

## 3.4 Air Quality

This section includes an overview of the existing air quality within the project area and identifies applicable local, state, and federal policies related to air quality. The impact assessment provides an evaluation of potential adverse effects on air quality based on criteria derived from the CEQA Guidelines and ICAPCD's Air Quality Handbook in conjunction with actions proposed in Chapter 2, Project Description, of this EIR. Information contained in this section is summarized from the *Air Quality, Energy, and Greenhouse Gas Emissions Impact – Brawley Solar Energy Facility Project* prepared by Vista Environmental. This report is included in Appendix C of this EIR.

### 3.4.1 Existing Conditions

#### Regional Setting

The project is located in Imperial County within the Salton Sea Air Basin (SSAB). The SSAB consists of all of Imperial County and a portion of Riverside County. Both the ICAPCD and South Coast Air Quality Management District (SCAQMD) have jurisdiction within the SSAB. The ICAPCD has full jurisdiction within all Imperial County and SCAQMD only has jurisdiction within Riverside County.

The climate of Imperial County is governed by the large-scale sinking and warming of air in the semi-permanent high-pressure zone of the eastern Pacific Ocean. The high-pressure ridge blocks out most mid-latitude storms, except in the winter, when it is weakest and located farthest south. The coastal mountains prevent the intrusion of any cool, damp air found in California coastal areas. Because of the barrier and weakened storms, Imperial County experiences clear skies, extremely hot summers, mild winters, and little rainfall. The sun shines, on the average, more in Imperial County than anywhere else in the United States.

Winters are mild and dry with daily average temperatures ranging between 65- and 75- degrees Fahrenheit (°F). During winter months it is not uncommon to record maximum temperatures of up to 80 °F. Summers are extremely hot with daily average temperatures ranging between 104 and 115 °F. It is not uncommon to record maximum temperatures of 120 °F during summer months.

The flat terrain of the valley and the strong temperature differentials created by intense solar heating, produce moderate winds and deep thermal convection. The combination of subsiding air, protective mountains, and distance from the ocean all combine to severely limit precipitation. Rainfall is highly variable, with precipitation from a single heavy storm able to exceed the entire annual total during a later drought condition. The average annual rainfall is just over three 3 inches, with most of it occurring in late summer or mid-winter.

Humidity is low throughout the year, ranging from an average of 28 percent in summer to 52 percent in winter. The large daily oscillation of temperature produces a corresponding large variation in the relative humidity. Nocturnal humidity rises to 50 to 60 percent but drops to about 10 percent during the day.

The wind in Imperial County follows two general patterns. Wind statistics indicate prevailing winds are from the west-northwest through southwest; a secondary flow maximum from the southeast is also evident. The prevailing winds from the west and northwest occur seasonally from fall through spring and are known to be from the Los Angeles area. Occasionally, Imperial County experiences periods of extremely high wind speeds. Wind speeds can exceed 31 miles per hour (mph), and this occurs

most frequently during the months of April and May. However, speeds of less than 6.8 mph account for more than one-half of the observed wind measurements.

## Major Air Pollutants

### Criteria Pollutants

Criteria air pollutants are defined as those pollutants for which the federal and state governments have established air quality standards for outdoor or ambient concentrations to protect public health with a determined margin of safety. Ozone, coarse particulate matter (PM<sub>10</sub>), and fine particulate matter (PM<sub>2.5</sub>) are generally considered to be regional pollutants because they or their precursors affect air quality on a regional scale. Pollutants such as carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), and sulfur dioxide (SO<sub>2</sub>) are considered to be local pollutants because they tend to accumulate in the air locally. PM is also considered a local pollutant. Health effects commonly associated with criteria pollutants are summarized in Table 3.4-1.

**Table 3.4-1. Criteria Air Pollutants - Summary of Common Sources and Effects**

Pollutant	Major Manmade Sources	Human Health and Welfare Effects
CO	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, effecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
NO <sub>2</sub>	A reddish-brown gas formed during fuel combustion for motor vehicles, energy utilities and industrial sources.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone and acid rain. Causes brown discoloration of the atmosphere.
O <sub>3</sub>	Formed by a chemical reaction between reactive organic gases (ROGs) and nitrous oxides (N <sub>2</sub> O) in the presence of sunlight. Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, solvents, paints and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield.
PM <sub>10</sub> and PM <sub>2.5</sub>	Power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles and others.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; aggravated asthma; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (haze)
SO <sub>2</sub>	A colorless, nonflammable gas formed when fuel containing sulfur is burned. Examples are refineries, cement manufacturing, and locomotives.	Respiratory irritant. Aggravates lung and heart problems. Can damage crops and natural vegetation. Impairs visibility.

Source: California Air Pollution Control Officers Association (CAPCOA) 2021

### Toxic Air Contaminants

In addition to the above-listed criteria pollutants, toxic air contaminants (TAC) are another group of pollutants of concern. TACs is a term that is defined under the California Clean Air Act and consists

of the same substances that are defined as Hazardous Air Pollutants (HAPs) in the Federal Clean Air Act. There are over 700 hundred different types of TACs with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Cars and trucks release at least 40 different toxic air contaminants. The most important of these TACs, in terms of health risk, are diesel particulates, benzene, formaldehyde, 1,3-butadiene, and acetaldehyde. Public exposure to TACs can result from emissions from normal operations as well as from accidental releases. Health effects of TACs include cancer, birth defects, neurological damage, and death.

TACs are less pervasive in the urban atmosphere than criteria air pollutants, however they are linked to short-term (acute) or long-term (chronic or carcinogenic) adverse human health effects. There are hundreds of different types of TACs with varying degrees of toxicity. Sources of TACs include industrial processes, commercial operations (e.g., gasoline stations and dry cleaners), and motor vehicle exhaust.

According to *The California Almanac of Emissions and Air Quality 2013 Edition*, the majority of the estimated health risk from TACs can be attributed to relatively few compounds, the most important of which is diesel particulate matter (DPM). DPM is a subset of PM<sub>2.5</sub> because the size of diesel particles are typically 2.5 microns and smaller. Diesel engines emit a complex mixture of air pollutants, composed of gaseous and solid material. The visible emissions in diesel exhaust are known as particulate matter or PM, which includes carbon particles or “soot.” Diesel exhaust also contains a variety of harmful gases and over 40 other cancer-causing substances. California’s identification of DPM as a toxic air contaminant was based on its potential to cause cancer, premature deaths, and other health problems. Exposure to DPM is a health hazard, particularly to children whose lungs are still developing and the elderly who may have other serious health problems. Overall, diesel engine emissions are responsible for the majority of California’s potential airborne cancer risk from combustion sources (Appendix C of this EIR).

### Attainment Status

The U.S. Environmental Protection Agency (EPA) and CARB designate air basins or portions of air basins and counties as being in “attainment” or “nonattainment” for each of the criteria pollutants. Areas that do not meet the standards are classified as nonattainment areas. The National Ambient Air Quality Standards (NAAQS) (other than ozone [O<sub>3</sub>], PM<sub>10</sub> and PM<sub>2.5</sub> and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. The NAAQS for O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> are based on statistical calculations over one- to three-year periods, depending on the pollutant. The California Ambient Air Quality Standards (CAAQS) are not to be exceeded during a three-year period.

The attainment status for the portion of the SSAB encompassing the project site is shown in Table 3.4-2. As shown, the Imperial County portion of the SSAB is currently designated as nonattainment for O<sub>3</sub> and PM<sub>10</sub> under State standards. Under federal standards, the Imperial County portion of the SSAB is in nonattainment for O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. The area is currently in attainment or unclassified status for CO, NO<sub>2</sub>, and SO<sub>2</sub>.

