

## D.3 Air Quality

This section describes the affected environment for Air Quality in Section D.3.1 and presents the relevant regulations and standards in Section D.3.2. Sections D.3.3 through D.3.5 describe the impacts of the Proposed Project and the alternatives. Section D.3.6 presents the mitigation measures and mitigation monitoring requirements, and D.3.7 lists references cited.

### D.3.1 Environmental Setting / Affected Environment

The Proposed Project would include approximately 48 miles of corridor that occurs within two counties, San Bernardino and Riverside, and two California air basins, the South Coast Air Basin and the Coachella Valley portion of the Salton Sea Air Basin. All project-related activities in these two air basins would occur within the regional jurisdiction of the South Coast Air Quality Management District (SCAQMD).

#### D.3.1.1 Regional Setting and Approach to Data Collection

The environmental setting for air quality, including available representative ambient air pollutant data, reviews the existing literature from local, State, and federal agencies and the applicant, including the following:

- U.S. Environmental Protection Agency (U.S. EPA),
- State of California, Air Resources Board (CARB),
- South Coast Air Quality Management District (SCAQMD), and
- Other information found in the Proponent’s Environmental Assessment (PEA).

#### D.3.1.2 Environmental Setting by Segment

Most of the Proposed Project would fall within the South Coast Air Basin, which includes Segments 1 through 5. Segment 6 of the Proposed Project would fall within the Salton Sea Air Basin. A brief discussion of the environmental setting for each air basin appears in this section.

**Criteria Pollutants.** Air quality is determined by measuring ambient concentrations of criteria pollutants. The criteria air pollutants are common pollutants for which acceptable levels of exposure can be determined and for which standards have been set. The degree of air quality degradation is then compared to the current National and California Ambient Air Quality Standards (NAAQS and CAAQS). Unique meteorological conditions in California and differences of opinion by medical panels established by the California Air Resources Board (CARB) and the U.S. Environmental Protection Agency (U.S. EPA) cause considerable diversity between State and federal standards. In general, the CAAQS are more stringent than the corresponding NAAQS. The ambient standards currently in effect in California are shown in Table D.3-1.

**Table D.3-1. National and California Ambient Air Quality Standards**

Pollutant	Averaging Time	California Standards	National Standards	Health Effects
Ozone	1-hour	0.09 ppm	—	Breathing difficulties, lung tissue damage
	8-hour	0.070 ppm	0.075 ppm	
Respirable Particulate Matter (PM10)	24-hour	50 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>	Increased respiratory disease, lung damage, cancer, premature death
	Annual Mean	20 µg/m <sup>3</sup>	—	

**Table D.3-1. National and California Ambient Air Quality Standards**

Pollutant	Averaging Time	California Standards	National Standards	Health Effects
Fine Particulate Matter (PM2.5)	24-hour Annual Mean	— 12 µg/m <sup>3</sup>	35 µg/m <sup>3</sup> 12.0 µg/m <sup>3</sup>	Increased respiratory disease, lung damage, cancer, premature death
Carbon Monoxide (CO)	1-hour 8-hour	20 ppm 9.0 ppm	35 ppm 9 ppm	Chest pain in heart patients, headaches, reduced mental alertness
Nitrogen Dioxide (NO <sub>2</sub> )	1-hour Annual Mean	0.18 ppm 0.030 ppm	100 ppb 0.053 ppm	Lung irritation and damage
Sulfur Dioxide (SO <sub>2</sub> )	1-hour 24-hour Annual Mean	0.25 ppm 0.04 ppm —	75 ppb 0.14 ppm 0.030 ppm	Increases lung disease and breathing problems for asthmatics

Notes: ppm=parts per million; ppb=parts per billion; µg/m<sup>3</sup>= micrograms per cubic meter; "—" = no standard  
Source: CARB, 2013 (<http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>).

**Attainment Status and Air Quality Plans.** The U.S. EPA, CARB, and the local air district classify an area as attainment, unclassified, or nonattainment. The classification depends on whether the monitored ambient air quality data show compliance, insufficient data available, or non-compliance with the ambient air quality standards, respectively. The Proposed Project would be located within the jurisdiction of the SCAQMD, with a major portion being in the South Coast Air Basin and the remainder in the Salton Sea Air Basin.

Ambient air quality in the project area experiences exceedances of the federal and State ozone, PM10 and PM2.5 standards because concentrations of these contaminants occur or have historically occurred at levels violating the standards. Table D.3-2 summarizes attainment status for the criteria pollutants in these air basins under both the federal and State standards.

**Table D.3-2. Attainment Status for South Coast Air Basin and Salton Sea Air Basin**

Pollutant	South Coast Air Basin		Salton Sea Air Basin	
	Federal Designation	State Designation	Federal Designation	State Designation
Ozone	Nonattainment (Extreme)	Nonattainment	Nonattainment (Severe)	Nonattainment
PM10	Attainment (Maintenance)	Nonattainment	Nonattainment (Serious)	Nonattainment
PM2.5	Nonattainment	Nonattainment	Attainment	Attainment
CO	Attainment (Maintenance)	Attainment	Attainment	Attainment
NO <sub>2</sub>	Unclassified	Attainment	Unclassified	Attainment
SO <sub>2</sub>	Unclassified	Attainment	Unclassified	Attainment

Source: CARB, 2014a (Area Designations); U.S. EPA, 2014 (Region 9 Air Quality Maps).

**Toxic Air Contaminants.** Toxic air contaminants (TACs) are air pollutants that may lead to serious illness or increased mortality, even when present in relatively low concentrations. Potential human health effects of TACs include birth defects, neurological damage, cancer, and death. There are hundreds of types of TACs with varying degrees of toxicity. Individual TACs vary greatly in the health risk they present; at a given level of exposure, one TAC may pose a hazard that is many times greater than that of a different TAC.

TACs are not subject to ambient air quality standards; they are regulated by each local air district using a risk-based approach. If projected emissions of a specific air toxic compound from a proposed new or stationary modified source suggest a potential public health risk, then the proposal is subject to a health risk assessment for the source in question. Such an assessment also evaluates the chronic and acute hazards and the potential increased cancer risk stemming from exposure to a change in airborne TACs.

Mobile sources powered by diesel fuel emit diesel particulate matter (DPM), which is classified as a TAC because many toxic compounds adhere to diesel exhaust particles. Statewide programs for mobile sources and diesel-fired equipment set mandatory exhaust standards for manufacturers of these engines and require equipment owners or operators to register portable equipment. Emissions of DPM have been declining with the introduction of ultra-low sulfur diesel fuel, which reduces particulates and sulfur oxides (SO<sub>x</sub>), and with the phase-in of particulate filters on vehicle exhaust systems.

**Sensitive Receptors.** Land uses where people reside are considered to be sensitive to air pollution. Sensitive population groups include children, the elderly, the acutely ill and the chronically ill, especially those with cardio-respiratory diseases. Residential areas are sensitive to air pollution because children and the elderly would be expected to experience sustained exposure to any pollutants. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally brief at a recreational area, exercise creates a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation.

Portions of the Proposed Project would occur near sensitive receptors (e.g., residential areas, schools, day care centers, hospitals, and other places where people reside). Portions of the corridor are situated in developed areas with residences adjacent to potential activities, including construction sites, access roads, and staging yards.

#### **D.3.1.2.1 South Coast Air Basin**

##### ***Ambient Air Quality Conditions***

Ambient air quality in the South Coast Air Basin experiences exceedances of the federal and State ozone, PM<sub>10</sub> and PM<sub>2.5</sub> standards because concentrations of these contaminants occur or have historically occurred at levels violating the standards, as shown in Table D.3-2.

##### ***Sensitive Receptors***

The portion of the Proposed Project within the South Coast Air Basin (Segments 1 through 5) includes San Bernardino, Vista, and El Casco Substations, the 220 kV transmission lines, subtransmission lines, distribution lines, telecommunications lines, access roads, and various staging yards. Project components or activities would occur in the following jurisdictions in this air basin: the cities of Banning, Beaumont, Calimesa, Colton, Grand Terrace, Loma Linda, Rancho Cucamonga, Redlands, San Bernardino, and Yucaipa; unincorporated areas of Riverside and San Bernardino Counties; and portions of the reservation trust land (the reservation) of the Morongo Band of Mission Indians (Morongo). The developed areas along the corridor include residential areas, schools, day care centers, hospitals, and other places where people reside. Section D.11, Land Use, identifies the various land uses in additional detail.

#### D.3.1.2.2 Salton Sea Air Basin

##### ***Ambient Air Quality Conditions***

Ambient air quality in the Salton Sea Air Basin experiences exceedances of the federal and State ozone and PM<sub>10</sub> standards because concentrations of these contaminants occur or have historically occurred at levels violating the standards, as shown in Table D.3-2.

##### ***Sensitive Receptors***

The portion of the Proposed Project within the Salton Sea Air Basin (Segment 6) includes Devers Substation, the 220 kV transmission lines, telecommunications lines, access roads, and the Devers staging yard. Segment 6 would pass through existing land uses that are primarily residential and open space. Residences are near the Proposed Project in the jurisdiction of the City of Palm Springs, the County of Riverside, and on BLM lands. Single-family homes on large lots are adjacent to and within the transmission line corridor through this portion of unincorporated Riverside County.

#### D.3.1.3 Environmental Setting for Connected Actions

The solar generation projects identified as connected actions in Table B-22 (see Section B.7.1) would require approximately 9,760 acres and would occur in the Desert Center area and the Blythe area. The following is a discussion of each area's environmental setting and applicable air basins.

**Desert Center Area.** The Desert Center area is located in the Mojave Desert Air Basin, which is within the jurisdiction of four air districts: Kern County Air Pollution Control District, Antelope Valley Air Quality Management District, Mojave Desert Air Quality Management District (MDAQMD), and SCAQMD (CEC, 2013). Connected actions in this area would include the 250-500 MW Palen Solar Power Project, the 150 MW Desert Harvest Project, and two confidential solar PV projects that are 50 MW and 250 MW, respectively. The connected actions that are known (i.e., Palen Solar Power Project and Desert Harvest Project) are located within the jurisdiction of the SCAQMD.

Due to the proximity of the basin to coastal and central regions, and due to the blocking nature of the Sierra Nevada Mountains to the north, prevailing winds in the basin are out of the west and southwest (CEC, 2013). Dominant emission sources in the Desert Center Area include: mobile sources (i.e., traffic) on I-10, Highway 177, and other roadways; agricultural operations on private lands; recreational vehicle use on public and private lands; fuel combustion and fugitive dust associated with development (e.g., other energy generation projects); surrounding residential lands uses; and wind erosion from lands with sparse vegetation (BLM, 2012).

***Ambient Air Quality Conditions.*** The Desert Center area of the Mojave Desert Air Basin is designated as non-attainment for State ozone and PM<sub>10</sub> standards, and as attainment or unclassified for all federal standards and for State CO, NO<sub>2</sub>, SO<sub>2</sub>, and PM<sub>2.5</sub> standards.

***Sensitive Receptors.*** Sensitive receptors in the Desert Center area are primarily recreational resources (i.e., national park and wilderness areas), and a few residences located throughout the region. See Sections D.11 (Land Use and BLM Realty) and D.15 (Recreation) for a discussion of sensitive receptors in the area.

