TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

CHAPTER 4 – ENVIRONMENTAL IMPACT ASSESSMENT

4.16 CUMULATIVE ANALYSIS

4.16.0 Introduction

This chapter discusses potential cumulative impacts related to the construction and operation of the proposed South Bay Substation Relocation Project (Proposed Project). The purpose of the Proposed Project is to replace aging substation equipment, accommodate regional energy needs, facilitate the City of Chula Vista's Bayfront redevelopment goals by relocating the South Bay Substation, and provide for future transmission and distribution load growth, as described further in Chapter 2 – Project Purpose and Need. Implementation of the Proposed Project would not result in a significant cumulative environmental impact in any of resource areas evaluated under the California Environmental Quality Act (CEQA).

4.16.1 Significance Criteria

The CEQA defines a cumulative impact as one "which is created as a result of the project…together with other [past, present, and future] projects causing related impacts." (Guidelines § 15130(a)(1)). Impacts would be considered significant if they exceed the individual criterion established for each resource area as described in Sections 4.1 through 4.15, and, if so, the Proposed Project's contribution would be analyzed to determine whether it is cumulatively considerable (Guidelines § 15064(h)(1)). CEQA Guidelines § 15064(h)(1) further explain that "when assessing whether a cumulative effect requires an [Environmental Impact Report], the lead agency shall consider whether the cumulative impact is significant and [whether] the project's incremental effect, though individually limited, is 'cumulatively considerable.'" Applying this qualitative standard necessarily requires application of judgment based on the facts of a particular project subject to CEQA. Further, the significance of an impact may be weighed against the overall effect as both increases and decreases in impacts may balance one another. As noted in the CEQA Guidelines, "the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable" (CEQA Guidelines § 15064(h)(4)).

4.16.2 Timeframe of Analysis

For the purpose of this cumulative impacts analysis, the Proposed Project is defined in terms of construction duration and post-construction restoration, operation, and maintenance. San Diego Gas & Electric Company (SDG&E) anticipates that construction of the Proposed Project would take a total of approximately 32 months. Construction of the Bay Boulevard Substation is anticipated to begin in March 2011 and end in February 2013 (refer to Section 3.6.7 in Chapter 3 – Project Description for more detailed schedule information). Post-construction restoration would occur as needed following the completion of construction, and is expected to take approximately one year.

4.16.3 Area of Analysis

A list of past, present, and planned future projects within one mile of the Proposed Project has been developed in accordance with CEQA Guidelines Section 15130(b). The analysis of potential cumulative impacts was limited to within one mile of the Proposed Project components because this distance was estimated to be the furthest that the Proposed Project impacts would extend.

4.16.4 Methodology

Existing conditions and reasonably foreseeable projects were identified within a one-mile radius of each Proposed Project component. Information was gathered from Internet searches of local planning department and state agency websites and correspondence with agency staff. The websites of the following entities were reviewed and/or these agencies contacted regarding development projects, road and utility improvement projects, and capital investment projects:

- County of San Diego
- Unified Port of San Diego (Port District)
- City of Chula Vista (City)
- San Diego Metropolitan Transit System (SDMTS)
- California Public Utilities Commission (CPUC)
- California Independent System Operator (CAISO)
- California Energy Commission
- California Department of Transportation

4.16.5 Existing/Operating Projects

Land uses surrounding the Proposed Project consist primarily of urban industrial/commercial buildings and facilities, as shown in Figure 4.9–1: Land Use Map. In addition, there are recreational facilities, the South Bay Power Plant, and commercial salt crystallizer ponds in the vicinity of the Proposed Project. Refer to Table 4.9–1: Existing and Designated Land Uses in Section 4.9 Land Use and Planning for information regarding the land uses surrounding each Proposed Project component. The existing and operating projects in the area consist mainly of continuous commercial, industrial, recreational, and transportation activities, existing utility infrastructure operation and maintenance, and ongoing maintenance to roads.

4.16.6 Foreseeable Projects Inventory

For the purposes of this document, “reasonably foreseeable” refers to projects that federal, state, or local agency representatives have knowledge of resulting from the formal application process. Table 4.16-1: Planned and Proposed Projects Within One Mile lists known projects that are within one mile of Proposed Project facilities. A total of four projects have been identified within one mile of the Proposed Project. Figure 4.16-1: Foreseeable Projects Map depicts the location of each project with respect to the Proposed Project components.