**Table 3.4-2. Attainment Status of Criteria Pollutants in the Imperial County Portion of the Salton Sea Air Basin**

Pollutant	State Designation	Federal Designation
O <sub>3</sub>	Nonattainment	Nonattainment
PM <sub>10</sub>	Nonattainment	Nonattainment
PM <sub>2.5</sub>	Attainment	Nonattainment
CO	Attainment	Unclassified/attainment
NO <sub>2</sub>	Attainment	Unclassified/attainment
SO <sub>2</sub>	Attainment	Unclassified/attainment

Source: Appendix C of this EIR

### Local Ambient Air Quality

Ambient air quality at the project site can be inferred from ambient air quality measurements conducted at nearby air quality monitoring stations. CARB maintains more than 60 monitoring stations throughout California. The ICAPCD operates a network of monitoring stations throughout the County that continuously monitor ambient levels of criteria pollutants in compliance with federal monitoring regulations.

Since not all air monitoring stations measure all of the tracked pollutants, the data from the following monitoring stations, listed in the order of proximity to the project site, have been used: Brawley-220 Main Street Monitoring Station (Brawley Station), Westmorland Monitoring Station (Westmorland Station) and El Centro – 9<sup>th</sup> Street Monitoring Station (El Centro Station).

The Brawley Station is located approximately 2.9 miles south of the project site at 220 Main Street, the Westmorland Station is located approximately 6.4 miles west of the project site at 202 W First Street, and the El Centro Station is located approximately 15.7 miles south of the project site at 150 9<sup>th</sup> Street. PM<sub>10</sub> and PM<sub>2.5</sub> were measured at the Brawley Station, ozone was measured at the Westmorland Station, and NO<sub>2</sub> was measured at the El Centro Station. It should be noted that due to the air monitoring stations’ distances from the project site, recorded air pollution levels at the air monitoring stations reflect with varying degrees of accuracy local air quality conditions at the project site. Table 3.4-3 shows the most recent three years of monitoring data from CARB.

**Table 3.4-3. Summary of Local Ambient Air Quality Data**

Pollutant (Standard)	Year <sup>1</sup>		
	2017	2018	2019
Ozone: <sup>1</sup>			
Maximum 1-Hour Concentration (ppm)	0.078	0.086	0.071
Days > CAAQS (0.09 ppm)	0	0	0
Maximum 8-Hour Concentration (ppm)	0.067	0.068	0.060

**Table 3.4-3. Summary of Local Ambient Air Quality Data**

Pollutant (Standard)	Year <sup>1</sup>		
	2017	2018	2019
Days > NAAQS (0.070 ppm)	0	0	0
Days > CAAQs (0.070 ppm)	0	0	0
Nitrogen Dioxide: <sup>2</sup>			
Maximum 1-Hour Concentration (ppb)	48.8	34.1	41.4
Days > NAAQS (100 ppb)	0	0	0
Days > CAAQS (180 ppb)	0	0	0
Inhalable Particulates (PM10) : <sup>3</sup>			
Maximum 24-Hour National Measurement (ug/m <sup>3</sup> )	449.8	407.0	324.4
Days > NAAQS (150 ug/m <sup>3</sup> )	9	13	2
Days > CAAQS (50 ug/m <sup>3</sup> )	58	106	53
Annual Arithmetic Mean (AAM) (ug/m <sup>3</sup> )	45.4	52.2	35.8
Annual > NAAQS (50 ug/m <sup>3</sup> )	No	<b>Yes</b>	No
Annual > CAAQS (20 ug/m <sup>3</sup> )	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>
Ultra-Fine Particulates (PM2.5): <sup>3</sup>			
Maximum 24-Hour National Measurement (ug/m <sup>3</sup> )	46.1	55.1	28.9
Days > NAAQS (35 ug/m <sup>3</sup> )	<b>1</b>	<b>2</b>	0
Annual Arithmetic Mean (AAM) (ug/m <sup>3</sup> )	9.4	10.4	8.3
Annual > NAAQS and CAAQS (12 ug/m <sup>3</sup> )	No	No	No

Source: Appendix C of this EIR

Notes:

Exceedances are listed in **bold**. CAAQS = California Ambient Air Quality Standard; NAAQS = National Ambient Air Quality Standard; ppm = parts per million; ppb = parts per billion; ND = no data available.

<sup>1</sup> Data obtained from the Westmorland Station.

<sup>2</sup> Data obtained from the El Centro Station.

<sup>3</sup> Data obtained from the Brawley Station.

### Sensitive Receptors

High concentrations of air pollutants pose health hazards for the general population, but particularly for the young, the elderly, and the sick. Typical health problems attributed to smog include respiratory ailments, eye and throat irritations, headaches, coughing, and chest discomfort. Certain land uses are considered to be more sensitive to the effects of air pollution. Schools, hospitals, residences, and other

facilities where people congregate, especially children, the elderly and infirm, are considered particularly sensitive to air pollutants.

The nearest sensitive receptors to the project site including the following:

- Single-family homes approximately 40 feet to the north side of the project site, located near the northwest corner of the project site.
- Single-family residence on the east side of N Best Avenue, located near the northeast corner of the project site
- Single-family residence on the east side of N Best Avenue, located across the proposed project's primary access road
- Two single-family residences located at the northeast corner of the intersection of N Best Avenue and Ward Road
- Single-family residence (with a horse boarding/training facility) on the west side of N Best Avenue, located south of the project site)

### 3.4.2 Regulatory Setting

This section identifies and summarizes federal, state, and local laws, policies, and regulations that are applicable to the project.

#### Federal

##### *Clean Air Act*

The CAA, passed in 1970 and last amended in 1990, is the primary federal law that governs air quality. The Federal CAA delegates primary responsibility for clean air to the U.S. EPA. The U.S. EPA develops rules and regulations to preserve and improve air quality and delegates specific responsibilities to state and local agencies. Under the act, the U.S. EPA has established the NAAQS for six criteria air pollutants that are pervasive in urban environments and for which state and national health-based ambient air quality standards have been established. Ozone, CO, NO<sub>2</sub>, SO<sub>2</sub>, Pb, and PM (including both PM<sub>10</sub>, and PM<sub>2.5</sub>) are the six criteria air pollutants. Ozone is a secondary pollutant, nitrogen oxides (NO<sub>x</sub>) and volatile organic compounds (VOC) are of particular interest as they are precursors to ozone formation. In addition, national standards exist for Pb. The NAAQS standards are set at levels that protect public health with a margin of safety and are subject to periodic review and revision.

The Federal CAA requires U.S EPA to designate areas as attainment, nonattainment, or maintenance (previously nonattainment and currently attainment) for each criteria pollutant based on whether the NAAQS have been achieved. The federal standards are summarized in Table 3.4-4.

#### State

##### *California Clean Air Act*

The California Clean Air Act (CCAA) was adopted by CARB in 1988. The CCAA is responsible for meeting the state requirements of the Federal CAA and for establishing the CAAQS. CARB oversees the functions of local air pollution control districts and air quality management districts, which, in turn,

administer air quality activities at the regional and county levels. The CCAA, as amended in 1992, requires all air districts of the state to achieve and maintain the CAAQS by the earliest practical date.

The CCAA requires CARB to designate areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data shows that a state standard for the pollutant was violated at least once during the previous 3 calendar years. As shown in Table 3.4-4, the CAAQS are generally more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a state standard and are not used as a basis for designating areas as nonattainment.

