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4.3 AIR QUALITY

Would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a.	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b.	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c.	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d.	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e.	Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

4.3.1 Introduction

This section of the PEA describes the existing conditions and potential project-related impacts to air quality in the vicinity of the Proposed Project. The analysis concludes that less than significant impacts related to air quality will occur. The Proposed Project's potential effects on this resource were evaluated using the significance criteria set forth in Appendix G of the CEQA Guidelines. The conclusions are summarized in the checklist above, and discussed in more detail in Section 4.3.6.

4.3.1.1 Description of Criteria Pollutants

Existing air quality at a given location can be described by the concentrations of specific pollutants in the atmosphere. The pollutants analyzed herein are known as "criteria pollutants" and have been determined by the U.S. Environmental Protection Agency (USEPA) to be of concern to the health and welfare of the general public. Criteria pollutants have national and/or state ambient air quality standards. Greenhouse gas (GHG) emissions in the context of global climate change are discussed in Section 4.7.

Volatile Organic Compounds (VOC) and Ozone (O_3). The majority of ground-level O_3 (commonly known as "smog") is formed from the complex photochemical reactions in the atmosphere between VOCs, oxides of nitrogen (NO_x), and oxygen. VOCs and NO_x are considered precursors to the formation of O_3, a highly reactive gas that can damage lung tissue and affect respiratory function.

Nitrogen Dioxide (NO_2). NO_2 is a brownish, highly reactive gas produced primarily from the burning of fossil fuels. NO_2 can also lead to the formation of O_3 in the lower atmosphere.

Carbon Monoxide (CO). CO is a colorless, odorless, poisonous gas produced by the incomplete combustion of fossil fuels. Elevated levels of CO can result in harmful health effects, and can contribute to global climate change.

Sulfur Dioxide (SO_2). SO_2 is emitted primarily from the combustion of coal and oil by steel mills, pulp and paper mills, and from non-ferrous smelters. High concentrations of SO_2 can aggravate existing respiratory and cardiovascular diseases, and contribute to acid rain, which can, in turn, lead to the acidification of lakes and streams.

Particulate Matter. Particulate matter less than 10 microns in diameter but greater than 2.5 microns in diameter is termed PM_{10}, and particulate matter less than or equal to 2.5 microns in diameter is termed $PM_{2.5.}$ $PM_{2.5}$ is referred to as "fine particles," which are believed to pose significant health risks as they can lodge deeply into the lungs. Studies have linked increased exposure to $PM_{2.5}$ to respiratory and cardiovascular disease. Sources of fine particles include all types of combustion activities, such as motor vehicle engines, power plants, and wood burning.

PM_{10} is typically comprised of dust, ash, soot, smoke, or liquid droplets emitted into the air. Fires, dust from paved or unpaved roads, construction activities, and natural sources (wind and volcanic eruptions) can contribute to increased PM_{10} concentrations.

Criteria pollutant emissions affecting air quality in a given region can be characterized as being from either stationary or mobile sources, and can be from point or non-point sources. Stationary sources are typically point sources, as the emissions are released from a single source (e.g., smokestack, pipe) in a fixed location. Non-point sources do not come from a single source. Mobile sources of emissions include emissions from vehicles and aircraft. Air quality for a region is a function of the type and concentration of pollutants in the atmosphere, the size and topography of the air basin, and local and regional meteorological influences. The significance of a pollutant concentration in a region or geographical area is determined by comparing it to federal and/or state ambient air quality standards.

4.3.2 Regulatory Setting

4.3.2.1 Federal

Criteria Pollutants

The concentration of pollutants (typically expressed in units of parts per million [ppm] or micrograms per cubic meter [$\mu g/m^3$]) in the atmosphere generally describe air quality for a given location. One aspect of significance is a pollutant's local concentration in comparison to a national and/or state ambient air quality standard. These standards represent the maximum allowable atmospheric concentrations that may occur and still protect public health and welfare with a reasonable margin of safety. National air quality policies are regulated through the federal Clean Air Act (CAA) of 1970 and its 1977 and 1990 amendments. The national standards, established by the USEPA, are termed the National Ambient Air Quality Standards (NAAQS). The NAAQS represent maximum acceptable concentrations for pollutants of concern. State standards, established by the California Air Resources Board (CARB), are termed the California Ambient Air Quality Standards (CAAQS). The CAAQS are equal to or more stringent than the NAAQS and include pollutants for which national standards do not exist. Table 4.3-1 presents the applicable NAAQS and CAAQS for the Proposed Project area.