Table 4.16-1: Planned and Proposed Projects Within One Mile

Project	Project Location	Approximate Distance from Proposed Project	Project Description/Size	Anticipated Construction Schedule	
				Beginning	End
Palomar Street and Trolley Station Improvements	Along Palomar Street between Interstate 5 (I-5) and Broadway, and at the Trolley Station	0.6 mile southeast	Installation of traffic calming measures, landscaping, and streetscape amenity improvements along Palomar Street, Industrial Boulevard, and at the Palomar Trolley Station	2010	2011
Colorado Avenue Sewer Line Improvements	Colorado Avenue between J and K Streets	0.2 mile east	Replacement of approximately 1,300 feet of 15-inch sewer pipeline with 18-inch sewer pipeline	2010	2010
Industrial Boulevard Bike Path	Industrial Boulevard between L Street and Palomar Avenue	0.25 mile east	Replacement of the existing curb and gutter, new paving, and new bicycle lane striping	2010	2010
SBPP Demolition and Remediation	990 Bay Boulevard	Immediately south of the South Bay Substation Demolition	Demolition of thermal power plant, above ground storage tanks, and associated ancillary facilities	2012	2015

Source: City of Chula Vista, 2010

Three of the projects in the cumulative scenario are City of Chula Vista capital improvement projects. The fourth project is Dynegy's South Bay Power Plant (SBPP) Demolition and Remediation Project, which is adjacent to the existing South Bay Substation. The SBPP was originally constructed in the late 1950s. The existing facilities include a 728-megawatt thermal power plant, a small gas turbine plant, a switchyard, aboveground storage tanks for fuel oil, and various ancillary systems.

Demolition of these facilities and remediation of the site is anticipated to start in 2012 and take approximately three years to complete, as described in Table 4.16-1: Planned and Proposed Projects Within One Mile.

Draft Chula Vista Bayfront Master Plan

The Port District and the City jointly prepared the Chula Vista Bayfront Master Plan (CVBMP), which envisions future uses of the Chula Vista Bayfront. The CVBMP envisions a mixture of residential, commercial, hotel, mixed-use, civic, industrial, and recreational uses within the approximately 500-acre Chula Vista Bayfront area. The CVBMP was adopted on May 18, 2010, at a joint meeting of the Port District Commission and the Chula Vista City Council, Planning Commission, and Redevelopment Corporation. However, the CVBMP is not likely to be considered for adoption by the California Coastal Commission (CCC) until 2011. The CVBMP cannot be implemented by the Port District until after it is adopted by the CCC. While specific projects are envisioned within the CVBMP, no applications have been filed with jurisdictional agencies for any of those projects.

4.16.7 Potential Cumulative Impacts

This section discusses whether, when combined with other past, present, and planned and probable future projects in the area, the Proposed Project would result in either significant short-term or long-term environmental impacts. Short-term impacts are generally associated with construction of the Proposed Project, while long-term impacts are those that result from permanent Proposed Project features or operation of the Proposed Project.

Construction and operation and maintenance of the Proposed Project would not impact the following resources and, therefore, would not contribute to a cumulative effect in these areas:

- Agricultural Resources
- Land Use and Planning
- Public Services
- Recreation
- Utilities and Service Systems

As a result, these resource areas were not further analyzed with regard to cumulative impacts.

