its shadow would be cast on the JWPCP East shaft site, and it would not shade neighboring residents and businesses. Impacts would be less than significant.

NEPA Analysis

Environmental impacts resulting from operation of the JWPCP East shaft site would be the same as described for the CEQA analysis, and would occur for the operational life of the structure. With respect to the Corps' NEPA scope of analysis described in Section 3.5, the environmental impacts would be considered indirect impacts.

CEQA Impact Determination

Construction and operation of Alternative 1 (Project) would not result in an adverse effect due to shading on existing visual character or quality of the site or its surroundings. Impacts under CEQA would be less than significant.

Mitigation

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Construction and operation of Alternative 1 (Project) would not result in an adverse effect due to shading on existing visual character or quality of the site or its surroundings. Impacts under NEPA would be less than significant with respect to the No-Federal-Action Alternative (see Section 3.4.1.6).

Mitigation

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact AES-5. Would Alternative 1 (Project) create a new source of substantial light or glare that would adversely affect day or nighttime views of the area?

Shaft Site – JWPCP East

Construction

CEQA Analysis

The noise barrier at the JWPCP East shaft site would introduce a flat, tall, vertical surface that would reflect sunlight and light from street lamps. The surface area of the barrier would increase glare seen by residents and roadway users. Lighting would be used during nighttime construction. Therefore, there would be a minor amount of project-related nighttime light and glare visible over the 20-foot-tall noise barrier if lighting were not directed downward or if a large amount of ambient lighting were used that

radiated up and above the noise barrier. Impacts would be significant prior to mitigation. MM AES-5a and MM AES-5b would reduce impacts to less than significant.

NEPA Analysis

Environmental impacts would be the same as described for the CEQA analysis, and would occur for the duration of construction. Baseline conditions would resume upon termination of construction. With respect to the Corps' NEPA scope of analysis described in Section 3.5, the environmental impacts would be considered indirect impacts.

Riser/Diffuser Area – San Pedro Shelf

Construction

CEQA Analysis

Construction activities would occur on the SP Shelf approximately 7.5 miles off the coast. Therefore, land-based views would not be affected by glare or the use of nighttime lighting. The ocean has a vast reflective surface that produces a great deal of glare; construction activities and equipment would not create a perceivable increase in glare, and ocean views near the construction site would not be affected by glare from construction activities and equipment. Lighting would be used during nighttime work. This lighting could be standard lighting used to illuminate the platform for safety and higher intensity spot lighting used to more directly illuminate work activities. However, this would produce only a small amount of nighttime light and glare, given the distance away from sensitive viewers, similar to the amount of light a large boat traveling at night would cast. Additionally, there would be few ocean viewers near the construction site at night. Impacts would be less than significant.

NEPA Analysis

Environmental impacts would be the same as described for the CEQA analysis, and would occur for the duration of construction. Baseline conditions would resume upon termination of construction. With respect to the Corps' NEPA scope of analysis described in Section 3.5, the environmental impacts would be considered direct impacts.

Riser/Diffuser Area – Existing Ocean Outfalls

Construction

CEQA Analysis

Rehabilitation activities on the existing ocean outfalls would take place near shore in approximately 20 to 50 feet of water. Construction would last 9 months at 5 days per week (Monday–Friday), 10 hours per day. Marine vessels would be doing the work, and a fixed platform or structure would not be needed. Nighttime lighting could be used at times and would include standard lighting to illuminate vessels for safety and higher intensity spot lighting to more directly illuminate work activities. However, because of the 10-hour workdays, the use of nighttime lighting would be minimal and temporary over a short construction period. Land-based views would not be affected by glare. In addition, the ocean has a vast reflective surface that produces a great deal of glare; construction activities and equipment would not create a perceivable increase in glare, and ocean views near the construction site would not be affected by glare from construction activities and equipment. Impacts would be less than significant.

NEPA Analysis

Environmental impacts would be the same as described for the CEQA analysis, and would occur for the duration of construction. Baseline conditions would resume upon termination of construction. With

respect to the Corps' NEPA scope of analysis described in Section 3.5, the environmental impacts would be considered direct impacts.

CEQA Impact Determination

Construction at the JWPCP East shaft site for Alternative 1 (Project) would create a new source of substantial light or glare that would adversely affect day or nighttime views of the area. Impacts under CEQA would be significant before mitigation.

Mitigation

Implement MM AES-5a (same as MM AES-3a).

MM AES-5b. Apply minimum lighting standards. Lights will be installed at the lowest practicable height and with the lowest practicable wattage. Lights will be screened and directed downward to the greatest degree possible. The number of nighttime lights will be minimized.

Residual Impacts

MM AES-5a and MM AES-5b would reduce impacts associated with glare and nighttime lighting at the JWPCP East shaft site. Residual impacts would be less than significant.

NEPA Impact Determination

Construction at the JWPCP East shaft site for Alternative 1 (Project) would create a new source of substantial light or glare that would adversely affect day or nighttime views of the area. Impacts under NEPA would be significant before mitigation with respect to the No-Federal-Action Alternative (see Section 3.4.1.6).

Mitigation

Implement MM AES-5a (same as MM AES-3a) and MM AES-5b.

Residual Impacts

Residual impacts would be less than significant, as described under the CEQA impact determination.

4.4.3.3 Impact Summary – Alternative 1

As determined in the Preliminary Screening Analysis, all program elements would result in no impacts or less than significant impacts on aesthetic resources; therefore, the program is not evaluated in this EIR/EIS. Impacts on aesthetic resources analyzed in this EIR/EIS for Alternative 1 (Project) are summarized in Table 4-4. The proposed mitigation, where feasible, and the significance of the impact before and following mitigation are also listed in the table.

Table 4-4. Impact Summary – Alternative 1 (Project)

Project Element	Impact Determination Before Mitigation	NEPA Direct or Indirect	Mitigation	Residual Impact After Mitigation
Impact AES-1. Would Alternative 1 (Project) conflict with adopted goals or policies that protect visual quality of a designated scenic vista or scenic resource, resulting in an adverse aesthetic impact such as obstruction of view or degradation of visual character?				
Riser/Diffuser Area				
Existing Ocean Outfalls	CEQA Significant Impact During Construction	N/A	No mitigation is feasible.	CEQA Significant and Unavoidable Impact During Construction
	NEPA Significant Impact During Construction	Direct	No mitigation is feasible.	NEPA Significant and Unavoidable Impact During Construction
Impact AES-3. Would Alternative 1 (Project) substantially degrade the existing visual character or quality of the site or its surroundings?				
Shaft Site				
JWPCP East	CEQA Significant Impact During Construction	N/A	MM AES-3a. Implement visual measures to improve the aesthetic quality of the noise barrier to ensure the design blends with the surrounding environment. A mural or similar aesthetic treatment will be applied to the sections of the noise barrier prominently visible to nearby residents and/or recreationists. Appropriate paint type and surfacing materials will be selected to ensure durability of the painted or treated surfaces until the barrier is removed. Barriers will have low-sheen and non-reflective surface materials to reduce the potential for glare. The paint color or aesthetic treatment will be maintained and any graffiti will be removed in a timely manner. During the final design process, the input of residents and/or recreationists that will be affected by the placement of the noise barriers will be accepted. Their comments will be evaluated for inclusion in the design to ensure the final treatment meets expectations to the greatest extent feasible.	CEQA Significant and Unavoidable Impact During Construction
	NEPA Significant Impact During Construction	Indirect	MM AES-3a	NEPA Significant and Unavoidable Impact During Construction

Table 4-4 (Continued)

Project Element	Impact Determination Before Mitigation	NEPA Direct or Indirect	Mitigation	Residual Impact After Mitigation
	CEQA Significant Impact During Operation	N/A	MM AES-3b. Implement visual measures to reduce the visibility of new structures by painting prominent metal surfaces with colors that will blend with the setting. Selected colors will be shades that are slightly darker than the general surrounding area to reduce contrast and promote compositional harmony of architectural features. An appropriate paint type will be selected for the finished structures to ensure long-term durability of the painted surfaces, and the finish will be maintained over time.	CEQA Less Than Significant Impact During Operation
	NEPA Significant Impact During Operation	Indirect	MM AES-3b	NEPA Less Than Significant Impact During Operation
Riser/Diffuser Area				
SP Shelf	CEQA Less Than Significant Impact During Construction	N/A	No mitigation is required.	CEQA Less Than Significant Impact During Construction
	NEPA Less Than Significant Impact During Construction	Direct	No mitigation is required.	NEPA Less Than Significant Impact During Construction
Existing Ocean Outfalls	CEQA Significant Impact During Construction	N/A	No mitigation is feasible.	CEQA Significant and Unavoidable Impact During Construction
	NEPA Significant Impact During Construction	Direct	No mitigation is feasible.	NEPA Significant and Unavoidable Impact During Construction
Impact AES-4. Would Alternative 1 (Project) result in an adverse effect due to shading on existing visual character or quality of the site or its surroundings?				
Shaft Site				
JWPCP East	CEQA Less Than Significant Impact During Construction	N/A	No mitigation is required.	CEQA Less Than Significant Impact During Construction
	NEPA Less Than Significant Impact During Construction	Indirect	No mitigation is required.	NEPA Less Than Significant Impact During Construction
	CEQA Less Than Significant Impact During Operation	N/A	No mitigation is required.	CEQA Less Than Significant Impact During Operation
	NEPA Less Than Significant Impact During Operation	Indirect	No mitigation is required.	NEPA Less Than Significant Impact During Operation

Table 4-4 (Continued)

Project Element	Impact Determination Before Mitigation	NEPA Direct or Indirect	Mitigation	Residual Impact After Mitigation
Impact AES-5. Would Alternative 1 (Project) create a new source of substantial light or glare that would adversely affect day or nighttime views of the area?				
Shaft Site				
JWPCP East	CEQA Significant Impact During Construction	N/A	MM AES-5a (same as MM AES-3a) MM AES-5b. Apply minimum lighting standards. Lights will be installed at the lowest practicable height and with the lowest practicable wattage. Lights will be screened and directed downward to the greatest degree possible. The number of nighttime lights will be minimized.	CEQA Less Than Significant Impact During Construction
	NEPA Significant Impact During Construction	Indirect	MM AES-5a (same as MM AES-3a) MM AES-5b	NEPA Less Than Significant Impact During Construction
Riser/Diffuser Area				
SP Shelf	CEQA Less Than Significant Impact During Construction	N/A	No mitigation is required.	CEQA Less Than Significant Impact During Construction
	NEPA Less Than Significant Impact During Construction	Direct	No mitigation is required.	NEPA Less Than Significant Impact During Construction
Existing Ocean Outfalls	CEQA Less Than Significant Impact During Construction	N/A	No mitigation is required.	CEQA Less Than Significant Impact During Construction
	NEPA Less Than Significant Impact During Construction	Direct	No mitigation is required.	NEPA Less Than Significant Impact During Construction

4.4.4 Alternative 2

4.4.4.1 Program

Alternative 2 (Program) is the same as Alternative 1 (Program); program elements would result in no impacts or less than significant impacts on aesthetic resources. A detailed discussion on the determinations can be found in the Preliminary Screening Analysis (Appendix 1-A).

4.4.4.2 Project

The impacts for the JWPCP East shaft site and the rehabilitation of the existing ocean outfalls for Alternative 2 (Project) would be the same as for Alternative 1 (Project).

Impact AES-1. Would Alternative 2 (Project) conflict with adopted goals or policies that protect visual quality of a designated scenic vista or scenic resource, resulting in an adverse aesthetic impact such as obstruction of view or degradation of visual character?

Riser/Diffuser Area – Palos Verdes Shelf

Construction

CEQA Analysis

Construction of the riser and diffuser on the PV shelf would conflict with adopted goals and policies that are in place to protect highly valued scenic views of the coast and the coastal areas that are a part of the CCNM. Construction would take place approximately 2 miles off the coast in 175 feet of water and would last 3 years. Marine vessels and a fixed platform or barge would be required to install the riser and diffuser. Land-based views from Angels Gate and Point Fermin Parks, and from residences and roadways in the general area, could be adversely affected by construction because views of construction activities would be visible within the middleground. As shown in simulated KOP 6 on Figure 4-3j, viewers near Angels Gate and Point Fermin Parks that are used to seeing breaking waves in the foreground with middleground and background views of passing vessels, would be subject to middleground views of a large, floating platform or barge with industrial equipment for an extended period of time. These land-based viewpoints could be affected because they are highly desirable locations, providing physical access to the water and coastline, a high amount of recreational use, and scenic resources with visual access to coastal views. However, because of distance, typical atmospheric conditions, and the presence of other vessels in the background, impacts on views of the area resulting from the riser and diffuser construction site would be less than significant.