Table 4.3-1. Ambient Air Quality Standards

Pollutant	Averaging Time	NAAQS[1]		CAAQS
		Primary	Secondary	Concentration
Ozone (O_3)	1-Hour	-	Same as Primary Standard	0.09 ppm (180 µg/m^3)
	8-Hour	0.075 ppm (147 µg/m^3)		0.070 ppm (137 µg/m^3)
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m^3)	None	9.0 ppm (10 mg/m^3)
	1-Hour	35 ppm (40 mg/m^3)		20 ppm (23 mg/m^3)
Nitrogen Dioxide (NO_2)	Annual Average	0.053 ppm (100 µg/m^3)	Same as Primary Standard	0.030 ppm (57 µg/m^3)
	1-Hour	100 ppb (188 µg/m^3)		0.18 ppm (339 µg/m^3)
Sulfur Dioxide (SO_2)	Annual Average	0.03 ppm (80 µg/m^3)	-	-
	24-Hour	0.14 ppm (365 µg/m^3)	-	0.04 ppm (105 µg/m^3)
	3-Hour	-	0.5 ppm (1,300 µg/m^3)	-
	1-Hour	-	-	0.25 ppm (655 µg/m^3)
Suspended Particulate Matter (PM_{10})	24-Hour	150 µg/m^3	Same as Primary Standard	50 µg/m^3
	Annual Arithmetic Mean	-		20 µg/m^3
Fine Particulate Matter ($PM_{2.5}$)	24-Hour	35 µg/m$_3$	Same as Primary Standard	-
	Annual Arithmetic Mean	12 µg/m^3	15 µg/m^3	12 µg/m^3
Lead (Pb)	30-Day Average	-	-	1.5 µg/m^3
	Calendar Quarter	1.5 µg/m^3	Same as Primary Standard	-
	3-Month Rolling Average	0.15 µg/m^3		
Hydrogen Sulfide	1-Hour	No Federal Standards		0.03 ppm (42 µg/m^3)
Sulfates	24-Hour			25 µg/m^3
Visibility Reducing Particles	8-Hour (10 a.m. to 6 p.m., Pacific Standard Time)			In sufficient amount to produce an extinction coefficient of 0.23 per kilometer due to particles when the relative humidity is less than 70 percent.
Vinyl Chloride[2]	24-Hour			0.01 ppm (26 µg/m^3)

Sources: CARB 2015a, USEPA 2015a.

Notes: [1] NAAQS (other than O_3, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The O_3 standard is attained when the fourth highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when 99 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

[2] The CARB has identified Pb and vinyl chloride as "toxic air contaminants" with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

mg/m^3= milligrams per cubic meter.

Under the federal CAA, as amended, states are responsible for enforcing the established air quality regulations. The CARB enforces air pollution regulations and sets guidelines, as contained in the California State Implementation Plan (SIP), to attain and maintain the NAAQS and CAAQS within California. The CAA Amendments of 1990 established new federal nonattainment classifications, new emission control requirements, and new compliance dates for nonattainment areas. The severity of the nonattainment classification drives the associated requirements and compliance dates.

USEPA designates areas as federal nonattainment areas if they have not achieved the NAAQS. In addition, California can designate areas as transitional, where an area designated in attainment by USEPA (meets NAAQS) for a criteria pollutant is in nonattainment by California (does not meet CAAQS). Areas that were designated as nonattainment in the past, but have since achieved the NAAQS, are further classified as attainment-maintenance. Areas that lack monitoring data are designated as unclassified areas. Unclassified areas are treated as attainment areas for regulatory purposes.

There are different classifications of the nonattainment designation, depending on the severity of nonattainment for a given pollutant. Nonattainment areas under different classifications have different deadlines to achieve the NAAQS. The designation of nonattainment status is based on USEPA's "design value" for a given pollutant. The design value is a statistic that describes the air quality status of a given location relative to the level of the NAAQS.