#### *California State Implementation Plan*

The CAA mandates that the state submit and implement a SIP for areas not meeting the NAAQS. These plans must include pollution control measures that demonstrate how the standards will be met. State law makes CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB then forwards SIP revisions to the U.S. EPA for approval and publication in the Federal Register. The Code of Federal Regulations Title 40, Chapter I, Part 52, Subpart F, Section 52.220 lists all of the items which are included in the California SIP.

**Table 3.4-4. Ambient Air Quality Standards**

Air Pollutant	Averaging Time	California Standard	National Standard
O <sub>3</sub>	1-hour	0.09 ppm	--
	8-hour	0.070 ppm	0.070 ppm
PM <sub>10</sub>	24-hour Mean	50 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>
		20 µg/m <sup>3</sup>	--
PM <sub>2.5</sub>	24-hour Mean	--	35 µg/m <sup>3</sup>
		12 µg/m <sup>3</sup>	12.0 µg/m <sup>3</sup>
CO	1-hour 8-hour	20 ppm	35 ppm
		9.0 ppm	9 ppm
NO <sub>2</sub>	1-hour Mean	0.18 ppm	100 ppb
		0.030 ppm	0.053 ppm
SO <sub>2</sub>	1-hour 24-hour	0.25 ppm	75 ppb
		0.04 ppm	--
Pb	30-day Rolling 3-month	1.5 µg/m <sup>3</sup>	--
			0.15 µg/m <sup>3</sup>
Sulfates	24-hour	25 µg/m <sup>3</sup>	No federal standard
Hydrogen sulfide	1-hour	0.03 ppm	

**Table 3.4-4. Ambient Air Quality Standards**

Air Pollutant	Averaging Time	California Standard	National Standard
Vinyl chloride	24-hour	0.01 ppm	
Visibility-reducing particles	8-hour	Extinction coefficient of 0.23 per kilometer, visibility of 10 miles or more because of particles when relative humidity is less than 70 percent	

Source: CARB 2016

Notes:

CO – carbon monoxide; mean – annual arithmetic mean; NO<sub>2</sub> – nitrogen dioxide; O<sub>3</sub> – ozone; Pb – lead; PM<sub>2.5</sub> – particulate matter less than 2.5 microns in diameter; PM<sub>10</sub> – particulate matter less than 10 microns in diameter; ppb – parts per billion; ppm – parts per million; SO<sub>2</sub> – sulfur dioxide; µg/m<sup>3</sup> – micrograms per cubic meter

### Toxic Air Contaminants Regulation

TAC sources include industrial processes, dry cleaners, gasoline stations, paint and solvent operations, and fossil fuel combustion sources. The TACs that are relevant to the implementation of the project include DPM and airborne asbestos.

In August 1998, CARB identified DPM emissions from diesel-fueled engines as a TAC. In September 2000, CARB approved a comprehensive diesel risk reduction plan to reduce emissions from both new and existing diesel fueled engines and vehicles. The goal of the plan is to reduce diesel PM<sub>10</sub> (inhalable particulate matter) emissions and the associated health risk by 75 percent in 2010 and by 85 percent by 2020. The plan identified 14 measures that target new and existing on-road vehicles (e.g., heavy duty trucks and buses, etc.), off-road equipment (e.g., graders, tractors, forklifts, sweepers, and boats), portable equipment (e.g., pumps, etc.), and stationary engines (e.g., stand-by power generators, etc.).

### Tanner Air Toxics Act & Air Toxics “Hot Spots” Information and Assessment Act

CARB’s Statewide comprehensive air toxics program was established in 1983 with AB 1807, the Toxic Air Contaminant Identification and Control Act (Tanner Air Toxics Act of 1983). AB 1807 created California’s program to reduce exposure to air toxics and sets forth a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an airborne toxics control measure (ATCM) for sources that emit designated TACs. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology to minimize emissions.

CARB also administers the state’s mobile source emissions control program and oversees air quality programs established by state statute, such as AB 2588, the Air Toxics “Hot Spots” Information and Assessment Act of 1987. Under AB 2588, TAC emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High priority facilities are required to perform a health risk assessment (HRA) and, if specific thresholds are exceeded, required to communicate the results to the public in the form of notices and public meetings. In



September 1992, the "Hot Spots" Act was amended by SB 1731, which required facilities that pose a significant health risk to the community to reduce their risk through a risk management plan.

## Regional

### *Imperial County Air Pollution Control District*

The ICAPCD is the agency responsible for monitoring air quality, as well as planning, implementing, and enforcing programs designed to attain and maintain state and federal ambient air quality standards in the district. ICAPCD is responsible for regulating stationary sources of air emissions in Imperial County. Stationary sources that have the potential to emit air pollutants into the ambient air are subject to the Rules and Regulations adopted by ICAPCD. ICAPCD is responsible for establishing stationary source permitting requirements and for ensuring that new, modified, or relocated stationary sources do not create net emission increases. Monitoring of ambient air quality in Imperial County began in 1976. Since that time, monitoring has been performed by ICAPCD, CARB, and by private industry. There are six monitoring sites in Imperial County from Niland to Calexico. The ICAPCD has developed the following plans to achieve attainment for air quality ambient standards.

- **2009 Imperial County Plan for PM<sub>10</sub>.** Imperial Valley is classified as nonattainment for federal and state PM<sub>10</sub> standards. As a result, ICAPCD was required to develop a PM<sub>10</sub> Attainment Plan. The final plan was adopted by ICAPCD on August 11, 2009 (ICAPCD 2009).
- **2013 Imperial County Plan for 2006 24-hour PM<sub>2.5</sub> for Moderate Nonattainment Area.** U.S. EPA designated Imperial County as nonattainment for the 2006 24-hr PM<sub>2.5</sub> standard, effective December 14, 2009. The 2013 PM<sub>2.5</sub> SIP demonstrates attainment of the 2006 PM<sub>2.5</sub> NAAQS "but-for" transport of international emissions from Mexicali, Mexico. The City of Calexico, California shares a border with the City of Mexicali. Effective July 1, 2014, the City of Calexico was designated nonattainment, while the rest of the SSAB was designated attainment (ICAPCD 2014).
- **2017 Imperial County Plan for 2008 8-hour Ozone Standard.** Because of Imperial County's "moderate" nonattainment status for 2008 federal 8-hour O<sub>3</sub> standards, ICAPCD was required to develop an 8-hour Attainment Plan for Ozone (ICAPCD 2017a). The plan includes control measures which are an integral part of how the ICAPCD currently controls the ROG and NO<sub>x</sub> emissions within the O<sub>3</sub> nonattainment areas. The overall strategy includes programs and control measures which represent the implementation of Reasonable Available Control Technology (40 CFR 51.912) and the assurance that stationary sources maintain a net decrease in emissions.
- **2018 Imperial County Plan for PM<sub>10</sub>.** Imperial Valley is classified as nonattainment for federal and state PM<sub>10</sub> standards. The 2018 SIP maintained previously adopted fugitive dust control measures (Regulation VIII) that were approved in the Imperial County portion of the California SIP in 2013 (see above) (ICAPCD 2018a).
- **2018 Imperial County Plan for PM<sub>2.5</sub>.** U.S. EPA designated Imperial County as nonattainment for the 2018 24-hr PM<sub>2.5</sub> standard. The 2018 PM<sub>2.5</sub> SIP concluded that the majority of the PM<sub>2.5</sub> emissions resulted from transport in nearby Mexico. Specifically, the SIP demonstrates attainment of the 2006 PM<sub>2.5</sub> NAAQS "but for" transport of international emissions from Mexicali, Mexico. In accordance with the CCAA, the PM<sub>2.5</sub> SIP satisfies the attainment demonstration requirement satisfying the provisions of the CCAA (ICAPCD 2018b).