**Blythe Area.** The Blythe area is located in Mojave Desert Air Basin, which is under the jurisdiction of the MDAQMD. Connected actions in this area would include three solar PV projects that total 524 MW. Dominant emission sources in the area include the following: mobile sources (i.e., traffic), recreational vehicle use, mining, agriculture and livestock grazing, and wind erosion (POWER Engineers, 2014).

**Ambient Air Quality Conditions.** The Mojave Desert Air Basin is designated as non-attainment for State ozone and PM10 standards, and as attainment or unclassified for all federal standards and for State CO, NO<sub>2</sub>, SO<sub>2</sub>, and PM2.5 standards (POWER Engineers, 2014).

**Sensitive Receptors.** Sensitive receptors in the Blythe Area include agriculture~~at~~-uses, recreational resources, and residences in the City of Blythe and unincorporated Riverside County. See Sections D.2 (Agriculture), D.11 (Land Use and BLM Realty), and D.15 (Recreation) for a discussion of sensitive receptors in the area.

## D.3.2 Applicable Regulations, Plans, and Standards

### D.3.2.1 Federal

**Federal Clean Air Act (CAA) and California Clean Air Act.** The NAAQS (Table D.3-1) were originally established by the U.S. EPA for criteria air pollutants in 1970, with a mandate for periodic updating of the standards. Criteria pollutants are the most prevalent air pollutants known to be hazardous to human health. Ambient air quality standards are designed to protect people who are most susceptible to respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and people engaged in strenuous work or exercise. The ambient air quality standards also are set to protect public welfare, including protection against decreased visibility, and damage to animals, crops, vegetation, and buildings.

The relevant local air district rules and regulations to enable the demonstration of attaining the ambient air quality standards are incorporated into the State Implementation Plan (SIP) from each local air quality management plan, as needed for each nonattainment pollutant. Each local air district has the responsibility to develop the necessary regional air quality management plan for attaining and maintaining the standards. Each air district also has the authority to issue permits through its rules and regulations by requiring that new stationary sources be subject to New Source Review (NSR). The NSR program ensures that the new stationary sources would not interfere with progress to attain the ambient air quality standards. No new stationary sources would be associated with the Proposed Project or subject to permitting. Emissions from mobile and portable sources and temporary activities (such as construction) are managed through a range of State and federal programs that control mobile sources, motor vehicle emissions, and emissions from equipment powered by diesel engines.

The federal Clean Air Act provides protection of federally designated wilderness areas, called Class I Areas, as shown on Figure D.3-1. New or modified major stationary sources near Class I Areas must assess potential impacts to air quality related values, including long-range visibility of pollution and deposition of air pollutants to soil and water. While the San Geronio Wilderness and San Jacinto Wilderness are within 3 to 4 miles of the Proposed Project, there is no requirement to evaluate impacts to Class I Areas because the Proposed Project does not include any new or modified stationary sources of emissions.

**General Conformity Rule.** Under Section 176(c) of the Clean Air Act Amendments (CAAA) of 1990, the BLM must make a determination of whether approval of the Proposed Project (i.e., a federal action) would cause or contribute to a violation of the NAAQS or interfere with the purpose of a SIP. The determination must be based on the General Conformity requirements (40 CFR Part 93 et seq.; March 2010). General Conformity applies to federal actions in areas that are designated as nonattainment or maintenance areas for the NAAQS, to ensure that activities will not:

- Cause or contribute to any new violation of any standard;
- Interfere with provisions in the applicable SIP for maintenance of any standard;
- Increase the frequency or severity of any violation of any standard in any area; or
- Delay timely attainment of any standard or any required interim emission reductions or other milestones in any area.

If the total direct and indirect emissions from the federal action are below the applicability levels of the rule, ~~and where no “regionally significant” emissions would occur~~, the project would be exempt from performing a comprehensive Air Quality Conformity Analysis and Determination, and would be considered to be in conformity with the SIP. ~~A “regionally significant” action would occur only where the direct and indirect emissions of any pollutant represent 10 percent or more of a non-attainment area’s emissions inventory for that pollutant (40 CFR §93.152).~~ If an Air Quality Conformity Analysis and Determination is necessary, it must be certified prior to the project’s Record of Decision (ROD).

The South Coast Air Basin portions of the Proposed Project are within an “extreme” ozone nonattainment area, and the Salton Sea Air Basin portions of the Proposed Project are within a “severe” ozone nonattainment area under the federal standards. The general conformity emissions applicability thresholds for ozone nonattainment classifications apply to ozone precursor emissions (NOx and VOC), and comparable thresholds apply to PM10 or PM2.5 emissions, depending on the federal designation. Table D.3-3 shows the thresholds for when a General Conformity determination is required.

**Table D.3-3. General Conformity Rule Applicability Thresholds**

Pollutant	South Coast Air Basin		Salton Sea Air Basin	
	Federal Designation	Applicability Threshold	Federal Designation	Applicability Threshold
Ozone (NOx or VOC)	Nonattainment (Extreme)	10 tons per year	Nonattainment (Severe)	25 tons per year
PM10	Attainment (Maintenance)	100 tons per year	Nonattainment (Serious)	70 tons per year
PM2.5	Nonattainment	100 tons per year	No threshold	No threshold
CO	Attainment (Maintenance)	100 tons per year	No threshold	No threshold

Source: U.S. EPA (40 CFR §93.153).

### D.3.2.2 State

**U.S. EPA/CARB Off-Road Mobile Sources Emission Reduction Program.** The California CAA mandates CARB to achieve the maximum degree of emission reductions from all off-road mobile sources in order to attain the State ambient air quality standards. Off-road mobile sources include construction and farming equipment. Tier 1, Tier 2, and Tier 3 standards for large compression-ignition engines used in off-road mobile sources went into effect in California in 1996, 2001, and 2006 respectively. Tier 4 or Interim Tier 4 standards apply to all off-road diesel engines model year 2012 or newer. In addition, equipment can be retrofitted to achieve lower emissions using the CARB-verified retrofit technologies. The engine standards and ongoing rulemaking jointly address NOx emissions and toxic diesel particulate matter (DPM) from diesel fuel combustion.

**CARB In-Use Off-Road Diesel-Fueled Fleet Regulation.** The regulations for in-use off-road diesel equipment are designed to reduce NOx and DPM from existing fleets of equipment. CARB is gradually enforcing this rule with emissions performance requirements for large fleets starting on July 1, 2014, medium fleets in 2017 and small fleets in 2019 (CARB, 2014b). Depending on the size of the fleet, the

owner must ensure that the average emissions performance of the fleet meets targeted standards. The rule also prohibits owners from adding older Tier 0 or Tier 1 equipment to an existing large or medium fleet. In lieu of improving the average emissions performance of the fleet, electric systems can be installed to replace diesel equipment in the fleet average calculations. Presently, all equipment owners are subject to a five-minute idling restriction in the rule (13 California Code of Regulations, Chapter 10, Section 2449).

**California Diesel Fuel Regulations.** In 2004, the CARB set limits on the sulfur content of diesel fuel sold in California for use in on-road and off-road motor vehicles (13 California Code of Regulations, Sections 2281-2285 and 17 California Code of Regulations Section 93114). Under this rule, the sulfur content of diesel fuel was not to exceed 15 ppm after June 2006; this mandates use of ultra-low sulfur diesel fuel.

**CARB Portable Equipment Registration Program.** This program allows owners or operators of portable engines and associated equipment commonly used for construction or farming to register their units under a statewide portable program that allows them to operate their equipment throughout California without having to obtain individual permits from local air districts.

**CARB Airborne Toxic Control Measures (ATCM).** Diesel engines on portable equipment and vehicles are subject to various ATCM that dictate how diesel sources must be controlled statewide. For example, the ATCM to Limit Diesel-Fueled Commercial Motor Vehicle Idling generally limits idling of commercial motor vehicles (including buses and trucks) within 100 feet of a school or residential area for more than five consecutive minutes or periods aggregating more than five minutes in any one hour (13 California Code of Regulations, Chapter 10, Section 2485). Diesel engines used in portable equipment fleets also are subject to stringent DPM emissions standards, generally requiring use of only newer engines or verified add-on particulate filters (17 California Code of Regulations Section 93116). Certain stationary compression-ignition engines running on diesel fuel, including emergency standby engines, must also control particulate matter emissions by installing verified add-on equipment (17 California Code of Regulations Sections 93115.4 and 93115.6).

### D.3.2.3 Local

#### South Coast Air Quality Management District

The SCAQMD is responsible for attaining timely compliance with federal standards within the South Coast Air Basin and the Coachella Valley portion of the Salton Sea Air Basin. As such, SCAQMD is responsible for developing those portions of the State Implementation Plan (SIP). The Air Quality Management Plan (AQMP) describes all sources, identifies trends in future emissions, and outlines the attainment strategy in terms of stationary and area source controls. The SCAQMD also coordinates with metropolitan transportation planning agencies to develop transportation control measures for mobile sources.

**SCAQMD Air Quality Management Plan.** The AQMP is the current (2012) comprehensive attainment strategy for ozone and PM<sub>2.5</sub>. The AQMP identifies the rules and regulations and contingency measures that demonstrate how the region will achieve the necessary overall emission reductions to attain the federal 24-hour PM<sub>2.5</sub> standard in 2014, with a possibility of up to a five-year extension by U.S. EPA to 2019, if needed. An update of the plan is planned for 2016. The 2012 AQMP also provides an update to demonstrate progress in attaining the 8-hour ozone standard in 2023 (SCAQMD, 2013).

**Coachella Valley PM<sub>10</sub> Attainment Plan.** The Coachella Valley PM<sub>10</sub> State Implementation Plan (most recently updated in 2003) includes fugitive dust control measures that have been implemented through the adoption of SCAQMD Rule 403.1, which is supplemental to SCAQMD Rule 403. The Coachella Valley

PM10 SIP also outlines enhancements for local ordinances to include dust controls as part of local building permits and for unpaved parking lots and unpaved access roads. Emission reductions implemented in the upwind South Coast Air Basin are expected to ensure timely attainment of existing standards in the Coachella Valley portion of the Salton Sea Air Basin (SCAQMD, 2013).

**SCAQMD Rules and Regulations.** The following SCAQMD rules limit the amount of visible dust emissions from construction sites, prohibit emissions that can cause a public nuisance, and require the prevention and reduction of fugitive dust emissions. Additionally, depending on the location and size of construction or disturbed surface areas a Fugitive Dust Control Plan may need to be submitted to SCAQMD for approval before initiating construction, per SCAQMD Rule 403, Rule 403.1 and the Rule 403.1 Implementation Handbook. The fugitive dust rules include measures that aim to reduce fugitive dust emissions from specific dust causing activities. The dust measures include, adding freeboard to haul vehicles, covering loose material on haul vehicles, watering, using chemical stabilizers and/or ceasing all activities (such as during periods of high winds).