Hazardous Air Pollutants

In addition to the ambient air quality standards for criteria pollutants, national standards exist for hazardous air pollutants that are regulated under Section 112(b) of the 1990 CAA and its Amendments. The National Emission Standards for Hazardous Air Pollutants regulate 187 hazardous air pollutants based on available control technologies (USEPA 2015b).

Toxic Air Contaminants

Toxic compounds are toxic air contaminants that have been determined to present some level of acute or chronic health risk (cancer or non-cancer) to the general public. These pollutants may be emitted in trace amounts from various types of sources, including combustion sources (CARB 2015b).

4.3.2.2 State

The CARB is responsible for enforcing both the federal (NAAQS) and state (CAAQS) air pollution standards. California is divided into 15 air basins. The proposed project is primarily within the San Diego Air Basin (SDAB), and a small portion is within the South Coast Air Basin (SCAB). The SDAB comprises San Diego County, and the SCAB comprises Orange, Los Angeles, Riverside, and San Bernardino Counties.

The San Diego County Air Pollution Control District (APCD) is the local air quality management district responsible for enforcement of air quality regulations for those sections of the project located within San Diego County. The South Coast Air Quality Management District (SCAQMD) is responsible for the small portion of the project located within Orange County. The CARB requires these agencies to develop their own strategies for achieving compliance with the NAAQS and CAAQS, but maintains regulatory authority over these strategies, as well as all mobile source emissions throughout the state.

4.3.2.3 Local

As provided in CPUC General Order 131-D, the CPUC preempts local discretionary authority over the location and construction of electrical utility facilities. The following discussion of relevant local land use plans and policies that pertain to air quality is provided below for informational purposes.

Each local air quality management or air pollution control district establishes criteria to assess a project's impacts on air quality.

San Diego County APCD

The San Diego County APCD is responsible for regulating stationary sources of air emissions in the SDAB. The San Diego County APCD Rules and Regulations establish emission limitations and control requirements for stationary sources, based on their source type and magnitude.

The San Diego County APCD and the San Diego Association of Governments are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB. The San Diego County Regional Air Quality Strategy (RAQS) was initially adopted in 1991, and is updated on a triennial basis. The RAQS was updated in 1998, 2001, 2004, and most recently in 2009. The 2009 RAQS Revision is the most recent plan to bring the SDAB into compliance with the CAAQS (San Diego County APCD 2009). This plan includes all feasible control measures that can be implemented for the reduction of O_3 precursor emissions. To be consistent with the RAQS, a project must conform to emission growth factors outlined in this plan. Control measures for stationary sources proposed in the RAQS and adopted by the San Diego County APCD are incorporated into the San Diego County APCD Rules and Regulations.

The San Diego County APCD has also developed the air basin's input to the SIP. The SIP includes the San Diego County APCD's plans and control measures for attaining the O_3 NAAQS. The SIP is also updated on a triennial basis. The San Diego County APCD developed its *Eight-Hour Ozone Attainment Plan for San Diego County*, which provides plans for attaining and maintaining the 8-hour NAAQS for O_3 (San Diego County APCD 2007). A *Redesignation Request and Maintenance Plan for the 1997 National Ozone Standard* was adopted by the San Diego County APCD in 2012 but has not yet been approved by the USEPA (San Diego County APCD 2012). The 1996 *Carbon Monoxide Maintenance Plan* (later amended in 1998 and 2004) provides a road map for continued attainment of CO (CARB 1996, 1998, 2004).

In terms of the CAAQS, SDAB is in nonattainment for particulate matter (both $PM_{2.5}$ and PM_{10}) as well as O3. San Diego County APCD has established annual significance thresholds for NO_x and reactive organic gases for stationary sources. San Diego County APCD has not established rules for characterizing impacts from construction, however. San Diego County APCD informally recommends quantifying construction emissions and comparing them to significance thresholds found in San Diego County APCD regulations for stationary sources (pursuant to San Diego County APCD Rule 20.1, et seq.) and shown in Table 4.3-2.