In addition to the above plans, the ICAPCD is working cooperatively with counterparts from Mexico to implement emissions reductions strategies and projects for air quality improvements at the border. The two countries strive to achieve these goals through local input from states, county governments, and citizens. Within the Mexicali and Imperial Valley area, the Air Quality Task Force has been organized to address those issues unique to the border region known as the Mexicali/Imperial air shed. The Air Quality Task Force membership includes representatives from federal, State, and local governments from both sides of the border, as well as representatives from academia, environmental organizations, and the general public. This group was created to promote regional efforts to improve the air quality monitoring network, emissions inventories, and air pollution transport modeling development, as well as the creation of programs and strategies to improve air quality.

#### *Imperial County Air Pollution Control District Rules and Regulations*

ICAPCD has the authority to adopt and enforce regulations dealing with controls for specific types of sources, emissions or hazardous air pollutants, and New Source Review. The ICAPCD Rules and Regulations are part of the SIP and are separately enforceable by the EPA.

**Rule 106 – Abatement.** The Board may, after notice and a hearing, issue, or provide for the issuance by the Hearing Board, of an order for abatement whenever the District finds that any person is in violation of the rules and regulations limiting the discharge of air contaminants into the atmosphere.

**Rule 107 – Land Use.** The purpose of this rule is to provide ICAPCD the duty to review and advise the appropriate planning authorities within the District on all new construction or changes in land use which the Air Pollution Control Officer believes could become a source of air pollution problems.

**Rule 201 – Permits Required.** The construction, installation, modification, replacement, and operation of any equipment which may emit or control Air Contaminants require ICAPCD permits.

**Rule 207 – New and Modified Stationary Source Review.** Establishes preconstruction review requirements for new and modified stationary sources to ensure the operations of equipment does not interfere with attainment or maintenance of ambient air quality standards.

**Rule 208 – Permit to Operate.** The ICAPCD would inspect and evaluate the facility to ensure the facility has been constructed or installed and will operate to comply with the provisions of the Authority to Construct permit and comply with all applicable laws, rules, standards, and guidelines.

**Rule 310 – Operational Development Fee.** The purpose of this rule is to provide ICAPCD with a sound method for mitigating the emissions produced from the operation of new commercial and residential development projects throughout the County of Imperial and incorporated cities. All project proponents have the option to either provide off-site mitigation, pay the operational development fee, or do a combination of both. This rule will assist ICAPCD in attaining the state and federal ambient air quality standards for PM<sub>10</sub> and O<sub>3</sub>.

**Rule 401 – Opacity of Emissions.** Sets limits for release or discharge of emissions into the atmosphere, other than uncombined water vapor, that are dark or darker in shade as designated as No.1 on the Ringelmann Chart<sup>1</sup> or obscure an observer's view to a degree equal to or greater than smoke does as compared to No.1 on the Ringelmann Chart, for a period or aggregated period of more than three minutes in any hour.

---

<sup>1</sup> The Ringelmann scale is a scale for measuring the apparent density or opacity of smoke.

**Rule 403 – General Limitations on the Discharge of Air Contaminants.** Rule 403 sets forth limitations on emissions of pollutants, including particulate matter, from individual sources.

**Rule 407 – Nuisance.** Rule 407 prohibits a person from discharging from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

**Rule 801 – Construction and Earthmoving Activities.** Rule 801 aims to reduce the amount of PM<sub>10</sub> entrained in the ambient air as a result of emissions generated from construction and other earthmoving activities by requiring actions to prevent, reduce, or mitigate PM<sub>10</sub> emissions. This rule applies to any construction and other earthmoving activities, including, but not limited to, land clearing, excavation related to construction, land leveling, grading, cut and fill grading, erection or demolition of any structure, cutting and filling, trenching, loading or unloading of bulk materials, demolishing, drilling, adding to or removing bulk of materials from open storage piles, weed abatement through disking, back filling, travel on-site and travel on access roads to and from the site.

**Regulation VIII – Fugitive Dust Rules.** Regulation VIII sets forth rules regarding the control of fugitive dust, including fugitive dust from construction activities. The regulation requires implementation of fugitive dust control measures to reduce emissions from earthmoving, unpaved roads, handling of bulk materials, and control of track-out/carry-out dust from active construction sites. Best Available Control Measures to reduce fugitive dust during construction and earthmoving activities include but are not limited to:

- Phasing of work in order to minimize disturbed surface area
- Application of water or chemical stabilizers to disturbed soils
- Construction and maintenance of wind barriers
- Use of a track-out control device or wash down system at access points to paved roads.

Compliance with Regulation VIII is mandatory for all construction sites, regardless of size; however, compliance with Regulation VIII does not constitute mitigation under the reductions attributed to environmental impacts. In addition, compliance for a project includes: (1) the development of a dust control plan for the construction and operational phase; and (2) notification to the Air District is required 10 days prior to the commencement of any construction activity. Furthermore, any use of engine(s) and/or generator(s) of 50 horsepower or greater may require a permit through ICAPCD.

#### *Southern California Association of Governments – 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy*

The Southern California Association of Governments (SCAG) is the designated metropolitan planning organization for Los Angeles, Ventura, Orange, San Bernardino, Riverside, and Imperial Counties. CEQA requires that regional agencies like SCAG review projects and plans throughout its jurisdiction. SCAG, as the region's "Clearinghouse," collects information on projects of varying size and scope to provide a central point to monitor regional activity. SCAG has the responsibility of reviewing dozens of projects, plans, and programs every month. Projects and plans that are regionally significant must demonstrate to SCAG their consistency with a range of adopted regional plans and policies.

On September 3, 2020, SCAG adopted the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (SCAG 2020). The RTP/SCS or "Connect SoCal" includes a strong

commitment to reduce emissions from transportation sources to comply with Senate Bill 375, improve public health, and meet the NAAQS as set forth by the federal CAA. The following SCAG goal is applicable to the project:

- Reduce greenhouse gas emissions and improve air quality.

*Imperial County General Plan*

The Imperial County General Plan serves as the overall guiding policy for the County. The Conservation and Open Space Element includes objectives for helping the County achieve the goal of improving and maintaining the quality of air in the region. Table 3.4-5 summarizes the project's consistency with the applicable air quality goal and objectives from the Conservation and Open Space Element. While this EIR analyzes the project's consistency with the General Plan pursuant to State CEQA Guidelines Section 15125(d), the Imperial County Board of Supervisors ultimately determines consistency with the General Plan.