- Rule 401 – Visible Emissions
- Rule 402 – Nuisance
- Rule 403 – Fugitive Dust
- Rule 403.1 – Supplemental Fugitive Dust Control Requirements for Coachella Valley Sources
- Rule 1107 – Coating of Metal Parts and Products
- Rule 1113 – Architectural Coatings Rule

#### **Cities and Counties**

Local community plans in the cities and counties of project-related activities have policies that generally address air quality and protect people from air pollution. These policies share the aims of reducing fugitive dust, reducing emissions from wasteful fuel use, or using construction materials that would reduce emissions, which are subjects of rules and regulations that apply as adopted by the agencies with jurisdiction: SCAQMD, CARB, and U.S. EPA. Aside from generally striving for reduced emissions and energy consumption, community plans, policies, and goals do not specifically address the types of sources that could occur with the Proposed Project.

### **D.3.3 Environmental Impacts of the Proposed Project**

#### **D.3.3.1 Approach to Impact Assessment**

Air pollutant emission rates depend on the anticipated activity of various sources, the vast majority of which would be mobile sources or area-wide sources such as the airborne dust from unpaved surfaces. The assumptions cover the information in Section B.3.8 (Construction Workforce and Equipment), Section B.3.9 (Construction Schedule and Sequence), and the anticipated activities during the life of the project after construction is completed, described in Section B.4 (Operations and Maintenance).

Worst-case peak daily construction and operation emissions were estimated by SCE for the Proposed Project using a detailed equipment inventory combined with emissions factors from the CARB EMFAC2011 and OFFROAD databases (SCE, 2013). The peak daily emission rates are based on the sum of the individual sources, including:

- Off-road equipment (loaders, dozers, graders, scrapers, etc.);
- Helicopters;



- Maximum disturbed area;
- Import/export of materials and debris;
- Daily truck trips; and
- Number of on-site employees.

**D.3.3.1.1 Applicant Proposed Measures**

Table D.3-4 presents the Applicant Proposed Measures (APMs) for air quality.

**Table D.3-4. Applicant Proposed Measures – Air Quality**

APM	Description
<b>Air Quality</b>	
APM AIR-1	<p>SCE would prepare an Exhaust Emissions Control Plan to establish a target goal of a project-wide fleet average reduction of 20 percent NO<sub>x</sub> compared to the estimated unmitigated emissions as presented in the PEA for applicable diesel-fueled off-road construction equipment of more than 50 horsepower.</p> <p>Acceptable options for reducing emissions could include, but are not limited to: the use of newer model engines meeting U.S. EPA Tier 3 standards if available (or better), low emissions diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other similar available options.</p>
APM AIR-2	<p>SCE would prepare a Fugitive Dust Control Plan to reduce fugitive dust emissions (fugitive PM<sub>10</sub> and PM<sub>2.5</sub>). Acceptable control measures for reducing emissions described within the Fugitive Dust Control Plan may include, but are not limited to: limit traffic speeds on unpaved roads to 15 mph; apply water as needed to comply with SCAQMD Rule 403 requirements, or apply soil stabilizers (e.g., gravel for substation area) on active unpaved access roads, the substation area, and staging areas if construction activity causes persistent visible emissions of fugitive dust beyond the work area; apply soil stabilizers to inactive construction areas as described in the SWPPP; where applicable, install gravel, shaker plates, or other BMPs at the point of intersection with public paved surfaces.</p> <p>The Fugitive Dust Control Plan would describe how the measures would be implemented and monitored during Project construction. Furthermore, as construction details become available, the Fugitive Dust Control Plan would include site-specific mitigation measures for Project areas that could be more likely to generate dust near sensitive receptors.</p>

**D.3.3.2 CEQA Significance Criteria**

Significance of air quality depends on location-specific criteria for each air basin. Air quality impacts of the Proposed Project would be considered significant if:

- The Proposed Project would be inconsistent with the current approved Air Quality Management Plan.
- The Proposed Project would exceed the federal General Conformity Rule applicability thresholds (40 CFR Part 93), also known as *de minimis* levels (see Table D.3-3).
- Activities associated with the Proposed Project would generate emissions of air pollutants that would exceed SCAQMD CEQA thresholds for regional emissions (Table D.3-5) or localized significance thresholds (Table D.3-6).
- Activities associated with the Proposed Project would cause or contribute to any new violation of NAAQS or CAAQS in the project area; or interfere with the maintenance or attainment of NAAQS or CAAQS; or increase the frequency or severity of any existing violations of NAAQS or CAAQS; or delay the timely attainment of any standard, interim emission reduction, or other air quality milestone promulgated by the U.S. EPA, CARB, or local air quality agency.
- The Proposed Project would expose a substantial number of people to objectionable odors.
- The Proposed Project would expose sensitive receptors to substantial pollutant concentrations.

**Regional Air Quality Significance Criteria.** CEQA allows for the significance criteria established by the applicable air quality management district to be used to assess impacts of a project on air quality. The SCAQMD recommends using mass daily emissions rate thresholds for determining the regional significance of emissions from construction activities and from project operations as shown in Table D.3-5 (SCAQMD, 2011).

**Table D.3-5. Significance Thresholds for Regional Air Quality (lbs/day)**

	NOx	VOC	PM10	PM2.5	SOx	CO
Construction	100	75	150	55	150	550
Operation <sup>1</sup>	55	55	150	55	150	550

<sup>1</sup> - For Coachella Valley portion of the Salton Sea Air Basin, mass daily thresholds for operation are the same as the construction thresholds. Source: SCAQMD, 2011.

**Localized Air Quality Significance Criteria.** In addition to the thresholds for a regional impact, the SCAQMD developed localized significance thresholds for CEQA lead agencies to use in determining whether mass emissions rates would be likely to cause a localized impact to ambient air quality. The localized thresholds represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or State ambient air quality standard (SCAQMD, 2008). The localized thresholds are based on the ambient concentrations of that pollutant within each local source-receptor area. Each localized threshold is based on the new source occurring within a site of five acres or smaller, with the most stringent thresholds being applicable in situations with the nearest distances to a sensitive receptor.

The Proposed Project would occur within multiple source-receptor areas (SRA) as they are defined by SCAQMD for use of localized thresholds (SCAQMD, 2009). Transmission line work areas would generally occur within 1 acre. Substation modifications would generally occur within a construction site of 5 acres.

The west end of the project would be within the Central San Bernardino Valley (SRA 34) and East San Bernardino Valley (SRA 35). The central segments would be within the Hemet/San Jacinto Valley (SRA 28) and Banning Airport area (SRA 29), and the eastern end would be within the Coachella Valley (SRA 30). The localized thresholds applicable to 1-acre and 5-acre construction sites in these areas are shown in Table D.3-6.

**Table D.3-6. Localized Significance Thresholds for Construction Sites (lbs/day) <sup>1</sup>**

SCAQMD Source-Receptor Area	NOx		PM10		PM2.5		CO	
	1 acre	5 acre	1 acre	5 acre	1 acre	5 acre	1 acre	5 acre
Central San Bernardino Valley (SRA 34)	118	270	4	14	3	8	667	1,746
East San Bernardino Valley (SRA 35)	118	270	4	14	4	9	775	2,075
Hemet/San Jacinto Valley (SRA 28)	162	371	4	13	3	8	750	1,965
Banning Airport (SRA 29)	103	236	6	21	4	11	1,000	2,817
Coachella Valley (SRA 30)	132	304	4	14	3	8	878	2,292

<sup>1</sup> - Thresholds are for receptors 25 meters from construction site boundaries; less stringent thresholds apply to receptors at greater distances. Source: SCAQMD, 2009.

### D.3.3.3 Impacts and Mitigation Measures

#### Impacts During Construction and Restoration Activities

##### *Impact AQ-1: Construction would generate dust and exhaust emissions of criteria pollutants*

Construction emissions would result from activities within the substation sites, transmission and subtransmission corridors, including staging areas and access roads. Construction emissions would occur as a result of the full range of activities including ground disturbance, use and improvement of access roads, site preparation, surface clearing, excavation, foundation installation, steel structure and wood pole installation, installing guard structures and shoo-fly structures, transfer and removal of existing structures and facilities, and site restoration. Emissions would also occur from offsite activities such as construction-related haul trips and construction workers commuting. Construction emissions would exacerbate the adverse health effects (identified in Table D.3-1) caused by air pollutants for those exposed to the emissions and would contribute to existing violations of ambient air quality standards and worsen existing nonattainment designations in the region (identified in Table D.3-2).

Pollutant emissions would vary from day to day depending on the level of activity and the specific process occurring in the sequence. Pollutant emissions sources would also move along the project corridor as the construction activities would occur at each substation, structure or pole site, and sites of other project components.

The range of construction equipment that contributes to dust and exhaust emissions of criteria air pollutants includes off-road equipment (e.g., loaders, dozers, graders, scrapers, compactors, cranes, drill rigs, and tension machines), helicopters, and on-highway (on-road) vehicles (e.g., water trucks, concrete pump trucks, dump trucks, and worker vehicles). A considerable number of the offsite truck trips would be associated with importing concrete, delivering steel, wood, wire, and other materials, and exporting wastes, debris, and structures for removal.

Air emissions for the Proposed Project are calculated using the latest standard calculation methodologies recommended by oversight agencies, including CARB and SCAQMD. The detailed emission calculations and quantification are provided by SCE as part of the PEA and attached with this EIR in Appendix 6 (Air Quality); emissions quantified in the following tables reflect the NO<sub>x</sub> and fugitive dust reductions that could be achieved by implementing SCE's APMs (Section D.3.3.1.1, Table D.3-4). For off-road and on-road vehicles, the emission estimates rely on factors from the CARB OFFROAD and EMFAC2011 databases, respectively. Consistent with CARB and SCAQMD recommendations, factors from U.S. EPA literature provide estimates of fugitive dust from ground disturbance and material storage piles. The data within the CARB models and U.S. EPA documentation provide appropriate factors directly applicable to the project-specific fleet of equipment most likely to be used and anticipated activities, based on SCE's development plans. The factors are used in conjunction with SCE's preliminary understanding of equipment activity and construction schedule, which means that the results are estimates based on assumptions that ~~would-could~~ be refined by SCE after final engineering.

**Federal General Conformity.** Table D.3-7 shows the total direct and indirect emissions from construction of the Proposed Project on federal lands and the General Conformity rule applicability emission trigger levels. The Morongo reservation portions occur within the South Coast Air Basin, and the BLM land portions occur within the Salton Sea Air Basin. Construction of the portions of the Proposed Project on BLM land and on the Morongo reservation land would cause emissions at average annual rates below the General Conformity thresholds in the relevant air basins. As such, the Proposed Project would be exempt from performing a comprehensive Air Quality Conformity Analysis and Determination, and

would be considered by federal agencies to be in conformity with the SIP. Although emissions would be below the thresholds in both air basins, the planning-level emission inventory for NOx within the SCAQMD specifically includes anticipated levels from SCE's major transmission construction activities. Up to 20 tons of NOx per year for 2018 through 2022 (Appendix III, p. III-2-53, of the AQMP) are accounted for in the SCAQMD General Conformity set aside account for NOx (SCAQMD, 2013).

**Table D.3-7. Construction-Phase Emissions and General Conformity (average tons per year)**

Location	NOx	VOC	PM10	PM2.5	CO
Morongo Reservation Portions of Project with APMs	6.0	1.0	0.9	0.4	3.6
<b>General Conformity Threshold for South Coast Air Basin</b>	<b>10</b>	<b>10</b>	<b>100</b>	<b>100</b>	<b>100</b>
BLM Land Portions of Project with APMs	2.1	0.3	0.2	0.1	1.2
<b>General Conformity Threshold for Salton Sea Air Basin</b>	<b>25</b>	<b>25</b>	<b>70</b>	<b>—</b>	<b>—</b>

Source: Appendix 7; SCE, 2013 (PEA Table 4.3-21; PEA Table 4.3-22; PEA Appendix E).