NEPA Analysis

Environmental impacts would be the same as described for the CEQA analysis, and would occur for the duration of construction. Baseline conditions would resume upon termination of construction. With respect to the Corps' NEPA scope of analysis described in Section 3.5, the environmental impacts would be considered direct impacts.

CEQA Impact Determination

Construction on the existing ocean outfalls for Alternative 2 (Project) would conflict with adopted goals or policies that protect visual quality of a designated scenic vista or scenic resource, resulting in an adverse aesthetic impact such as obstruction of view or degradation of visual character. Impacts under CEQA would be significant.

Mitigation

No mitigation is feasible.

Residual Impacts

While construction activities would occur during the work week, which would reduce impacts by limiting views of construction activities to Monday through Friday, construction for the rehabilitation of the existing ocean outfalls still would receive a large number of viewers during the week from land-based viewing areas. Residual impacts during construction would be significant and unavoidable.

NEPA Impact Determination

Construction on the existing ocean outfalls for Alternative 2 (Project) would conflict with adopted goals or policies that protect visual quality of a designated scenic vista or scenic resource, resulting in an

adverse aesthetic impact such as obstruction of view or degradation of visual character. Impacts under NEPA would be significant with respect to the No-Federal-Action Alternative (see Section 3.4.1.6).

Mitigation

No mitigation is feasible.

Residual Impacts

Residual impacts during construction would be significant and unavoidable, as described under the CEQA impact determination.

Impact AES-3. Would Alternative 2 (Project) substantially degrade the existing visual character or quality of the site or its surroundings?

Riser/Diffuser Area – Palos Verdes Shelf

Construction

CEQA Analysis

Construction of the riser and diffuser area on the PV Shelf would affect the existing visual character and quality of scenic views of the coastal area. Construction would take place approximately 2 miles off the coast in 175 feet of water and would last 3 years. Marine vessels and a fixed platform or barge would be required to install the riser and diffuser. Land-based views from Angels Gate and Point Fermin Parks, and from residences and roadways in the general area, could be adversely affected by construction because views of construction activities would be visible within the middleground. As shown in simulated KOP 6 on Figure 4-3j, viewers near Angels Gate and Point Fermin Parks that are used to seeing breaking waves in the foreground with middleground and background views of passing vessels, would be subject to middleground views of a large, floating platform or barge with industrial equipment for an extended period of time. These land-based viewpoints could be affected because they are highly desirable locations, providing physical access to the water and coastline, a high amount of recreational use, and scenic resources with visual access to coastal views. However, because of distance, typical atmospheric conditions, and the presence of other vessels in the background, impacts on views of the area resulting from the riser and diffuser construction site would be less than significant.

NEPA Analysis

Environmental impacts would be the same as described for the CEQA analysis, and would occur for the duration of construction. Baseline conditions would resume upon termination of construction. With respect to the Corps' NEPA scope of analysis described in Section 3.5, the environmental impacts would be considered direct impacts.

CEQA Impact Determination

Construction and operation at the JWPCP East shaft site for Alternative 2 (Project) would substantially degrade the existing visual character or quality of the site or its surroundings. Impacts under CEQA would be significant before mitigation. Construction on the existing ocean outfalls for Alternative 2 (Project) would also substantially degrade the existing visual character or quality of the site or its surroundings. Impacts under CEQA would be significant, and there is no feasible mitigation to reduce impacts to less than significant.

Mitigation

Implement MM AES-3a and MM AES-3b.

Residual Impacts

Although MM AES-3a would reduce impacts by improving the visual quality of the noise barrier at the JWPCP East shaft site, visual effects associated with the presence of the 20-foot-tall noise barrier and 100-foot-tall crane would remain significant during construction. Additionally, there would be no mitigation for visual impacts associated with rehabilitation of the existing ocean outfalls. While construction activities would be limited to the workweek, the project site would still receive a large number of viewers during the week. Residual impacts during construction would be significant and unavoidable.

Operational impacts at the JWPCP East shaft site would be reduced to less than significant with implementation of MM AES-3b, which would minimize the visual effects of the surge tower and aboveground equipment that would be visible over the concrete block wall after the 20-foot-tall noise barrier is removed.

NEPA Impact Determination

Construction and operation at the JWPCP East shaft site for Alternative 2 (Project) would substantially degrade the existing visual character or quality of the site or its surroundings. Impacts under NEPA would be significant before mitigation with respect to the No-Federal-Action Alternative (see Section 3.4.1.6). Construction on the existing ocean outfalls for Alternative 2 (Project) would also substantially degrade the existing visual character or quality of the site or its surroundings. Impacts under NEPA would be significant with respect to the No-Federal-Action Alternative (see Section 3.4.1.6), and there is no feasible mitigation to reduce impacts to less than significant.

Mitigation

Implement MM AES-3a and MM AES-3b.

Residual Impacts

Residual impacts during construction would be significant and unavoidable, as described under the CEQA impact determination. Residual impacts during operation would be less than significant.

Impact AES-5. Would Alternative 2 (Project) create a new source of substantial light or glare that would adversely affect day or nighttime views of the area?

Riser/Diffuser Area – Palos Verdes Shelf

Construction

CEQA Analysis

Construction activities on the PV Shelf would take place approximately 2 miles off the coast in 175 feet of water. Land-based views would not be affected by glare or the use of nighttime lighting. Although the construction activities would occur near land-based viewers, the ocean has a vast reflective surface that produces a great deal of glare, and construction activities and equipment would not create a perceivable increase in glare. Likewise, ocean views near the construction site would not be affected by a perceivable increase in glare from construction activities and equipment. Lighting would be used during nighttime work. This lighting could be standard lighting used to illuminate the platform for safety and higher intensity spot lighting used to more directly illuminate work activities. However, this would produce only a small amount of nighttime light and glare, given the distance away from sensitive viewers, similar to the amount of light a large boat traveling at night would cast. Additionally, there would be few ocean viewers near the construction site at night. Impacts would be less than significant.

NEPA Analysis

Environmental impacts would be the same as described for the CEQA analysis, and would occur for the duration of construction. Baseline conditions would resume upon termination of construction. With respect to the Corps' NEPA scope of analysis described in Section 3.5, the environmental impacts would be considered direct impacts.

CEQA Impact Determination

Construction at the JWPCP East shaft site for Alternative 2 (Project) would create a new source of substantial light or glare that would adversely affect day or nighttime views of the area. Impacts under CEQA would be significant before mitigation.

Mitigation

Implement MM AES-5a (same as MM AES-3a) and MM AES-5b.

Residual Impacts

MM AES-5a and MM AES-5b would reduce impacts associated with glare and nighttime lighting at the JWPCP East shaft site. Residual impacts would be less than significant.

NEPA Impact Determination

Construction at the JWPCP East shaft site for Alternative 2 (Project) would create a new source of substantial light or glare that would adversely affect day or nighttime views of the area. Impacts under NEPA would be significant before mitigation with respect to the No-Federal-Action Alternative (see Section 3.4.1.6).

Mitigation

Implement MM AES-5a (same as MM AES-3a) and MM AES-5b.

Residual Impacts

Residual impacts would be less than significant, as described under the CEQA impact determination.

4.4.4.3 Impact Summary – Alternative 2

As determined in the Preliminary Screening Analysis, all program elements would result in no impacts or less than significant impacts on aesthetic resources; therefore, the program is not evaluated in this EIR/EIS. Impacts on aesthetic resources analyzed in this EIR/EIS for Alternative 2 (Project) are summarized in Table 4-5. The proposed mitigation, where feasible, and the significance of the impact before and following mitigation are also listed in the table.

Table 4-5. Impact Summary – Alternative 2 (Project)

Project Element	Impact Determination Before Mitigation	NEPA Direct or Indirect	Mitigation	Residual Impact After Mitigation
Impact AES-1. Would Alternative 2 (Project) conflict with adopted goals or policies that protect visual quality of a designated scenic vista or scenic resource, resulting in an adverse aesthetic impact such as obstruction of view or degradation of visual character?				
Riser/Diffuser Area				
PV Shelf	CEQA Less Than Significant Impact During Construction	N/A	No mitigation is required.	CEQA Less Than Significant Impact During Construction
	NEPA Less Than Significant Impact During Construction	Direct	No mitigation is required.	NEPA Less Than Significant Impact During Construction
Existing Ocean Outfalls	CEQA Significant Impact During Construction	N/A	No mitigation is feasible.	CEQA Significant and Unavoidable Impact During Construction
	NEPA Significant Impact During Construction	Direct	No mitigation is feasible.	NEPA Significant and Unavoidable Impact During Construction
Impact AES-3. Would Alternative 2 (Project) substantially degrade the existing visual character or quality of the site or its surroundings?				
Shaft Site				
JWPCP East	CEQA Significant Impact During Construction	N/A	MM AES-3a. Implement visual measures to improve the aesthetic quality of the noise barrier to ensure the design blends with the surrounding environment. A mural or similar aesthetic treatment will be applied to the sections of the noise barrier prominently visible to nearby residents and/or recreationists. Appropriate paint type and surfacing materials will be selected to ensure durability of the painted or treated surfaces until the barrier is removed. Barriers will have low-sheen and non-reflective surface materials to reduce the potential for glare. The paint color or aesthetic treatment will be maintained and any graffiti will be removed in a timely manner. During the final design process, the input of residents and/or recreationists that will be affected by the placement of the noise barriers will be accepted. Their comments will be evaluated for inclusion in the design to ensure the final treatment meets expectations to the greatest extent feasible.	CEQA Significant and Unavoidable Impact During Construction
	NEPA Significant Impact During Construction	Indirect	MM AES-3a	NEPA Significant and Unavoidable Impact During Construction

Table 4-5 (Continued)

Project Element	Impact Determination Before Mitigation	NEPA Direct or Indirect	Mitigation	Residual Impact After Mitigation
	CEQA Significant Impact During Operation	N/A	MM AES-3b. Implement visual measures to reduce the visibility of new structures by painting prominent metal surfaces with colors that will blend with the setting. Selected colors will be shades that are slightly darker than the general surrounding area to reduce contrast and promote compositional harmony of architectural features. An appropriate paint type will be selected for the finished structures to ensure long-term durability of the painted surfaces, and the finish will be maintained over time.	CEQA Less Than Significant Impact During Operation
	NEPA Significant Impact During Operation	Indirect	MM AES-3b	NEPA Less Than Significant Impact During Operation
Riser/Diffuser Area				
PV Shelf	CEQA Less Than Significant Impact During Construction	N/A	No mitigation is required.	CEQA Less Than Significant Impact During Construction
	NEPA Less Than Significant Impact During Construction	Direct	No mitigation is required.	NEPA Less Than Significant Impact During Construction
Existing Ocean Outfalls	CEQA Significant Impact During Construction	N/A	No mitigation is feasible.	CEQA Significant and Unavoidable Impact During Construction
	NEPA Significant Impact During Construction	Direct	No mitigation is feasible.	NEPA Significant and Unavoidable Impact During Construction
Impact AES-4. Would Alternative 2 (Project) result in an adverse effect due to shading on existing visual character or quality of the site or its surroundings?				
Shaft Site				
JWPCP East	CEQA Less Than Significant Impact During Construction	N/A	No mitigation is required.	CEQA Less Than Significant Impact During Construction
	NEPA Less Than Significant Impact During Construction	Indirect	No mitigation is required.	NEPA Less Than Significant Impact During Construction
	CEQA Less Than Significant Impact During Operation	N/A	No mitigation is required.	CEQA Less Than Significant Impact During Operation
	NEPA Less Than Significant Impact During Operation	Indirect	No mitigation is required.	NEPA Less Than Significant Impact During Operation

Table 4-5 (Continued)

Project Element	Impact Determination Before Mitigation	NEPA Direct or Indirect	Mitigation	Residual Impact After Mitigation
Impact AES-5. Would Alternative 2 (Project) create a new source of substantial light or glare that would adversely affect day or nighttime views of the area?				
Shaft Site				
JWPCP East	CEQA Significant Impact During Construction	N/A	MM AES-5a (same as MM AES-3a) MM AES-5b. Apply minimum lighting standards. Lights will be installed at the lowest practicable height and with the lowest practicable wattage. Lights will be screened and directed downward to the greatest degree possible. The number of nighttime lights will be minimized.	CEQA Less Than Significant Impact During Construction
	NEPA Significant Impact During Construction	Indirect	MM AES-5a (same as MM AES-3a) MM AES-5b	NEPA Less Than Significant Impact During Construction
Riser/Diffuser Area				
PV Shelf	CEQA Less Than Significant Impact During Construction	N/A	No mitigation is required.	CEQA Less Than Significant Impact During Construction
	NEPA Less Than Significant Impact During Construction	Direct	No mitigation is required.	NEPA Less Than Significant Impact During Construction
Existing Ocean Outfalls	CEQA Less Than Significant Impact During Construction	N/A	No mitigation is required.	CEQA Less Than Significant Impact During Construction
	NEPA Less Than Significant Impact During Construction	Direct	No mitigation is required.	NEPA Less Than Significant Impact During Construction

4.4.5 Alternative 3

4.4.5.1 Program

Alternative 3 (Program) is the same as Alternative 1 (Program); program elements would result in no impacts or less than significant impacts on aesthetic resources. A detailed discussion on the determinations can be found in the Preliminary Screening Analysis (Appendix 1-A).