**Table 3.4-5. Project Consistency with Applicable Plan Policies**

Applicable Policies	Consistency Determination	Analysis
<b><i>Conservation and Open Space Element</i></b>		
Protection of Air Quality and Addressing Climate Change Goal 7: The County shall actively seek to improve the quality of air in the region.	Consistent	The proposed project would be required to comply with all applicable ICAPCD rules and requirements during construction and operation to reduce air emissions. Overall, the proposed project would improve air quality and reduce GHG emissions by reducing the amount of emissions that would be generated in association with electricity production from fossil fuel burning facilities. Therefore, the proposed project is consistent with this goal.
Objective 7.1: Ensure that all project and facilities comply with current Federal, State and local requirements for attainment of air quality objectives.	Consistent	The proposed project would comply with current federal and State requirements for attainment for air quality objectives through conformance with all applicable ICAPCD rules and requirements to reduce fugitive dust and emissions. Further, the project would comply with the ICAPCD Air Quality CEQA Handbook's Mandatory Standard Measures (Applicant Proposed Measure AQ-1). Therefore, the proposed project is consistent with this objective.
Objective 7.2: Develop management strategies to mitigate fugitive dust. Cooperate with all federal and state agencies in the effort to attain air quality objectives.	Consistent	The Applicant would cooperate with all federal and State agencies in the effort to attain air quality objectives through compliance with the ICAPCD Air Quality CEQA Handbook's Mandatory Standard Measures (Applicant Proposed Measure AQ-1). Therefore, the proposed project is consistent with this objective.

Source: County of Imperial 2016

### 3.4.3 Impacts and Mitigation Measures

This section presents the significance criteria used for considering project impacts related to air quality, the methodology employed for the evaluation, an impact evaluation, and mitigation requirements, if necessary.

#### Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to air quality are considered significant if any of the following occur:

- Conflict with or obstruct implementation of the applicable air quality plan
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for O<sub>3</sub> precursors)
- Expose sensitive receptors to substantial pollutant concentrations
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people

#### *Imperial County Air Pollution Control District*

ICAPCD amended the *Air Quality Handbook: Guidelines for the Implementation of CEQA* on December 12, 2017 (ICAPCD 2017b). ICAPCD established significance thresholds based on the state CEQA thresholds. The handbook was used to determine the proper level of analysis for the project.

#### **OPERATIONS**

Air quality analyses should compare all operational emissions of a project, including motor vehicle, area source, and stationary or point sources to the thresholds in Table 3.4-6. Projects can be classified as either Tier 1 or Tier 2 projects, depending on the project’s operational emissions. As shown in Table 3.4-6, Tier 1 projects are projects that emit less than 137 pounds per day of nitrogen oxide (NO<sub>x</sub>) or reactive organic gases (ROGs); less than 150 pounds per day of PM<sub>10</sub> or SO<sub>x</sub>; or less than 550 pounds per day of CO or PM<sub>2.5</sub>.

Tier 1 projects are not required to develop a Comprehensive Air Quality Analysis Report or an EIR, and require the implementation of all feasible mitigation measures listed in Section 7.2 of the ICAPCD’s Air Quality Handbook (ICAPCD 2017b). Alternatively, Tier 2 projects are projects that emit 137 pounds per day of NO<sub>x</sub> or ROG or greater; 150 pounds per day of PM<sub>10</sub> or SO<sub>x</sub> or greater; or 550 pounds per day of CO or PM<sub>2.5</sub> or greater. Tier 2 projects are required to develop a Comprehensive Air Quality Analysis Report at a minimum, and are required to implement all standard mitigation measures as well as all feasible discretionary mitigation measures listed in Sections 7.2 and 7.3 of the ICAPCD’s Air Quality Handbook (ICAPCD 2017b).

**Table 3.4-6. Imperial County Air Pollution Control District Significance Thresholds for Operation**

Criteria Pollutant	Tier 1 Thresholds	Tier 2 Thresholds
NO <sub>x</sub> and ROG	Less than 137 pounds per day	137 pounds per day and greater

**Table 3.4-6. Imperial County Air Pollution Control District Significance Thresholds for Operation**

Criteria Pollutant	Tier 1 Thresholds	Tier 2 Thresholds
PM <sub>10</sub> and SO <sub>2</sub>	Less than 150 pounds per day	150 pounds per day and greater
CO and PM <sub>2.5</sub>	Less than 550 pounds per day	550 pounds per day and greater
Level of Significance	Less than Significant	Significant Impact

Source: ICAPCD 2017b

CO – carbon monoxide; NO<sub>x</sub> – nitrogen oxide; O<sub>3</sub> – ozone; Pb – lead; PM<sub>2.5</sub> – particulate matter less than 2.5 microns in diameter; PM<sub>10</sub> – particulate matter less than 10 microns in diameter; ROG – reactive organic gas; SO<sub>x</sub> – sulfur oxide

### CONSTRUCTION

For construction projects, the *Air Quality Handbook* indicates that the significance threshold for NO<sub>x</sub> is 100 pounds per day and for ROG is 75 pounds per day. As discussed in the ICAPCD’s *Air Quality Handbook*, the approach to evaluating construction emissions should be qualitative rather than quantitative. In any case, regardless of the size of the project, the standard mitigation measures for construction equipment and fugitive PM<sub>10</sub> must be implemented at all construction sites. The implementation of discretionary mitigation measures, as listed in Section 7.1 of the ICAPCD’s *Air Quality Handbook*, apply to those construction sites that are 5 acres or more for non-residential developments or 10 acres or more in size for residential developments. The mitigation measures found in Section 7.1 of the ICAPCD’s handbook are intended as a guide of feasible mitigation measures and are not intended to be an all-inclusive comprehensive list of all mitigation measures. Table 3.4-7 presents the construction emission thresholds that are identified by ICAPCD.

**Table 3.4-7. Imperial County Air Pollution Control District Significance Thresholds for Construction Activities**

Pollutant	Thresholds
PM <sub>10</sub>	150 pounds per day
ROG	75 pounds per day
NO <sub>x</sub>	100 pounds per day
CO	550 pounds per day

Source: ICAPCD 2017b

CO – carbon monoxide; NO<sub>x</sub> – nitrogen oxide; PM<sub>10</sub> – particulate matter less than 10 microns in diameter; ROG – reactive organic gas

### Diesel Toxic Risk Thresholds

There are inherent uncertainties in risk assessment with regard to the identification of compounds as causing cancer or other health effects in humans, the cancer potencies and reference exposure levels of compounds, and the exposure that individuals receive. It is common practice to use conservative (health protective) assumptions with respect to uncertain parameters. The

uncertainties and conservative assumptions must be considered when evaluating the results of risk assessments.

There is debate as to the appropriate levels of risk assigned to diesel particulates. The U.S. EPA has not yet declared diesel particulates as a toxic air contaminant. Using the CARB threshold, a risk concentration of one in one million (1:1,000,000) per micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) of continuous 70-year exposure is considered less than significant.

## Methodology

The analysis criteria for air quality impacts are based on the approach and methods discussed in the ICAPCD's *Air Quality Handbook*. The proposed project would result in both short-term and long-term emissions of air pollutants associated with construction and operation of the proposed project.

Construction emissions would include exhaust from the operation of conventional construction equipment, on-road emissions from employee vehicle trips and haul truck trips, fugitive dust as a result of grading, and vehicle travel on paved and unpaved surfaces.

Once fully constructed, the proposed project would be operated on an unstaffed basis and be monitored remotely from the Brawley Geothermal Power Plant control room, with periodic on-site personnel visitations for security, maintenance and system monitoring. Therefore, no full-time site personnel would be required on-site during operations and employees would only be on-site up to four times per year to wash the panels. As the project's PV arrays produce electricity passively, maintenance requirements are anticipated to be very minimal. Any required planned maintenance activities would generally consist of equipment inspection and replacement and would be scheduled to avoid peak load periods. Any unplanned maintenance would be responded to as needed, depending on the event. Operational emissions would include vehicle trips from employees who commute to and from the project site (i.e., to control site operation and perform equipment maintenance).