**SCAQMD Regional Emissions.** Table D.3-8 shows the emissions of dust and equipment exhaust pollutants during construction of the Proposed Project on a peak daily basis and compares construction emissions to the criteria set forth by SCAQMD for potential impacts to regional air quality conditions.

**Table D.3-8. Construction-Phase Regional Emissions Impacts (lbs/day)**

Project Component	NOx	VOC	PM10	PM2.5	CO
Devers Substation	59.0	8.1	3.4	2.7	40.8
El Casco Substation	53.3	7.2	2.9	2.4	33.3
Vista Substation	53.4	7.4	3.0	2.4	35.1
San Bernardino Substation	61.5	8.4	4.1	2.9	40.4
Etiwanda Substation	0.2	0.0	0.0	0.0	2.0
<del>Timoteo Substation</del>	<del>1.4</del>	<del>0.3</del>	<del>0.1</del>	<del>0.1</del>	<del>6.4</del>
<del>Tennessee Substation</del>	<del>1.5</del>	<del>0.3</del>	<del>0.1</del>	<del>0.1</del>	<del>6.7</del>
220 kV Transmission Line	4,009.0	525.9	243.2	155.9	2,259.0
Shoo-Fly	1,739.3	241.3	165.0	87.7	837.6
66 kV Subtransmission Line	828.2	111.5	57.1	34.8	448.6
Telecommunications System	141.2	17.4	9.9	5.6	54.6
<b>Total Peak Daily Construction</b>	<del><b>6,948.0</b></del> <b>6,945.1</b>	<del><b>927.9</b></del> <b>927.2</b>	<del><b>489.3</b></del> <b>488.6</b>	<del><b>294.6</b></del> <b>294.4</b>	<del><b>3,764.4</b></del> <b>3,751.4</b>
<b>Total Peak Construction with APMs</b>	<b>5,558.4</b>	<b>927.9</b>	<b>378.3</b>	<b>271.6</b>	<b>3,764.4</b>
<b>SCAQMD Regional Threshold for Construction</b>	<b>100</b>	<b>75</b>	<b>150</b>	<b>55</b>	<b>550</b>

Source: Appendix 7; SCE, 2013 (PEA Table 4.3-19; PEA Appendix E).

**SCAQMD Localized Impacts.** Table D.3-9 shows the peak daily localized emissions of criteria air pollutants. Receptors within approximately 82 feet (25 meters) of the edge of 1-acre work sites would experience localized impacts of NOx, PM10 and PM2.5; a portion of the PM2.5 impacts would be due to TACs found in equipment exhaust, including DPM. Transmission line work areas would generally occur within 1 acre, and substation modifications would generally occur within a construction site of 5 acres.

**Table D.3-9. Construction-Phase Localized Emissions Impacts (lbs/day)**

Project Component	NOx	VOC	PM10	PM2.5	CO
220 kV Tower Foundation (except Segment 5), Localized Emissions with APMs	58.0	9.0	10.3	4.0	27.6
220 kV Tower Foundation (Segment 5), Localized Emissions with APMs	72.6	11.0	13.2	5.1	35.1
Shoo-Fly, Localized Emissions with APMs	83.9	14.1	11.6	6.3	48.6
66 kV Subtransmission Line, Localized Emissions with APMs	18.6	3.1	7.1	2.1	9.7
Telecommunications System, Localized Emissions with APMs	140.9	17.3	9.9	5.6	51.6
<b>SCAQMD Localized Threshold for Construction on 1-acre site</b>	<b>103</b>	<b>—</b>	<b>4</b>	<b>3</b>	<b>667</b>
Any Substation, Peak Phase Localized Emissions with APMs	31.4	4.3	2.8	1.7	19.4
<b>SCAQMD Localized Threshold for Construction on 5-acre site</b>	<b>132</b>	<b>—</b>	<b>13</b>	<b>8</b>	<b>1,746</b>

1 - Thresholds are for receptors 25 meters from construction site boundaries; less stringent thresholds apply to receptors at greater distances. Source: Appendix 7; SCE, 2013 (PEA Table 4.3-14 to Table 4.3-18; PEA Appendix E).

**Summary for Construction Emissions of Criteria Pollutants.** Controlling dust and equipment exhaust emissions would be necessary to avoid causing any new violations or contributing substantially to existing violations of the ambient air quality standards and to avoid interfering with the established attainment plans. The Proposed Project would be required to implement dust controls required by SCAQMD Rules 403 and 403.1 so that dust does not remain visible in the atmosphere beyond the edge of the ~~right-of-way property line~~ or create a nuisance off-site. The Proposed Project would need a Fugitive Dust Control Plan, approved by the SCAQMD in compliance with Rule 403.1 and the SCAQMD Rule 403.1 Implementation Handbook. These mandatory efforts would ensure that the project implements sufficient fugitive dust control measures to avoid a conflict with the Coachella Valley PM10 attainment plan. Compliance with the CARB In-Use Off-Road Diesel-Fueled Fleet Regulation and emission targets for large fleets would ensure that equipment includes sufficient controls to avoid a conflict with attainment plans.

The mandatory controls would not reduce construction emissions to below the SCAQMD regional or localized thresholds, and the APMs lack key implementation details necessary to be enforceable. To avoid causing any new violations or contributing substantially to existing violations of the ambient air quality standards, and to further reduce the adverse regional and localized effects of construction-phase emissions, the APMs should be superseded, and the following mitigation measures are proposed.

**Mitigation Measures for Impact AQ-1**

**AQ-1a Control fugitive dust.** SCE shall develop a Fugitive Dust Control Plan and at least 60 days prior to construction submit the plan to the CPUC/BLM and SCAQMD for review and approval. The approved plan shall be implemented for all construction activities that may be a source of fugitive dust. Any fugitive dust control requirements in the SCAQMD rules and regulations, specifically Rule 403 and Rule 403.1, that are in addition to or more stringent than the requirements listed below shall be implemented and included in the plan. The plan shall include the following feasible measures:

- Traffic speeds on unpaved roads shall not exceed 15 miles per hour.
- A traffic route plan shall be developed ~~and vehicles shall follow routes that minimize to identify and limit the access and egress points from unpaved roads, while also reducing the amount of~~ unpaved road travel ~~necessary to access the transmission structure work sites.~~

- Unpaved roads, substation areas, and staging areas shall be watered three times daily when being used by construction vehicle traffic, or non-toxic soil stabilizers (e.g., water, tackifiers, and soil binders) shall be applied per manufacturer's recommendations and in sufficient quantities to maintain compliance with SCAQMD and jurisdictional requirements at a frequency necessary to maintain no visible vehicle travel dust emissions.
- Inactive excavated or graded soils and soil piles shall be sufficiently watered or sprayed with a soil stabilizer to create a surface crust or shall be covered.
- Drop heights from excavators and loaders shall be minimized to a distance no more than 5 feet.
- Soil truck loads shall be covered and gate seals on dump trucks shall be tight.
- Construction activities that occur on unpaved surfaces shall be discontinued during periods ~~of wind gusts exceeding 25 miles per hour, or when average wind speeds exceed 15 miles per hour, and~~ when ~~those~~ activities are causing visible dust plumes that cannot be avoided by approved dust suppression methods. All grading and excavation activities shall be suspended when wind speeds exceed 30 miles per hour unless otherwise approved in the Fugitive Dust Control Plan. Wind speed measurement methods shall be consistent with the SCAQMD Implementation Handbook for Rule 403 and Rule 403.1.

**AQ-1b Control off-road equipment emissions.** Off-road equipment with engines larger than 50 horsepower shall have engines that meet or exceed U.S. EPA/CARB Tier 3 Emissions Standards. Exceptions will be allowed only on a case by case basis for two specific situations: (1) an off-road equipment item that is a specialty, or unique, piece of equipment that cannot be found with a Tier 3 or better engine after a due diligence search; and/or (2) an off-road equipment item that will be used for a total of no more than 10 days.

**AQ-1c Control helicopter emissions.** Helicopter emissions shall be reduced by the following methods and measures:

- Helicopter idling will occur only when necessary for safe operation and emergency readiness purposes.
- Helicopter operators shall use the smallest practical and available helicopter for each lift operation.
- Fugitive dust from helicopter rotor wash will be reduced through the implementation of the following measures:
  - The helicopter staging areas, that are not on existing paved airfields or other large paved sites, shall be treated with soil amendments (e.g., water, tackifiers, soil binders) that shall be applied at a frequency necessary to create and maintain surface soil crusts where rotor wash creates fugitive dust emissions;
  - Enough land area shall be obtained for each helicopter staging area not located on existing paved airfields or other large paved sites, so that rotor wash does not create visible fugitive dust emissions outside of the controlled staging area or ROW.
  - Helicopter operations will take flight paths (i.e. elevation above ground) that will eliminate dust emissions from rotor wash when travelling between the helicopter staging area and the work sites.

- The helicopter work sites shall be watered prior to helicopter visits. Alternatively, other soil stabilizers shall be applied at a frequency necessary to create and maintain a surface soil crust while helicopter visits are occurring at the work site.

***Impact AQ-2: Construction would generate emissions of toxic air contaminants***

Much of the proposed construction activity would occur in or near urbanized or developed areas, where land uses including sensitive receptors may be adjacent to sources of toxic air contaminants. Construction would cause locally increased concentrations of toxic air contaminants, and sensitive receptors exposed to substantial levels of toxic air contaminants may experience short-term (acute) effects or long-term (chronic) effects.

Project construction would emit toxic air contaminants such as DPM, but aside from vehicles and diesel-fired construction equipment, the Proposed Project would not involve any notable sources of odors or TACs. Construction equipment and some construction activities, such as small areas of asphalt paving, could create mildly objectionable odors. Emissions of this nature would occur briefly during construction and would cease as the construction activity would move through phases and between work areas. There would be no notable impact of objectionable odors affecting a substantial number of people.

Sensitive receptors include residential areas, schools, day care centers, hospitals, and other places where people reside. Construction of transmission, subtransmission, telecommunications, and other facilities would occur near sensitive receptors along the linear routes of these project components. Installing these utilities could briefly expose sensitive receptors to construction-related emissions (summarized in Table D.3-9) as the sequence of construction activities progresses. Vehicle exhaust and diesel-powered construction equipment exhaust includes emissions of DPM and other toxic air contaminants. This would expose receptors to increased health risk and hazards.

The construction-related emissions would be short-term, and aside from substations and staging areas, no single location would be exposed to increased pollutant concentrations for more than a few days as construction crews move along the linear routes. Activities at substation sites and staging areas would occur over a span of 36 to 48 months; however, peak emissions from construction at substations would occur at lower rates than at tower and pole work sites (see Table D.3-9). Construction at any one work site along the linear routes would last a much shorter time. The limited duration and limited quantities of construction emissions ensure that the exposure of any individual sensitive receptor would be limited. This limits the potential for short-term (acute) effects or long-term (chronic) effects including cancer. The Proposed Project would not involve any new stationary sources of TACs, and construction-related diesel equipment emissions would not occur at any single location for an excessive duration.