4.4.5.2 Project

The impacts for the riser and diffuser area on the PV Shelf for Alternative 3 (Project) would be the same as for Alternative 2 (Project). The impacts for the rehabilitation of the existing ocean outfalls would be the same as for Alternative 1 (Project).

Impact AES-1. Would Alternative 3 (Project) conflict with adopted goals or policies that protect visual quality of a designated scenic vista or scenic resource, resulting in an adverse aesthetic impact such as obstruction of view or degradation of visual character?

Shaft Site – Angels Gate

Construction

CEQA Analysis

The Angels Gate shaft site would be an access shaft site. It would take 8 to 9 months to construct and would be in use for up to 2.5 years for ventilation and worker access. Construction would take place on the paved northwest corner of the intersection of Shepard Street and South Gaffey Street. Construction activities would introduce heavy equipment and associated vehicles (including dozers, graders, scrapers, cranes, and trucks) into the viewshed of the shaft site, public roadways, and residential and commercial properties. Safety and directional signage would also be a visible element. Construction at the shaft site would conflict with adopted goals and policies that are in place to protect highly valued scenic views of the coast and coastal areas that are also a part of the CCNM. As directed by the San Pedro Local Coastal Program Specific Plan (City of Los Angeles 1999a), coastal views from the Korean Bell of Friendship should not be obstructed.

Shaft site construction would be mostly screened from viewer groups by an approximately 20-foot-tall noise barrier that would be erected at the onset of construction to screen work activities and reduce noise (Figure 4-3c, simulated KOP 3 and Figure 4-3f, simulated KOP 4). There would be at least one crane on site, approximately 100 feet tall, which would be visible over the noise barrier.

Residents have limited views of the coast because their ground level views are obscured by adjacent infrastructure and vegetation at Point Fermin Park; therefore, protected coastal views would not be affected. However, residents would see the change in the existing visual character at the shaft site and would be directly affected, being located immediately across South Gaffey Street from the site. As shown in simulated KOP 3 on Figure 4-3c, their views would change from an open parking lot and views of the hillside below Angels Gate Park to a 20-foot-tall noise barrier. The sensitivity of these residents to such impacts would be high, and they are likely to regard the construction of the noise barrier as a negative visual intrusion. An approximately 20-foot-tall barrier so close to residents would block large portions of the sky and be perceived as an imposing vertical structure. Such a feature would detract from the existing visual character of the site and its surroundings until construction activities cease and the noise barrier is removed. Impacts on visual quality for these residences are considered adverse because the residents would experience a notable change in the visual character of available views during construction of the project.

Recreationists at Angels Gate Park would be the most directly affected by changes in protected views of the coast because the park is located at a higher elevation, with views down toward the site and out to the coast. As shown in simulated KOP 4 on Figure 4-3f, their views would change from an open paved lot, nearby residences, and the ground plane and vegetation of Point Fermin Park to a noise barrier in the foreground that disrupts the existing viewshed out to the ocean. The noise barrier would block large portions of residences and the ground plane of Point Fermin Park and be perceived as an imposing vertical structure, inconsistent with the existing visual character. Impacts on visual quality for recreationists are considered significant because the barrier would create a notable change in the visual character in available protected views of the coast. MM AES-1 would reduce these impacts; however, impacts would remain significant.

In addition, noises associated with the shaft site and truck traffic to the site would draw attention to construction activities, likely to be viewed negatively, and act to further disrupt coastal views. There would be 40 truck trips per day to accommodate transporting excavated material from the site. These trucks would be visible on South Gaffey Street and Shepard Street, and truck traffic on local routes would increase. Truck traffic would occur during hours of shaft construction, which would be 5 days per week (Monday–Friday) for 10 hours per day. While current traffic is high along these routes, this increase in truck traffic on local routes at a site-specific location would affect all viewer groups. Residents would be affected the most because they are close to the site and have direct long-lasting views of the site. They would have immediate and repeated views of trucks entering and exiting the site, especially because construction and truck traffic would occur prior to and after typical work hours when residents are at home. Views from these locations would be further affected by construction activities because these are highly visited areas with visual access to the ocean, a high amount of recreational use, and valued scenic resources. Impacts would be significant, and there is no feasible mitigation to reduce impacts to less than significant.

NEPA Analysis

The LAUSD's South Region High School No. 15 would be constructed on the Upper Fort MacArthur Reservation, which is located east of Alma Street and between 30th and 36th Streets. The school would be 0.5 mile northeast of the Angels Gate shaft site, and is included in the NEPA analysis; however, the high school would not have views of the coast because of intervening topography and development. Therefore, impacts on visual quality from the high school would be less than significant. All other environmental impacts would be the same as described for the CEQA analysis, and would occur for the duration of construction. Baseline conditions would resume upon termination of construction. With respect to the Corps' NEPA scope of analysis described in Section 3.5, the environmental impacts would be considered indirect impacts.

CEQA Impact Determination

Construction at the Angels Gate shaft site for Alternative 3 (Project) would conflict with adopted goals or policies that protect visual quality of a designated scenic vista or scenic resource, resulting in an adverse aesthetic impact such as obstruction of view or degradation of visual character. Impacts under CEQA would be significant before mitigation. Construction on the existing ocean outfalls for Alternative 3 (Project) would also conflict with adopted goals or policies that protect visual quality of a designated scenic vista or scenic resource, resulting in an adverse aesthetic impact such as obstruction of view or degradation of visual character. Impacts under CEQA would be significant, and there is no feasible mitigation to reduce impacts to less than significant.

Mitigation

Implement MM AES-1 (same as MM AES-3a).

Residual Impacts

Even with the incorporation of MM AES-1 to improve the visual quality of the noise barrier at the Angels Gate shaft site, the effects associated with the noise barrier and crane would not be reduced to less than significant during shaft construction. In addition, there is no feasible mitigation to lessen the impact of the high level of construction traffic seen entering and exiting Angels Gate shaft site. While rehabilitation activities associated with the existing ocean outfalls would occur during the work week and views of construction activities would be limited to Monday through Friday, the project site would still receive a large number of viewers during the week. Residual impacts during construction would be significant and unavoidable.

NEPA Impact Determination

Construction at the Angels Gate shaft site for Alternative 3 (Project) would conflict with adopted goals or policies that protect visual quality of a designated scenic vista or scenic resource, resulting in an adverse aesthetic impact such as obstruction of view or degradation of visual character. Impacts under NEPA would be significant before mitigation with respect to the No-Federal-Action Alternative (see Section 3.4.1.6). Construction on the existing ocean outfalls for Alternative 3 (Project) would also conflict with adopted goals or policies that protect visual quality of a designated scenic vista or scenic resource, resulting in an adverse aesthetic impact such as obstruction of view or degradation of visual character. Impacts under NEPA would be significant with respect to the No-Federal-Action Alternative (see Section 3.4.1.6), and there is no feasible mitigation to reduce impacts to less than significant.

Mitigation

Implement MM AES-1 (same as MM AES-3a).

Residual Impacts

Residual impacts during construction would be significant and unavoidable, as described under the CEQA impact determination.

Impact AES-3. Would Alternative 3 (Project) substantially degrade the existing visual character or quality of the site or its surroundings?

Shaft Site – JWPCP West

Construction

CEQA Analysis

The JWPCP West shaft site would be a working shaft site. It would take 10 to 12 months to complete the infrastructure needed to begin tunnel excavation. Construction activities would introduce considerable heavy equipment and associated vehicles (including dozers, graders, scrapers, cranes, and trucks) into the viewshed of the shaft site, public roadways, and the nearby Wilmington Athletic Complex. Safety and directional signage would also be a visible element. Construction activities would adversely affect the existing visual character of the site and its surroundings.

The shaft site is presently screened by a landscape buffer along Figueroa Street. As shown in simulated KOP 4 on Figure 4-2c, an approximately 20-foot-tall noise barrier would be erected to screen construction activities and reduce noise. There would be at least one crane on site, approximately 100 feet tall, which would be visible over the noise barrier. The JWPCP West shaft site would be in operation for 4 to 8 years. The noise barrier would remain intact for the duration of tunnel excavation. Onsite facilities, such as construction worker parking, office trailers, mechanical shops, and an excavated-material separating and storage area would not be visible over the noise barrier.

Because the Wilmington Athletic Complex is located immediately across Figueroa Street from the shaft site, recreationists would be the most directly affected viewers as shown in KOP 1 on Figure 4-2a. Their views of a landscaped buffer and existing utility lines would change to a 20-foot-tall noise barrier behind the landscape buffer and within the bounds of the shaft site. Although the existing landscaping screens views to the background, a 20-foot-tall barrier in proximity to the athletic complex would block portions of the sky. Such a feature would detract from the existing visual character of the site and its surroundings until construction activities cease and the noise barrier is removed. Recreationists would experience a change in the visual character of available views during construction of the project. The sensitivity of

recreationists to such impacts would be low to moderate as they would be actively engaged in outdoor field sports. Implementation of MM AES-3a would reduce impacts to less than significant.

Truck trips to accommodate the transport of excavated material from the site and supplies to the site would occur 5 days per week (Monday–Friday) for 10 hours per day as further detailed in Chapter 18. However, these trucks would not greatly increase the degree of truck traffic on Figueroa Street, Pacific Coast Highway, and Sepulveda Boulevard, as current truck traffic is already high along these routes. Impacts associated with truck traffic would be less than significant.

NEPA Analysis

Environmental impacts would be the same as described for the CEQA analysis, and would occur for the duration of construction. Baseline conditions would resume upon termination of construction. With respect to the Corps' NEPA scope of analysis described in Section 3.5, the environmental impacts would be considered indirect impacts.

Operation

CEQA Analysis

Once construction of the tunnel is complete and the TBM and noise barriers are removed, the only visible element remaining would be an access hatch to the shaft, minimal aboveground equipment, and potentially, a surge tower that would be no more than three stories (approximately 30 feet) tall. The surge tower would be slightly visible from the intersection of Figueroa Street and Q Street (near the Wilmington Boys and Girls Club and a residential area), as shown in simulated KOP 4 on Figure 4-2d. The working shaft would be 40 to 60 feet in diameter, and it is assumed that the hatch would either be flush with the ground or protrude slightly above the ground's surface. However, due to the existing landscape barrier, the hatch and other aboveground structures would not be visible from Figueroa Street. They would be partially visible through a gap in the landscape barrier along the northeastern border of the site and from I-110. The top half of the surge tower would be visible over the existing landscaping, from the gap in the landscaping, and from I-110. Impacts would be significant before mitigation. MM AES-3b would reduce visual impacts associated with the surge tower at the JWPCP West shaft site to less than significant.

NEPA Analysis

Environmental impacts would be the same as described for the CEQA analysis, and would occur for the operational life of the structure. With respect to the Corps' NEPA scope of analysis described in Section 3.5, the environmental impacts would be considered indirect impacts.

Shaft Site – Angels Gate

Construction

CEQA Analysis

Angels Gate would be an access shaft site that would take 8 to 9 months to complete; it would be in use for up to 2.5 years. Construction of the shaft site would substantially degrade the existing visual character or quality of the site or its surroundings. Affected viewsheds include that of the shaft site and views of the coast that contain the shaft site. As addressed under Impact AES-1, views of the coast are protected in this location because of their existing visual character and quality. Even if these views were not protected, the project would affect coastal views and the existing visual character and quality of coastal views that are generally highly regarded. Because view protection is tied to visual character and quality, impacts under this threshold are closely tied to impacts under Impact AES-1. Therefore, construction of the Angels Gate shaft site would adversely affect available views of the coast, degrading the visual

character of the site, and the visual quality of ocean views across the site. Impacts during construction would be significant. See discussion under Impact AES-1 for further details.