The ICAPCD's *Air Quality Handbook* establishes aggregate emission calculations for determining the potential significance of a project. In the event that the emissions exceed the established thresholds (Table 3.4-6 and Table 3.4-7), air dispersion modeling may be conducted to assess whether the project results in an exceedance of an air quality standard.

An air quality technical report was prepared by Vista Environmental (Appendix C of this EIR). This report was used in the evaluation of project-related construction and operational air quality impacts. The emissions of criteria air pollutants were estimated using methodologies recommended by the ICAPCD. Where criteria air pollutant quantification was required, emissions were modeled using the California Emissions Estimator Model (CalEEMod), version 2020.4.0.<sup>2</sup> Project construction-generated air pollutant emissions were calculated using CalEEMod model defaults, with some refinements, for Imperial County as well as timing and equipment identified by the project proponent. The following On-Road Fugitive Dust construction parameters were revised in the CalEEMod model: (1) The percent on-road pavement was changed to 85 percent to account for Best Avenue that is adjacent to the project site being paved; and (2) The Material Silt Content was changed to 3 percent in order to account for ICAPCD Rule 805 F.1.c that requires the installation of gravel or other low silt material with less than 5 percent silt content on all onsite roads. Operational air pollutant emissions were based on the project site plan. Associated emissions calculations and assumptions are included in Appendix C of this EIR.

---

<sup>2</sup> CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects.

The air quality impacts are mainly attributable to construction phases of the project, including site preparation, facility installation, and gen-tie and site restoration. Operational impacts include inspection and maintenance operations, which includes washing of the solar panels.

## Impact Analysis

### ***Impact 3.4-1 Would the project conflict with or obstruct implementation of the applicable air quality plan?***

The air quality attainment plan (AQAP) for the SSAB, through the implementation of the air quality management plan (AQMP) (previously AQAP) and SIP for PM<sub>10</sub>, sets forth a comprehensive program that will lead the SSAB into compliance with all federal and state air quality standards. The AQMP control measures and related emission reduction estimates are based upon emissions projections for a future development scenario derived from land use, population, and employment characteristics defined in consultation with local governments. Conformance with the AQMP for development projects is determined by demonstrating compliance with local land use plans and/or population projections, meeting the land use designation set forth in the local General Plan, and comparing assumed emissions in the AQMP to proposed emissions.

The project must demonstrate compliance with all ICAPCD applicable rules and regulations, as well as local land use plans and population projections. As the project does not contain a residential component, the project would not result in an increase in the regional population. While the project would contribute to energy supply, which is one factor of population growth, the proposed project is a solar energy project and would not significantly increase employment or growth within the region. Moreover, development of the proposed project would increase the amount of renewable energy and help California meet its RPS.

As shown in Table 3.4-5, the project is consistent with the applicable air quality goal and objectives from the Conservation and Open Space Element of the General Plan. The proposed project would be required to comply with all applicable ICAPCD rules and requirements during construction and operation to reduce air emissions. Overall, the proposed project would improve air quality by reducing the amount of emissions that would be generated in association with electricity production from fossil fuel burning facilities.

Furthermore, the thresholds of significance adopted by the air district (ICAPCD), determine compliance with the goals of the attainment plans in the region. As such, emissions below the ICAPCD regional mass daily emissions thresholds presented in Table 3.4-6 and Table 3.4-7 would not conflict with or obstruct implementation of the applicable air quality plans. The following analysis is broken out by a discussion of potential impacts during construction of the project followed by a discussion of potential impacts during operation of the project.

**Construction Emissions.** Air emissions are generated during construction through activities. Two basic sources of short-term emissions will be generated through project construction: operation of heavy-duty equipment (i.e., excavators, loaders, haul trucks) and the creation of fugitive dust during clearing and grading. Construction activities such as excavation and grading operations, construction vehicle traffic, and wind blowing over exposed soils would generate exhaust emissions and fugitive PM emissions that affect local air quality at various times during construction. Construction emissions vary from day-to-day depending on the number of workers, number, and types of active heavy-duty vehicles and equipment, level of activity, the prevailing meteorological conditions, and the length over which these activities occur.



The proposed project is anticipated to take approximately 8 months from the commencement of the construction process to complete. Construction activities would primarily involve demolition and grubbing, grading of the project site to establish access roads and pads for electrical equipment, trenching for underground electrical collection lines, and the installation of solar equipment and security fencing. The construction emissions were calculated using the CARB-approved CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. Table 3.4-8 shows the maximum summer or winter daily emissions for each year of construction activities for the proposed project with implementation of ICAPCD’s standard measures for fugitive dust (PM<sub>10</sub>) control and standard mitigation measures for construction combustion equipment from the ICAPCD’s CEQA Air Quality Handbook (ICAPCD 2017b). These standard mitigation measures are identified in Applicant Proposed Measure (APM) AQ-1.

As shown in Table 3.4-8, with implementation of APM AQ-1, the project’s daily construction emissions would not exceed the ICAPCD thresholds for ROG, NO<sub>x</sub>, CO, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. Although the proposed project would not exceed the ICAPCD threshold for NO<sub>x</sub>, the project applicant would implement APM AQ-2, which requires the construction equipment list to be submitted periodically to ICAPCD to perform a NO<sub>x</sub> analysis to verify that equipment use does not exceed significance thresholds. To further reduce dust emissions during project construction, the project applicant will implement APM AQ-3, which limits the speed of all vehicles operating onsite on dirt roads to 15 miles per hour or less. Implementation of APM AQ-1 through AQ-3 would provide reduction strategies to further improve air quality and ensure that this potential impact would remain less than significant.

**Table 3.4-8. Project Construction-Generated Emissions with Implementation of Imperial County Air Pollution Control District’s Standard Measures for Fugitive Dust (PM<sub>10</sub>) Control and Standard Mitigation Measures for Construction Combustion Equipment**

Construction Year	Pollutant (pounds per day)					
	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
2021	6.11	51.82	39.73	0.08	67.20	12.54
2022	4.57	39.74	36.41	0.12	128.90	14.44
<b>Maximum Daily Emissions</b>	<b>6.11</b>	<b>51.82</b>	<b>39.73</b>	<b>0.12</b>	<b>128.90</b>	<b>14.44</b>
<b>ICAPCD Significance Threshold</b>	<b>75</b>	<b>100</b>	<b>550</b>	<b>—</b>	<b>150</b>	<b>—</b>
<b>Exceed ICAPCD Significance Threshold?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Source: Appendix C of this EIR

**Operational Emissions.** The proposed project requires minimal operations and maintenance activities conducted by two employees. Project-generated increases in emissions would be predominately associated with motor vehicle use for routine maintenance work and site security as well as panel upkeep and cleaning. Long-term operational emissions attributable to the project are identified in Table 3.4-9 and compared to the operational significance thresholds promulgated by the ICAPCD.

**Table 3.4-9. Project Operational Emissions**

Activity	Pollutant (pounds per day)					
	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Area Sources <sup>1</sup>	5.35	0.00	0.04	0.00	0.00	0.00
Energy Usage <sup>2</sup>	0.00	0.00	0.00	0.00	0.00	0.00
Mobile Sources <sup>3</sup>	0.17	0.18	1.31	0.00	2.35	0.27
Backup Generator <sup>4</sup>	0.05	0.17	0.18	0.00	0.01	0.01
<b>Total Emissions</b>	<b>5.57</b>	<b>0.35</b>	<b>1.53</b>	<b>0.00</b>	<b>2.35</b>	<b>0.28</b>
<b>ICAPCD Significance Threshold</b>	<b>137</b>	<b>137</b>	<b>150</b>	<b>550</b>	<b>550</b>	<b>150</b>
<b>Exceed ICAPCD Significance Threshold?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Source: Appendix C of this EIR

Notes:

<sup>1</sup> Area sources consist of emissions from consumer products, architectural coatings, and landscaping equipment.