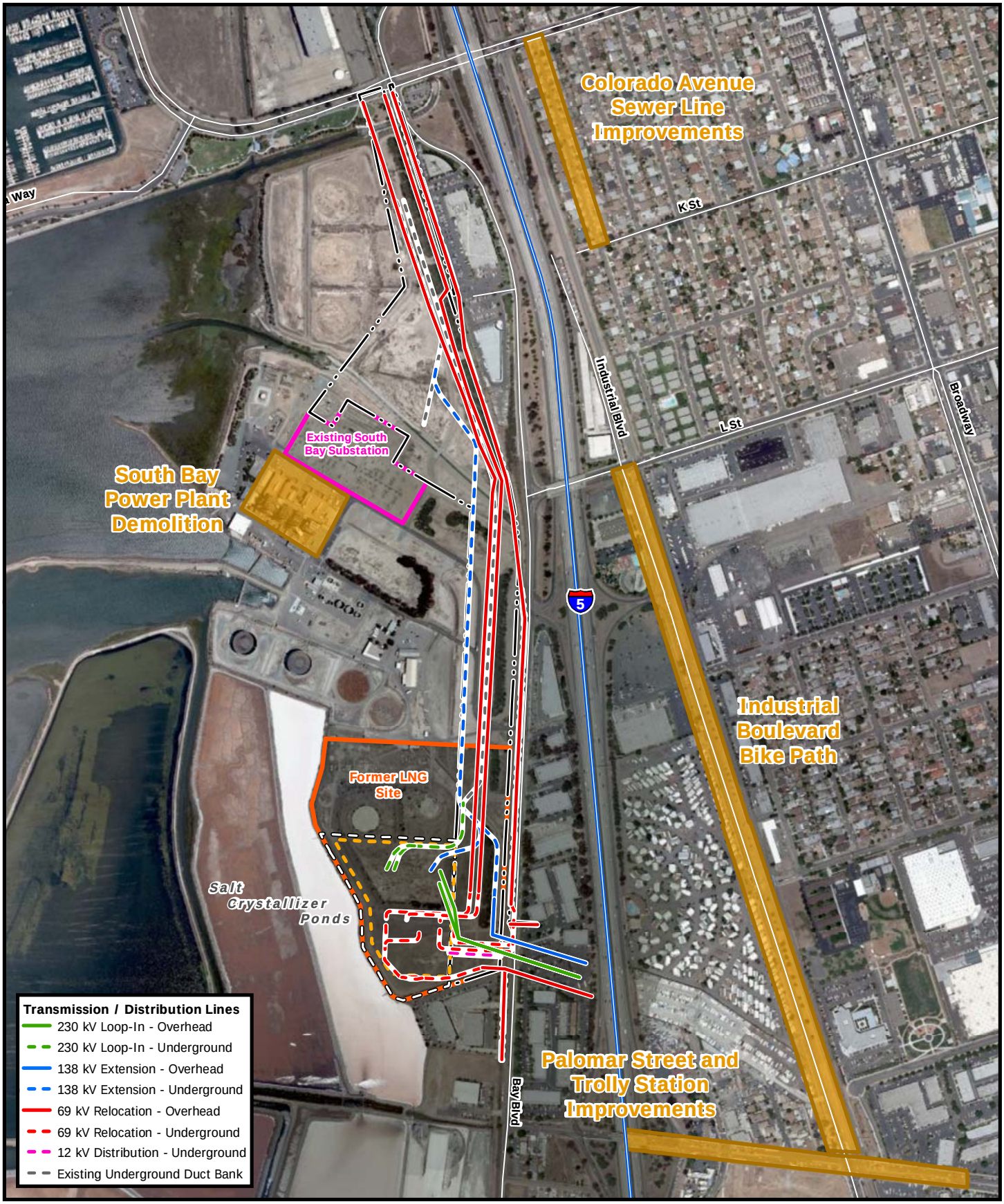

Figure 4.16-1:
Foreseeable Projects Map

South Bay Substation Relocation Project

Foreseeable Project
Substation Wall
12.42-Acre Parcel Boundary
SDG&E Easement

SDGE A Sempra Energy utility
INSIGNIA ENVIRONMENTAL

N
W E
S

1:9,600

0 200 400 800 1,200 1,600 2,000 Feet

Figure 4.16-1 Foreseeable Projects.mxd

4/25/2010

Temporary

If construction of any of the other projects occurs in close proximity and within the same timeframe as SDG&E's Proposed Project, temporary impacts could also be cumulative. Two of the projects listed in the table would be constructed prior to the start of construction of the Proposed Project. Therefore, there is only one project—Palomar Street and Trolley Station Improvement Project—listed in Table 4.16-1: Planned and Proposed Projects Within One Mile that may occur during the same timeframe as the Proposed Project.

Cumulative impacts to the following resources could occur as a result of construction of the Proposed Project in conjunction with the one other planned and probable project:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Geology, Soils, and Minerals
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Noise
- Population and Housing
- Transportation and Traffic

These are discussed further under the subheadings for each of the resource topics that follow.

Aesthetics

The Proposed Project components would be located within SDG&E right-of-way or within lands that would be acquired by SDG&E. The H & Bay Staging Area would be located on a site that is currently used for staging activities. The Fly Yard would be located on a vacant parcel immediately adjacent to the H & Bay Staging Area. The construction schedule for the Proposed Project and the Palomar Street and Trolley Station Improvement Project would overlap in 2011 for up to nine months. Demolition and remediation activities at the SBPP would potentially overlap with the demolition of the South Bay Substation in 2013. These projects would increase the potential for adverse cumulative impacts to occur from construction equipment, vehicles, materials, staging areas, and project personnel. Adverse visual impacts during construction, however, would be temporary and are generally accepted by the public. In addition, the Proposed Project components are separated from the Palomar Street and Trolley Station Improvement Project by a distance of 0.6 mile, including I-5. While the SBPP Demolition and Remediation Project would be located immediately adjacent to the South Bay Substation and demolition activities are likely to occur at both sites in 2013, these sites are separated from surrounding industrial uses by 0.1 mile, recreational uses by 0.3 mile, and residential uses by 0.4 mile (including I-5). These temporary aesthetic impacts would be cumulative; however, they are not expected to be significant.