Mitigation previously identified for Impact AQ-1 would require SCE to use newer equipment that emits lower levels of DPM, which would further reduce local concentrations of TACs during construction.

**Impacts During Operations and Maintenance**

***Impact AQ-3: Operation, maintenance, and inspections would generate dust and exhaust emissions***

The emissions from operation, maintenance, and inspection activities would be limited to the emissions caused by additional inspection and maintenance operations of the new facilities. Indirect effects of the project on air pollutant emissions from power plants would primarily be due to changing the deliverability of the region's electricity generation facilities, and are expected to be minimal (see Section D.6, Climate Change). Emissions directly related to O&M activities would displace emissions from existing inspection and maintenance activities that presently occur. The new facilities would not notably change

or increase the types of inspection and maintenance activities. Direct effects of daily and annual operating emissions would be minimal. Additional workers would not be necessary for the Proposed Project compared with the existing facilities.

Table D.3-10 provides the estimate of typical daily operating emissions from the various operation, maintenance, and inspection activities. Annual emissions would not be likely to exceed federal General Conformity thresholds, and daily emissions would not exceed the regional criteria set forth by SCAQMD for impact characterization.

**Table D.3-10. Operational-Phase Emissions Impacts to Regional Air Quality (lbs/day)**

	NOx	VOC	PM10	PM2.5	CO
Total Daily Project Operation	22.0	5.7	0.8	0.7	11.3
Operation (SCAQMD Regional Threshold)	55	55	150	55	550

Source: Appendix 7; SCE, 2013 (PEA Table 4.3-20; PEA Appendix E).

Along with criteria air pollutants from project operations (see Table D.3-10), toxic air contaminant emissions would also occur from limited use of vehicles for routine maintenance, repair, and inspection. The levels of emissions caused during operation would not have the potential to expose sensitive receptors to substantial concentrations of any TAC or odors.

### D.3.3.4 Impacts of Connected Actions

#### *Impact AQ-1: Construction would generate dust and exhaust emissions of criteria pollutants*

**Desert Center Area.** This area includes two known projects (i.e., the Palen Solar Power and Desert Harvest Projects) for which air quality analyses have been completed, and two confidential solar PV projects whose specific locations in the Desert Center area are unknown. Notwithstanding the lack of information for the confidential solar PV projects, the types of construction equipment used and activities that occur for these projects are expected to be similar to the construction of other solar energy facilities (e.g., Desert Harvest Project). The Desert Harvest Project is within the same air basin and is under the jurisdiction of the same air district as the connected projects (BLM, 2012).

The construction of large solar projects would create emissions of NOx, SO<sub>2</sub>, CO, PM10, and PM2.5. Pollutant emission sources during construction would mostly occur from earth moving, grading activities, large equipment operations, the construction of buildings and other maintenance structures, and the installation of equipment. The air quality analysis for the Desert Harvest Project determined that following project mitigation, daily construction emissions for NOx, CO, and PM10 would exceed SCAQMD thresholds, and residual impacts would be unavoidable (BLM, 2012).

Standard mitigation would be required to control dust and equipment exhaust in order to minimize the projects' contributions to existing violations of the ambient air quality standards. Typical mitigation includes the BMPs, BLM or other lead agency imposed mitigation and permit conditions, as well as measures similar to AQ-1a (Control fugitive dust) for PM10 and AQ-1b (Control off-road equipment emissions) for NOx, PM10, and PM2.5.

**Blythe Area.** Although the three confidential solar projects in the Blythe area would interconnect at the Colorado River Substation, their specific locations are unknown. It is assumed that the types of equipment and activities that would be used would be similar to the construction of other solar energy facilities (e.g., Desert Harvest Project and Blythe Mesa Solar Project). The construction of solar projects in the Blythe area would create emissions of NOx, SO<sub>2</sub>, CO, PM10, and PM2.5. Pollutant emission sources dur-



ing construction would mostly occur from earth moving, grading activities, large equipment operations, the construction of buildings and other maintenance structures, and the installation of equipment.

It is assumed that construction of the connected projects in the Blythe Area would generate emissions similar to the Blythe Mesa Solar Project, and would require mitigation to control dust and equipment exhaust in order to minimize their contribution to existing violations of the ambient air quality standards. Typical mitigation includes the BMPs and permit conditions, as well as measures similar to AQ-1a (Control fugitive dust) and AQ-1b (Control off-road equipment emissions).

***Impact AQ-2: Construction would generate emissions of toxic air contaminants***

All of the connected actions described in Section B.7 are solar generation projects, and the types of TACs that would be generated during construction would be similar. As described in the analysis for the Desert Harvest Project, the only notable source of odors during construction would be from the use of diesel-fueled construction equipment and small quantities of coatings that include organic compounds (BLM, 2012). Construction odors for each of the connected actions would be temporary and would be limited as a result of California's transition to ultra-low sulfur diesel fuel. Implementation of a measure such as Mitigation Measure AQ-1b (Control off-road equipment emissions) would further minimize local concentrations of TACs during construction.

***Impact AQ-3: Operation, maintenance, and inspections would generate dust and exhaust emissions***

**Desert Center Area.** Operation emissions from the connected projects in this area are expected to be similar to the emissions from the Desert Harvest solar project. The operational emissions from a solar project would be substantially lower than its construction emissions. Operation emissions would be limited to maintenance activities and vehicle emissions required for operation and maintenance, as well as fugitive dust emissions generated from vehicle trips for employee commutes, security, and maintenance activities (BLM, 2012). With mitigation, operation emissions from the Desert Harvest Project would not exceed the SCAQMD thresholds for criteria pollutants (BLM, 2012). Implementation of similar mitigation as Mitigation Measures AQ-1a (Control fugitive dust) and AQ-1b (Control off-road equipment emissions) would further reduce impacts to area receptors during operation to the extent feasible.

**Blythe Area.** Operation-related emissions from the three connected projects in the Blythe Area are expected to be similar to the operation emissions from the Blythe Mesa Solar Project. The connected actions are solar PV projects that total 524 MW, while the Blythe Mesa Solar Project is a 485 MW solar PV facility (POWER Engineers, 2014). The operation emissions would be substantially lower than construction emissions, and would be limited to maintenance activities and vehicle emissions required for operation and maintenance, as well as fugitive dust emissions generated from vehicle trips for employee commutes, security, and maintenance activities. Operation emissions would not exceed the maximum daily and annual MDAQMD thresholds for criteria pollutants (POWER Engineers, 2014). Implementation of measures such as Mitigation Measures AQ-1a (Control fugitive dust) and AQ-1b (Control off-road equipment emissions) would further reduce impacts to area receptors during operation to the extent feasible.

### **D.3.3.5 CEQA Significance Determination for Proposed Project and Connected Actions**

***Impact AQ-1: Construction would generate dust and exhaust emissions of criteria pollutants (Class I)***

Construction of the proposed transmission line would generate dust and exhaust emissions. Three separate emissions-based CEQA significance criteria are relevant to this impact. Two are based on regional

emissions, and one is based on localized emissions. The federal General Conformity thresholds and the SCAQMD regional significance criteria are compared against the total annual and daily mass of potential construction emissions, respectively. Localized emissions are addressed for specific sites of construction separately.

**Federal General Conformity.** The Proposed Project would be subject to the federal General Conformity rule, which applies on federal lands in the nonattainment areas of the South Coast Air Basin and the Salton Sea Air Basin. The South Coast Air Basin experiences a more severe baseline ozone nonattainment condition and is subject to more-stringent conformity applicability thresholds for NO<sub>x</sub> or VOC than the Salton Sea Air Basin. None of the portions of the Proposed Project on federal lands would exceed the conformity applicability thresholds (see Table D.3-7).

**SCAQMD Regional Emissions.** Daily construction emissions would be potentially significant for NO<sub>x</sub>, VOC, PM<sub>10</sub>, PM<sub>2.5</sub>, and CO according to the emissions estimates and SCAQMD thresholds of significance for regional impacts (see Table D.3-8).

**SCAQMD Localized Impacts.** Installing 220 kV structure foundations and shoo-flies would have the potential to cause significant localized PM<sub>10</sub> and PM<sub>2.5</sub> concentrations for sensitive receptors within approximately 82 feet (25 meters) of the structure sites, and installing 66 kV structure foundations would have the potential to cause significant localized PM<sub>10</sub> concentrations. Telecommunications system installation would have the potential to cause significant localized NO<sub>x</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> concentrations. Potentially significant localized impacts would extend to those limited sensitive receptors that are within approximately 164 feet (50 meters) of compact sites (under 1-acre) of structure foundations or telecommunications systems. This would impact a small subset of structure sites along the corridor. Dust controls and compliance with local rules and regulations would reduce the construction emissions but not to levels below the SCAQMD localized thresholds.

Implementation of Mitigation Measures AQ-1a through AQ-1c would reduce construction impacts to air quality to the maximum degree feasible but would not eliminate all potentially significant impacts. The Proposed Project's NO<sub>x</sub>, VOC, PM<sub>10</sub>, PM<sub>2.5</sub>, and CO emissions, even after implementation of these feasible mitigation measures, would remain above the SCAQMD daily significance threshold values. Therefore, the criteria pollutant construction emissions from the Proposed Project would cause significant and unavoidable impacts (Class I).

Construction of the connected actions would generate dust and exhaust emissions across the Desert Center and Blythe areas. Daily construction emissions in some areas may exceed SCAQMD thresholds for criteria pollutants, resulting in potentially significant impacts. Implementation of measures similar to Mitigation Measures AQ-1a (Control fugitive dust) and AQ-1b (Control off-road equipment emissions) would reduce air quality impacts, but emissions of criteria pollutants may remain above the SCAQMD and MDAQMD daily significance threshold values. Emissions of criteria pollutants during construction of the connected actions may cause significant and unavoidable impacts (Class I).

***Impact AQ-2: Construction would generate emissions of toxic air contaminants (Class III for Proposed Project; Class II for Connected Actions)***

Project construction would emit toxic air contaminants such as DPM, and construction of transmission, subtransmission, telecommunications, and other facilities would occur near sensitive receptors along the linear routes of these project components. The limited duration and limited quantities of construction emissions ensure that the exposure of any individual sensitive receptor would be limited. This limits the potential for short-term (acute) effects or long-term (chronic) effects including cancer. The construc-

tion emissions would not cause excessive concentrations of TAC at any single location because the sources would be widespread over approximately 48 miles of corridor, spanning two counties in two air basins. Individual vehicles and equipment would continuously move throughout the corridor so that no single sensitive receptor would experience persistent exposure. Construction emissions would cease after approximately 36 to 48 months of work throughout the corridor. As such, the concentrations of air toxics would not be substantial enough in magnitude or duration at any given location to create excessive concentrations of TACs or a potentially significant impact due to TACs. Impact AQ-2 would be adverse but not significant (Class III). However, mitigation previously identified (for Impact AQ-1) would reduce the levels of TACs emitted during construction in ways that would further reduce the effects of this less than significant impact.