NEPA Analysis

Environmental impacts would be the same as described for the CEQA analysis, and would occur for the duration of construction. Baseline conditions would resume upon termination of construction. With respect to the Corps' NEPA scope of analysis described in Section 3.5, the environmental impacts would be considered indirect impacts.

Operation

CEQA Analysis

Once construction of the tunnel is complete and noise barriers are removed, the only visible element remaining would be an access hatch to the shaft (Figure 4-3d, simulated KOP 3 and Figure 4-3g, simulated KOP 4). The access shaft would be approximately 25 to 35 feet in diameter, and it is assumed that the hatch may either be flush with the ground or protrude slightly above the ground's surface. The hatch would be located in an area that is presently paved. Impacts would be significant prior to mitigation. MM AES-3b would reduce impacts to less than significant.

NEPA Analysis

The LAUSD's South Region High School No. 15 would be constructed and is included in the NEPA analysis; however, the high school would not have views of the Angels Gate shaft site because of intervening topography and development. Students, staff, and school site visitors would not experience changes in the quality of the view due to shaft site construction. Therefore, visual impacts associated with the high school would be less than significant. All other environmental impacts would be the same as described for the CEQA analysis, and would occur for the operational life of the structure. With respect to the Corps' NEPA scope of analysis described in Section 3.5, the environmental impacts would be considered indirect impacts.

CEQA Impact Determination

Construction and operation at the JWPCP West and Angels Gate shaft sites for Alternative 3 (Project) would substantially degrade the existing visual character or quality of the site or its surroundings. Impacts under CEQA would be significant before mitigation. Construction on the existing ocean outfalls for Alternative 3 (Project) would also substantially degrade the existing visual character or quality of the site or its surroundings. Impacts under CEQA would be significant, and there is no feasible mitigation to reduce impacts to less than significant.

Mitigation

Implement MM AES-3a and MM AES-3b.

Residual Impacts

MM AES-3a would reduce impacts to less than significant by improving the visual quality of the noise barrier at the JWPCP West shaft site, whose primary viewers would be recreationists engaged in outdoor sport activities at the nearby Wilmington Athletic Complex. For individuals enjoying coastal views and the visual character of the coastal neighborhood at the Angels Gate shaft site, visual effects associated with the presence of the noise barrier and crane during construction would remain significant after mitigation. Additionally, there would be no feasible mitigation for visual impacts associated with the high level of construction traffic entering and exiting the Angels Gate shaft site and activities associated with the rehabilitation of the existing ocean outfalls. Residual impacts during construction would be significant and unavoidable.

Operational impacts at the JWPCP West and Angels Gate shaft sites would be reduced with implementation of MM AES-3b, which would lessen the visibility of new structures. Therefore, residual impacts during operation would be less than significant.

NEPA Impact Determination

Construction and operation of the JWPCP West and Angels Gate shaft sites for Alternative 3 (Project) would substantially degrade the existing visual character or quality of the site or its surroundings. Impacts under NEPA would be significant before mitigation with respect to the No-Federal-Action Alternative (see Section 3.4.1.6). Construction on the existing ocean outfalls for Alternative 3 (Project) would also substantially degrade the existing visual character or quality of the site or its surroundings. Impacts under NEPA would be significant with respect to the No-Federal-Action Alternative (see Section 3.4.1.6), and there is no feasible mitigation to reduce impacts to less than significant.

Mitigation

Implement MM AES-3a and MM AES-3b.

Residual Impacts

Residual impacts during construction would be less than significant at the JWPCP West shaft site and significant and unavoidable at the Angels Gate shaft site and for rehabilitation of the existing ocean outfalls, as described under the CEQA impact determination. Residual impacts during operation would be less than significant.

Impact AES-4. Would Alternative 3 (Project) result in an adverse effect due to shading on existing visual character or quality of the site or its surroundings?

Shaft Site – JWPCP West

Construction

CEQA Analysis

Information from the AutoCAD Civil 3D shadow model for the JWPCP East shaft site was applied to the JWPCP West shaft site and indicates that the noise barrier would cast shadows just before sunset on the Wilmington Athletic Complex, which closes at dark and is located to the east. Impacts would be less than significant.

NEPA Analysis

Environmental impacts would be the same as described for the CEQA analysis, and would occur for the duration of construction. Baseline conditions would resume upon termination of construction. With respect to the Corps' NEPA scope of analysis described in Section 3.5, the environmental impacts would be considered indirect impacts.

Operation

CEQA Analysis

The only feature that would cast a shadow would be the surge tower, which would be no more than 30 feet tall and would not be located directly adjacent to West Lomita Boulevard or Figueroa Street. The surge tower would be slightly visible from the intersection of Figueroa Street and Q Street (near the Wilmington Boys and Girls Club and a residential area), as shown in simulated KOP 4 and shown on Figure 4-2d. Its shadow would be cast on the JWPCP West shaft site, and it would not shade the neighboring Wilmington Athletic Complex. Impacts would be less than significant.

NEPA Analysis

Environmental impacts would be the same as described for the CEQA analysis, and would occur for the operational life of the structure. With respect to the Corps' NEPA scope of analysis described in Section 3.5, the environmental impacts would be considered indirect impacts.

Shaft Site – Angels Gate

Construction

CEQA Analysis

Information from the AutoCAD Civil 3D shadow model for the JWPCP East shaft site was applied to the Angels Gate shaft site and indicates that the noise barrier would cast shadows just before sunset on residences and businesses to the east and Point Fermin Park to the south. Impacts would be less than significant.

NEPA Analysis

Environmental impacts would be the same as described for the CEQA analysis, and would occur for the duration of construction. Baseline conditions would resume upon termination of construction. With respect to the Corps' NEPA scope of analysis described in Section 3.5, the environmental impacts would be considered indirect impacts.

CEQA Impact Determination

Construction and operation of Alternative 3 (Project) would not result in an adverse effect due to shading on existing visual character or quality of the site or its surroundings. Impacts under CEQA would be less than significant.

Mitigation

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Construction and operation of Alternative 3 (Project) would not result in an adverse effect due to shading on existing visual character or quality of the site or its surroundings. Impacts under NEPA would be less than significant with respect to the No-Federal-Action Alternative (see Section 3.4.1.6).

Mitigation

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact AES-5. Would Alternative 3 (Project) create a new source of substantial light or glare that would adversely affect day or nighttime views of the area?

Shaft Sites – JWPCP West and Angels Gate

Construction

CEQA Analysis

The noise barrier at the JWPCP West and the Angels Gate shaft sites would introduce a flat, tall, vertical surface that would reflect sunlight and light from street lamps. The surface area of the barrier would increase glare seen by residents and roadway users. Lighting would be used during nighttime construction. Therefore, there would be a minor amount of project-related nighttime light and glare visible over the 20-foot-tall noise barrier if lighting were not directed downward or if a large amount of ambient lighting were used that radiated up and above the noise barrier. Impacts would be significant prior to mitigation. MM AES-5a and MM AES-5b would reduce impacts to less than significant.

NEPA Analysis

The LAUSD's South Region High School No. 15 would be constructed and is included in the NEPA analysis for the Angels Gate shaft site. However, views of the coast from the high school would not be affected because intervening topography and existing development between the high school and the shaft site would block any light and glare from the shaft site. Therefore, visual impacts associated with the high school would be less than significant. All other environmental impacts would be the same as described for the CEQA analysis, and would occur for the duration of construction. Baseline conditions would resume upon termination of construction. With respect to the Corps' NEPA scope of analysis described in Section 3.5, the environmental impacts would be considered indirect impacts.

CEQA Impact Determination

Construction at the JWPCP West and Angels Gate shaft sites for Alternative 3 (Project) would create a new source of substantial light or glare that would adversely affect day or nighttime views of the area. Impacts under CEQA would be significant before mitigation.

Mitigation

Implement MM AES-5a (same as MM AES-3a) and MM AES-5b.

Residual Impacts

MM AES-5a and MM AES-5b would reduce impacts associated with glare and nighttime lighting at the JWPCP West and Angels Gate shaft sites. Residual impacts during construction would be less than significant.

NEPA Impact Determination

Construction at the JWPCP West and Angels Gate shaft sites for Alternative 3 (Project) would create a new source of substantial light or glare that would adversely affect day or nighttime views of the area. Impacts under NEPA would be significant before mitigation with respect to the No-Federal-Action Alternative (see Section 3.4.1.6).

Mitigation

Implement MM AES-5a (same as MM AES-3a) and MM AES-5b.

Residual Impacts

Residual impacts during construction would be less than significant, as described under the CEQA impact determination.

4.4.5.3 Impact Summary – Alternative 3

As determined in the Preliminary Screening Analysis, all program elements would result in no impacts or less than significant impacts on aesthetic resources; therefore, the program is not evaluated in this EIR/EIS. Impacts on aesthetic resources analyzed in this EIR/EIS for Alternative 3 (Project) are summarized in Table 4-6. The proposed mitigation, where feasible, and the significance of the impact before and following mitigation are also listed in the table.

Table 4-6. Impact Summary – Alternative 3 (Project)

Project Element	Impact Determination Before Mitigation	NEPA		Residual Impact After Mitigation
		Direct or Indirect	Mitigation	
Impact AES-1. Would Alternative 3 (Project) conflict with adopted goals or policies that protect visual quality of a designated scenic vista or scenic resource, resulting in an adverse aesthetic impact such as obstruction of view or degradation of visual character?				
Shaft Site				
Angels Gate	CEQA Significant Impact During Construction	N/A	MM AES-1 (same as MM AES-3a). Implement visual measures to improve the aesthetic quality of the noise barrier to ensure the design blends with the surrounding environment. A mural or similar aesthetic treatment will be applied to the sections of the noise barrier prominently visible to nearby residents and/or recreationists. Appropriate paint type and surfacing materials will be selected to ensure durability of the painted or treated surfaces until the barrier is removed. Barriers will have low-sheen and non-reflective surface materials to reduce the potential for glare. The paint color or aesthetic treatment will be maintained and any graffiti will be removed in a timely manner. During the final design process, the input of residents and/or recreationists that will be affected by the placement of the noise barriers will be accepted. Their comments will be evaluated for inclusion in the design to ensure the final treatment meets expectations to the greatest extent feasible.	CEQA Significant and Unavoidable Impact During Construction
	NEPA Significant Impact During Construction	Indirect	MM AES-1 (same as MM AES-3a)	NEPA Significant and Unavoidable Impact During Construction
Riser/Diffuser Area				
PV Shelf	CEQA Less Than Significant Impact During Construction	N/A	No mitigation is required.	CEQA Less Than Significant Impact During Construction
	NEPA Less Than Significant Impact During Construction	Direct	No mitigation is required.	NEPA Less Than Significant Impact During Construction

Table 4-6 (Continued)

Project Element	Impact Determination Before Mitigation	NEPA Direct or Indirect	Mitigation	Residual Impact After Mitigation
Existing Ocean Outfalls	CEQA Significant Impact During Construction	N/A	No mitigation is feasible.	CEQA Significant and Unavoidable Impact During Construction
	NEPA Significant Impact During Construction	Direct	No mitigation is feasible.	NEPA Significant and Unavoidable Impact During Construction
Impact AES-3. Would Alternative 3 (Project) substantially degrade the existing visual character or quality of the site or its surroundings?				
Shaft Site				
JWPCP West	CEQA Significant Impact During Construction	N/A	MM AES-3a (same as MM AES-1)	CEQA Less Than Significant Impact During Construction
	NEPA Significant Impact During Construction	Indirect	MM AES-3a (same as MM AES-1)	NEPA Less Than Significant Impact During Construction
	CEQA Significant Impact During Operation	N/A	MM AES-3b. Implement visual measures to reduce the visibility of new structures by painting prominent metal surfaces with colors that will blend with the setting. Selected colors will be shades that are slightly darker than the general surrounding area to reduce contrast and promote compositional harmony of architectural features. An appropriate paint type will be selected for the finished structures to ensure long-term durability of the painted surfaces, and the finish will be maintained over time.	CEQA Less Than Significant Impact During Operation
Angels Gate	NEPA Significant Impact During Operation	Indirect	MM AES-3b	NEPA Less Than Significant Impact During Operation
	CEQA Significant Impact During Construction	N/A	MM AES-3a (same as MM AES-1)	CEQA Significant and Unavoidable Impact During Construction
	NEPA Significant Impact During Construction	Indirect	MM AES-3a (same as MM AES-1)	NEPA Significant and Unavoidable Impact During Construction
	CEQA Significant Impact During Operation	N/A	MM AES-3b	CEQA Less Than Significant Impact During Operation
	NEPA Significant Impact During Operation	Indirect	MM AES-3b	NEPA Less Than Significant Impact During Operation