Air Quality

The Palomar Street and Trolley Station Improvement Project and SBPP Demolition and Remediation Project—listed in Table 4.16-1: Planned and Proposed Projects Within One Mile—could occur simultaneously with the Proposed Project; therefore, there could be a cumulative air quality impact in the Proposed Project area during construction. However, with the implementation of applicant-proposed measures to reduce emissions and dust during construction, these potentially concurrent projects are not expected to exceed identified significance thresholds. Greenhouse gas (GHG) emissions would also result from the construction of the Proposed Project and other foreseeable projects in the area. The vehicles and heavy equipment used during construction would be the primary sources of these emissions. While these emissions have the potential to contribute to a cumulative increase in GHG, adherence to the standards and requirements of the San Diego Air Pollution Control District would ensure potential cumulative impacts are minimized. As a result, cumulative impacts are expected to be less than significant.

Biological Resources

Of the projects in the cumulative scenario, all are located within previously disturbed, developed, urban areas where there is only a slight potential to impact the same sensitive biological resources as the Proposed Project during construction activities. Though unlikely, any temporary impacts to sensitive biological resources would be avoided during construction of these projects through the use of avoidance and minimization measures and regulatory agency protocols. Due to the disturbed nature of the project areas, no significant cumulative impact is expected.

Cultural Resources

Cumulative impacts to cultural resources could occur as a result of increased ground-disturbing activities by multiple projects. Of the known existing and proposed projects, all have the potential to create a cumulative impact to cultural resources when combined with the Proposed Project. However, all projects in the cumulative scenario would occur within areas that are previously disturbed/developed, where no resources are known to occur. As a result, no impacts are anticipated.

Geology, Soils, and Minerals

The potential cumulative impacts that may occur as a result of construction of the Proposed Project in conjunction with other planned and future project include soil disturbance from grading and excavation activities that may cause erosion and sedimentation. The Palomar Street and Trolley Station Improvement Project is scheduled during the same timeframe as the Proposed Project, and it would involve minor soil disturbance. The Proposed Project (specifically the demolition of the South Bay Substation) would overlap with the SBPP Demolition and Remediation Project, and both of these projects would involve soil disturbance. However, the potential for soil erosion and sedimentation would be minimized through the implementation of Storm Water Pollution Prevention Plans, which are required for all projects that disturb one or more acres of soil. Both of the projects would be designed to meet current building code and/or City of Chula Vista design standards, thereby ensuring that the potential for long-term impacts would be less than significant. As a result, the potential for a significant cumulative impact to geology and soils is low and is not expected to be significant.

Hazards and Hazardous Materials

Cumulative impacts to hazards and/or hazardous materials can result from the construction of the concurrent project and the Proposed Project having an increased effect on public or worker safety, including exposure to hazardous materials, increased fire potential, or physical hazards. The Palomar Street and Trolley Station Improvement Project and SBPP Demolition and Remediation Project would have the potential to result in a cumulative impact to overall hazards or hazardous materials when combined with the Proposed Project. Because each of these projects requires construction equipment, they have the potential to have a temporary impact from accidental releases of diesel and gasoline fuel, hydraulic fluids, and other hazardous liquids. While no impact is anticipated, there is a potential for accidental spills or leaks. While this potential hazard would exist during construction, a spill would be very unlikely to occur in the same immediate vicinity during a similar timeframe. Large releases of hazardous materials from either project are highly unlikely with adherence to state and federal regulations. Small releases would be contained, cleaned up, and disposed of properly. As a result, the Proposed Project's contribution to a significant hazardous materials impact would be minimal and less than significant.

Hydrology and Water Quality

Cumulative impacts to hydrology and/or water quality have the potential to result from increases in local groundwater use and alterations to the existing and natural drainage patterns of the landscape. However, the Palomar Street and Trolley Station Improvement Project is relatively small in scale and all projects in the cumulative scenario would be constructed in previously developed areas where there are no existing hydrological or natural drainage features. The Palomar Street and Trolley Station Improvement Project, the SBPP Demolition and Remediation Project, and the Proposed Project would require the use of water to meet construction needs. This could potentially produce a temporary cumulative impact to the groundwater supply. These impacts are not expected to be significant due to the availability volume of public water in the area.