<sup>2</sup> Energy usage consist of emissions from natural gas usage (no natural gas usage during operation of the project).

<sup>3</sup> Mobile sources consist of emissions from vehicles and road dust.

<sup>4</sup> Backup Generator based on a 20 kW (62 Horsepower) diesel generator that has a cycling schedule of 30 minutes per week.

As shown in Table 3.4-9, the project’s operational emissions would not exceed the ICAPCD thresholds for CO, ROG, NO<sub>x</sub>, PM<sub>10</sub> and PM<sub>2.5</sub>. The proposed project will be required to implement all of the ICAPCD Regulation VIII, fugitive dust control measures during construction and operation of the proposed project. Furthermore, any stationary sources of emissions operated on site will be required to adhere to ICAPCD Rule 207, New and Modified Stationary Source Review and Rule 201 that require permits to construct and operate stationary sources. Although no significant air quality impact would occur during operation, the project applicant is required to submit a Dust Suppression Management Plan for both construction and operation in order to reduce fugitive dust emissions. Implementation of APM AQ-4 through AQ-6 would ensure that a Dust Suppression Management Plan is implemented, thereby ensuring that this potential impact would remain less than significant. To further reduce dust emissions during operation of the project, the project applicant will implement APM AQ-3, which limits the speed of all vehicles operating onsite on dirt roads to 15 miles per hour or less.

As described above, conformance with the AQMP for development projects is determined by demonstrating compliance with local land use plans and/or population projections and comparing assumed emissions in the AQMP to proposed emissions. Because the proposed project complies with local land use plans and population projections and would not exceed ICAPCD’s regional mass daily emissions thresholds during construction and operation, the proposed project would not conflict with or obstruct implementation of the applicable air quality plan. This is considered a less than significant impact.

## Applicant Proposed Measure(s)

**AQ-1 Fugitive Dust Control.** Pursuant to ICAPCD, all construction sites, regardless of size, must comply with the requirements contained within Regulation VIII – Fugitive Dust Control Measures. ICAPCD will verify implementation and compliance with these measures as part of the grading permit review/approval process.

### **ICAPCD Standard Measures for Fugitive Dust (PM<sub>10</sub>) Control**

- All disturbed areas, including bulk material storage, which is not being actively utilized, shall be effectively stabilized and visible emissions shall be limited to no greater than 20 percent opacity for dust emissions by using water, chemical stabilizers, dust suppressants, tarps, or other suitable material, such as vegetative ground cover.
- All on-site and offsite unpaved roads will be effectively stabilized, and visible emissions shall be limited to no greater than 20 percent opacity for dust emissions by paving, chemical stabilizers, dust suppressants, and/or watering.
- All unpaved traffic areas 1 acre or more with 75 or more average vehicle trips per day will be effectively stabilized and visible emissions shall be limited to no greater than 20 percent opacity for dust emissions by paving, chemical stabilizers, dust suppressants, and/or watering.
- The transport of bulk materials shall be completely covered unless 6 inches of freeboard space from the top of the container is maintained with no spillage and loss of bulk material. In addition, the cargo compartment of all haul trucks is to be cleaned and/or washed at delivery site after removal of bulk material.
- All track-out or carry-out will be cleaned at the end of each workday or immediately when mud or dirt extends a cumulative distance of 50 linear feet or more onto a paved road within an urban area.
- Movement of bulk material handling or transfer shall be stabilized prior to handling or at points of transfer with application of sufficient water, chemical stabilizers, or by sheltering or enclosing the operation and transfer line.
- The construction of any new unpaved road is prohibited within any area with a population of 500 or more unless the road meets the definition of a temporary unpaved road. Any temporary unpaved road shall be effectively stabilized, and visible emissions shall be limited to no greater than 20 percent opacity for dust emission by paving, chemical stabilizers, dust suppressants, and/or watering.

### **Standard Mitigation Measures for Construction Combustion Equipment**

- Use of alternative fueled or catalyst equipped diesel construction equipment, including all off-road and portable diesel-powered equipment.
- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes as a maximum.
- Limit, to the extent feasible, the hours of operation of heavy-duty equipment and/or the amount of equipment in use.

- When commercially available, replace fossil fueled equipment with electrically driven equivalents (provided they are not run via a portable generator set).

**AQ-2 Construction Equipment.** Construction equipment shall be equipped with an engine designation of EPA Tier 2 or better (Tier 2+). A list of the construction equipment, including all off-road equipment utilized at each of the projects by make, model, year, horsepower and expected/actual hours of use, and the associated EPA Tier shall be submitted to the County Planning and Development Services Department and ICAPCD prior to the issuance of a grading permit. The equipment list shall be submitted periodically to ICAPCD to perform a NO<sub>x</sub> analysis. ICAPCD shall utilize this list to calculate air emissions to verify that equipment use does not exceed significance thresholds. The Planning and Development Services Department and ICAPCD shall verify implementation of this measure.

**AQ-3 Speed Limit.** During construction and operation of the proposed project, the applicant shall limit the speed of all vehicles operating onsite on dirt roads to 15 miles per hour or less.

**AQ-4 Dust Suppression.** The project applicant shall employ a method of dust suppression (such as water or chemical stabilization) approved by ICAPCD. The project applicant shall apply chemical stabilization as directed by the product manufacturer to control dust between the panels as approved by ICAPCD, and other non-used areas (exceptions will be the paved entrance and parking area, and Fire Department access/emergency entry/exit points as approved by Fire/Office of Emergency Services [OES] Department).

**AQ-5 Dust Suppression Management Plan.** Prior to any earthmoving activity, the applicant shall submit a construction dust control plan and obtain ICAPCD and Imperial County Planning and Development Services Department (ICPDS) approval.

**AQ-6 Operational Dust Control Plan.** Prior to issuance of a Certificate of Occupancy, the applicant shall submit an operations dust control plan and obtain ICAPCD and ICPDS approval.

ICAPCD Rule 301 Operational Fees apply to any project applying for a building permit. At the time that building permits are submitted for the proposed project, ICAPCD shall review the project to determine if Rule 310 fees are applicable to the project.

#### Mitigation Measure(s)

No mitigation measures are required.

#### *Significance After Mitigation*

Although the proposed project would not exceed ICAPCD's significance thresholds, APM AQ-1 through AQ-6 would provide additional reduction strategies to further improve air quality and reductions in criteria pollutants (O<sub>3</sub> precursors) and ensure that this potential impact would remain less than significant. Given the above, the proposed project would not conflict with implementation of applicable air quality plans, and impacts would be less than significant impact.

**Impact 3.4-2** *Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an*

***applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for O<sub>3</sub> precursors)?***

As shown in Table 3.4-2, the criteria pollutants for which the project area is in State non-attainment under applicable air quality standards are O<sub>3</sub> and PM<sub>10</sub>. The ICAPCD's application of thresholds of significance for criteria air pollutants is relevant to the determination of whether a project's individual emissions would have a cumulatively significant impact on air quality. As discussed above in Impact 3.4-1, the emissions of criteria pollutants from project construction and operation activities are below the ICAPCD thresholds of significance. Furthermore, the proposed project will be required to implement all of the ICAPCD Regulation VIII, fugitive dust control measures during construction and operation of the proposed project. Furthermore, any stationary sources of emissions operated on site will be required to adhere to ICAPCD Rule 207, New and Modified Stationary Source Review and Rule 201 that require permits to construct and operate stationary sources. Therefore, the project's potential to result in a cumulatively considerable net increase of any criteria pollutant is considered less than significant.