Table 4-6 (Continued)

Project Element	Impact Determination Before Mitigation	NEPA Direct or Indirect	Mitigation	Residual Impact After Mitigation
Riser/Diffuser Area				
PV Shelf	CEQA Less Than Significant Impact During Construction	N/A	No mitigation is required.	CEQA Less Than Significant Impact During Construction
	NEPA Less Than Significant Impact During Construction	Direct	No mitigation is required.	NEPA Less Than Significant Impact During Construction
Existing Ocean Outfalls	CEQA Significant Impact During Construction	N/A	No mitigation is feasible.	CEQA Significant and Unavoidable Impact During Construction
	NEPA Significant Impact During Construction	Direct	No mitigation is feasible.	NEPA Significant and Unavoidable Impact During Construction
Impact AES-4. Would Alternative 3 (Project) result in an adverse effect due to shading on existing visual character or quality of the site or its surroundings?				
Shaft Site				
JWPCP West	CEQA Less Than Significant Impact During Construction	N/A	No mitigation is required.	CEQA Less Than Significant Impact During Construction
	NEPA Less Than Significant Impact During Construction	Indirect	No mitigation is required.	NEPA Less Than Significant Impact During Construction
	CEQA Less Than Significant Impact During Operation	N/A	No mitigation is required.	CEQA Less Than Significant Impact During Operation
	NEPA Less Than Significant Impact During Operation	Indirect	No mitigation is required.	NEPA Less Than Significant Impact During Operation
Angels Gate	CEQA Less Than Significant Impact During Construction	N/A	No mitigation is required.	CEQA Less Than Significant Impact During Construction
	NEPA Less Than Significant Impact During Construction	Indirect	No mitigation is required.	NEPA Less Than Significant Impact During Construction
Impact AES-5. Would Alternative 3 (Project) create a new source of substantial light or glare that would adversely affect day or nighttime views of the area?				
Shaft Site				
JWPCP West	CEQA Significant Impact During Construction	N/A	MM AES-5a (same as MM AES-3a) MM AES-5b. Apply minimum lighting standards. Lights will be installed at the lowest practicable height and with the lowest practicable wattage. Lights will be screened and directed downward to the greatest degree possible. The number of nighttime lights will be minimized.	CEQA Less Than Significant Impact During Construction

Table 4-6 (Continued)

Project Element	Impact Determination Before Mitigation	NEPA Direct or Indirect	Mitigation	Residual Impact After Mitigation
Angels Gate	NEPA Significant Impact During Construction	Indirect	MM AES-5a (same as MM AES-3a) MM AES-5b	NEPA Less Than Significant Impact During Construction
	CEQA Significant Impact During Construction	N/A	MM AES-5a (same as MM AES-3a) MM AES-5b	CEQA Less Than Significant Impact During Construction
	NEPA Significant Impact During Construction	Indirect	MM AES-5a (same as MM AES-3a) MM AES-5b	NEPA Less Than Significant Impact During Construction
Riser/Diffuser Area				
PV Shelf	CEQA Less Than Significant Impact During Construction	N/A	No mitigation is required.	CEQA Less Than Significant Impact During Construction
	NEPA Less Than Significant Impact During Construction	Direct	No mitigation is required.	NEPA Less Than Significant Impact During Construction
Existing Ocean Outfalls	CEQA Less Than Significant Impact During Construction	N/A	No mitigation is required.	CEQA Less Than Significant Impact During Construction
	NEPA Less Than Significant Impact During Construction	Direct	No mitigation is required.	NEPA Less Than Significant Impact During Construction

4.4.6 Alternative 4 (Recommended Alternative)

4.4.6.1 Program

Alternative 4 (Program) is the same as Alternative 1 (Program); program elements would result in no impacts or less than significant impacts on aesthetic resources. A detailed discussion on the determinations can be found in the Preliminary Screening Analysis (Appendix 1-A).

4.4.6.2 Project

The impacts for the JWPCP West shaft site for Alternative 4 (Project) would be the same as for Alternative 3 (Project), except tunnel construction would occur over a period of 4 years instead of 5 years. The construction impacts for the rehabilitation of the existing ocean outfalls for Alternative 4 (Project) would be the same as for Alternative 1 (Project). Note that rehabilitation of the existing ocean outfalls could occur during construction at the Royal Palms shaft site; therefore, both activities could be visible in the view represented by KOP 5.

Impact AES-1. Would Alternative 4 (Project) conflict with adopted goals or policies that protect visual quality of a designated scenic vista or scenic resource, resulting in an adverse aesthetic impact such as obstruction of view or degradation of visual character?

Shaft Site – Royal Palms

Construction

CEQA Analysis

The Royal Palms shaft would be an exit shaft. It would take 6 to 9 months to complete and would be in use for approximately 24 to 27 months. Construction of the shaft site would conflict with adopted goals and policies to protect highly valued scenic views of the coast and coastal areas that are also a part of the CCNM. Construction would take place at the bottom of Kay Fiorentino Drive, the entry road to the Royal Palms Beach. The land, which is primarily owned by the Sanitation Districts, presently consists of a grassed area enclosed by a chain link fence. The Sanitation Districts' existing tunnels, manifold structure, and outfalls are located underground within the fenced area. Access covers and vent stacks are visible at the surface. Wooden utility poles are also present along the fence line. There is also a remnant stone wall on the outside of the western edge of the fence. Construction would take place 5 days per week (Monday–Friday), 10 hours per day. Construction activities would introduce heavy equipment and associated vehicles (including dozers, graders, scrapers, cranes, and trucks) into the viewshed of the shaft site, public roadways, and residential and commercial properties. Safety and directional signage would also be a visible element.

Shaft site construction would be visible to viewer groups until a 20-foot-tall noise barrier is erected to screen construction activities and reduce noise (Figure 4-4b, simulated KOP 1 and Figure 4-4e, simulated KOP 2). There would be at least one crane on site, up to approximately 100 feet tall, which would be visible over the noise barrier. As shown in simulated KOP 1 on Figure 4-4b and simulated KOP 2 on Figure 4-4e, land-based views from White Point Park and Royal Palms Beach would be greatly altered and adversely affected by construction at this location because these locations are highly visited for their recreational and scenic resources. The noise barrier would detract from coastal views by placing a large physical barrier around the shaft site, with a crane rising above the barrier, both of which would draw attention to the construction area and away from scenic views.

Residents and recreationists on Harbor Walkway would be able to look down onto the shaft site and see construction activities. This would negatively affect views by introducing industrial elements into a coastal setting. As shown in simulated KOP 1 on Figure 4-4b, recreationists at White Point Park would be highly affected because the park is located at a higher elevation with views down toward the site and the coast. The views of a relatively continuous coastal bluff shoreline would be replaced by a shoreline disrupted by a 20-foot-tall noise barrier. Recreationists at Royal Palms Beach would be the most directly affected, with immediate and ground-level views of the fenced grassy lot being replaced by a 20-foot-tall barrier, as shown in simulated KOP 2 on Figure 4-4e. The barrier would be perceived as an imposing vertical structure, inconsistent with the existing visual character, and would likely be regarded as a negative visual intrusion. Impacts on visual quality for residents and recreationists are considered significant because the barrier would create a notable change in the visual character in available protected views of the coast. MM AES-1 would reduce these impacts; however, impacts would remain significant.

In addition, noise associated with the shaft site and truck traffic to and from the site would draw attention to construction activities, which would further disrupt coastal views. There would be 40 truck trips per day to accommodate transporting excavated material from the site. There is a narrow travel way from

Kay Fiorentino Drive to the parking lots north and south of the shaft site. The construction traffic using the entry road would temporarily back up recreational traffic as vehicles enter or exit the shaft site. Residents would be affected the most because they are close to the site and have direct long-lasting views of the site. They would have immediate and repeated views of trucks entering and exiting the site. Views from these locations would be further affected by construction activities because these are highly visited areas with visual access to the ocean, a high amount of recreational use, and valued scenic resources. Impacts would be significant, and there is no feasible mitigation to reduce these impacts.

NEPA Analysis

Environmental impacts would be the same as described for the CEQA analysis, and would occur for the duration of construction. Baseline conditions would resume upon termination of construction. With respect to the Corps' NEPA scope of analysis described in Section 3.5, the environmental impacts would be considered indirect impacts.

CEQA Impact Determination

Construction at the Royal Palms shaft site for Alternative 4 (Project) would conflict with adopted goals or policies that protect visual quality of a designated scenic vista or scenic resource, resulting in an adverse aesthetic impact such as obstruction of view or degradation of visual character. Impacts under CEQA would be significant before mitigation. Construction on the existing ocean outfalls for Alternative 4 (Project) would also conflict with adopted goals or policies that protect visual quality of a designated scenic vista or scenic resource, resulting in an adverse aesthetic impact such as obstruction of view or degradation of visual character. Impacts under CEQA would be significant, and there is no feasible mitigation to reduce impacts to less than significant.

Mitigation

Implement MM AES-1 (same as MM AES-3a).

Residual Impacts

Although MM AES-1 would reduce impacts by improving the visual quality of noise barriers at the Royal Palms shaft site, the effects associated with the presence of a noise barrier and crane would not be reduced to less than significant during construction. In addition, there is no feasible mitigation to lessen the visual impacts associated with the high level of construction traffic entering and exiting the Royal Palms shaft site. While rehabilitation activities associated with the existing ocean outfalls would occur during the workweek and views of construction activities would be limited to Monday through Friday, this element would receive a large number of viewers during the week. Residual impacts during construction would be significant and unavoidable.

NEPA Impact Determination

Construction at the Royal Palms shaft site for Alternative 4 (Project) would conflict with adopted goals or policies that protect visual quality of a designated scenic vista or scenic resource, resulting in an adverse aesthetic impact such as obstruction of view or degradation of visual character. Impacts under NEPA would be significant before mitigation with respect to the No-Federal-Action Alternative (see Section 3.4.1.6). Construction on the existing ocean outfalls for Alternative 4 (Project) would also conflict with adopted goals or policies that protect visual quality of a designated scenic vista or scenic resource, resulting in an adverse aesthetic impact such as obstruction of view or degradation of visual character. Impacts under NEPA would be significant before mitigation with respect to the No-Federal-Action Alternative (see Section 3.4.1.6), and there is no feasible mitigation to reduce impacts to less than significant.

Mitigation

Implement MM AES-1 (same as MM AES-3a).

Residual Impacts

Residual impacts during construction would be significant and unavoidable, as described under the CEQA impact determination.

Impact AES-3. Would Alternative 4 (Project) substantially degrade the existing visual character or quality of the site or its surroundings?

Shaft Site – Royal Palms

Construction

CEQA Analysis

The Royal Palms shaft would be an exit shaft. It would take 6 to 9 months to complete and would be in use for up to 3 years. Construction of the shaft site would degrade the existing visual character or quality of the site or its surroundings. Affected viewsheds include that of the shaft site and views of the coast that contain the shaft site, described in more detail in the following paragraphs. As addressed in Impact AES-1, views of the coast are protected in this location because of their existing visual character and quality. Even if these views were not protected, the project would affect coastal views and the existing visual character and quality of coastal views that are generally highly regarded. Because view protection is tied to visual character and quality, impacts under this threshold are closely tied to impacts under Impact AES-1. Therefore, construction of the Royal Palms shaft site would adversely affect available views of the coast, degrading the visual character of the site, and the visual quality of ocean views that contain the site. Impacts during construction would be significant. See discussion under Impact AES-1 for further detail.

NEPA Analysis

Environmental impacts would be the same as described for the CEQA analysis, and would occur for the duration of construction. Baseline conditions would resume upon termination of construction. With respect to the Corps' NEPA scope of analysis described in Section 3.5, the environmental impacts would be considered indirect impacts.