Table 4.3-2. San Diego County APCD Air Quality Significance Threshold Standards

Significance Thresholds (lb/day)	NOx	VOC	PM_{10}	$PM_{2.5}$	CO	SOx
Construction	250	75	100	55	550	250

Source: San Diego County APCD 2015.

Notes: The San Diego County APCD does not have thresholds of significant for VOCs or $PM_{2.5}$. As such, the VOC and $PM_{2.5}$ thresholds for construction from the SCAQMD's CEQA Air Quality Significance Thresholds (SCAQMD 2015) were utilized.

SCAB

The entire SCAB air basin currently is in extreme nonattainment of the 8-hour O_3 NAAQS, in moderate nonattainment of the $PM_{2.5}$ NAAQS, and is a maintenance area for CO, NO_2, and PM_{10} (USEPA 2015b). In addition, Los Angeles County was designated as nonattainment for the lead (Pb) NAAQS due to exceedances measured near a large battery recycling facility after the USEPA reduced the Pb standard to 0.15 µg/m^3 in 2008 (SCAQMD 2012).

With respect to the CAAQS, the SCAB is classified as being a nonattainment area relative to the state standards for O_3, $PM_{2.5}$, and PM_{10} (CARB 2015c). However, the SCAB attains CAAQS standards for all other criteria pollutants.

The SCAQMD recommends that regional and localized significance thresholds be used to characterize air quality impacts in CEQA documents. To characterize the air quality impacts, the SCAQMD's regional significance thresholds are used. Any significant impact under the regional thresholds is presumed to also cause a significant localized impact. The recommended significance threshold standards established by the SCAQMD are shown in Table 4.3-3.

Table 4.3-3. SCAQMD Air Quality Significance Threshold Standards

Significance Thresholds (lb/day)	NOx	VOC	PM_{10}	$PM_{2.5}$	CO	SOx
Construction	100	75	100	55	550	150
Operation	55	55	150	55	550	150

Source: SCAQMD 2015.

4.3.3 Existing Conditions

4.3.3.1 Regional Setting

The proposed power line is located almost entirely within the western portion of MCB Camp Pendleton, although portions are in San Clemente in Orange County. The climate of the project region is classified as Mediterranean, characterized by dry summers and wet winters. The major influences on the regional climate are the Eastern Pacific high-pressure system, topography, and the moderating effects of the Pacific Ocean.

The Eastern Pacific High is a persistent anticyclone that attains its greatest strength and most northerly position during summer, when positioned west of northern California. In this position, the High effectively shelters southern California from the effects of polar storm systems. As winter approaches, the Eastern Pacific High weakens and shifts to the south, allowing polar storm systems to pass through the region. Subsiding air associated with the High warms the upper levels of the atmosphere and produces an elevated temperature inversion (temperature increases with height) along the west coast. This temperature inversion is generally from 1,000 to 3,000 feet above mean sea level during the summer. The subsidence inversion acts like a lid on the lower atmosphere and traps air pollutants near the surface of the earth by limiting vertical dispersion. Mountain ranges in eastern San Diego County constrain the horizontal movement of air and inhibit the ventilation of air pollutants out of the region. These two factors, combined with the emission sources from over three million people, help to create the high pollutant conditions sometimes experienced in San Diego County.

Marine air trapped below the subsidence inversion and over the relatively cool Pacific Ocean often results in fog and stratus clouds during warmer months of the year. Marine stratus usually forms offshore and

moves into the coastal plains and valleys during the evening hour. As the land heats up the following morning, the clouds burn off to the immediate coastline and re-form the following evening.

Concurrent with the presence of the Eastern Pacific High, a thermal low-pressure system often persists in the interior desert region. The resulting pressure gradient between these two systems produces a southwest to west onshore gradient at MCB Camp Pendleton for most of the year. Sea breezes usually occur during the daytime and disperse air pollutants toward the interior regions. During the evening hours and colder months of the year, the gradient reverses and land breezes blow offshore.