Noise

Only the Palomar Street and Trolley Station Improvement Project and the SBPP Demolition and Remediation Project would overlap with the Proposed Project. The Palomar Street and Trolley Station Improvement Project is located approximately 0.6 mile away and is separated from the Proposed Project by I-5. Construction noise from both projects would be intermittent and temporary, and impacts are not likely given the existing transportation-related ambient noise sources in the area (I-5, Palomar Avenue, Bay Boulevard, and the trolley line). The SBPP Demolition and Remediation Project and the Proposed Project are immediately adjacent to each other and demolition activities would potentially overlap for up to 10 months in 2013. This would result in a cumulative increase in noise; however, the nearest sensitive noise receptors are 0.20 mile away from this area and are separated from the SBPP Demolition and Remediation Project site and the Proposed Project site by I-5 and Bay Boulevard. Therefore, temporary cumulative noise impacts are expected to be less than significant.

Transportation and Traffic

During the construction phase, cumulative traffic impacts would occur from projects that have overlapping construction timeframes. In this case, the Proposed Project would overlap with the Palomar Street and Trolley Station Improvement Project and the SBPP Demolition and Remediation Project. Traffic could be increased in the area surrounding Bay Boulevard during concurrent construction of these projects. However, due to the small and limited nature of the Palomar Street and Trolley Station Improvement Project, it is unlikely have significant traffic associated with its construction. The SBPP Demolition and Remediation Project activities would potentially overlap with the Proposed Project—specifically the demolition of the South Bay Substation. Demolition activities for the two projects would potentially overlap (at most) for 10 months in 2013. Due to the intermittent and varied nature of demolition and remediation activities and the limited number of Proposed Project personnel required to perform the demolition activities (approximately seven personnel), it is unlikely that significant transportation and traffic-related impacts would occur as a result of these two projects. As a result, cumulative traffic impacts during construction of the projects are not expected.

Permanent

Permanent adverse cumulative impacts are not anticipated as a result of the Proposed Project in combination with the other proposed projects for several reasons. There are a small number of projects in the cumulative scenario (five projects including the Proposed Project). Three projects listed in Table 4.16-1: Planned and Proposed Projects Within One Mile are relatively small-scale, public improvement projects involving streetscape improvements, construction of a bike path, and replacement of sewer lines. One project involves the demolition and site remediation at the SBPP, which would result in the removal of the plant facilities and general clean-up and remediation of the site. The cumulative projects would be constructed in developed areas. The three public improvement projects are separated from the Proposed Project by distance and significant geographical features (such as I-5), as shown in Figure 4.16-1: Foreseeable Projects Map.

The cumulative scenario projects would not have operational impacts affecting air quality, water quality, cultural resources, or geologic resources because they are either stationary facilities with no operational components or involve the removal of existing commercial facilities (SBPP). While some maintenance work can be expected to occur after construction of these projects, any activities would be minor, are likely already occurring in the area, and would be intermittent; therefore, permanent cumulative impacts with regard to transportation, noise, and population and housing are not anticipated. Permanent impacts to hydrology are not anticipated because the cumulative scenario projects are located in developed areas with sufficient water supplies and drainage systems. Additionally, while the Proposed Project would permanently impact wetlands, there are no wetlands or other biologically sensitive habitat located in the areas where the cumulative projects would be constructed. As a result, there would be no permanent cumulative impacts to biological resources.

The cumulative projects represent a permanent improvement to the area with regard to three resource areas—aesthetics, hazards and hazardous materials, and utilities and service systems. The aesthetics of the general area would be improved as a result of the lighting, pedestrian crosswalks, and new signage associated with the Palomar Street and Trolley Station

Improvement Project, the removal of the SBPP associated with the SBPP Demolition and Remediation Project, and the Proposed Project (creating an unobstructed view of San Diego Bay). Therefore, the projects in the cumulative scenario would contribute to a beneficial impact to aesthetics.

Hazards and hazardous materials would be positively impacted as a result of the Proposed Project in combination with the SBPP Demolition and Remediation Project. Both projects would involve the removal of aging electrical equipment and components and remediation of any contaminated soils; therefore, lessening the potential for accidental releases and improving the general condition of the area with regard to hazards and hazardous materials.

Utilities and service systems would be positively impacted as a result of the Colorado Avenue Sewer Line Improvements and the Proposed Project, because both projects would upgrade existing utility facilities.

4.16.8 Applicant-Proposed Measures

Cumulative impacts are expected to be less than significant; therefore, no avoidance or minimization measures are proposed.

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