Operation

CEQA Analysis

Once construction of the tunnel is complete and the TBM and noise barriers are removed, the only visible element remaining would be access hatches to the shaft and to the valve structure, as well as vent stacks that are similar to the existing facilities. The access hatch for the shaft would be approximately 25 to 35 feet in diameter, and for the valve structure would be approximately 10 feet by 20 feet in length. It is assumed that the hatch would be either flush with the ground or protrude slightly above the ground's surface. This would be a significant impact before mitigation. MM AES-3b would reduce visual impacts associated with the access hatches and vent stacks at the Royal Palms shaft site to less than significant.

NEPA Analysis

Environmental impacts would be the same as described for the CEQA analysis, and would occur for the operational life of the structure. With respect to the Corps' NEPA scope of analysis described in Section 3.5, the environmental impacts would be considered indirect impacts.

CEQA Impact Determination

Construction and operation at the JWPCP West and Royal Palms shaft sites for Alternative 4 (Project) would substantially degrade the existing visual character or quality of the site and its surroundings. Impacts under CEQA would be significant before mitigation. Construction on the existing ocean outfalls for Alternative 4 (Project) would also substantially degrade the existing visual character or quality of the site or its surroundings. Impacts under CEQA would be significant, and there is no feasible mitigation to reduce impacts to less than significant.

Mitigation

Implement MM AES-3a and MM AES-3b.

Residual Impacts

MM AES-3a would reduce impacts during construction to less than significant by improving the visual quality of the noise barrier at the JWPCP West shaft, whose primary viewers would be recreationists engaged in outdoor sport activities at the nearby Wilmington Athletic Complex. For individuals enjoying coastal views and the visual character of the coastal resources at the Royal Palms shaft site, the visual effects associated with the presence of a noise barrier and crane during construction would remain significant after mitigation. While rehabilitation activities associated with the existing ocean outfalls would occur during the workweek and views of construction activities would be limited to Monday through Friday, this element would receive a large number of viewers during the week. Residual impacts during construction would be significant and unavoidable.

Operational impacts associated with the surge tower at the JWPCP West shaft site and the access hatch at the Royal Palms shaft site would be reduced to less than significant with implementation of MM AES-3b. Therefore, residual impacts during operation would be less than significant.

NEPA Impact Determination

Construction and operation at the JWPCP West and Royal Palms shaft sites for Alternative 4 (Project) would substantially degrade the existing visual character or quality of the site or its surroundings. Impacts under NEPA would be significant before mitigation with respect to the No-Federal-Action Alternative (see Section 3.4.1.6). Construction on the existing ocean outfalls for Alternative 4 (Project) would also substantially degrade the existing visual character or quality of the site or its surroundings. Impacts under NEPA would be significant with respect to the No-Federal-Action Alternative (see Section 3.4.1.6), and there is no feasible mitigation to reduce impacts to less than significant.

Mitigation

Implement MM AES-3a and MM AES-3b.

Residual Impacts

Residual impacts during construction would be less than significant at the JWPCP West shaft site and significant and unavoidable at the Royal Palms shaft site and for rehabilitation of the existing ocean outfalls, as described under the CEQA impact determination. Residual impacts during operation would be less than significant.

Impact AES-4. Would Alternative 4 (Project) result in an adverse effect due to shading on existing visual character or quality of the site or its surroundings?

Shaft Site – Royal Palms

Construction

CEQA Analysis

Information from the AutoCAD Civil 3D shadow model for the JWPCP East shaft site was applied to the Royal Palms shaft site and indicates that the noise barrier would cast shadows, but would not affect viewers for the majority of the day. It is not until just before sunset that a longer shadow would be cast across the entry drive and parking lot. This impact would be less than significant.

NEPA Analysis

Environmental impacts would be the same as described for the CEQA analysis, and would occur for the duration of construction. Baseline conditions would resume upon termination of construction. With respect to the Corps' NEPA scope of analysis described in Section 3.5, the environmental impacts would be considered indirect impacts.

CEQA Impact Determination

Construction and operation of Alternative 4 (Project) would not result in an adverse effect due to shading on existing visual character or quality of the site or its surroundings. Impacts under CEQA would be less than significant.

Mitigation

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Construction and operation of Alternative 4 (Project) would not result in an adverse effect due to shading on existing visual character or quality of the site or its surroundings. Impacts under NEPA would be less than significant with respect to the No-Federal-Action Alternative (see Section 3.4.1.6).

Mitigation

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact AES-5. Would Alternative 4 (Project) create a new source of substantial light or glare that would adversely affect day or nighttime views of the area?

Shaft Site – Royal Palms

Construction

CEQA Analysis

The noise barrier at the Royal Palms shaft site would introduce a flat, tall, vertical surface that would reflect sunlight and light from street lamps. The surface area of the barrier would increase glare seen by residents and roadway users. Lighting would be used during nighttime construction. Therefore, there would be a minor amount of project-related nighttime light and glare visible over the 20-foot-tall noise barrier if lighting were not directed downward or if a large amount of ambient lighting were used that radiated up and above the noise barrier. Significant impacts would be reduced to less than significant with implementation of MM AES-5a and MM AES-5b.

NEPA Analysis

Environmental impacts would be the same as described for the CEQA analysis, and would occur for the duration of construction. Baseline conditions would resume upon termination of construction. With respect to the Corps' NEPA scope of analysis described in Section 3.5, the environmental impacts would be considered indirect impacts.

CEQA Impact Determination

Construction at the JWPCP West and Royal Palms shaft sites for Alternative 4 (Project) would create a new source of substantial light or glare that would adversely affect day or nighttime views of the area. Impacts under CEQA would be significant before mitigation.

Mitigation

Implement MM AES-5a (same as MM AES-3a) and MM AES-5b.

Residual Impacts

MM AES-5a and MM AES-5b would reduce impacts associated with glare and nighttime lighting at the JWPCP West and Royal Palms shaft sites. Residual impacts during construction would be less than significant.

NEPA Impact Determination

Construction at the JWPCP West and Royal Palms shaft sites for Alternative 4 (Project) would create a new source of substantial light or glare that would adversely affect day or nighttime views of the area. Impacts under NEPA would be significant before mitigation with respect to the No-Federal-Action Alternative (see Section 3.4.1.6).

Mitigation

Implement MM AES-5a (same as MM AES-3a) and MM AES-5b.

Residual Impacts

Residual impacts during construction would be less than significant, as described under the CEQA impact determination.

4.4.6.3 Impact Summary – Alternative 4

As determined in the Preliminary Screening Analysis, all program elements would result in no impacts or less than significant impacts on aesthetic resources; therefore, the program is not evaluated in this EIR/EIS. Impacts on aesthetic resources analyzed in this EIR/EIS for Alternative 4 (Project) are summarized in Table 4-7. The proposed mitigation, where feasible, and the significance of the impact before and following mitigation are also listed in the table.

Table 4-7. Impact Summary – Alternative 4 (Project)

Project Element	Impact Determination Before Mitigation	NEPA		Residual Impact After Mitigation
		Direct or Indirect	Mitigation	
Impact AES-1. Would Alternative 4 (Project) conflict with adopted goals or policies that protect visual quality of a designated scenic vista or scenic resource, resulting in an adverse aesthetic impact such as obstruction of view or degradation of visual character?				
Shaft Site				
Royal Palms	CEQA Significant Impact During Construction	N/A	MM AES-1 (same as MM AES-3a). Implement visual measures to improve the aesthetic quality of the noise barrier to ensure the design blends with the surrounding environment. A mural or similar aesthetic treatment will be applied to the sections of the noise barrier prominently visible to nearby residents and/or recreationists. Appropriate paint type and surfacing materials will be selected to ensure durability of the painted or treated surfaces until the barrier is removed. Barriers will have low-sheen and non-reflective surface materials to reduce the potential for glare. The paint color or aesthetic treatment will be maintained and any graffiti will be removed in a timely manner. During the final design process, the input of residents and/or recreationists that will be affected by the placement of the noise barriers will be accepted. Their comments will be evaluated for inclusion in the design to ensure the final treatment meets expectations to the greatest extent feasible.	CEQA Significant and Unavoidable Impact During Construction
	NEPA Significant Impact During Construction	Indirect	MM AES-1 (same as MM AES-3a)	NEPA Significant and Unavoidable Impact During Construction
Riser/Diffuser Area				
Existing Ocean Outfalls	CEQA Significant Impact During Construction	N/A	No mitigation is feasible.	CEQA Significant and Unavoidable Impact During Construction
	NEPA Significant Impact During Construction	Direct	No mitigation is feasible.	NEPA Significant and Unavoidable Impact During Construction

Table 4-7 (Continued)

Project Element	Impact Determination Before Mitigation	NEPA Direct or Indirect	Mitigation	Residual Impact After Mitigation
Impact AES-3. Would Alternative 4 (Project) substantially degrade the existing visual character or quality of the site or its surroundings?				
Shaft Site				
JWPCP West	CEQA Significant Impact During Construction	N/A	MM AES-3a (same as MM AES-1)	CEQA Less Than Significant Impact During Construction
	NEPA Significant Impact During Construction	Indirect	MM AES-3a (same as MM AES-1)	NEPA Less Than Significant Impact During Construction
Royal Palms	CEQA Significant Impact During Operation	N/A	MM AES-3b. Implement visual measures to reduce the visibility of new structures by painting prominent metal surfaces with colors that will blend with the setting. Selected colors will be shades that are slightly darker than the general surrounding area to reduce contrast and promote compositional harmony of architectural features. An appropriate paint type will be selected for the finished structures to ensure long-term durability of the painted surfaces, and the finish will be maintained over time.	CEQA Less Than Significant Impact During Operation
	NEPA Significant Impact During Operation	Indirect	MM AES-3b	NEPA Less Than Significant Impact During Operation
	CEQA Significant Impact During Construction	N/A	MM AES-3a (same as MM AES-1)	CEQA Significant and Unavoidable Impact During Construction
	NEPA Significant Impact During Construction	Indirect	MM AES-3a (same as MM AES-1)	NEPA Significant and Unavoidable Impact During Construction
Riser/Diffuser Area	CEQA Significant Impact During Operation	N/A	MM AES-3b	CEQA Less Than Significant Impact During Operation
	NEPA Significant Impact During Operation	Indirect	MM AES-3b	NEPA Less Than Significant Impact During Operation
Existing Ocean Outfalls	CEQA Significant Impact During Construction	N/A	No mitigation is feasible.	CEQA Significant and Unavoidable Impact During Construction
	NEPA Significant Impact During Construction	Direct	No mitigation is feasible.	NEPA Significant and Unavoidable Impact During Construction

Table 4-7 (Continued)

Project Element	Impact Determination Before Mitigation	NEPA Direct or Indirect	Mitigation	Residual Impact After Mitigation
Impact AES-4. Would Alternative 4 (Project) result in an adverse effect due to shading on existing visual character or quality of the site or its surroundings?				
Shaft Site				
JWPCP West	CEQA Less Than Significant Impact During Construction	N/A	No mitigation is required.	CEQA Less Than Significant Impact During Construction
	NEPA Less Than Significant Impact During Construction	Indirect	No mitigation is required.	NEPA Less Than Significant Impact During Construction
	CEQA Less Than Significant Impact During Operation	N/A	No mitigation is required.	CEQA Less Than Significant Impact During Operation
	NEPA Less Than Significant Impact During Operation	Indirect	No mitigation is required.	NEPA Less Than Significant Impact During Operation
Royal Palms	CEQA Less Than Significant Impact During Construction	N/A	No mitigation is required.	CEQA Less Than Significant Impact During Construction
	NEPA Less Than Significant Impact During Construction	Indirect	No mitigation is required.	NEPA Less Than Significant Impact During Construction
Impact AES-5. Would Alternative 4 (Project) create a new source of substantial light or glare that would adversely affect day or nighttime views of the area?				
Shaft Site				
JWPCP West	CEQA Significant Impact During Construction	N/A	MM AES-5a (same as MM AES-3a) MM AES-5b. Apply minimum lighting standards. Lights will be installed at the lowest practicable height and with the lowest practicable wattage. Lights will be screened and directed downward to the greatest degree possible. The number of nighttime lights will be minimized.	CEQA Less Than Significant Impact During Construction
	NEPA Significant Impact During Construction	Indirect	MM AES-5a (same as MM AES-3a) MM AES-5b	NEPA Less Than Significant Impact During Construction
Royal Palms	CEQA Significant Impact During Construction	N/A	MM AES-5a (same as MM AES-3a) MM AES-5b	CEQA Less Than Significant Impact During Construction
	NEPA Significant Impact During Construction	Indirect	MM AES-5a (same as MM AES-3a) MM AES-5b	NEPA Less Than Significant Impact During Construction

Table 4-7 (Continued)

Project Element	Impact Determination Before Mitigation	NEPA Direct or Indirect	Mitigation	Residual Impact After Mitigation
Riser/Diffuser Area				
Existing Ocean Outfalls	CEQA Less Than Significant Impact During Construction	N/A	No mitigation is required.	CEQA Less Than Significant Impact During Construction
	NEPA Less Than Significant Impact During Construction	Direct	No mitigation is required.	NEPA Less Than Significant Impact During Construction

4.4.7 Alternative 5 (No-Project Alternative)

Pursuant to CEQA, an environmental impact report (EIR) must evaluate a no-project alternative. A no-project alternative describes the no-build scenario and what reasonably would be expected to occur in the foreseeable future if the project were not approved. Under the No-Project Alternative for the Clearwater Program, the Sanitation Districts would continue to expand, upgrade, and operate the JOS in accordance with the JOS 2010 Master Facilities Plan (2010 Plan) (Sanitation Districts 1994), which includes all program elements proposed under the Clearwater Program, excluding process optimization at the water reclamation plants, as described in Section 3.4.1.5. A new or modified ocean discharge system would not be constructed. As a result, there would be a greater potential for an emergency discharge into various water courses, as described in Section 3.4.1.5.