During the colder months, the Eastern Pacific High can combine with high pressure over the continent to produce extended periods of light winds and low-level inversion conditions in the region. These atmospheric conditions can create an environment susceptible to adverse air quality. Excessive build-up of high pressure over the continent can produce a "Santa Ana" condition, characterized by warm, dry, northeast winds. Santa Ana winds help to ventilate the air basin of locally generated emissions. However, Santa Ana conditions can also transport air pollutants from the Los Angeles metropolitan area into the project region. When stagnant atmospheric conditions occur during a weak Santa Ana, local emissions combined with pollutants transported from the Los Angeles area can lead to significant O_3 impacts in the region.

Regional and Local Air Pollutant Sources

An emission rate represents the mass of a pollutant released into the atmosphere by a given source over a specified period of time. Emission rates can vary considerably depending on type of source, time of day, and schedule of operation. The San Diego County APCD periodically updates emissions for the entire SDAB for purposes of forecasting future emissions, analyzing emission control measures, and for use in regional air quality modeling. The largest regional sources of air emissions are on-road vehicles. The 2010 inventory determined that on-road vehicles emitted approximately 20 percent of the VOCs, 56 percent of the NO_x, and 52 percent of the CO emissions within the SDAB (CARB 2010). Another large source of VOCs is the use of surface coatings and solvents. Combustion sources produce both primary fine particulate matter and fine particulate precursor pollutants, such as NO_x, which react in the atmosphere to produce secondary fine particulates. Coarser particles mainly occur from soil-disturbing activities, such as construction, mining, agriculture, and vehicular road dust.

4.3.3.2 Baseline Air Quality

Representative emissions data from nearby San Diego County APCD monitoring stations for the period 2009 to 2013 (the most recent data available) are shown in Table 4.3-4. Emission sources associated with the existing use of MCB Camp Pendleton include civilian and military personal vehicles, commercial and military vehicles, aircraft engines, tactical support equipment, small stationary sources, and ongoing construction activities.

Table 4.3-4. Representative Air Quality Data for MCB Camp Pendleton (2009-2013)

Air Quality Indicator	2009	2010	2011	2012	2013
O_3 [(a)]					
Peak 8-hour value (ppm)	0.08	0.08	0.07	0.08	0.07
Days above federal standard (0.075 ppm)	1	1	0	1	0
Days above state standard (0.070 ppm)	5	1	2	1	0
NO_2 [(a)]					
Peak 1-hour value (ppm)	0.068	0.081	0.066	0.061	0.081
Days above federal standard (0.10 ppm)	0	0	0	0	0
Days above state standard (0.18 ppm)	0	0	0	0	0
CO [(b)]					
Peak 8-hour value (ppm)	3.24	2.46	2.20	3.61	NA
Days above federal and state standard (9.0 ppm)	0	0	0	0	NA
PM_{10} [(b)]					
Peak 24-hour value ($\mu g/m^3$)	74.0	43.0	40.0	33.0	82.0
Days above federal standard (150 $\mu g/m^3$)	0	0	0	0	0
Days above state standard (50 $\mu g/m^3$)	1	0	0	0	1
$PM_{2.5}$ [(a)]					
Peak 24-hour value ($\mu g/m^3$)	29.5	27.3	27.42	28.0	42.3
Days above federal standard (35 $\mu g/m^3$)	0	0	0	0	1
SO_2 [(c)]					
Peak 24-hour value (ppm)	0.006	0.002	0.003	NA	NA
Days above federal standard (0.14 ppm)	NA	NA	NA	NA	NA
Days above state standard (0.04 ppm)	NA	0	0	NA	NA

Source: CARB 2015d.

Notes: [(a)] Data from the MCB Camp Pendleton Monitoring Station.
[(b)] Data from the Escondido Monitoring Station, no data were derived from the MCB Camp Pendleton Monitoring Station.
[(c)] Data from the San Diego-1110 Beardsley Street Monitoring Station.
NA = not available.

4.3.3.3 Sensitive Receptors

Sensitive populations are more susceptible to the effects of air pollution than is the general population. According to the SCAQMD, "a sensitive receptor is a person in the population who is particularly susceptible to health effects due to exposure to an air contaminant than is the population at large," such as medical patients and elderly persons/athletes/children at public parks/playgrounds, long-term care/assisted living facilities, schools, child care centers/homes and athletic fields.