**Mitigation Measure(s)**

No mitigation measures are required.

***Impact 3.4-3 Would the project expose sensitive receptors to substantial pollutant concentrations?***

The nearest sensitive receptors to the project site include the following:

- Single-family homes approximately 40 feet to the north side of the project site, located near the northwest corner of the project site.
- Single-family residence on the east side of N Best Avenue, located near the northeast corner of the project site
- Single-family residence on the east side of N Best Avenue, located across the proposed project's primary access road
- Two single-family residences located at the northeast corner of the intersection of N Best Avenue and Ward Road
- Single-family residence (with a horse boarding/training facility) on the west side of N Best Avenue, located south of the project site)

The ICAPCD CEQA Guidelines detail that any development project that is located within close proximity to sensitive receptors and where the proposed project either 1) Has the potential to emit toxic or hazardous pollutant; or 2) Exceeds the ICAPCD criteria pollutant thresholds for construction and operation of the proposed project. In addition, any proposed industrial or commercial project located within 1,000 feet of a school must be referred to the ICAPCD for review.

As discussed above in Impact 3.4-1, the proposed project would not exceed the ICAPCD criteria pollutant threshold from either construction or operation of the proposed project. However, construction and operation of the proposed project would have the potential to emit TAC emissions, which have been analyzed separately below.

**Toxic Air Contaminants Impacts from Construction.** The greatest potential for toxic air contaminant emissions would be related to diesel particulate matter (DPM) emissions associated with heavy equipment operations during construction of the proposed project. According to CARB methodology,

health effects from carcinogenic air toxics are usually described in terms of “individual cancer risk.” “Individual Cancer Risk” is the likelihood that a person exposed to concentrations of toxic air contaminants over a 70-year lifetime will contract cancer, based on the use of standard risk-assessment methodology. It should be noted that the most current cancer risk assessment methodology recommends analyzing a 30-year exposure period for the nearby sensitive receptors.

Given the relatively limited number of heavy-duty construction equipment, the varying distances that construction equipment would operate to the nearby sensitive receptors, and the short-term construction schedule, the proposed project would not result in a long-term (i.e., 30 or 70 years) substantial source of toxic air contaminant emissions and corresponding individual cancer risk. In addition, California Code of Regulations Title 13, Article 4.8, Chapter 9, Section 2449 regulates emissions from off-road diesel equipment in California. This regulation limits idling of equipment to no more than five minutes, requires equipment operators to label each piece of equipment and provide annual reports to CARB of their fleet’s usage and emissions. This regulation also requires systematic upgrading of the emission Tier level of each fleet, and currently no commercial operator is allowed to purchase Tier 0 or Tier 1 equipment and by January 2023 no commercial operator is allowed to purchase Tier 2 equipment. In addition to the purchase restrictions, equipment operators need to meet fleet average emissions targets that become more stringent each year between years 2014 and 2023. By January 2022, 50 percent or more of all contractors’ equipment fleets must be Tier 2 or higher. Therefore, no significant short-term toxic air contaminant impacts would occur during construction of the proposed project. As such, construction of the proposed project would result in a less than significant exposure of sensitive receptors to substantial pollutant concentrations.

**Operations-Related Sensitive Receptor Impacts.** The proposed project would consist of the development of a solar facility with a BESS and a substation. Although the proposed solar PV panels, the lithium batteries utilized in the BESS, and the transformers utilized in the substation are made with toxic materials, only a negligible amount of TAC emissions are emitted from off-gassing from the PV panels, which would not create TAC concentrations high enough to create a significant cancer risk from TAC emissions. In addition, the proposed project would include a backup diesel generator, which would emit DPM emissions, which is categorized as a TAC. The backup diesel generator would be located in the southwest portion of the project site, where the nearest offsite sensitive receptor is a home on the east side of Best Avenue located approximately 1,900 feet to the east. Due to the distance that the nearest sensitive receptor, a less than significant TAC impact would occur from the backup diesel generator. Therefore, a less than significant TAC impact would occur during the ongoing operations of the proposed project.

In summary, construction and operation of the proposed project would result in a less than significant exposure of sensitive receptors to substantial pollutant concentrations.

#### Mitigation Measure(s)

No mitigation measures are required.

#### ***Impact 3.4-4 Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?***

An odor impact depends on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of the receptors. While offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and regulatory agencies.

Among possible physical harms is inhalation of VOCs that cause smell sensations in humans. These odors can affect human health in four primary ways:

- The VOCs can produce toxicological effects
- The odorant compounds can cause irritations in the eye, nose, and throat
- The VOCs can stimulate sensory nerves that can cause potentially harmful health effects
- The exposure to perceived unpleasant odors can stimulate negative cognitive and emotional responses based on previous experiences with such odors

Land uses commonly considered to be potential sources of odorous emissions include wastewater treatment plants, sanitary landfills, food processing facilities, chemical manufacturing plants, rendering plants, paint/coating operations, and concentrated agricultural feeding operations and dairies. The construction and operation of a solar farm is not an odor producer.

Potential sources that may emit odors during construction activities include the application of coatings such as asphalt pavement, paints and solvents and from emissions from diesel equipment. The project would comply with standard construction requirements which include limitations of when construction may occur. Furthermore, the proposed project would be required to adhere to ICAPCD Rule 407 which limits the discharge of any emissions that create odors in quantities that may cause a nuisance or annoyance to any considerable number of persons. As such, the objectionable odors that may be produced during the construction process would be temporary and would not likely be noticeable for extended periods of time beyond the project site's boundaries. Through compliance with the applicable regulations that reduce odors and due to the transitory nature of construction odors, a less than significant odor impact would occur and no mitigation would be required.

The proposed project would consist of the development of a solar energy facility, which does not include any components that are a known sources of odors. Therefore, a less than significant odor impact would occur and no mitigation would be required.

#### Mitigation Measure(s)

No mitigation measures are required.

### 3.4.4 Decommissioning/Restoration and Residual Impacts

#### Decommissioning/Restoration

If at the end of the PPA term, no contract extension is available for a power purchaser, no other buyer of the energy emerges, or there is no further funding of the project, the project will be decommissioned and dismantled. Similar to construction activities, decommissioning and restoration of the project site would generate air emissions. A summary of the daily construction emissions for the project is provided in Table 3.4-8. Solar equipment has a lifespan of approximately 20 to 25 years. The emissions from on- and off-road equipment during decommissioning are expected to be significantly lower than project construction emissions, as the overall activity would be anticipated to be lower than project construction activity. No significant air quality impacts are anticipated during decommissioning and restoration of the project site. However, all construction projects within Imperial County must comply with the requirements of ICAPCD Regulation VIII for the control of fugitive dust. Furthermore, any stationary sources of emissions operated on site will be required to adhere to ICAPCD Rule 207, New and Modified Stationary Source Review and Rule 201 that require permits to construct and operate

stationary sources. Therefore, a less than significant impact is identified during decommissioning and site restoration of the project site.

### Residual

The proposed project would not result in short-term significant air quality impacts during construction. Operation of the project, subject to the approval of a CUP, would be consistent with applicable federal, state, regional, and local plans and policies. The project would not result in any residual operational significant and unavoidable impacts with regards to air quality.