Because there would be no construction of a new or modified JWPCP ocean discharge system, the Corps would not make any significance determinations under NEPA and would not issue any permits or discretionary approvals for dredge or fill actions or for transport or ocean disposal of dredged material.

4.4.7.1 Program

Alternative 5 (Program) would consist of the implementation of the 2010 Plan. The impacts for the conveyance system, plant expansion at the San Jose Creek Water Reclamation Plant (SJCWRP), WRP effluent management, JWPCP solids processing, and JWPCP biosolids management for Alternative 5 (Program) would be the same as for Alternative 1 (Program) and would be subject to mitigation in accordance with the EIR prepared for the 2010 Plan (Jones & Stokes 1994). Program elements would result in no impacts or less than significant impacts on aesthetic resources. A detailed discussion on the determinations can be found in the Preliminary Screening Analysis (Appendix 1-A).

4.4.7.2 Project

Alternative 5 does not include a project; therefore, a new or modified ocean discharge system would not be constructed. As a consequence of taking no action, there would be a greater potential for emergency discharges into various water courses, as described in Section 3.4.1.5. There would be no impacts on aesthetic resources.

4.4.7.3 Impact Summary – Alternative 5

Alternative 5 would result in no impacts on aesthetic resources. As determined in the Preliminary Screening Analysis, the program would result in no impacts or less than significant impacts on aesthetic

resources; therefore, the program is not evaluated in this EIR/EIS. Additionally, there would be no impacts on aesthetic resources for Alternative 5 (Project).

4.4.8 Alternative 6 (No-Federal-Action Alternative)

Pursuant to NEPA, an environmental impact statement (EIS) must evaluate a no-federal-action alternative. The No-Federal-Action Alternative for the Clearwater Program consists of the activities that the Sanitation Districts would perform without the issuance of the Corps' permits. The Corps' permits would be required for the construction of the offshore tunnel, construction of the riser and diffuser, the rehabilitation of the existing ocean outfalls, and the ocean disposal of dredged material. Without a Corps permit to work on the aforementioned facilities, the Sanitation Districts would not construct the onshore tunnel and shaft sites. Therefore, none of the project elements would be constructed under the No-Federal-Action Alternative. The Sanitation Districts would continue to use the existing ocean discharge system, which could result in emergency discharges into various water courses, as described in Sections 3.4.1.6 and 4.4.7.2. The program elements for the recommended alternative would be implemented in accordance with CEQA requirements. However, based on the NEPA scope of analysis established in Sections 1.4.2 and 3.5, these elements would not be subject to NEPA because the Corps would not make any significance determinations and would not issue any permits or discretionary approvals.

4.4.8.1 Program

The program elements are beyond the NEPA scope of analysis.

4.4.8.2 Project

The impact analysis for Alternative 6 (Project) is the same as described for Alternative 5 (Project).

4.4.8.3 Impact Summary – Alternative 6

The program is not analyzed under Alternative 6. Impacts for Alternative 6 would be the same as discussed under Alternative 5 (Project); therefore, there would be no impacts on aesthetic resources for Alternative 6.

4.4.9 Comparison of Significant Impacts and Mitigation for All Alternatives

A summary of significant impacts on aesthetic resources resulting from the construction and/or operation of program and/or project elements is provided in Table 4-8. Impacts are compared by alternative. Proposed mitigation, where feasible, and the significance of the impact following mitigation are also listed in the table.

Table 4-8. Comparison of Significant Impacts and Mitigation for Aesthetic Resources for All Alternatives

Element	Impact Before Mitigation	Mitigation Measure	Residual Impact After Mitigation
Alternative 1 (Project)			
Impact AES-1. Would Alternative 1 (Project) conflict with adopted goals or policies that protect visual quality of a designated scenic vista or scenic resource, resulting in an adverse aesthetic impact such as obstruction of view or degradation of visual character?			
Riser/Diffuser Area – Existing Ocean Outfalls	CEQA Significant Impact During Construction	No mitigation is feasible.	CEQA Significant and Unavoidable Impact During Construction
	NEPA Significant Impact (Direct) During Construction	No mitigation is feasible.	NEPA Significant and Unavoidable Impact (Direct) During Construction
Impact AES-3. Would Alternative 1 (Project) substantially degrade the existing visual character or quality of the site or its surroundings?			
Shaft Site – JWPCP East	CEQA Significant Impact During Construction	MM AES-3a. Implement visual measures to improve the aesthetic quality of the noise barrier to ensure the design blends with the surrounding environment. A mural or similar aesthetic treatment will be applied to the sections of the noise barrier prominently visible to nearby residents and/or recreationists. Appropriate paint type and surfacing materials will be selected to ensure durability of the painted or treated surfaces until the barrier is removed. Barriers will have low-sheen and non-reflective surface materials to reduce the potential for glare. The paint color or aesthetic treatment will be maintained and any graffiti will be removed in a timely manner. During the final design process, the input of residents and/or recreationists that will be affected by the placement of the noise barriers will be accepted. Their comments will be evaluated for inclusion in the design to ensure the final treatment meets expectations to the greatest extent feasible.	CEQA Significant and Unavoidable Impact During Construction
	NEPA Significant Impact (Indirect) During Construction	MM AES-3a	NEPA Significant and Unavoidable Impact (Indirect) During Construction
	CEQA Significant Impact During Operation	MM AES-3b. Implement visual measures to reduce the visibility of new structures by painting prominent metal surfaces with colors that will blend with the setting. Selected colors will be shades that are slightly darker than the general surrounding area to reduce contrast and promote compositional harmony of architectural features. An appropriate paint type will be selected for the finished structures to ensure long-term durability of the painted surfaces, and the finish will be maintained over time.	CEQA Less Than Significant Impact During Operation
	NEPA Significant Impact (Indirect) During Operation	MM AES-3b	NEPA Less Than Significant Impact (Indirect) During Operation
Riser/Diffuser Area – Existing Ocean Outfalls	CEQA Significant Impact During Construction	No mitigation is feasible.	CEQA Significant and Unavoidable Impact During Construction
	NEPA Significant Impact (Direct) During Construction	No mitigation is feasible.	NEPA Significant and Unavoidable Impact (Direct) During Construction

Table 4-8 (Continued)

Element	Impact Before Mitigation	Mitigation Measure	Residual Impact After Mitigation
Impact AES-5. Would Alternative 1 (Project) create a new source of substantial light or glare that would adversely affect day or nighttime views of the area?			
Shaft Site – JWPCP East	CEQA Significant Impact During Construction	MM AES-5a (same as MM AES-3a) MM AES-5b. Apply minimum lighting standards. Lights will be installed at the lowest practicable height and with the lowest practicable wattage. Lights will be screened and directed downward to the greatest degree possible. The number of nighttime lights will be minimized.	CEQA Less Than Significant Impact During Construction
	NEPA Significant Impact (Indirect) During Construction	MM AES-5a (same as MM AES-3a) MM AES-5b	NEPA Less Than Significant Impact (Indirect) During Construction
Alternative 2 (Project)			
Impact AES-1. Would Alternative 2 (Project) conflict with adopted goals or policies that protect visual quality of a designated scenic vista or scenic resource, resulting in an adverse aesthetic impact such as obstruction of view or degradation of visual character?			
Riser/Diffuser Area – Existing Ocean Outfalls	CEQA Significant Impact During Construction	No mitigation is feasible.	CEQA Significant and Unavoidable Impact During Construction
	NEPA Significant Impact (Direct) During Construction	No mitigation is feasible.	NEPA Significant and Unavoidable Impact (Direct) During Construction
Impact AES-3. Would Alternative 2 (Project) substantially degrade the existing visual character or quality of the site or its surroundings?			
Shaft Site – JWPCP East	CEQA Significant Impact During Construction	MM AES-3a	CEQA Significant and Unavoidable Impact During Construction
	NEPA Significant Impact (Indirect) During Construction	MM AES-3a	NEPA Significant and Unavoidable Impact (Indirect) During Construction
	CEQA Significant Impact During Operation	MM AES-3b	CEQA Less Than Significant Impact During Operation
	NEPA Significant Impact (Indirect) During Operation	MM AES-3b	NEPA Less Than Significant Impact (Indirect) During Operation
Riser/Diffuser Area – Existing Ocean Outfalls	CEQA Significant Impact During Construction	No mitigation is feasible.	CEQA Significant and Unavoidable Impact During Construction
	NEPA Significant Impact (Direct) During Construction	No mitigation is feasible.	NEPA Significant and Unavoidable Impact (Direct) During Construction

Table 4-8 (Continued)

Element	Impact Before Mitigation	Mitigation Measure	Residual Impact After Mitigation
Impact AES-5. Would Alternative 2 (Project) create a new source of substantial light or glare that would adversely affect day or nighttime views of the area?			
Shaft Site – JWPCP East	CEQA Significant Impact During Construction	MM AES-5a (same as MM AES-3a) MM AES-5b	CEQA Less Than Significant Impact During Construction
	NEPA Significant Impact (Indirect) During Construction	MM AES-5a (same as MM AES-3a) MM AES-5b	NEPA Less Than Significant Impact (Indirect) During Construction
Alternative 3 (Project)			
Impact AES-1. Would Alternative 3 (Project) conflict with adopted goals or policies that protect visual quality of a designated scenic vista or scenic resource, resulting in an adverse aesthetic impact such as obstruction of view or degradation of visual character?			
Shaft Site – Angels Gate	CEQA Significant Impact During Construction	MM AES-1 (same as MM AES-3a)	CEQA Significant and Unavoidable Impact During Construction
	NEPA Significant Impact (Indirect) During Construction	MM AES-1 (same as MM AES-3a)	NEPA Significant and Unavoidable Impact (Indirect) During Construction
Riser/Diffuser Area – Existing Ocean Outfalls	CEQA Significant Impact During Construction	No mitigation is feasible.	CEQA Significant and Unavoidable Impact During Construction
	NEPA Significant Impact (Direct) During Construction	No mitigation is feasible.	NEPA Significant and Unavoidable Impact (Direct) During Construction
Impact AES-3. Would Alternative 3 (Project) substantially degrade the existing visual character or quality of the site or its surroundings?			
Shaft Site – JWPCP West	CEQA Significant Impact During Construction	MM AES-3a	CEQA Less Than Significant Impact During Construction
	NEPA Significant Impact (Indirect) During Construction	MM AES-3a	NEPA Less Than Significant Impact (Indirect) During Construction
	CEQA Significant Impact During Operation	MM AES-3b	CEQA Less Than Significant Impact During Operation
	NEPA Significant Impact (Indirect) During Operation	MM AES-3b	NEPA Less Than Significant Impact (Indirect) During Operation
Shaft Site – Angels Gate	CEQA Significant Impact During Construction	MM AES-3a	CEQA Significant and Unavoidable Impact During Construction

Table 4-8 (Continued)