Sensitive populations (sensitive receptors) that are in proximity to localized sources of toxics and carbon monoxide are of particular concern. Land uses that may include sensitive receptors include residences, schools, playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers and retirement homes. The closest land uses that may contain sensitive receptors would be the residential units located to the west of the Proposed Project sites, in San Clemente, and the San Onofre Housing are within MCB Camp Pendleton. Additional nearby sensitive receptors would include, but are not limited to, the San Onofre State Beach, San Clemente dog park, and San Onofre Elementary School.

4.3.4 Applicant Proposed Measures

The Proposed Project will have no significant impacts to air quality; therefore, no APMs are proposed.

4.3.5 Potential Impacts

The Proposed Project includes reconductoring, removal of existing wood pole structures, and installation of new steel pole structures for the existing TL 695 and TL 6971 power lines. The operation and maintenance activities required for the power line will not change from those currently required for the existing system; thus, no additional operation-related impacts related to air quality will occur. Furthermore, maintenance will decrease slightly due to the removal of wood pole structures and the installation of steel pole structures. Therefore, the impact analysis is focused on construction activities that are required to install the new conductor, remove the existing wood pole structures, install the new steel pole structures, and establish required access and temporary work areas, as described in Chapter 3.0, Proposed Project Description.

4.3.5.1 Methodology

Federal, state, and regional/local regulations and policies were consulted to determine the Proposed Project's level of compliance with applicable air quality plans and/or standards. Potential air quality emissions were estimated using the California Emissions Estimator Model (CalEEMod), which is the current air quality model for land use projects in California. The model was developed in collaboration with the air districts of California and includes default data (e.g., emission factors, trip lengths, meteorology, source inventory) that have been provided by the various California air districts to account for local requirements and conditions (SCAQMD 2011).

The emissions calculations and assumptions used in this analysis are included in Appendix 4.3-A. Air quality impacts from proposed construction activities would occur primarily from: (1) combustion emissions due to the use of fossil fuel-powered equipment; and (2) fugitive dust emissions (PM_{10}) during earth-moving activities and the operation of equipment on bare soil.

The proposed project would primarily be comprised of the removal of existing electrical pole structures, installation of new steel pole structures, and conductor line. For air quality modeling purposes, the total area of site disturbance was assumed to include the staging yards, helicopter incidental landing areas, stringing sites, guard structures, pole structure work areas, trenching locations, and access road improvement areas. Trenching would be required to place underground power lines. Trenching operations will generate up to 89 cubic yards per day of excavated material, or approximately 3,000 cubic yards total. Site preparation activities (e.g., vegetation removal and other non-grading activities to create the six construction staging yards) would occur over approximately 10 acres total. The types and pieces of construction equipment and helicopters modeled for projected air emissions were as shown in Table 3-3. The helicopters are assumed to be used for approximately half of a day for each 9,000 feet of power line restringing. The entire project will take approximately nine months to complete.

Since the project is located within two air districts (San Diego County APCD and SCAQMD), the projected emissions were separated by air district. It was estimated that 95 percent of the construction effort will occur within San Diego County APCD, and 5 percent will occur within SCAQMD. The emissions were modeled as if all construction will occur within the San Diego County APCD, and then the emissions were apportioned appropriately between the two air districts for evaluation of impact significance.

4.3.5.2 Significance Criteria

According to Section 15002(g) of the CEQA Guidelines, "a significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project." As stated in Section 15064(b) of the CEQA Guidelines, the significance of an activity may vary with the setting. The potential significance of project-related impacts on air quality were evaluated for each of the criteria listed in the checklist, as discussed below.

a) Would the project conflict with or obstruct implementation of the applicable air quality plans? *Less than Significant*

Consistency with the applicable RAQS and SIPs is determined in terms of whether the Proposed Project exceeds the criteria pollutant threshold levels established by San Diego County APCD and SCAQMD, and whether the Proposed Project will result in growth that conflicts with these plans. Construction emissions are temporary and short-term, and comprise a small percentage of the emissions budgets for construction activities that are included in the SIP.