Construction activities for the connected actions would be in a localized area, unlike the Proposed Project where activities would occur throughout the transmission corridor. The localized nature of the connected action construction could result in excessive concentrations of TACs. The generation of TACs during construction of the connected actions would be temporary, and California's transition to ultra-low sulfur diesel fuel helps to limit TACs from diesel equipment. Adoption of measures to control on-site emissions similar to Mitigation Measure AQ-1b (Control off-road equipment emissions) and a fugitive dust control plan would further minimize local concentrations of TACs during construction activities. Impacts from the generation of TACs during construction of the connected actions would be less than significant with mitigation (Class II).

***Impact AQ-3: Operation, maintenance, and inspections would generate dust and exhaust emissions (Class III for Proposed Project; Class II for Connected Actions)***

Project operation, maintenance, and inspection activities would create emissions of criteria air pollutants and toxic air contaminants, including DPM. The levels of criteria pollutants would not exceed the SCAQMD thresholds of significance for regional or localized impacts (see Table D.3-10), and no substantial concentrations of TAC or odors would occur. Impact AQ-3 is less than significant (Class III).

The connected actions involve the construction of solar generation facilities in the Desert Center and Blythe areas. These projects are expected to have operation emissions that would be substantially lower than those that would occur during construction. Operation emissions would be limited to maintenance activities and vehicle emissions, as well as fugitive dust generated from vehicle trips for employee commutes, security, and maintenance activities (BLM, 2012). The impact of operation, maintenance, and inspection activities in terms of generating dust and exhaust emissions would be less than significant with implementation of recommended mitigation (Class II).

## **D.3.4 Environmental Impacts of Project Alternatives**

Three alternatives are considered in this section; all of these alternatives would be located within the existing WOD ROW. The No Project Alternative is evaluated in Section D.3.5. Alternatives are described in detail in Appendix 5 (Alternatives Screening Report) and are summarized in Section C.

Air quality within the ROW is described by segment in Section D.3.1.2 above; the description of the environmental setting would apply equally to the alternatives.

### **D.3.4.1 Tower Relocation Alternative**

The Tower Relocation Alternative would locate certain transmission structures in Segments [4](#), [5](#), and [6](#) farther from existing homes than would be the case under the Proposed Project.

Three impacts related to air quality were identified for the Proposed Project. These impacts also would apply to the Tower Relocation Alternative, which overall would be the same as the Proposed Project, with the exception of the relocated transmission towers that are described above and in Appendix 5. The full text of all mitigation measures referenced in this section is presented in Section D.3.3.3, except where otherwise noted.

***Impact AQ-1: Construction would generate dust and exhaust emissions of criteria pollutants***

In general, the relocated towers would be moved approximately 50 feet farther from the southern edge of the ROW. Although this alternative would extend the construction timeframe by as much as one year, the type and intensity of construction activity would be substantially the same as in the Proposed Project. Due to the comparable type and intensity of activity, the annual and daily rates of emissions would be nearly the same as in the Proposed Project. This alternative is not expected to exceed any additional air quality thresholds compared to the Proposed Project.

With the exception of the relocated structures in Segments 4, 5, and 6, the Proposed Project when incorporating this alternative would include the same structures that would be constructed under the Proposed Project. The same as for the Proposed Project, construction emissions would result from activities within the substation sites, transmission and subtransmission corridors, including staging areas and access roads. Construction emissions would occur as a result of the full range of activities including ground disturbance, use and improvement of access roads, site preparation, surface clearing, excavation, foundation installation, steel structure and wood pole installation, installing guard structures and shoo-fly structures, transfer and removal of existing structures and facilities, and site restoration. Emissions would also occur from offsite activities such as construction-related haul trips and construction workers commuting.

Controlling dust and equipment exhaust emissions would be necessary to avoid causing any new violations or contributing substantially to existing violations of the ambient air quality standards and to avoid interfering with the established attainment plans. Like the Proposed Project, the Tower Relocation Alternative would be required to implement dust controls per SCAQMD Rules 403 and 403.1 so that dust does not remain visible in the atmosphere beyond the edge of the right-of-way or create a nuisance off-site. This alternative would need a Fugitive Dust Control Plan, approved by the SCAQMD in compliance with Rule 403.1 and the SCAQMD Rule 403.1 Implementation Handbook. These mandatory efforts would ensure that the project implements sufficient fugitive dust control measures to avoid a conflict with the Coachella Valley PM10 attainment plan. Compliance with the CARB In-Use Off-Road Diesel-Fueled Fleet Regulation and emission targets for large fleets would ensure that equipment includes sufficient controls to avoid a conflict with attainment plans.

The mandatory controls would not reduce construction emissions to below the SCAQMD regional or localized thresholds. Implementation of Mitigation Measures AQ-1a (Control fugitive dust), AQ-1b (Control off-road equipment emissions), and AQ-1c (Control helicopter emissions) would be required to avoid causing any new violations or contributing substantially to existing violations of the ambient air quality standards, and to further reduce the adverse regional and localized effects of construction-phase emissions.

***Impact AQ-2: Construction would generate emissions of toxic air contaminants***

In general, the relocated towers would be moved approximately 50 feet farther from the southern edge of the ROW. This alternative could extend the length of construction disturbances near residences and other sensitive receptors, and this would marginally increase the duration that people would be exposed

to construction emissions. Although this alternative would extend the construction timeframe by as much as one year, the type and intensity of construction activity would be substantially the same as in the Proposed Project. Due to the comparable type and intensity of activity, the concentrations of TACs near residences and other sensitive receptors would be nearly the same as in the Proposed Project. This alternative is not expected to result in excessive concentrations of TACs at any given location.

Construction emissions would cease after approximately 36 to 60 months of work throughout the corridor. As such, the concentrations of air toxics would not be substantial enough in magnitude or duration at any given location to create excessive concentrations of TACs or a potentially substantial adverse effect due to TACs. Impact AQ-2 would be adverse but not substantial. However, mitigation previously identified for Impact AQ-1 would reduce the levels of TACs emitted during construction in ways that would further reduce the severity of this adverse effect.

### ***Impact AQ-3: Operation, maintenance, and inspections would generate dust and exhaust emissions***

In general, the relocated towers would be moved approximately 50 feet farther from the southern edge of the ROW. The minor adjustment to the location of these towers would not change the emissions from operation, maintenance, and inspection activities compared to the Proposed Project. Indirect effects of the project on air pollutant emissions from power plants would be primarily due to changing the deliverability of the region's electricity generation facilities, and are expected to be minimal (see Section D.6, Climate Change). Emissions directly related to O&M activities would displace emissions from existing inspection and maintenance activities that presently occur. The new facilities would not notably change or increase the types of inspection and maintenance activities. Direct effects of daily and annual operating emissions would be minimal. Additional workers would not be necessary for this alternative compared with the existing facilities.

Annual emissions would not be likely to exceed federal General Conformity thresholds, and daily emissions would not exceed the regional criteria set forth by SCAQMD for impact characterization. Along with criteria air pollutants from project operations, toxic air contaminant emissions would also occur from limited use of vehicles for routine maintenance, repair, and inspection. The levels of emissions caused during operation would not have the potential to expose sensitive receptors to substantial concentrations of any TAC or odors.

### **CEQA Significance Determination for Tower Relocation Alternative**

The CEQA significance determination for each air quality impact in this alternative is presented below.

#### ***Impact AQ-1: Construction would generate dust and exhaust emissions of criteria pollutants (Class I)***

Construction of this alternative would generate dust and exhaust emissions. Daily construction emissions would be potentially significant for NO<sub>x</sub>, VOC, PM<sub>10</sub>, PM<sub>2.5</sub>, and CO according to the emissions estimates and SCAQMD thresholds of significance for regional impacts. The peak daily localized construction site emissions would exceed SCAQMD localized significance thresholds for some activities. Dust controls and compliance with local rules and regulations would reduce the construction emissions but not to levels below the SCAQMD localized thresholds.

Implementation of Mitigation Measures AQ-1a (Control fugitive dust), AQ-1b (Control off-road equipment emissions), and AQ-1c (Control helicopter emissions) would reduce construction impacts to air quality to the maximum degree feasible but would not eliminate all potentially significant impacts. This alternative's NO<sub>x</sub>, VOC, PM<sub>10</sub>, PM<sub>2.5</sub>, and CO emissions, even after implementation of these feasible mitigation measures, would remain above the SCAQMD daily significance threshold values. Therefore,

the criteria pollutant construction emissions from the Tower Relocation Alternative would cause significant and unavoidable impacts (Class I).

***Impact AQ-2: Construction would generate emissions of toxic air contaminants (Class III)***

Construction of this alternative would emit toxic air contaminants such as DPM, and construction of transmission, subtransmission, telecommunications, and other facilities would occur near sensitive receptors along the linear routes of these project components. The limited duration and limited quantities of construction emissions ensure that the exposure of any individual sensitive receptor would be limited. As such, the concentrations of air toxics would not be substantial enough in magnitude or duration at any given location to create excessive concentrations of TACs or a potentially significant impact due to TACs. Impact AQ-2 would be adverse but less than significant (Class III). However, mitigation previously identified (for Impact AQ-1) would reduce the levels of TACs emitted during construction in ways that would further reduce the effects of this less than significant impact.

***Impact AQ-3: Operation, maintenance, and inspections would generate dust and exhaust emissions (Class III)***

Operation, maintenance, and inspection activities for this alternative would create emissions of criteria air pollutants and toxic air contaminants, including DPM. The levels of criteria pollutants would not exceed the SCAQMD thresholds of significance for regional or localized impacts, and no substantial concentrations of TAC or odors would occur. Impact AQ-3 would be less than significant (Class III).

### **D.3.4.2 Iowa Street 66 kV Underground Alternative**

The Iowa Street 66 kV Underground Alternative would place a 1,600-foot segment of subtransmission line underground, rather than overhead.

Three impacts were identified under the Proposed Project for air quality. These impacts also would apply to the Iowa Street 66 kV Underground Alternative, which overall would be the same as the Proposed Project, with the exception of the underground portion of the subtransmission line that is described above and in Appendix 5. The full text of all mitigation measures referenced in this section is presented in Section D.3.3.3, except where otherwise noted.

***Impact AQ-1: Construction would generate dust and exhaust emissions of criteria pollutants***

This alternative would place a 1,600-foot segment of 66 kV subtransmission line underground instead of on overhead poles. This short underground segment would not substantially increase the generation of dust and exhaust emissions compared to the Proposed Project. This alternative is not expected to exceed any additional air quality thresholds in comparison to the equivalent segment of the Proposed Project.

Controlling dust and equipment exhaust emissions would be necessary to avoid causing any new violations or contributing substantially to existing violations of the ambient air quality standards and to avoid interfering with the established attainment plans. The Iowa Street 66 kV Underground Alternative would be required to implement dust controls per SCAQMD Rules 403 and 403.1 so that dust does not remain visible in the atmosphere beyond the edge of the right-of-way or create a nuisance off-site. This alternative would need a Fugitive Dust Control Plan, approved by the SCAQMD in compliance with Rule 403.1 and the SCAQMD Rule 403.1 Implementation Handbook. These mandatory efforts would ensure that the project implements sufficient fugitive dust control measures to avoid a conflict with the Coachella Valley PM10 attainment plan. Compliance with the CARB In-Use Off-Road Diesel-Fueled Fleet Regulation and

emission targets for large fleets would ensure that equipment includes sufficient controls to avoid a conflict with attainment plans.