Element	Impact Before Mitigation	Mitigation Measure	Residual Impact After Mitigation
	NEPA Significant Impact (Indirect) During Construction	MM AES-3a	NEPA Significant and Unavoidable Impact (Indirect) During Construction
	CEQA Significant Impact During Operation	MM AES-3b	CEQA Less Than Significant Impact During Operation
	NEPA Significant Impact (Indirect) During Operation	MM AES-3b	NEPA Less Than Significant Impact (Indirect) During Operation
Riser/Diffuser Area – Existing Ocean Outfalls	CEQA Significant Impact During Construction	No mitigation is feasible.	CEQA Significant and Unavoidable Impact During Construction
	NEPA Significant Impact (Direct) During Construction	No mitigation is feasible.	NEPA Significant and Unavoidable Impact (Direct) During Construction
Impact AES-5. Would Alternative 3 (Project) create a new source of substantial light or glare that would adversely affect day or nighttime views of the area?			
Shaft Sites – JWPCP West, Angels Gate	CEQA Significant Impact During Construction	MM AES-5a (same as MM AES-3a) MM AES-5b	CEQA Less Than Significant Impact During Construction
	NEPA Significant Impact (Indirect) During Construction	MM AES-5a (same as MM AES-3a) MM AES-5b	NEPA Less Than Significant Impact (Indirect) During Construction
Alternative 4 (Project)			
Impact AES-1. Would Alternative 4 (Project) conflict with adopted goals or policies that protect visual quality of a designated scenic vista or scenic resource, resulting in an adverse aesthetic impact such as obstruction of view or degradation of visual character?			
Shaft Site – Royal Palms	CEQA Significant Impact During Construction	MM AES-1 (same as MM AES-3a)	CEQA Significant and Unavoidable Impact During Construction
	NEPA Significant Impact (Indirect) During Construction	MM AES-1 (same as MM AES-3a)	NEPA Significant and Unavoidable Impact (Indirect) During Construction
Riser/Diffuser Area – Existing Ocean Outfalls	CEQA Significant Impact During Construction	No mitigation is feasible.	CEQA Significant and Unavoidable Impact During Construction
	NEPA Significant Impact (Direct) During Construction	No mitigation is feasible.	NEPA Significant and Unavoidable Impact (Direct) During Construction

Table 4-8 (Continued)

Element	Impact Before Mitigation	Mitigation Measure	Residual Impact After Mitigation
Impact AES-3. Would Alternative 4 (Project) substantially degrade the existing visual character or quality of the site or its surroundings?			
Shaft Site – JWPCP West	CEQA Significant Impact During Construction	MM AES-3a	CEQA Less Than Significant Impact During Construction
	NEPA Significant Impact (Indirect) During Construction	MM AES-3a	NEPA Less Than Significant Impact (Indirect) During Construction
	CEQA Significant Impact During Operation	MM AES-3b	CEQA Less Than Significant Impact During Operation
	NEPA Significant Impact (Indirect) During Operation	MM AES-3b	NEPA Less Than Significant Impact (Indirect) During Operation
Shaft Site – Royal Palms	CEQA Significant Impact During Construction	MM AES-3a	CEQA Significant and Unavoidable Impact During Construction
	NEPA Significant Impact (Indirect) During Construction	MM AES-3a	NEPA Significant and Unavoidable Impact (Indirect) During Construction
	CEQA Significant Impact During Operation	MM AES-3b	CEQA Less Than Significant Impact During Operation
	NEPA Significant Impact (Indirect) During Operation	MM AES-3b	NEPA Less Than Significant Impact (Indirect) During Operation
Riser/Diffuser Area – Existing Ocean Outfalls	CEQA Significant Impact During Construction	No mitigation is feasible.	CEQA Significant and Unavoidable Impact During Construction
	NEPA Significant Impact (Direct) During Construction	No mitigation is feasible.	NEPA Significant and Unavoidable Impact (Direct) During Construction
Impact AES-5. Would Alternative 4 (Project) create a new source of substantial light or glare that would adversely affect day or nighttime views of the area?			
Shaft Sites – JWPCP West, Royal Palms	CEQA Significant Impact During Construction	MM AES-5a (same as MM AES-3a) MM AES-5b	CEQA Less Than Significant Impact During Construction
	NEPA Significant Impact (Indirect) During Construction	MM AES-5a (same as MM AES-3a) MM AES-5b	NEPA Less Than Significant Impact (Indirect) During Construction

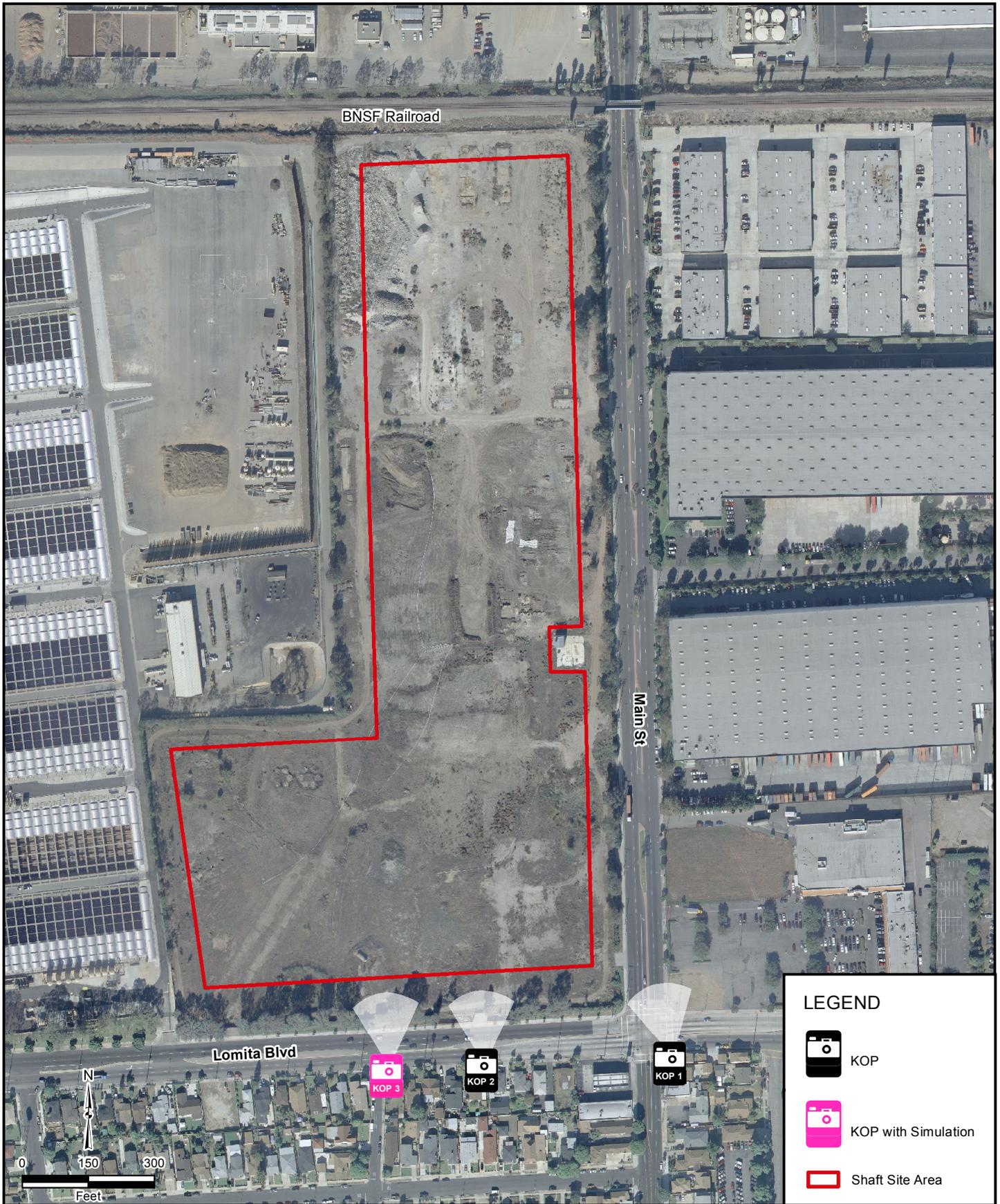


FIGURE 4-1



FIGURE 4-1a



FIGURE 4-1b



FIGURE 4-1c

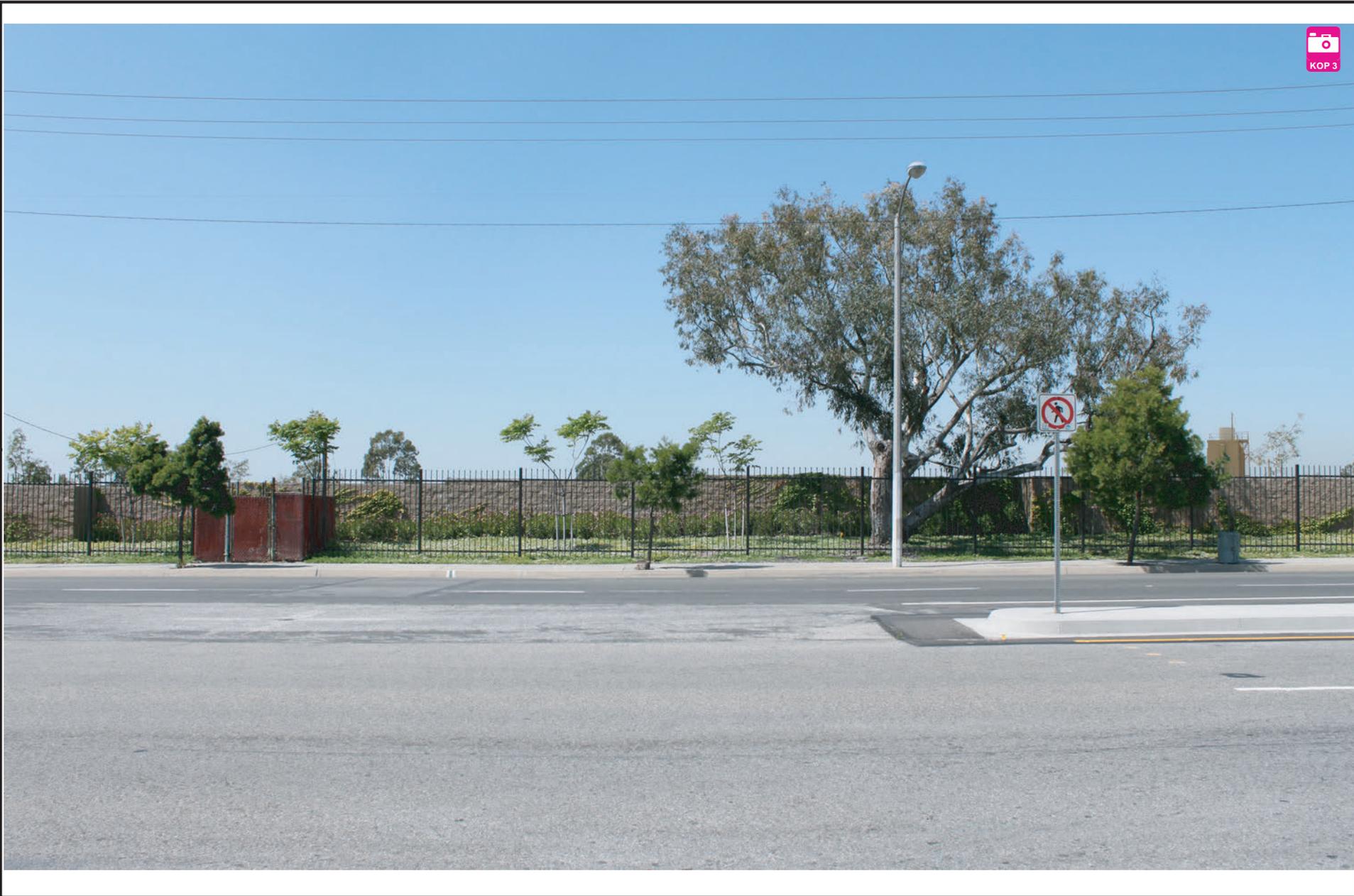


FIGURE 4-1d





FIGURE 4-2a



FIGURE 4-2b



FIGURE 4-2c



FIGURE 4-2d



FIGURE 4-3



FIGURE 4-3a



FIGURE 4-3b



FIGURE 4-3c



FIGURE 4-3d



FIGURE 4-3e



FIGURE 4-3f



FIGURE 4-3g



FIGURE 4-3h



FIGURE 4-3i



FIGURE 4-3j



FIGURE 4-4



FIGURE 4-4a



FIGURE 4-4b



FIGURE 4-4c



FIGURE 4-4d



FIGURE 4-4e



FIGURE 4-4f



FIGURE 4-4g



FIGURE 4-4h



FIGURE 4-4i