The annual estimated emissions from the Proposed Project within the two air basins are shown in Table 4.3-5. As discussed above, the Proposed Project was modeled using emission factors from CARB's OFFROAD2007 and EMFAC2011 programs, which are included within CalEEMod. Variables factored into estimating the total construction emissions include the level of activity, length of construction period, number of pieces and types of equipment in use, site characteristics, number of construction personnel, and the amount of site disturbance anticipated.

Table 4.3-5. Annual Estimated Emissions from the Proposed Project within the San Diego County APCD and SCAQMD with Comparison against Threshold Standards

Emission Source	Emissions (tons/year)					
	VOCs	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
Proposed Project Emissions within the San Diego County APCD						
Construction Emissions	0.949	8.819	6.203	0.011	0.703	0.520
Helicopter Emissions	12.263	6.105	28.672	0.000	0.000	0.000
Total Emissions (tons/year)	**13.212**	**14.924**	**34.875**	**0.009**	**0.723**	**0.533**
Total Emissions (lbs/day)	**72.393**	**81.775**	**191.096**	**0.047**	**3.959**	**2.918**
Significance Thresholds (lbs/day)	**75**	**250**	**550**	**250**	**100**	**55**
Exceeds Air Quality Significance Threshold Standards?	**No**	**No**	**No**	**No**	**No**	**No**
Proposed Project Emissions within the SCAQMD						
Construction Emissions	0.050	0.464	0.326	0.001	0.037	0.027
Helicopter Emissions	0.645	0.3213	1.5091	0.0000	0.0000	0.0000
Total Emissions (tons/year)	**0.6954**	**0.7855**	**1.8355**	**0.0006**	**0.0370**	**0.0274**
Total Emissions (lbs/day)	**3.810**	**4.304**	**10.058**	**0.003**	**0.203**	**0.150**
Significance Thresholds (lbs/day)	**75**	**100**	**550**	**150**	**100**	**55**
Exceeds Air Quality Significance Threshold Standards?	**No**	**No**	**No**	**No**	**No**	**No**

Notes: The helicopter emissions assume a 50/50 split between light- and heavy-duty helicopters.

As shown in Table 4.3-5, the emissions projected to occur in either the San Diego County APCD or the SCAQMD will not exceed the significance threshold standards in either district. Therefore, impacts will be less than significant.

b) Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation? *Less than Significant*

Future construction of the Proposed Project site will generate short-term air quality impacts during soil disturbance and construction operations. The temporary impacts from the Proposed Project will include:

- Traveling on unpaved surfaces and earthmoving activities generates fugitive dust, and thus PM_{10};
- Heavy equipment and vehicles required for construction generates and emits diesel exhaust emissions; and
- The vehicles of commuting construction workers and trucks hauling equipment will generate and emit exhaust emissions.

Fugitive dust emissions are associated with land clearing, excavation, cut and fill, and truck travel on unpaved roadways. Fugitive dust emissions vary substantially from day to day, depending on the level of activity, specific operations, and weather conditions. Fugitive dust from soil disturbance and construction is expected to be short-term and will cease upon Proposed Project completion. The emission calculations include fugitive dust emissions as part of soil disturbance activities, as shown in Table 4.3-5. With implementation of standard operating procedures, the Proposed Project will not exceed the San Diego County APCD or SCAQMD standards for PM_{10} or $PM_{2.5}$. Standard operating procedures include construction practices such as watering disturbed soil areas, minimizing vehicle track-out of dust, and limiting idling time for trucks in queues to five minutes when not in use.