The mandatory controls would not reduce construction emissions to below the SCAQMD regional or localized thresholds. Implementation of Mitigation Measures AQ-1a (Control fugitive dust), AQ-1b (Control off-road equipment emissions), and AQ-1c (Control helicopter emissions) would be required to avoid causing any new violations or contributing substantially to existing violations of the ambient air quality standards, and to further reduce the adverse regional and localized effects of construction-phase emissions.

***Impact AQ-2: Construction would generate emissions of toxic air contaminants***

This alternative would place a 1,600-foot segment of 66 kV subtransmission line underground instead of on overhead poles. This short underground segment would not substantially increase the generation of toxic air contaminant emissions compared to the Proposed Project. This alternative is not expected to result in excessive concentrations of TACs at any given location. Impact AQ-2 would be adverse but not substantial. However, mitigation previously identified for Impact AQ-1 would reduce the levels of TACs emitted during construction in ways that would further reduce the severity of this adverse effect.

***Impact AQ-3: Operation, maintenance, and inspections would generate dust and exhaust emissions***

This alternative would place a 1,600-foot segment of 66 kV subtransmission line underground instead of on overhead poles. This short underground segment would not change the emissions from operation, maintenance, and inspection activities compared to the Proposed Project. Indirect effects of the project on air pollutant emissions from power plants would be primarily due to changing the deliverability of the region's electricity generation facilities, and are expected to be minimal (see Section D.6, Climate Change). Emissions directly related to O&M activities would displace emissions from existing inspection and maintenance activities that presently occur. The new facilities would not notably change or increase the types of inspection and maintenance activities. Direct effects of daily and annual operating emissions would be minimal. Additional workers would not be necessary for this alternative compared with the existing facilities.

Annual emissions would not be likely to exceed federal General Conformity thresholds, and daily emissions would not exceed the regional criteria set forth by SCAQMD for impact characterization. Along with criteria air pollutants from project operations, toxic air contaminant emissions would also occur from limited use of vehicles for routine maintenance, repair, and inspection. The levels of emissions caused during operation would not have the potential to expose sensitive receptors to substantial concentrations of any TAC or odors.

**CEQA Significance Determination for Iowa Street 66 kV Underground Alternative**

The CEQA significance determination for each air quality impact in this alternative is presented below.

***Impact AQ-1: Construction would generate dust and exhaust emissions of criteria pollutants (Class I)***

Construction of this alternative would generate dust and exhaust emissions. Daily construction emissions would be potentially significant for NO<sub>x</sub>, VOC, PM<sub>10</sub>, PM<sub>2.5</sub>, and CO according to the emissions estimates and SCAQMD thresholds of significance for regional impacts. The peak daily localized construction site emissions would exceed SCAQMD localized significance thresholds for some activities. Dust controls and compliance with local rules and regulations would reduce the construction emissions but not to levels below the SCAQMD localized thresholds.

Implementation of Mitigation Measures AQ-1a (Control fugitive dust), AQ-1b (Control off-road equipment emissions), and AQ-1c (Control helicopter emissions) would reduce construction impacts to air quality to the maximum degree feasible but would not eliminate all potentially significant impacts. This alternative's NO<sub>x</sub>, VOC, PM<sub>10</sub>, PM<sub>2.5</sub>, and CO emissions, even after implementation of these feasible mitigation measures, would remain above the SCAQMD daily significance threshold values. Therefore, the criteria pollutant construction emissions from the Iowa Street 66 kV Underground Alternative would cause significant and unavoidable impacts (Class I).

***Impact AQ-2: Construction would generate emissions of toxic air contaminants (Class III)***

Construction of this alternative would emit toxic air contaminants such as DPM, and construction of transmission, subtransmission, telecommunications, and other facilities would occur near sensitive receptors along the linear routes of these project components. The limited duration and limited quantities of construction emissions ensure that the exposure of any individual sensitive receptor would be limited. As such, the concentrations of air toxics would not be substantial enough in magnitude or duration at any given location to create excessive concentrations of TACs or a potentially significant impact due to TACs. Impact AQ-2 would be adverse but less than significant (Class III). However, mitigation previously identified (for Impact AQ-1) would reduce the levels of TACs emitted during construction in ways that would further reduce the effects of this less than significant impact.

***Impact AQ-3: Operation, maintenance, and inspections would generate dust and exhaust emissions (Class III)***

Operation, maintenance, and inspection activities for this alternative would create emissions of criteria air pollutants and toxic air contaminants, including DPM. The levels of criteria pollutants would not exceed the SCAQMD thresholds of significance for regional or localized impacts, and no substantial concentrations of TAC or odors would occur. Impact AQ-3 would be less than significant (Class III).

### **D.3.4.3 Phased Build Alternative**

The Phased Build Alternative would retain existing double-circuit 220 kV transmission structures to the extent feasible, remove single-circuit structures, add new double-circuit 220 kV structures, and string all structures with higher-capacity conductors.

Three impacts were identified under the Proposed Project for air quality. These impacts also would apply to the Phased Build Alternative, which would be located in the same corridor as the Proposed Project and would involve similar although less intense construction activities. The full text of all mitigation measures referenced in this section is presented in Section D.3.3.3, except where otherwise noted.

***Impact AQ-1: Construction would generate dust and exhaust emissions of criteria pollutants***

The alternative would require less construction because it would retain, rather than remove and replace, existing double-circuit structures. Compared to the Proposed Project, this would result in a decrease in the dust generation and exhaust emissions from construction, because less ground disturbance would occur and equipment use and vehicle trips that would have been associated with the demolition of the double-circuit towers and erection of new towers to replace them would not occur.

Like the Proposed Project, the mandatory emissions controls would not reduce construction emissions to below the SCAQMD regional or localized thresholds. Implementation of Mitigation Measures AQ-1a (Control fugitive dust), AQ-1b (Control off-road equipment emissions), and AQ-1c (Control helicopter emissions) would be required to avoid causing any new violations or contributing substantially to exist-



ing violations of the ambient air quality standards, and to further reduce the adverse regional and localized effects of construction-phase emissions.

***Impact AQ-2: Construction would generate emissions of toxic air contaminants***

As with the Proposed Project, construction equipment required for the Phased Build Alternative would emit toxic air contaminants, and construction would occur near sensitive receptors along the ROW. The short duration and quantities of construction emissions ensure that the exposure of any individual sensitive receptor would be limited. Construction emissions would cease after approximately 36 to 60 months of work throughout the corridor. As such, the concentrations of air toxics would not be substantial enough in magnitude or duration at any given location to create excessive concentrations of TACs or a potentially substantial adverse effect due to TACs. Impact AQ-2 would be adverse but not substantial. However, mitigation previously identified for Impact AQ-1 would reduce the levels of TACs emitted during construction in ways that would further reduce the severity of this adverse effect.

***Impact AQ-3: Operation, maintenance, and inspections would generate dust and exhaust emissions***

Operation, maintenance, and inspection activities required for the project built under the Phased Build Alternative would be comparable to those required for the Proposed Project. Annual emissions would not be likely to exceed federal General Conformity thresholds, and daily emissions would not exceed the regional criteria set forth by SCAQMD for impact characterization. Along with criteria air pollutants from project operations, toxic air contaminant emissions would also occur from limited use of vehicles for routine maintenance, repair, and inspection. The levels of emissions caused during operation would not have the potential to expose sensitive receptors to substantial concentrations of any TAC or odors.

**CEQA Significance Determination for Phased Build Alternative**

The CEQA significance determination for each air quality impact in this alternative is presented below.

***Impact AQ-1: Construction would generate dust and exhaust emissions of criteria pollutants (Class I)***

Construction of this alternative would generate dust and exhaust emissions, but they would be less than those of the Proposed Project due to the reduced construction required. Regardless, implementation of the same mitigation measures would be required: Mitigation Measures AQ-1a (Control fugitive dust), AQ-1b (Control off-road equipment emissions), and AQ-1c (Control helicopter emissions). These measures would reduce construction impacts to air quality to the maximum degree feasible but would not eliminate all potentially significant impacts. Therefore, the criteria pollutant construction emissions from the Phased Build Alternative would cause significant and unavoidable impacts (Class I).

***Impact AQ-2: Construction would generate emissions of toxic air contaminants (Class III)***

Construction of this alternative would emit toxic air contaminants such as DPM, and construction of transmission facilities would occur near sensitive receptors along the linear routes of these project components. The short duration and narrow extent construction emissions ensure that the exposure of any individual sensitive receptor would be limited. As such, the concentrations of air toxics would not be substantial enough in magnitude or duration at any given location to create excessive concentrations of TACs or a potentially significant impact due to TACs. Impact AQ-2 would be adverse but less than significant (Class III). However, mitigation previously identified (for Impact AQ-1) would reduce the levels of TACs emitted during construction in ways that would further reduce the effects of this less than significant impact.

***Impact AQ-3: Operation, maintenance, and inspections would generate dust and exhaust emissions (Class III)***

Operation, maintenance, and inspection activities for this alternative would create emissions of criteria air pollutants and toxic air contaminants, including DPM. The levels of criteria pollutants would not exceed the SCAQMD thresholds of significance for regional or localized impacts, and no substantial concentrations of TAC or odors would occur. Impact AQ-3 would be less than significant (Class III).

## **D.3.5 Environmental Impacts of No Project Alternative**

### **D.3.5.1 No Project Alternative Option 1**

The No Project Alternative Option 1 is described in Section C.6.3.1. It would consist of a new 500 kV circuit, primarily following the Devers-Valley transmission corridor and extending 26 miles between Devers Substation. It would also require a new 40-acre substation south of Beaumont, and 4 new 220 kV circuits extending 7 miles from the new Beaumont Substation to El Casco Substation, primarily following the existing El Casco 115 kV ROW. The remainder of the No Project Alternative, from El Casco Substation to the San Bernardino and Vista Substations, would be identical to the Proposed Project. Information on environmental resources and project impacts is derived from the Devers–Palo Verde 500 kV No. 2 Project EIR/EIS (CPUC and BLM, 2006) and the El Casco System Project Draft EIR (CPUC, 2007); which include nearly all of the No Project alignment.

**No Project Alternative Transmission Lines and Beaumont Substation.** The No Project Alternative between Devers and El Casco essentially would parallel the Proposed Project corridor between the two substations, but be approximately 3 miles to the south, south of Interstate 10. The route passes relatively few sensitive receptors. Air Quality conditions occur across large airsheds or air basins. Construction of the No Project Alternative would involve impacts similar to those that would occur in the Proposed Project or alternatives. Most notable these would be exhaust emissions from vehicle and equipment use and fugitive dust from disturbed ground surfaces. Mitigation measures, such control of fugitive dust, control of off-road equipment emissions, and control of helicopter emissions, would reduce these impacts. The Devers to Beaumont Substation alignment would follow the existing Devers to Valley alignment. In the analysis of the Devers to Valley alignment in the DPV2 EIR/EIS, all impacts to air quality were significant and unavoidable.