Exhaust emissions from construction activities include emissions associated with the transport of machinery and supplies to and from the Proposed Project site, emissions produced on-site as the equipment is used, and emissions from trucks transporting materials to and from the site. Emitted pollutants will include CO, VOCs, NO_x, PM_{10}, and $PM_{2.5}$. As presented in Table 4.3-5, the individual components of the Proposed Project will not cause exceedances of San Diego County APCD or SCAQMD standards for any criteria pollutant. Therefore, impacts associated with construction will be less than significant.

c) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? *Less than Significant*

As shown previously in Table 4.3-5, the construction of the Proposed Project will lead to a small, temporary increase in criteria air pollutants. SDG&E standard construction practices include minimizing vehicle idling time and controlling for dust emissions to reduce the impacts of the construction. Emissions, which will be temporary, will not exceed the San Diego County APCD or SCAQMD standards for any criteria pollutant. Therefore, impacts associated with construction will be less than significant.

d) Would the project expose sensitive receptors to substantial pollutant concentrations? *Less than Significant*

California has identified diesel particulate matter as a Toxic Air Contaminant. Diesel particulate matter is emitted from on- and off-road vehicles that utilize diesel as fuel. Therefore, CARB has created the Risk Reduction Plan to Reduce Particulate Matter from Diesel-Fueled Engines and Vehicles.

CARB has also adopted airborne toxic control measures (ACTM) applicable to off-road diesel equipment and portable diesel engines rated brake 50 horsepower and greater, to reduce emissions of particulate matter. The ACTMs require diesel engines to comply with particulate matter emission limitations on a fleet-averaged basis. CARB has also adopted an ACTM that limits idling times of diesel-fueled commercial motor vehicles. All off-road diesel equipment, on-road heavy-duty diesel trucks, and portable diesel equipment used for the Proposed Project must meet California's applicable ACTMs for control of diesel particulate matter or nitrogen oxide in the exhaust. This will ensure that pollutant emissions in diesel engine exhaust do not exceed applicable federal or state air quality standards.

Sources of diesel particulate matter during construction activities will be from haul truck activities, heavy construction equipment, and contractor vehicles. Health effects associated with exposure to diesel particulate matter are long-term effects and are evaluated on the basis of a lifetime of exposure. Because construction activities will move on a daily basis, and because activities will be short-term (9 months maximum), emissions will not impact any sensitive receptors for an extended period of time. Therefore, the impact will be less than significant.

e) Would the project create objectionable odors affecting a substantial number of people? *Less than Significant*

Construction activity associated with the Proposed Project may generate detectable odors from heavy-duty equipment exhaust. Potential odors generated during construction operations will be temporary in nature and will be limited by the relatively small number of vehicles and equipment onsite and distance from any sensitive receptors. Therefore, impacts will be less than significant.

4.3.6 References

CARB. 1996. California State Implementation Plan for Maintenance of Carbon Monoxide.

CARB. 1998. Revision to 1996 Carbon Monoxide Maintenance Plan for 10 Federal Planning Areas. October 6, 1998.

CARB. 2004. 2004 Revision to the California State Implementation Plan for Carbon Monoxide, Updated Maintenance Plan for Ten Federal Planning Areas. July 22, 2004.

CARB. 2015a. California Ambient Air Quality Standards (CAAQS). Online at http://www.arb.ca.gov/research/aaqs/aaqs2.pdf. Accessed July 2, 2015.

CARB. 2015b. Toxic Air Contaminant Identification List. Online at http://www.arb.ca.gov/toxics/id/taclist.htm. Accessed February 14, 2015.

San Diego County APCD. 2007. Eight-Hour Ozone Attainment Plan for San Diego County. May 2007.

San Diego County APCD. 2009. Regional Air Quality Strategy Revision. April 22, 2009.

San Diego County APCD. 2012. Redesignation Request and Maintenance Plan for the 1997 National Ozone Standard for San Diego County. December 5, 2012.

San Diego County APCD. 2015. Rule 20.2, New Source Review for Non-Major Stationary Sources. Last revised on November 4, 1998. Online at http://www.sdapcd.org/rules/Reg2pdf/R20-2.pdf. Accessed July 2, 2015.

SCAQMD. 2015 CEQA Air Quality Significance Thresholds. Online at http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2. Last revised in March of 2015. Accessed on July 2, 2015.

USEPA. 2015a. National Ambient Air Quality Standards. Online at http://www.epa.gov/air/criteria.html. Accessed July 2, 2015.

USEPA. 2015b. The Clean Air Act Amendments of 1990 List of Hazardous Air Pollutants. Online at http://www.epa.gov/ttn/atw/orig189.html. Accessed July 2, 2015.

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