### **D.3.5.2 No Project Alternative Option 2**

In the No Project Alternative Option 2, a new 500 kV circuit would be constructed within 40.4 miles of an existing transmission corridor from the Valley Substation in western Riverside County to the Serrano Substation in eastern Orange County. The route passes through mostly open space, including the Cleveland National Forest, and is located near relatively few sensitive receptors. The entire corridor is located within the South Coast Air District and would be subject to the rules and regulations of the South Coast Air Quality Management District. Air quality impacts in this alternative would be similar to those described in the Proposed Project. Similar to No Project Alternative Option 1, these impacts would include exhaust emissions from construction vehicles and equipment (including helicopters) and fugitive dust emissions from project-related ground disturbance. Typical mitigation measures, such as control of fugitive dust, control of off-road equipment emissions, and control of helicopter emissions, would reduce the severity of these impacts.

## D.3.6 Mitigation Monitoring, Compliance, and Reporting

Table D.3-11 presents the mitigation monitoring, compliance, and reporting actions for air quality.

**Table D.3-11. Mitigation Monitoring Program – Air Quality**

<b>MITIGATION MEASURE</b>	<p><b>AQ-1a: Control fugitive dust.</b> SCE shall develop a Fugitive Dust Control Plan and at least 60 days prior to construction submit the plan to the CPUC/BLM and SCAQMD for review and approval. The approved plan shall be implemented for all construction activities that may be a source of fugitive dust. Any fugitive dust control requirements in the SCAQMD rules and regulations, specifically Rule 403 and Rule 403.1, that are in addition to or more stringent than the requirements listed below shall be implemented and included in the plan. The plan shall include the following feasible measures:</p> <ul style="list-style-type: none"> <li>▪ Traffic speeds on unpaved roads shall not exceed 15 miles per hour.</li> <li>▪ A traffic route plan shall be developed <del>and vehicles shall follow routes that minimize to identify and limit the access and egress points from unpaved roads, while also reducing the amount of</del> unpaved road travel <del>necessary to access the transmission structure work sites.</del></li> <li>▪ Unpaved roads, substation areas, and staging areas shall be watered three times daily when being used by construction vehicle traffic, or non-toxic soil stabilizers <del>(e.g., water, tackifiers, and soil binders)</del> shall be applied per manufacturer's recommendations <del>and in sufficient quantities to maintain compliance with SCAQMD and jurisdictional requirements at a frequency necessary</del> to maintain no visible vehicle travel dust emissions.</li> <li>▪ Inactive excavated or graded soils and soil piles shall be sufficiently watered or sprayed with a soil stabilizer to create a surface crust or shall be covered.</li> <li>▪ Drop heights from excavators and loaders shall be minimized to a distance no more than 5 feet.</li> <li>▪ Soil truck loads shall be covered and gate seals on dump trucks shall be tight.</li> <li>▪ Construction activities that occur on unpaved surfaces shall be discontinued during periods <del>of wind gusts exceeding 25 miles per hour, or when average wind speeds exceed 15 miles per hour, and when these</del> activities are causing visible dust plumes <del>that cannot be avoided by approved dust suppression methods.</del> All grading and excavation activities shall be suspended when wind speeds exceed 30 miles per hour <del>unless otherwise approved in the Fugitive Dust Control Plan.</del> Wind speed measurement methods shall be consistent with the SCAQMD Implementation Handbook for Rule 403 and Rule 403.1.</li> </ul>
<b>Location</b>	Construction activity in all segments.
<b>Monitoring / Reporting Action</b>	CPUC/BLM monitor verifies that SCE submits Fugitive Dust Control Plan that includes the specified measures and that the plan has been approved by the SCAQMD prior to construction; monitor plan implementation during construction.
<b>Effectiveness Criteria</b>	Dust does not remain visible in the atmosphere beyond the edge of the right-of-way.
<b>Responsible Agency</b>	CPUC; BLM Palm Springs–South Coast Field Office, and SCAQMD.
<b>Timing</b>	At least 60 days prior to construction submit Fugitive Dust Control Plan.
<b>MITIGATION MEASURE</b>	<p><b>AQ-1b: Control off-road equipment emissions.</b> Off-road equipment with engines larger than 50 horsepower shall have engines that meet or exceed U.S. EPA/CARB Tier 3 Emissions Standards. Exceptions will be allowed only on a case by case basis for two specific situations: (1) an off-road equipment item that is a specialty, or unique, piece of equipment that cannot be found with a Tier 3 or better engine after a due diligence search; and/or (2) an off-road equipment item that will be used for a total of no more than 10 days.</p>
<b>Location</b>	Construction activity in all segments.
<b>Monitoring / Reporting Action</b>	CPUC/BLM monitor verifies that fleet of off-road equipment used by SCE and contractors meets the specifications.
<b>Effectiveness Criteria</b>	Fleet of off-road equipment adheres to the specifications.
<b>Responsible Agency</b>	CPUC; BLM Palm Springs–South Coast Field Office.

**Table D.3-11. Mitigation Monitoring Program – Air Quality**

Timing	During construction.
MITIGATION MEASURE	<p><b>AQ-1c: Control helicopter emissions.</b> Helicopter emissions shall be reduced by the following methods and measures:</p> <ul style="list-style-type: none"> <li>▪ Helicopter idling will occur only when necessary for safe operation and emergency readiness purposes.</li> <li>▪ Helicopter operators shall use the smallest practical and available helicopter for each lift operation.</li> <li>▪ Fugitive dust from helicopter rotor wash will be reduced through the implementation of the following measures: <ul style="list-style-type: none"> <li>– The helicopter staging areas, that are not on existing paved airfields or other large paved sites, shall be treated with soil amendments (e.g., water, tackifiers, and soil binders) that shall be applied at a frequency necessary to create and maintain surface soil crusts where rotor wash creates fugitive dust emissions;</li> <li>– Enough land area shall be obtained for each helicopter staging area not located on existing paved airfields or other large paved sites, so that rotor wash does not create visible fugitive dust emissions outside of the controlled staging area.</li> <li>– Helicopter operations will take flight paths (i.e. elevation above ground) that will eliminate dust emissions from rotor wash when travelling between the helicopter staging area and the work sites.</li> <li>– The helicopter work sites shall be watered prior to helicopter visits. Alternatively, other soil stabilizers shall be applied at a frequency necessary to create and maintain a surface soil crust while helicopter visits are occurring at the work site.</li> </ul> </li> </ul>
Location	Construction activity in all segments.
Monitoring / Reporting Action	CPUC/BLM monitor verifies that helicopter use and helicopter staging areas are managed as specified.
Effectiveness Criteria	Dust caused by rotor wash does not remain visible beyond staging areas or work sites, <del>and helicopter operator contracting agreements include the specifications.</del>
Responsible Agency	CPUC; BLM Palm Springs–South Coast Field Office.
Timing	During construction.

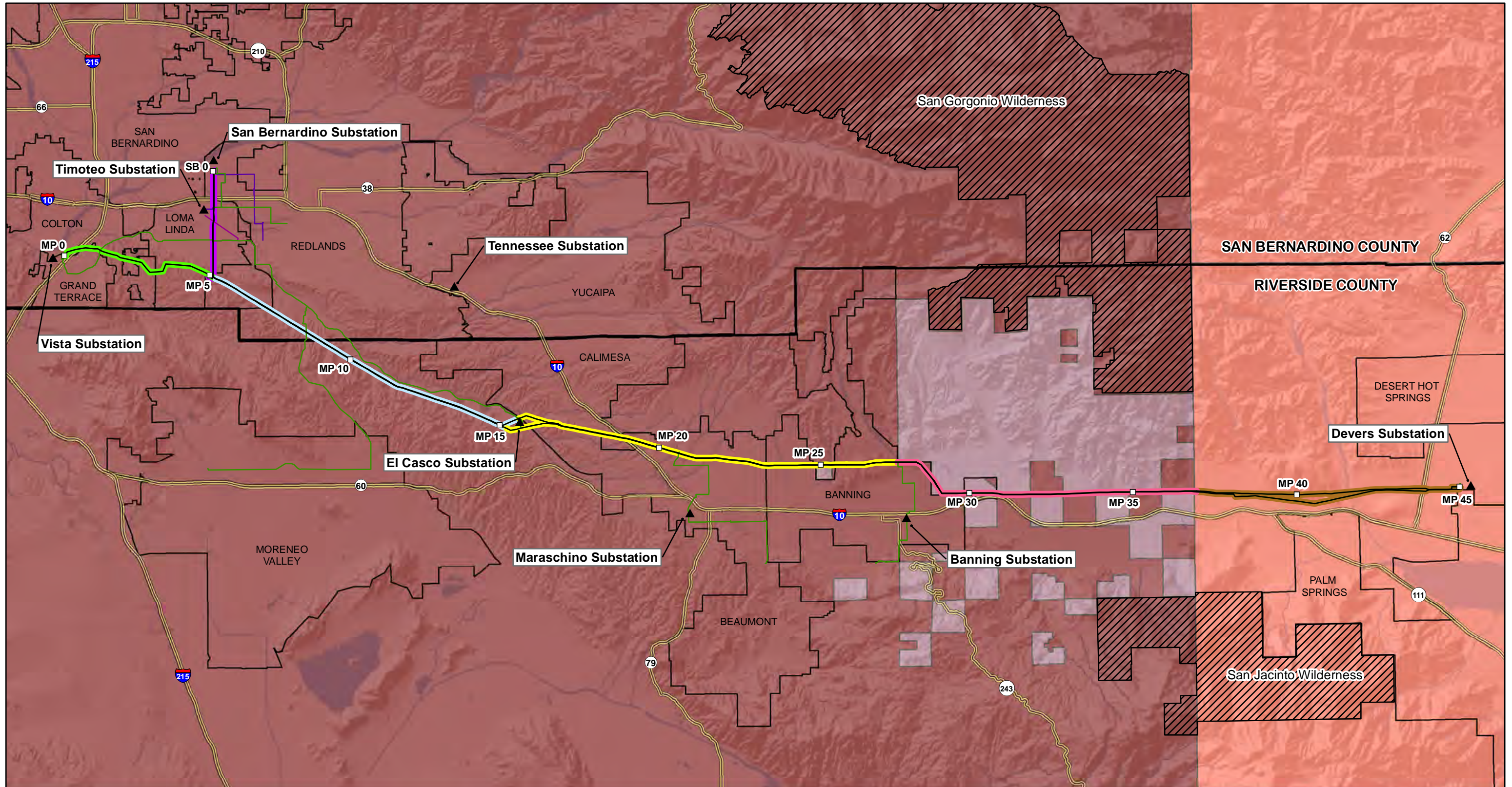
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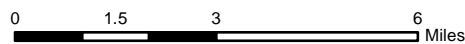
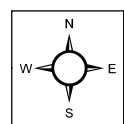
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Sources: SCE 2013, USEPA 2014



**Components of Proposed Project**

- ▲ Substation
- Milepost (e.g. MP 10, SB 0)
- Telecommunication Lines
- Distribution Lines
- Subtransmission Lines
- County Line
- City Boundary
- ▨ U.S. Forest Service Class 1 Area

**Legend**

**Proposed Project Segments\***

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Segment 5
- Segment 6

\*All segments include both 220 kV conductors and telecommunications lines.

**Ozone (8-hr.) Nonattainment**

- Extreme
- Severe-15
- Serious

**West of Devers Upgrade Project**

**Figure D.3-1  
Federal Ozone  
Nonattainment and Class 1 Areas**



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